Date: 02.06.2023

**DEPARTMENT OF AERONAUTICAL ENGINEERING**

**MINUTES OF THE BOARD OF STUDIES MEETING**

Name of the Department: **Aeronautical Engineering**

The 11th Board of Studies meeting of Regulation 2022 (for the students to be admitted from 2023-24 onwards) for the academic year 2023-24 was conducted on 02.06.2023 (Wednesday) at 10.00 AM in the Library Board room, HICET, Coimbatore through online Mode (Google Meet Link: https://meet.google.com/mkl-sfhz-gfb )

The following members were present.

| S.No | Name of the Person | Department | Position |
|---|---|---|---|
| 1 | Dr. V.T. Gopinathan | Associate Professor,<br>Department of Aeronautical Engineering,<br>Hindusthan College of Engineering and Technology, Coimbatore | Chairman |
| 2 | Dr.S.Periyasamy | Associate Professor,<br>Department of Mechanical Engineering,<br>Government College of Technology,<br>Coimbatore. | University Nominee |
| 3 | Dr. S.Venkatachalam | Associate Professor,<br>Department of Aerospace Engineering,<br>Karunya University, Coimbatore. | Subject Expert |
| 4 | Dr. R.Arravind | Professor & Head,<br>Department of Aeronautical Engineering,<br>Paavai Engineering College,<br>Namakkal. | Subject Expert |
| 5 | Mr. Asvath Arunraj | Manager,<br>Vibrant NDT Services Pvt. Ltd, Coimbatore. | Industry Expert |
| 6 | Dr.S Gurusideswar | Assistant Professor,<br>Department of Aerospace Engineering,<br>SRM Institute of Science & Technology,<br>Chennai. | Member from QIS rated Institution |
| 7 | Mr.Maheswaran N | Assistant Professor,<br>Department of Aeronautical Engineering,<br>Hindusthan Institute of Technology,<br>Coimbatore. | Member from HiTECH |
| 8 | Mr. Alexander A | Deputy Manager,<br>Market Research & Competitive Intelligence, | Alumni Member |

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|---|---|---|---|
| | | Quest Global, Bengaluru. | |
| 9 | Dr Ganesh M | Associate Professor,<br>Department of Aeronautical Engineering,<br>Hindusthan College of Engineering and Technology, Coimbatore | Autonomous Coordinator |
| 10 | Mr Arulmozhinathan T | Assistant Professor,<br>Department of Aeronautical Engineering,<br>Hindusthan College of Engineering and Technology, Coimbatore | DAC Coordinator |
| 11 | Dr. P N Karthikeyan | Professor,<br>Department of Aeronautical Engineering,<br>Hindusthan College of Engineering and Technology, Coimbatore | Member |
| 12 | Mr. Saravanan R | Assistant Professor,<br>Department of Aeronautical Engineering,<br>Hindusthan College of Engineering and Technology, Coimbatore | Member |
| 13 | Mr. Arunraja KK | Assistant Professor,<br>Department of Aeronautical Engineering,<br>Hindusthan College of Engineering and | Member |
| 14 | Mr. Manojkumar K | Assistant Professor,<br>Department of Aeronautical Engineering, | Member |
| 15 | Mr. Sivaraman S | Assistant Professor,<br>Department of Aeronautical Engineering,<br>Hindusthan College of Engineering and Technology, Coimbatore | Member |
| 16 | Mr. Saravana kumar V | Assistant Professor,<br>Department of Aeronautical Engineering,<br>Hindusthan College of Engineering and Technology, Coimbatore | Member |
| 17 | Mr Tamilvenda D | Assistant Professor,<br>Department of Aeronautical Engineering,<br>Hindusthan College of Engineering and Technology, Coimbatore | Member |
| 18 | Mr. Mageshkumar M | Assistant Professor,<br>Department of Aeronautical Engineering,<br>Hindusthan College of Engineering and Technology, Coimbatore | Member |
| 19 | Mr. Alex Narayanan B | IV YEAR AERO | Student Member |
| 20 | Ms. Sailakshmi Kore | IV YEAR AERO | Student Member |
| 21 | Mr. Harivasanth P | III YEAR AERO | Student Member |
| 22 | Mr. Bharathi T | III YEAR AERO | Student Member |

- The Chairman welcomed University nominee, Subject experts, special invitees and all the internal members for the Board of Studies meeting.
- Chairman also gave an outline of the changes to be made in the curriculum given by the Curriculum Development Cell (CDC) & Department Advisory Committee (DAC).
- The feedback received on curriculum by the stakeholders was presented.
- Followed by, Chairman presented the suggestions given by the BoS experts and the action taken report during the Previous BoS meeting, which was held during 15.02.2023, was approved.
- The chairman discussed the scheme of curriculum under regulation 2022 for the students admitted from the academic year 2023-2024 onwards.
- The chairman, BoS has elaborated the Regulations 2022 Curriculum, newly introduced courses and their syllabus, Minor , Honours/Honours with specialization vertical subjects to the members.
- The chairman presented the Semester V (R2019 (admitted in 2021 & R2022) subjects with syllabus for Minor & Honours/Honours with specialization, and noted the experts suggestions.
- The chairman conveyed to the members that, the Minor & Honours/Honours with specialization scheme is to be implemented in R2019 (for the students who have admitted in 2021-22 and onwards).

**The following are the recommendations put forth by the BoS members,**

**For the Regulations 2022 Curriculum**

1. Inclusion of Indian Traditional Knowledge and Indian Constitution courses were discussed.
2. In 22AE3202 - Solid Mechanics course, Pressure vessels topics can be given more weightage. In unit 4, torsion of shaft and springs can be added.
3. Experiments in Models can be included in Unit 3 for the course 22AE3252 - Engineering Fluid Mechanics.
4. Basics of propulsion can be replaced with gaseous equations in the course 22AE3251- Aero Engineering Thermodynamics
5. In course 22AE3002 - Aircraft Component Drawing Laboratory, the 8$^{th}$ experiment can be reordered before 3$^{rd}$ experiment. Also sheet metal design, Introduction to 3D printing technology can be included.
6. In AE3001 Strength of Materials Laboratory, Digital Image Correlation (DIC) for strain measurement and Photoelsticity can be included as a Study Experiments.

7. In AE 3072 Introduction to MATLAB, case studies and assignments can be included.
8. In minor degree course 21AE5231- Fundamentals of Aeronautics can have the details of Aerospace industries and suitable opportunities in unit 5.
9. In Honors degree course, Betz limit and turbine instrumentations can be added in Unit IV.
10. In semester 5, Composite materials and structures can be offered as a compulsory paper.

**The following resolutions were made in the Board of Studies meeting,**

**For Regulations 2019:**

- In almost all the courses, changes have been made as per the Local, Regional, National and Global needs.
- The curriculum and syllabi of R2019/2019R for the V semester subjects of B.E Aeronautical Engineering program for the students admitted during the academic year 2021 - 2022 and onwards was permitted to move on to Academic Council.
- The curriculum and syllabi for VII semesters of R2019 were introduced for B.E Aeronautical Engineering program for the students admitted in the academic year 2020-21 and onwards was permitted to move on to Academic Council.
- Chairman conveyed that; the Suggestions given by the Board of Studies members are to be incorporated in R2019/2019R.
- Chairman conveyed that, the Suggestions given by the Previous Board of Studies members are ratified and resolved.

**For Regulation 2022:**

- The curriculum under regulation 2022 for the students admitted from the academic year 2023-2022 onwards for the B.E. Aeronautical Engineering and the same were presented and discussed. It was suggested to move on to Academic council.

- The syllabus for the Semester – I under regulation 2022 passed by the Board of Science and Humanities, Information Technology, Mechanical Engineering for the students admitted during the academic year 2023 - 2024 and onwards was permitted to move on to Academic Council by the members of Aeronautical Engineering.

- The curriculum and syllabus of Regulation 2022 for the III semester (22MA3104 - Fourier Analysis and Numerical Techniques, 22HE3071 - Soft Skills -II) subjects were passed by the Science and Humanities board and permitted to move on to Academic Council by the BoS members of Aeronautical Engineering for the students admitted during the academic year 2022-2023 and onwards.

- Chairman has confirmed that, the suggestions given by the subject experts will be considered and the syllabus will be updated based on the suggestions given in this BoS meeting.

The meeting ended at 12.00 PM with vote of thanks.

V. T.
**Chairman**
**(Board of Studies)**

**Chairman - BoS**
**AERO - HiCET**

**Enclose:**

1. Previous BoS Minutes-ATR
2. Copy of Regulation 2022
3. Curriculum and Syllabi

**Copy:**

1. The Principal
2. Dean Academics
3. Controller of Examinations
4. All the Members of BoS
5. File

# Hindusthan College of Engineering and Technology

Approved by AICTE, New Delhi and Accredited with 'A' Grade by NAAC
**(An Autonomous Institution, Affiliated to Anna University, Chennai)**
Othakalmandabam Post, Coimbatore

## Department of Aeronautical Engineering

Date: **15.06.2023**

## Action Taken Report on BoS

Name of the Department: Aeronautical Engineering

The 11th Board of Studies meeting of Regulation 2022 (for the students to be admitted from 2023-24 onwards) for the academic year 2023-24 was conducted on 02.06.2023 (Wednesday) at 10.00 AM in the Library Board room, HICET, Coimbatore through online Mode

(Google Meet Link: https://meet.google.com/mkl-sfhz-gfb)

**(i) Courses Introduced under Regulation 2022:**

| S.No. | Regulation | Course code with name | Credits |
|---|---|---|---|
| 1 | 2022 | 22MA3104-Fourier Analysis and Numerical Techniques | 4 |
| 2 | 2022 | 22AE3201-Elements of Aeronautics | 3 |
| 3 | 2022 | 22AE3202- Solid Mechanics | 3 |
| 4 | 2022 | 22AE3251- Aero Engineering Thermodynamics | 4 |
| 5 | 2022 | 22AE3252- Engineering Fluid Mechanics | 4 |
| 6 | 2022 | 22AE3001- Strength of Materials Laboratory | 2 |
| 7 | 2022 | 22AE3002- Aircraft Component Drawing Laboratory | 2 |
| 8 | 2022 | 22HE3071-Soft Skills -2 | 1 |
| 9 | 2022 | 22AE3072-Introduction to MATLAB | 2 |
| 10 | 2022 | Indian Traditional Knowledge | 0 |
| 11 | 2019 | 21AE5231-Fundamentals of Aeronautics | 3 |
| 12 | 2019 | 21AE5203-Space Flight Mechanics | 3 |
| 13 | 2019 | 21AE5204-Wind Engineering | 3 |

**General Recommendations:**

| S.No. | Suggestion given in the BoS experts | Action taken |
|---|---|---|
| 1 | In semester 5, Composite materials and structures can be offered as a compulsory paper. | Considered |
| 2 | In minor degree course 21AE5231- Fundamentals of Aeronautics can have the details of Aerospace industries and suitable opportunities in unit 5. | Considered |

V.T.

CHAIRMAN
BoS/AERO

**Chairman - BoS**
**AERO - HiCET**

# Hindusthan
## College of Engineering and Technology
## Coimbatore-641032

### DEPARTMENT OF AUTOMOBILE ENGINEERING

Date: 02.06.2023

**ELEVENTH BOS MEETING MINUTES**

The Eleventh BOS meeting of regulation R2022 and R2019 for the academic year 2023-2024 was conducted on 02.06.2023 in hybrid mode (online using Google Meet) and offline in Automobile department seminar hall). The objective of the meeting was to discuss the curriculum and syllabi for R2022 for Third semester and R2019 with all professional elective courses minor and honor degree courses, open elective courses and newly added courses.

Note: Google meeting link: https://meet.google.com/qpi-vznp-ngo

The following members were present

| S.No. | Name of the Expert | Affiliation | Nomination |
|---|---|---|---|
| 1 | Dr Sabarinathan C | Professor and Head / Automobile Engineering, Hindusthan College of Engineering and Technology | Chairman |
| 2 | Dr Periyasamy S | Associate Professor, Department of Mechanical Engineering, Government College of Technology, Coimbatore | University Nominee |
| 3 | Dr Somasundaram P | Professor and Head, Department of Automobile Engineering, Kongu Engineering College, Erode. | Subject Expert |
| 4 | Dr Bharathi Mohan M P | Assistant Professor (SG), Department of Automobile Engineering, PSG College of Technology, Coimbatore. | Subject Expert |
| 5 | Mr Manikandan G | Senior Manager - Controlling, Daimler India Commercials Vehicles, Chennai | Industry Expert |

| | | | |
|---|---|---|---|
| 6 | Mr Sivakumar P K | Regional Training Manager,<br>Volvo Eicher Commercial vehicles Pvt. Ltd. | Industry Expert – Special Invitee |
| 7 | Mr Arun R | Senior Section Manager,<br>Sales and marketing,<br>John Deere tractors Pvt. Ltd, Kanchipuram | Alumni Expert |
| 8 | Mr Dharmaraj N<br>(F/o Praveen Sri Raam, IV Yr) | Lab Instructor,<br>Department of Mechanical Engineering,<br>PSG College of Technology, Coimbatore | Parent |
| 9 | Mrs Anitha Kumari P<br>(M/o Ambadi A, III yr) | Teacher, - Govt Town UP school<br>Kayamkulam, Alappuzha district,<br>Kerala. | Parent |
| 10 | Mrs. Mekalai R<br>(M/o. Siddharth S M, II yr) | Headmistress - Lisieux CMI International School,<br>Coimbatore – 641 011 | Parent |
| 11 | Dr Jeyalakshmi P | Professor / Automobile Engg. | Member |
| 12 | Dr.Sankar Ganesh R | Asso.Professor / Automobile Engg. | Member |
| 13 | Mr Dhayananthan N | Asst.Professor / Automobile Engg. | Member |
| 14 | Mr Yogaraja J | Asst.Professor / Automobile Engg. | Member |
| 15 | Mr Krishnaraj J | Asst.Professor / Automobile Engg. | Member |
| 16 | M Samuel Gemsprim M | Asst.Professor / Automobile Engg. | Member |
| 17 | Mr Ragu S | Asst.Professor / Automobile Engg. | Member |
| 18 | Mr Naveen Raj D | Asst.Professor / Automobile Engg. | Member |
| 19 | Mr Mujiburrahman K | Asst.Professor / Automobile Engg. | Member |
| 20 | Mr Prabhu G | Asst.Professor / Automobile Engg. | Member |
| 21 | Mr Satheesh Kumar K | Asst.Professor / Automobile Engg. | Member |
| 22 | Mr Prakash R S | Asst.Professor / Automobile Engg. | Member |
| 23 | Mr Barathkannan P | Asst.Professor / Automobile Engg. | Member |
| 24 | Mr.Sasi | Final Year Automobile Engineering | Student Member |
| 25 | Mr Gowtham T | Third Year Automobile Engineering | Student Member |
| 26 | Mr Balaji C | Second Year Automobile Engineering | Student Member |

The chairman of the BOS, welcomed all the dignitaries for the meeting. He has presented the department vision and mission statements to the forum. Also, he has given an outline of the institution and department and salient features of the new Regulation 2022 Curriculum and Syllabi.

Followed by he has also presented the suggestions given by the experts and the action taken during the Tenth BOS meeting which was held during 17.02.2023 and action taken report on the suggestions.

The chairman has presented the curriculum and syllabus of R2019 and curriculum of R2022 with syllabus of III semester courses.

**Comments given by BoS members:**

**Dr Periyasamy S (Subject Expert):**

- He suggested to add more topics on Hybrid vehicle in "Fundamentals of Electric and Hybrid Vehicles"
- He suggested incorporating the topic "beams" as a single unit in Mechanics of Materials.
- He suggested including a few more subjects in the BE Honors verticals, allowing students to choose six courses of their choice.
- He suggested to strengthen Unit 5 - Psychrometry in Fundamentals of Thermodynamics.
- He suggested to add topics like Calculating the tolerance in "Engineering Drawing".
- Furthermore, he suggested to change the course title 'Race Electronics and Control Systems' to something more relevant to the syllabus."

**Dr Bharathi Mohan M P (Subject Expert):**

- He suggested to change course title from "Intelligent vehicular systems" to "Intelligent vehicular Technology"
- He suggested that the course 'Battery Technology' is too generic and recommended framing it in a more specific manner. Additionally, he suggested including courses like 'Automotive Drives and Control'."

**Mr Manikandan G (Industry Expert):**

- He has suggested to add the 'Flex-fuel engines' and 'Hydrogen fuel cells' technologies in alternate fuels-based courses.
- He has also recommended to showcase the recent and future skill requirements for automobile engineers.

**Mr Siva P K (Industry Expert):**

- He has suggested to add the latest and upcoming emission norms and technology in any of the suitable courses.

**Mr.Arun R (Alumni):**

- He sugessted syllabus could include opportunities for networking with alumni and industry professionals. Guest lectures, workshops, or alumni-led seminars would allow students to connect with successful graduates and gain valuable insights into different career paths.

**Mr.Gowtham T (Student Member):**

- He has suggested that exposure to cutting-edge tools and techniques would give students a competitive advantage in the job market.

**Recommendations by BoS members (Subject Related)**

**The following points were summarized by chairman as per the suggestions of BoS members and stakeholders**

**In R2022:**

- The following practical courses are approved for I semester

  22MA1101 - Matrices and Calculus

  22ME1201 - Engineering Drawing

  22HE1151 - English for Engineers

  22PH1151 - Physics for non-circuit engineering

  22IT1151 - Python Programming and Practices

  22HE1071 - UHV

  22HE1072 - Entrepreneurship & Innovation

  22MC1091 / 22MC1092 - அறிவியல் தமிழ் / Indian Constitution

- The following practical courses are approved for II semester

  22MA2101 - Differential equations and complex analysis

  22PH2101 - Basics of material science

  22CY2101 - Environmental science

  22ME2101 - Engineering Mechanics

  22CY2152 - Applied Chemistry

  22HE2151 - Effective Technical Communication

  22ME2001 - Engineering Practices

  22HE2071 - Design Thinking

  22HE2072 - Soft Skills -1

  22MC2091 / 22MC2092 – தமிழர்மரபு / Essence of Indian Traditional Knowledge

  22MC2191 - NCC */NSS / YRC / Sports / Clubs / Society Service - Enrollment (Common)

- The following courses are approved for III semester

  22MA3104 - Fourier analysis and numerical techniques

  22AU3201 - Fundamentals of Automotive Engines

  22AU3202 - Fundamentals of Thermodynamics

  22AU3203 - Mechanics of Materials

  22AU3251 - Manufacturing Technology

  22AU3001 - Automotive Components Lab

  22AU3002 - Mechanics of Materials Lab

  22HE3071 - Soft Skills -2

  22AU3072 - Machine Drawing

  22MC3092 - Essence of Indian Traditional Knowledge

**In R2019:**

As per the directions of Anna University,

- B E (Hons),
- B E (Hons) with specialization and
- B E with minor degree

Are approved for the academic batch (2021 - 2025) admitted in the academic year 2021 – 2022 under Regulation 2019.

For the same, three specialization verticals for B E (Hons) degree and one vertical for B E with Automobile Engineering minor degree are approved by the Board of Studies.

**Verticals for B E (Hons) in Automobile Engineering**

| **Semester in which courses are offered** | **Vertical I Electric and hybrid vehicle development** | **Vertical II Motorsport Engineering** | **Vertical III Vehicle Development and Validation** |
|---|---|---|---|
| **Semester V** | Fundamentals of Electric and Hybrid Vehicles | Composite Structure | Automotive Product Design and Development |

| | | | |
|---|---|---|---|
| **Semester VI** | Battery Technology | High performance engine design | Noise, Vibration and Harshness |
| **Semester VI** | Automotive Embedded Systems | Motorsports Electric Vehicle | Automotive Instrumentation |
| **Semester VII** | Advanced Automotive Safety Systems | Motorsports Vehicle Body Engineering | Testing and Measurement Systems |
| **Semester VII** | Special Purpose Electric Vehicle | Motorsports Race Electronics and Control Systems | Homologation |
| **Semester VIII** | Electric Vehicles and its Sustainable Development | Motorsports racing circuits and Design | Automotive Prototyping |

Verticals for B E with minor degree

| Semester in which courses are offered | Vertical offered by Automobile Engineering | Verticals common to all departments | | |
|---|---|---|---|---|
| | | Vertical I Fintech and Block Chain | Vertical II Entrepreneurship | Vertical III Environment and Sustainability |
| **Semester V** | Automotive Engines | Financial Management | Foundations of Entrepreneurship | Sustainable infrastructure Development |
| **Semester VI** | Automotive Chassis | Fundamentals of Investment | Team Building & Leadership Management for Business | Sustainable Agriculture and Environmental Management |
| **Semester VI** | Automotive Transmission | Banking, Financial Services and Insurance | Creativity & Innovation in Entrepreneurship | Sustainable Bio Materials |
| **Semester VII** | Automotive Electronics | Introduction to Blockchain and its Applications | Principles of Marketing Management for Business | Materials for Energy Sustainability |
| **Semester VII** | Intelligent vehicular systems | Fintech Personal Finance and Payments | Human Resource Management for Entrepreneurs | Green Technology |
| **Semester VIII** | Electric and Hybrid vehicles | Introduction to Fintech | Financing New Business Ventures | Environmental Quality Monitoring and Analysis |

**The following resolutions were made in the Board of Studies meeting,**

- Department Vision and Mission - The vision and mission statements of the department were found to be good and accepted without any changes.
- In almost all the courses, changes have been done as per the current needs.
- The curriculum and syllabus of Regulation 2022 for the I & II semester subjects were passed by the Science and Humanities board and permitted to move on Academic Council by the BoS members of Automobile Engineering for the students admitted during the academic year 2022-2023 and onwards.

- As per the suggestion of CDC, the Honors degree verticals such as 'Electric and hybrid vehicle development', 'Motorsport Engineering', 'Motorsports racing circuits and Design' 'Vehicle research and validation' and minor degree vertical of Automobile Engineering are to be added to the R2019 regulation students admitted during the academic year 2021 - 2022.
- Also, the minor degree program and honors degree program to be added to the regulation of students admitted during the academic year 2021 - 2022.
- As per the suggestion of CDC, following Value added courses is to be introduced
    i. Final Year : In Association with Hindusthan Eicher Regional Competence development centre – "Advanced Automotive Electrical and Electronics"
    ii. Third Year : "Autodesk Fusion 360"
    iii. Hindusthan Royal Enfield centre of Excellence - "Royal Enfield Periodic maintenance and Troubleshooting"
- The Chairman conveyed that; the Suggestions given by the Board of Studies members are to be incorporated in all years of R2019 curriculum.
- Chairman conveyed that, the Suggestions given by the Previous Board of Studies members are ratified and resolved.

With these words the chairman thanked the gathering for their presence in the BOS meeting.

**Overall Percentage of New Concepts Introduced – 25%**

CHAIRMAN
**Dr.C.Sabarinathan**
Chairman - BoS
AUTO - HiCET

**Hindusthan College of Engineering and Technology**
Accredited with 'A' Grade by NAAC, Affiliated to Anna University)
Valley Campus, Pollachi Highway, Coimbatore – 641032

Date: 03.06.2023

## Action taken report on Eleventh BoS

Name of the Department: **Automobile Engineering**

The Eleventh BOS meeting of regulation R2022 and R2019 for the academic year 2023 – 24 was conducted on 02.06.2023 in hybrid mode (online using Google Meet) and offline in Automobile department seminar hall). The objective of the meeting was to discuss the curriculum and syllabi for R2022 for I,II,III semester and R2019 with all professional elective courses, open elective courses, newly added courses, Minor and Honor Degree courses.

Note: Google meeting link: https://meet.google.com/qpi-vznp-ngo

**(I) Courses Introduced under Regulation 2019 (5th,6,7,8th sem with minor n honor)**

| S.No. | Regulation | Course name | | Credits |
|---|---|---|---|---|
| **Minor Degree - Automotive Vehicle Technology** | | | | |
| 1 | 2019 | 21AU5601 | Automotive Engines | 3 |
| 2 | 2019 | 21AU6601 | Automotive Chassis | 3 |
| 3 | 2019 | 21AU6602 | Automotive Transmission | 3 |
| 4 | 2019 | 21AU7601 | Automotive Electronics | 3 |
| 5 | 2019 | 21AU7602 | Intelligent vehicular systems | 3 |
| 6 | 2019 | 21AU8601 | Electric and Hybrid vehicles | 3 |
| **Honors (Electric and Hybrid Vehicle)** | | | | |
| 7 | 2019 | 21AU52XX | Fundamentals of Electric and Hybrid Vehicles | 3 |
| 8 | 2019 | 21AU62XX | Battery Technology | 3 |
| 9 | 2019 | 21AU62XX | Automotive Embedded Systems | 3 |
| 10 | 2019 | 21AU72XX | Advanced Automotive Safety Systems | 3 |
| 11 | 2019 | 21AU72XX | Special Purpose Electric Vehicle | 3 |
| 12 | 2019 | 21AU82XX | Electric Vehicles and its Sustainable Development | 3 |

| Honors (Motorsports Engineering) | | | | |
|---|---|---|---|---|
| 13 | 2019 | 21AU52XX | Composite Structure | 3 |
| 14 | 2019 | 21AU62XX | High performance engine design | 3 |
| 15 | 2019 | 21AU62XX | Motorsports Electric Vehicle | 3 |
| 16 | 2019 | 21AU72XX | Motorsports Vehicle Body Engineering | 3 |
| 17 | 2019 | 21AU72XX | Motorsports Race Electronics and Control Systems | 3 |
| 18 | 2019 | 21AU82XX | Motorsports racing circuits and Design | 3 |
| **Honors (Vehicle Development and Validation)** | | | | |
| 19 | 2019 | 21AU52XX | Automotive Product Design and Development | 3 |
| 20 | 2019 | 21AU62XX | Noise, Vibration and Harshness | 3 |
| 21 | 2019 | 21AU62XX | Automotive Instrumentation | 3 |
| 22 | 2019 | 21AU72XX | Testing and Measurement Systems | 3 |
| 23 | 2019 | 21AU72XX | Homologation | 3 |
| 24 | 2019 | 21AU82XX | Automotive Prototyping | 3 |

**(III) Courses Introduced under Regulation 2022 Batch (2022-2026)**

| S.No. | Regulation | Course code with name | | Credits |
|---|---|---|---|---|
| 1. | 2022 | 22MA3104 | Fourier analysis and numerical techniques | 4 |
| 2. | 2022 | 22AU3201 | Fundamentals of Automotive Engines | 3 |
| 3. | 2022 | 22AU3202 | Fundamentals of Thermodynamics | 4 |
| 4. | 2022 | 22AU3203 | Mechanics of Materials | 4 |
| 5. | 2022 | 22AU3251 | Manufacturing Technology | 3 |
| 6. | 2022 | 22AU3001 | Automotive Components Lab | 2 |
| 7. | 2022 | 22AU3002 | Mechanics of Materials Lab | 2 |
| 8. | 2022 | 22HE3071 | Soft Skills -2 | 1 |
| 9. | 2022 | 22AU3072 | Machine Drawing | 2 |
| 10. | 2022 | 22MC3092 | Essence of Indian Traditional Knowledge | - |

**Batch (2023-2027)**

| S.No. | Regulation | Course code with name | | Credits |
|---|---|---|---|---|
| 1. | 2022 | 22MA1101 | Matrices and Calculus | 4 |
| 2. | 2022 | 22ME1201 | Engineering Drawing | 3 |
| 3. | 2022 | 22HE1151 | English for Engineers | 3 |
| 4. | 2022 | 22PH1151 | Physics for non-circuit engineering | 3 |
| 5. | 2022 | 22IT1151 | Python Programming and Practices | 3 |
| 6. | 2022 | 22HE1071 | UHV | 2 |
| 7. | 2022 | 22HE1072 | Entrepreneurship & Innovation | 1 |
| 8. | 2022 | 22MC1091/ 22MC1092 | அறிவியல் தமிழ் / Indian Constitution | 0 |
| 9. | 2022 | 22MA2101 | Differential equations and complex analysis | 4 |
| 10. | 2022 | 22PH2101 | Basics of material science | 2 |
| 11. | 2022 | 22CY2101 | Environmental science | 2 |
| 12. | 2022 | 22ME2101 | Engineering Mechanics | 3 |
| 13. | 2022 | 22CY2152 | Applied Chemistry | 3 |
| 14. | 2022 | 22HE2151 | Effective Technical Communication | 3 |
| 15. | 2022 | 22ME2001 | Engineering Practices | 2 |
| 16. | 2022 | 22HE2071 | Design Thinking | 2 |
| 17. | 2022 | 22HE2072 | Soft Skills -I | 1 |
| 18. | 2022 | 22MC2091 22MC2092 | தமிழர்மரபு/ Essence of Indian Traditional Knowledge | 0 |
| 19. | 2022 | 22MC2191 | NCC */NSS / YRC / Sports / Clubs / Society Service - Enrollment (Common) | 0 |

**(IV) General Recommendations:**

| S.No. | Suggestions / Comments given by the Members for 2019 Regulation | Action Taken | Report |
|---|---|---|---|
| 1 | Suggested to add more topics on Hybrid vehicle in "Fundamentals of Electric and Hybrid Vehicles | Suggestion accepted | Topics Updated in the syllabus |
| 2 | Suggested incorporating the topic "beams" as a single unit in Mechanics of Materials | Suggestion accepted | Topics Updated in the syllabus |
| 3 | Suggested including a few more subjects in the BE Honors verticals, allowing students to choose six courses of their choice | Suggestion accepted | To be incorporated in higher semesters |
| 4 | Suggested to strengthen Unit 5 - Psychrometry in Fundamentals of Thermodynamics. | Suggestion accepted | Topics Updated in the syllabus |
| 5 | Suggested to add topics like Calculating the tolerance in "Engineering Drawing". | Suggestion accepted | Topics Updated in the syllabus |
| 6 | Suggested to change the course title 'Race Electronics and Control Systems' to something more relevant to the syllabus | Suggestion accepted | Title Changed to Motorsports Race Electronics and Control Systems |
| 7 | Suggested to change course title from "Intelligent vehicular systems" to "Intelligent vehicular Technology | Suggestion accepted | Title changed |
| 8 | Suggested that the course 'Battery Technology' is too generic and recommended framing it in a more specific manner. Additionally, he suggested including courses like 'Automotive Drives and Control'. | Suggestion accepted | To be incorporated in higher semesters |

**Chairman**
**(Board of Studies)**
Chairman - BoS
AUTO - HiCET

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An Autonomous Institution
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Coimbatore - 641 032

# DEPARTMENT OF CIVIL ENGINEERING

Date: 09.06.2023

## BOARD OF STUDIES MEETING

Name of the Department: Civil Engineering

The Eleventh Board of Studies meeting of civil engineering to discuss the curriculum & syllabus of Regulation 2019 & 2022 for the academic year 2023-2024 (Odd Semester) was conducted on 06.06.2023 at 10.30 am in the ONLINE mode through Google Meet.

**(Meeting Link:https:https://meet.google.com/oee-scyk-pvs)**

The following members were present.

| S.No | Name of the Person | Department | Position |
|---|---|---|---|
| 1. | **Dr. K. Akil** | Professor and Head,<br>Department of Civil Engineering,<br>Hindusthan College of Engineering and Technology. | **Chairman** |
| 2 | **Dr. G. Arun Kumar** | Associate Professor (CAS),<br>Government College of Engineering,<br>Salem. | **University Nominee** |
| 3 | **Dr. S. Shantha Kumar** | Professor,<br>School of Civil Engineering,<br>Vellore Institute of Technology (VIT),<br>Vellore. | **Academic Expert** |
| 4 | **Dr. V. M. Shanthi** | Principal,<br>Government College of Engineering,<br>Srirangam. | **Academic Expert** |
| 5 | **Dr. J. Jegan** | Professor,<br>Department of Civil Engineering,<br>Anna University, University College of Engineering,<br>Ramanathapuram. | **Academic Expert** |
| 6 | **Mr. J. Prem Kumar** | Principal Consultant,<br>M/s Infinustech,<br>Coimbatore. | **Special invitee** |
| 7 | **Dr. A. Sudhahar** | CEO - Dimensions Structural Designs,<br>#57, KrishnasamyMudhaliar Street,<br>Brooke Bond Road, R S Puram,Coimbatore | **Industry Member** |

| | | | |
|---|---|---|---|
| 8 | **Dr. S. Deepa Shri** | Professor<br>Department of Civil Engineering,<br>Hindusthan College of Engineering and Technology | **Member** |
| 9 | **Mr. R. Senthil Kumar** | Assistant Professor,<br>Department of Civil Engineering,<br>Hindusthan College of Engineering and Technology. | **Member** |
| 10 | **Mr. A. Alex Livingston Raja** | Assistant Professor,<br>Department of Civil Engineering,<br>Hindusthan College of Engineering and Technology. | **Member** |
| 11 | **Ms. K. Saraswathi** | Assistant Professor,<br>Department of Civil Engineering,<br>Hindusthan College of Engineering and Technology. | **Member** |
| 12 | **Ms. V. Suresh** | Assistant Professor,<br>Department of Civil Engineering,<br>Hindusthan College of Engineering and Technology. | **Member** |
| 13 | **Mr. B. Thamizhinian** | Research Scholar,<br>Indian Institute of Technology,<br>Roorkee,Haridwar,<br>Uttarakhand | **Alumni Member** |
| 14 | **Ms. R. Sakthi Shree** | IV Year Student<br>Department of Civil Engineering,<br>Hindusthan College of Engineering and Technology | **Student Member** |
| 15 | **Ms. K. Nivetha** | III Year Student<br>Department of Civil Engineering,<br>Hindusthan College of Engineering and Technology | **Student Member** |
| 16 | **Mr. K. Arun** | II Year Student<br>Department of Civil Engineering,<br>Hindusthan College of Engineering and Technology | **Student Member** |

- The Chairman-BoS welcomed the University nominee, Subject experts, special invitees and all the internal members for the eleventh Board of Studies meeting.
- Chairman disseminated Vision and Mission of the Institution and Department Programme Educational Objectives (PEOs), Programme Specific Outcomes (PSOs), Programme Outcomes (POs)
- Chairman also presented the new regulation 2022 and the curriculumgiven by the Curriculum Development Cell (CDC) &Department Advisory Committee (DAC).
- Followed by, Chairmanpresented the suggestions given by the experts and the action taken report during the Previous BoS meeting which was held during **17.02.2023** was approved.

**For Regulations 2022 (Batch 2023 - 2027) :**

In Semester I – Two Employability Enhancement Subjects (Entrepreneurship & Innovation&Introduction to Soft Skills and Aptitude ) added within the curriculum as Employability EnhancementCourseswith one and zero credit respectively.

- Universal Human Values course is moved to mandatory course with zero credit.
- Introduction to soft skills and aptitude course introduced as a Employability Enhancement Course with zero credit in I semester
- In Semester I - அறிவியல்தமிழ்/ Indian Constitution Courses were removed from curriculum, Instated of that தமிழர்மரபு/Heritage of Tamil Courses were introduced with one credit.
- In Semester II – instated of Subjects ( தமிழர்மரபு/Heritage of Tamil) courses (தமிழரும்தொழில்நுட்பமும் / Tamils and Technology ) Courses were added with one credit as a Mandatory Course
- Autodesk AutoCAD 3D 2022 – proposed as a value added course

**For Regulations 2022 (Batch 2022 - 2023) :**

- In Semester II - Based on the information from Anna university Heritage of Tamilcourse introduced instead of Essence of Indian Traditional Knowledge course
- Changes have been done as per the current needs in curriculum and syllabus of Regulation 2022.
- Based on Regulation 2022, the revised curriculum and syllabi for I and III semesters of R2022 were reviewed for the B.E Civil Engineering program for the students admitted in the academic year 2021 - 2022 and onwards and permitted to move on to the Academic Council.

**For Regulations 2019(Batch 2020 - 2023) :**

- Changes have been done as per the current needs in curriculum and syllabus of Regulation 2019.
- Based on Regulation 2019, the revised curriculum and syllabi for VII semesters of R2019 were reviewed for the B.E Civil Engineering program for the students admitted in the academic year 2020 - 2021 and onwards and permitted to move on to the Academic Council.

**Value added Courses:**

- Autodesk AutoCAD 3D 2022, Quantum Geographic Information System and Project Portfolio Management using Oracle Primavera P6Courses to be introduced as value added courses for III Semester, V Semester & VII Semester respectively.

**Following are the Comments put forth by the Experts:**

| S.No | Title of the course viewed by experts | | Experts suggestion and comments |
|---|---|---|---|
| 1. | 22MC1091 / 22MC2091 | தமிழர்மரபு / தமிழரும் தொழில்நுட்பமும் (2023-24 Admitted) | **These courses to be taught by Tamil Professors** |
| | 22HE2072 | Soft Skills and Aptitude I (2023-24 admitted) | Practical sessions to be given |
| 2. | 22CE3072 | Computer Aided Building Drawing (from 2022-2023 admitted) | NBC, Layers shall be added |
| 3. | 22CE3251 | Strength of Materials (from 2022-2023 admitted) | Maxwell Betti's Theorem to be included |
| 4. | 21CE5231 | Principles of Surveying (from 2021-2022 admitted) | Practical sessions / demonstration to be given for better unde rstanding |

- Chairman conveyed that, the Suggestions given by the Previous Board of Studies members are ratified and resolved.

The meeting ended with thanks by the Chairman at 1.30 p.m.

Chairman

**(Board of Studies)**

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Othakalmandapam Post, Coimbatore

Date: 13.06.2023

## ACTION TAKEN REPORT ON BOS

Name of the Department: **CIVIL ENGINEERING**

The Eleventh Board of Studies meeting of Regulation 2019 & 2022 for the academic year 2023 - 2024 was conducted on 06.06.2023 at 02.30 p.m. at ONLINE mode thorough Google Meet. (Meeting Link: https://meet.google.com/lookup/d54asfwiqr). This report consolidates the findings of the panel and the suggestions and area of improvements possible in the future put forth by the panel.

**(i) Syllabus Revision:**

| S. No | Subject in which revision has been done | | Action taken | Percentage Syllabus Revised |
|---|---|---|---|---|
| 1. | 22MC1091 / 22MC2091 | தமிழர்மரபு / தமிழரும் தொழில்நுட்பமும் (2023-24 Admitted) | Suggestion passed on the standing committee | 100% |
| 2. | 22HE2072 | Soft Skills and Aptitude I (2023-24 admitted) | Suggestion passed on the standing committee | 20 % |
| 3. | 22CE3072 | Computer Aided Building Drawing (from 2022-2023 admitted) | Suggestion passed on the standing committee | 4% |
| 4. | 22CE3251 | Strength of Materials (from 2022-2023 admitted) | Suggestion passed on the standing committee | 2 % |
| 5. | 21CE5231 | Principles of Surveying (from 2021-2022 admitted) | Suggestion passed on the standing committee | 20 % |

- Chairman conveyed that the suggestions given by the Board of Studies members shall be incorporated with the approval of standing committee.

The meeting ended with thanks by the Chairman at 4.30 p.m.

CHAIRMAN
BoS / Civil

HICET

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## DEPARTMENT OF CIVIL ENGINEERING

### DETAILS OF CHANGES CARRIED OUT IN CURRICULUM & SYLLABUS

### CBCS PATTERN

### UNDERGRADUATE PROGRAMMES

### (Eleventh Board of studies Meeting)

| No.of Course revised in the Eleventh Board of studies Meeting | |
|---|---|
| Total No of Course | 65 |
| No of Course revised | 20 |
| Percentage of Course revised | 33.33% |

Chairman

(Board of Studies)

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## DEPARTMENT OF MECHATRONICS ENGINEERING

## MINUTES OF BOARD OF STUDIES MEETING

Name of the Department: **Mechatronics Engineering**

**Date:31.05.2023**

The Eleventh Board of Studies meeting of regulation R2022 for the academic year 2023-2024 Odd Semester was conducted on 30.05.2023 at 10.30 a.m. in Simulation Lab, Hindusthan College of Engineering and Technology.

The following members were present:

| S.No. | Name of the Member | Position |
|---|---|---|
| 1. | Dr. P.T.Saravanakumar<br>Professor & Head,<br>Department of Mechatronics Engineering,<br>Hindusthan College of Engineering and Technology, Coimbatore | Chairman |
| 2. | Dr.S.Periyasamy<br>Associate Professor,<br>Department of Mechanical Engineering,<br>Government of Technology,<br>Coimbatore | University Nominee |
| 3. | Dr.M.Poongothai<br>Associate professor,<br>Department of Electronics and communication Engineering,<br>Coimbatore Institute of Technology, Coimbatore | Academic Expert |
| 4. | Dr.S.Saravanan<br>Professor & Associate Dean – Autonomous Functioning,<br>Department of Production Engineering,<br>PSG College of Technology, Coimbatore. | Academic Expert |
| 5. | Mr.C.Manivel Prabhu<br>Director<br>Microtome Automation Pvt Ltd,<br>Chinnavedampatti, Coimbatore - 641009 | Industry Expert |
| 6. | Dr.A.Arockia Rajan<br>Professor<br>Solid Mechanics Division,<br>Department of Applied Mechanics,<br>Indian Institute of Technology Madras,Chennai – 600 036. | Member from QS Rated Institution |
| 7. | Dr.B.Paulchamy<br>Professor and Head,<br>Department of Electronics and communication Engineering<br>Hindusthan College of Technology, Coimbatore | Member from Sister Concern (HiTech) |
| 8. | Dr.T.Vandarkuzhali<br>Professor,<br>Department of Mechatronics Engineering,<br>Hindusthan College of Engineering and Technology, Coimbatore | Internal Member |

| | | |
|---|---|---|
| 9. | Dr.R.Madhusudhanan<br>Associate Professor,<br>Department of Mechatronics Engineering,<br>Hindusthan College of Engineering and Technology, Coimbatore | Internal Member |
| 10. | Dr.Pradeep Johnson<br>Associate Professor,<br>Department of Mechatronics Engineering,<br>Hindusthan College of Engineering and Technology, Coimbatore | Internal Member |
| 11. | Mr.S.PremAnand<br>Assistant Professor,<br>Department of Mechatronics Engineering,<br>Hindusthan College of Engineering and Technology, Coimbatore | Internal Member |
| 12. | Mr.C.P.Jeyakishan<br>Chief Executive Engineer,<br>MEG, Ganapathy, Coimbatore-641006 | Alumni Member |
| 13. | Mr.Sufyan Ahmed<br>Third year<br>Department of Mechatronics Engineering,<br>Hindusthan College of Engineering and Technology, Coimbatore | Student Member |

- The Chairman welcomed University nominee, Subject experts, special invitees and all the internal members for the Board of Studies meeting.
- The chairperson briefly explained the Salient features of Regulation 2019 & 2022 to all the BoS members
- Chairman also gave an outline of the changes to be made in the curriculum given by the Curriculum Development Cell (CDC) & Department Advisory Committee (DAC).
- The feedback received on curriculum by the stakeholders was presented.
- As per the direction of Curriculum Development Cell (CDC), B.Tech honor courses of single vertical can be reframed to three verticals for the R2022 & R2019 (Batch 2021-2025) and also we introduce for minor degrees for R2019 (Batch 2021-2025).
- Curriculum & Syllabus for the courses to be passed in the 2023-2024 odd semester.
- Syllabus offered for the Minor degree and Honour degree ($5^{th}$ Semester only) by the individual U.G Programme under Regulation 2019 for the batch admitted during 2021-22
- Employability Enhancement Courses can be update in R2022 curriculum
- Vision & Mission of the department are disseminated.
- Skill Enhancement courses are opted as a value-added course in upcoming Odd/Even Semester
- Followed by, Chairman presented the suggestions given by the BoS experts and the action taken report during the Previous BoS meeting, which was held during 10.02.2023, was approved.

**The following are the recommendations put forth by the BoS members,**

1. For R2022 "22MT3201 - Industrial Motor Control" Case Study should be added in unit IV
2. For R2022 "22MT3251 - Manufacturing Process" In unit V, remove unconventional machining processes topics and add some case studies on manufacturing the product like agricultural farm Equipments, Erection of boilers, sports products.
3. For R2019 (Batch 2021-2025) & R2022 – Thermal Engineering Honours degree vertical may be replaced with Applied Robotics vertical as per anna university curriculum.

**General Recommendations:**

1. Chairman conveyed that; the Suggestions given by the Board of Studies members to be incorporated in R2022.
2. Course objectives and Course Outcomes should be follow the bloom's Taxonomy.
3. Chairman conveyed about the Consideration of MOOC courses like NPTEL/Coursera / Edx etc as Additional credit courses so that students can get wide exposure on knowledge sharing.

**The following resolutions were made in the Board of Studies meeting,**

The syllabi of III semester of the UG Programmes for the students admitted during the academic year 2022-2023 and onwards was passed by S&H Board of studies and permitted to move on Academic Council.

Chairman conveyed that, suggestions given by the Previous Board of Studies members are ratified and resolved.

The meeting ended with thanks to the chair at 1.00 pm.

Chairman

(Board of studies)

**Chairman - BoS**
**MCT - HiCET**

**Enclosure:**

1. Previous BoS Minutes- ATR
2. Regulation 2019 & 2022
3. Curriculum and Syllabi

**Copy:**

1. The Principal
2. Dean Academics
3. Controller of Examinations
4. All the members of BoSrun
5. File

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Date:02.06.2023

## ACTION TAKEN REPORT ON BoS

Name of the Department: Mechatronics Engineering

The meeting of eleventh board of studies of Regulation 2019 & Regulation 2022 for the Department of Mechatronics Engineering, Under Graduate Programme was conducted on 30.05.2023 at 10.30 am, in Simulation Lab, Hindusthan College of Engineering and Technology.

### (I) Syllabus Revision for the Regulations 2022

| S.No | Courses in which revision has been done | Action taken | Percentage Syllabus Revised |
|---|---|---|---|
| 1 | 22MT3201 - Industrial Motor Control | Modified | 8.5% |
| 2 | 22MT3251 - Manufacturing Process | Modified | 2.5% |

**Overall Percentage of revision made in the BoS: 11%**

### (III) New Course Introduced:

| S. No | Regulation | Course Code with Name | Credits |
|---|---|---|---|
| 1 | R2022 | 22MT3202 - Solid and Fluid Mechanics | 4 |
| 2 | R2019 | 21MT5231 -Basics of Mechatronics System | 3 |
| 3 | R2019 | 21MT5204 - Concepts of Machines and Mechanisms | 3 |
| 4 | R2019 | 21MT5205 - Robotics in Medicine | 3 |
| 5 | R2019 | 21MT5206 - Robots and Systems in Smart Manufacturing | 3 |

**(IV) Additional Courses for Minor Degree common to all branches**

| Vertical I<br>Fintech and Block Chain | Vertical II<br>Entrepreneurship | Vertical III<br>Environment and Sustainability |
|---|---|---|
| Financial Management | Foundations of Entrepreneurship | Sustainable infrastructure Development |
| Fundamentals of Investment | Introduction to Business Venture | Sustainable Agriculture and Environmental Management |
| Banking, Financial Services and Insurance | Team Building & Leadership Management for Business | Sustainable Bio Materials |
| Introduction to Blockchain and its Applications | Creativity & Innovation in Entrepreneurship | Materials for Energy Sustainability |
| Fintech Personal Finance and Payments | Principles of Marketing Management for Business | Green Technology |
| Introduction to Fintech | Human Resource Management for Entrepreneurs | Environmental Quality Monitoring and Analysis |
| | Financing New Business Ventures | |

**(V) B Tech (HONS) Mechatronics Engineering**

| Vertical I<br>Industrial Automation | Vertical II<br>Medical Mechatronics | Vertical III<br>Applied Robotics |
|---|---|---|
| 22MT5203<br>Concepts of Machines and Mechanisms | 22MT5204<br>Robotics in Medicine | 22MT5205<br>Robots and Systems in Smart Manufacturing |
| 22MT6202<br>Drives and Actuators for Automation | 22MT6204<br>Brain Computer Interface and its Applications | 22MT6206<br>Medical Robotics |
| 22MT6203<br>Power Electronics | 22MT6205<br>Digital Image Processing | 22MT6207<br>Agricultural Robotics and Automation |
| 22MT7203<br>Advanced PLC | 22MT7205<br>Radiological Equipment | 22MT7207<br>Collaborative Robotics |
| 22MT7204<br>Distributed Control System | 22MT7206<br>Biomaterials | 22MT7208<br>Robot Operating Systems |
| 22MT8201<br>HMI & SCADA | 22MT8202<br>Bionics | 22MT8203<br>Humanoid Robotics |

**(IV). General Recommendations:**

| S. No | Suggestion Given by the BoS Experts | Action Taken |
|---|---|---|
| 1. | For R2022 "22MT3201 - Industrial Motor Control" Case Study should be added in unit IV | Considered |
| 2. | For R2022 "22MT3251 - Manufacturing Process" In unit V, remove unconventional machining processes topics and add some case studies on manufacturing the product like agricultural farm Equipments, Erection of boilers, sports products. | Considered |
| 3. | For R2019 (Batch 2021-2025) & R2022 – Thermal Engineering Honours degree vertical may be replaced with Applied Robotics vertical as per anna university curriculum. | Considered |

Chairman
(Board of Studies)

Chairman - BoS
MCT - HiCET

ACADEMIC COUNCIL * HICET * HINDUSTHAN * Chairman

Dean Academics

Dean (Academics)
HiCET



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## DEPARTMENT OF AGRICULTURAL ENGINEERING

## MINUTES OF BOARD OF STUDIES MEETING

Name of the Department: **Agricultural Engineering** **Date:** 07.06.2023

The ninth Board of Studies meeting of regulation 2019 and regulation 2022 (for the students to be admitted from 2022-23 onwards) for the academic year 2023-2024 ODD Semester was conducted on 07.06.2023 at 3.00 p.m. in the Board Room (Virtual mode), Hindusthan College of Engineering and Technology.

Google Meet link: https://meet.google.com/bfx-oygb-pqs

The following members were present:

| S.No. | Name of the Member | Position |
|---|---|---|
| 1 | Dr Sridhar M<br>Associate Professor & Head,<br>Department of Agriculture Engineering, HiCET. | Chairman |
| 2 | Dr.M.Krishnaveni<br>Professor (Agrl. Engg), Centre for Water Resources<br>Anna University,<br>Chennai. | University Nominee |
| 3 | Mr. C.Mayilsamy<br>Professor & Head<br>Dept of Agrl. Engg,<br>Karunya Institute of Technology and Sciences,<br>Coimbatore | Academic Expert |
| 4 | Dr.M. Singaravelu<br>Professor<br>Dept of Agrl. Engg<br>SNS College of Engineering<br>Coimbatore. | Academic Expert |
| 5 | Dr.Manickavasagan Annamalai<br>Associate Professor,<br>University of Guelph,Ontario, Canada | Academic Expert |
| 6 | Mr.C.V.Madheswaran<br>Managing Director,<br>KSNM Marketing, Coimbatore<br>BME Industrial Expert;<br>SF NO 29/1B Onapalayam<br>Coimbatore- 641190. | Industry Expert |
| 7 | Er.Ranjitha S<br>Manager-Farm Operations<br>Greenzy- Krishirishi Agrofarms LLP.<br>Coimbatore. | Alumni |

| | | |
|---|---|---|
| 8 | Mrs Chinju Saju<br>Assistant Professor<br>Department of Agriculture Engineering, HiCET. | Member |
| 9 | Mrs.K.Ramya<br>Assistant Professor<br>Department of Agriculture Engineering, HiCET. | Member |
| 10 | Mr.Seerangurayar T<br>Assistant Professor<br>Department of Agriculture Engineering, HiCET. | Member |
| 11 | Mr.DineshKumar S<br>Assistant Professor<br>Department of Agriculture Engineering, HiCET. | Member |
| 12 | Ms.Meena S<br>Assistant Professor<br>Department of Agriculture Engineering, HiCET. | Member |
| 13 | Mr.Dhayalan V<br>Assistant Professor<br>Department of Agriculture Engineering, HiCET. | Member |
| 14 | Ms.Ramya N<br>Assistant Professor<br>Department of Agriculture Engineering, HiCET. | Member |
| 15 | Mr.Amaran V<br>Assistant Professor<br>Department of Agriculture Engineering, HiCET. | Member |
| 16 | Dr.Rajaravi C<br>Associate Professor<br>Department of Agriculture Engineering, HiCET. | Member |
| 17 | Mr. Manogaran P | Parents |
| 18 | Mrs. Bharathi D | Parents |
| 19 | Siddhartha B D<br>Department of Agriculture Engineering, HiCET. | Student Member |
| 20 | Vidya A M<br>Department of Agriculture Engineering, HiCET. | Student Member |

The university Nominee Dr.M.Krishnaveni and all the other external members attended the meeting via online (Google Meet)

- The Chairman-BoS welcomed the University nominee, Subject Experts, special invitees and all the internal members for the Ninth Board of Studies meeting.
- Chairman presented the suggestions given by the experts and the action taken report of the previous BoS meeting held on 21.02.2023. Members of the BOS approved the same.
- The feedback received on curriculum by the stakeholders was presented by the Chairman-BoS

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- Chairman also gave an outline of the changes to be made in the curriculum given by the Department Advisory Committee (DAC) and emphasized the importance of curriculum to be in line with the industry needs.
- Chairman explained about the integration of curriculum with Indian Institute of Technology, Kharagpur (Department of Agricultural, Food, and Artificial Intelligence in Agriculture) under regulation 2022 for skill development and its importance to BoS members.
- Chairman indicated that verticals of B.Tech (Hons) and Hons. With Specialization has been added in the current curriculum related to IIT, Kharagpur for skill development and explained the value added courses.
- As recommended by DAC members, syllabus revision/updation under regulation 2019 (ODD Sem) in Theory, Theory with lab components and laboratory experiments for agriculture Engineers were discussed in the meeting.
- The curriculum and syllabus for the new courses under III semester was presented by the Chairman and discussed.
- The Chairman discussed the verticals of B.Tech (Hons) and Hons. With Specialization of curriculum under regulation 2022 for the students admitted from the academic year 2022-2023 onwards.

**The following are the recommendations put forth by the BoS members,**

**For the Regulations 2022 Curriculum**

1. Suggested to have five verticals for B.Tech (Hons) and Hons. With Specialization and to have advanced courses in same domain.
2. Suggested to include advances in agriculture and employability course in the curriculum.
3. Suggested to allow the students for internship in fourth semester onwards and evaluating their report in seventh semester.

**For the Regulations 2019 curriculum and Syllabus**

1. In "**21AG5202- Refrigeration and Cold Chain Management**" recommended 30% revisions and updates in Unit – III, IV and V (For the Batch 2021 – 2025).

2. In "**21AG5203 & Theory of Machines**", 26% syllabus revision has been recommended for the Batch 2021 – 2025. Functions of fly wheel -Types of fly wheels under Unit-II, Need of balancing-Concept of static and dynamic balancing of rotating



mass by another mass in the same plane- Concept of reference plane under Unit – V was updated For the Batch 2021 – 2025.

3. In "**21AG5252 & Soil and Water Conservation Engineering**" 16% recommended for the Batch 2021 – 2025 to add Factors of Erosion in Unit-I and Runoff Plots, Multislot Divisor, Coshocton wheel silt sampler in Unit II.
4. In "**21AG5002 & CAD for Agricultural Engineering**" 30 % revision has been recommended for the Batch 2021 – 2025 in Experiment number 3 and 6 Creating 2D drawings with general steps of simple machines and Drawing of shaft coupling, Gears and connecting road respectively
5. In "**19AG7202R- Remote Sensing and Geographical Information System**" 14 % revision has been recommended updating the course content "In Unit I and III (For the Batch 2020 – 2024 onwards).
6. In "**19AG7304R & Process Engineering of Fruits and Vegetables**" recommended updating with 43% of revision in Unit 1 (Structure, Composition, Ripening and Spoilage) , in Unit 2 (Cleaning, Grading and On-Farm Processing) and in Unit 3 (Preservation of Fruits and Vegetables) for the Batch 2020 – 2024.
7. In "**19AG7001R & Renewable Energy Laboratory**" recommended updating with 20% of revision in Exp.no.4 (Determine composition of biogas), in Exp.no.5 (Testing of engine performance) for the Batch 2020 – 2024.
8. In "**19AG7002R & Remote Sensing and GIS Laboratory For Agricultural Engineers**" recommended updating with 60% of revision in Exp.no.1 to 6 for the Batch 2020 – 2024
9. The new courses introduced, 22AG3201 & Soil Technology, 22AG3202 & Fluid Mechanics and Pumps, 22AG3203 & Engineering Thermodynamics, 22AG3251 & Unit operations in Agricultural Processing, 22AG3252 & Surveying and Levelling, 22AG3001 & Soil Technology laboratory, 22AG3072 & Basic Electrical, Electronics and Instrumentation Engineering, 21AG5204 & Off-Road Vehicle Engineering, 21AG6203 & Design of Farm Machinery and System, 21AG6204 & Tractor Systems Design –I, 21AG7203 & Tractor Systems Design –II, 21AG7204 & Farm Machinery Dynamics Noise & Vibrations, 21AG8311 & Operations Research in Farm Power & Machinery Management, 21AG5205 & Open Channel Flow, 21AG6205 & Water Resources System Engineering, 21AG6206 & Watershed Management and Modelling, 21AG7205 & Water Systems Simulation And Modelling, 21AG7206 & Modelling Soil Erosion Processes, 21AG8312 & Plant Growth Modelling and Simulation, 21AG5206 & Industrial Processing of Foods and

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Beverages, 21AG6207 & Instrumentation and Control in Food Industries, 21AG6208 & Food Plant and Equipment Design, 21AG7207 & Food Process Modelling, 21AG7208 & Robotics in Food Processing and Handling, 21AG8313 & Marketing of Food and Agricultural Products, 21AG5207 & Solar radiation and measurements, 21AG6209 & Basics of solar PV systems and components, 21AG6210 & Basics of Agronomic practices and components, 21AG7209 & Design and installation of Agrivoltaics system, 21AG7210 & Analysis of Agrivoltaics system for Energy food and water production, 21AG8314 & Cost analysis and standards, 21AG5208 & Big Data Processing, 21AG6211 & Dependable and Secure AI-ML, 21AG6212 & Deep Learning Foundations and Applications, 21AG7211 & Graph Machine Learning: Foundations and Applications, 21AG7212 & AI Applications in Agriculture and 21AG8315 & Process Modelling and Simulation as B.Tech (Hons),Hons. with specialization. 21AG5601 & Agriculture for Engineers, 21AG6601 & Soil & Water Conservation Engineering, 21AG6602 & Farm Machinery and Equipment's, 21AG7601 & Fundamentals of Food Process Engineering, 21AG7602 & Non-Conventional Energy Technology and 21AG8601 & Integrated on farm Managements as B.Tech Minors and Training on Design of Agricultural System (Solar, Food instruments and Hydrophonics) (19VAAG05) and Geospatial Technology for Climate-Smart Agriculture (21VAAGO2) as additional Credit Courses are recommended.

**General Recommendations:**

1. University Nominee suggested to create awareness among students related to MOOC Courses and credit transfer.
2. Recommended to arrange more internship opportunities for the students.

**The following resolutions were made in the Board of Studies meeting,**

**For Regulations 2019:**

- The curriculum and syllabus for the VII semester was passed by the Agriculture Engineering board and permitted to move on Academic Council by the BoS members of Agriculture Engineering for the students admitted during the academic year 2020-2021 and onwards.
- The curriculum and syllabi of 2019 regulation with revision and updation for the V semester Courses of B.E Agriculture Engineering program for the students admitted during the academic year 2021-2022 and onwards was suggested to move on to Academic Council.



**For Regulation 2022:**

- The syllabus for Semester – III under regulation 2022 passed by the Agriculture Engineering board are permitted to move on Academic Council by the members of Agricultural Engineering.
- Chairman has confirmed that, the suggestions given by the subject experts will be considered and the syllabus will be updated based on the suggestions given in this BoS meeting.

The meeting ended with thanks to the Chair at 4.30PM.

**Chairman**

**(Board of studies)**

**Chairman - BoS**
**AGRI - HiCET**

**Enclose:**

1. Previous BoS Minutes- ATR
2. Regulation 2019 and 2022 with amendments
3. Curriculum and Syllabi

**Copy:**

1. The Principal
2. Dean Academics
3. Controller of Examinations
4. All the members of BoS
5. File

HINDUSTHAN COLLEGE OF ENGG. & TECH. CBE-32.

# *Hindusthan College of Engineering and Technology*

Approved by AICTE, New Delhi, Accredited with 'A' Grade by NAAC
**(An Autonomous Institution, Affiliated to Anna University, Chennai)**
Coimbatore – 641 032

Date: 08.06.2023

## ACTION TAKEN REPORT ON 9th BOS

Name of the Department: **Agricultural Engineering**

The meeting of Ninth board of studies of Regulation 2019 and Regulation 2022 for the Department of Agricultural Engineering under Graduate Programme was conducted on 07.06.2023 at 3.00 pm in the Board Room, Hindusthan College of Engineering and Technology.

**(I) Syllabus Revision for the Regulations 2019**

| S.No | Subject in which revision has been done | Action taken | Percentage Syllabus Revised |
|---|---|---|---|
| 1 | 19AG7202R- Remote Sensing and Geographical Information System | Modified | 14% |
| 2 | 19AG7304R & Process Engineering of Fruits and Vegetables | Modified | 43% |
| 3 | 19AG7001R & Renewable Energy Laboratory | Included | 20% |
| 4 | 19AG7002R & Remote Sensing and GIS Laboratory For Agricultural Engineers | Included | 60% |
| 5 | 21AG5202- Refrigeration and Cold Chain Management | Modified | 30% |
| 6 | 21AG5203 & Theory of Machines | Incorporated | 26% |
| 7 | 21AG5252 & Soil and Water Conservation Engineering | Incorporated | 16% |
| 8 | 21AG5002 & CAD for Agricultural Engineering | Incorporated | 20% |

**Overall Percentage of revision made in the BoS : 18.49 %**

**(II) New Course Introduced:**

| S. No | Regulation | Course Code with Name | Credits |
|---|---|---|---|
| 1 | 2022 | 22AG3201 & Soil Technology | 3 |
| 2 | 2022 | 22AG3202 & Fluid Mechanics and Pumps | 3 |
| 3 | 2022 | 22AG3203 & Engineering Thermodynamics | 4 |
| 4 | 2022 | 22AG3251 & Unit operations in Agricultural Processing | 1.5 |
| 5 | 2022 | 22AG3252 & Surveying and Levelling | 1.5 |
| 6 | 2022 | 22AG3001 & Soil Technology laboratory | 3 |
| 7 | 2022 | 22AG3072 & Basic Electrical, Electronics and Instrumentation Engineering | 3 |

**(III) Additional Credit Courses Introduced:**

| S.No. | Course Code with Name |
|---|---|
| 1. | 19VAAG05- Training on Design of Agricultural System (Solar, Food instruments and Hydrophonics) |
| 2. | 21VAAGO2 - Geospatial Technology for Climate-Smart Agriculture |

**(IV) B. Tech (HONS) & B.Tech (HONS with specialization) and Minor Degree Agricultural Engineering introduced under Regulation 2022**

| S.No | Regulation | Course Code with Name | Credits |
|---|---|---|---|
| 1 | 2022 | 21AG5204 & Off-Road Vehicle Engineering | 3 |
| 2 | 2022 | 21AG6203 & Design of Farm Machinery and System | 3 |
| 3 | 2022 | 21AG6204 & Tractor Systems Design -I | 3 |
| 4 | 2022 | 21AG7203 & Tractor Systems Design -II | 3 |
| 5 | 2022 | 21AG7204 & Farm Machinery Dynamics Noise & Vibrations | 3 |
| 6 | 2022 | 21AG8311 & Operations Research in Farm Power & Machinery Management | 3 |
| 7 | 2022 | 21AG5205 & Open Channel Flow | 3 |
| 8 | 2022 | 21AG6205 & Water Resources System Engineering | 3 |
| 9 | 2022 | 21AG6206 & Watershed Management and Modelling | 3 |
| 10 | 2022 | 21AG7205 & Water Systems Simulation And Modelling | 3 |
| 11 | 2022 | 21AG7206 & Modelling Soil Erosion Processes | 3 |
| 12 | 2022 | 21AG8312 & Plant Growth Modelling and Simulation | 3 |
| 13 | 2022 | 21AG5206 & Industrial Processing of Foods and | 3 |

HINDUSTHAN COLLEGE OF ENGG & TECH · COE - 32 ·

| | | | |
|---|---|---|---|
| | | Beverages | |
| 14 | 2022 | 21AG6207 & Instrumentation and Control in Food Industries | 3 |
| 15 | 2022 | 21AG6208 & Food Plant and Equipment Design | 3 |
| 16 | 2022 | 21AG7207 & Food Process Modelling | 3 |
| 17 | 2022 | 21AG7208 & Robotics in Food Processing and Handling | 3 |
| 18 | 2022 | 21AG8313 & Marketing of Food and Agricultural Products | 3 |
| 19 | 2022 | 21AG5207 & Solar radiation and measurements | 3 |
| 20 | 2022 | 21AG6209 & Basics of solar PV systems and components | 3 |
| 21 | 2022 | 21AG6210 & Basics of Agronomic practices and components | 3 |
| 22 | 2022 | 21AG7209 & Design and installation of Agrivoltaics system | 3 |
| 23 | 2022 | 21AG7210 & Analysis of Agrivoltaics system for Energy food and water production | 3 |
| 24 | 2022 | 21AG8314 & Cost analysis and standards | 3 |
| 25 | 2022 | 21AG5208 & Big Data Processing | 3 |
| 26 | 2022 | 21AG6211 & Dependable and Secure AI-ML | 3 |
| 27 | 2022 | 21AG6212 & Deep Learning Foundations and Applications | 3 |
| 28 | 2022 | 21AG7211 & Graph Machine Learning: Foundations and Applications | 3 |
| 29 | 2022 | 21AG7212 & AI Applications in Agriculture | 3 |
| 30 | 2022 | 21AG8315 & Process Modelling and Simulation | 3 |
| 31 | 2022 | 21AG5601 & Agriculture for Engineers | 3 |
| 32 | 2022 | 21AG6601 & Soil & Water Conservation Engineering | 3 |
| 33 | 2022 | 21AG6602 & Farm Machinery and Equipment's | 3 |
| 34 | 2022 | 21AG7601 & Fundamentals of Food Process Engineering | 3 |
| 35 | 2022 | 21AG7602 & Non-Conventional Energy Technology | 3 |
| 36 | 2022 | 21AG8601 & Integrated on Farm Managements | 3 |

**(V). General Recommendations:**

| S. No | Suggestion Given by the BoS Experts | Action Taken |
|---|---|---|
| 1 | Suggested to create awareness among students related to MOOC Courses and credit transfer. | Considered |
| 2 | Recommended to arrange more internship opportunities for the students | Considered |

Chairman
(Board of Studies)

**Chairman - BoS**
**AGRI - HiCET**

ACADEMIC COUNCIL * HINDUSTHAN COLLEGE OF ENGG & TECH * Chairman

Dean Academics

**Dean (Academics)**
**HiCET**

## DEPARTMENT OF FOOD TECHNOLOGY

## MINUTES OF THE BOARD OF STUDIES MEETING

Name of the Department: **Food Technology**

The **Nineth Board of Studies meeting** of regulation 2019 and regulation 2022 (for the students to be admitted from 2023-24 onwards) for the academic year 2023-2024 Odd semester was conducted on **09.06.2023** from **10.30 am - 12.30 pm** in the Department of Food Technology, HICET, Coimbatore through **Online Mode** (Google meet: https://meet.google.com/fjh-opxc-wkg).

The following members were present:

| S. No. | Name of the Person | Department | Position |
|---|---|---|---|
| 1. | Dr. Jeevarathinam G | Associate Professor & Head, Department of Food Technology, HICET. | Chairman |
| 2. | Dr. Nandhini Devi G | Associate Professor, Centre for Food Technology, ACT Campus, Anna University, Chennai. | University Nominee |
| 3. | Dr. Shanmugasundaram S | Registrar (i/c), Department of Food Process Engineering, NIFTEM-T (Formerly Indian Institute of Food Processing Technology), Ministry of Food Processing Industries, Government of India Pudukkottai Road, Thanjavur. | Subject Expert |
| 4. | Dr. Eyarkai Nambi V | Associate Professor, Department of Academics and HRD, NIFTEM-T (Indian Institute of Food Processing Technology), Ministry of Food Processing Industries, Government of India Pudukkottai Road, Thanjavur. | Subject Expert |

| | | | |
|---|---|---|---|
| 5. | Mrs.Vidyalakshmi Y | Head of Quality Assurance,<br>Olam international Pvt., Ltd,<br>Kerala. | Industry Expert |
| 6. | Dr. Pandiselvam R | Scientist,<br>Physiology, Biochemistry and Post-Harvest Technology Division,<br>ICAR –Central Plantation Crops Research Institute,<br>Kasaragod-671 124, India. | Member from QIS rated Institution |
| 7. | Dr. Deepa J | Assistant Professor,<br>Department of Food Technology,<br>HICET. | Member |
| 8. | Ms Nivetha T | Assistant Professor,<br>Department of Food Technology,<br>HICET. | Member |
| 9. | Dr. Navarasam R | Assistant Professor,<br>Department of Food Technology,<br>HICET. | Member |
| 10. | Mrs. Nageswari G | Assistant Professor,<br>Department of Food Technology,<br>HICET. | Member |
| 11. | Mr. Dillwyn S | Assistant Professor,<br>Department of Food Technology,<br>HICET. | Member |
| 12. | Mr. Premkumar J | Assistant Professor,<br>Department of Food Technology,<br>HICET. | Member |
| 13. | Ms. C. Ronitalini | Crystal Tea India Private Limited,<br>Coimbatore. | Alumini |
| 14. | Ms. V. M. Tejaswini | Student, Department of Food Technology, HICET | Student Member |
| 15. | Mr Naveen Kumar M | Student, Department of Food Technology, HICET | Student Member |
| 16. | Ms. A. Kowsalya | Student, Department of Food Technology, HICET | Student Member |
| 17. | Mr. R. Shellamuthu | Parent | Parent Member |

The chairman of the BoS, **Dr Jeevarathinam G** welcomed the University nominee, Subject Experts, Special Invitees and all the Internal Members for the IX Board of Studies meeting. The chairman introduced the BoS members.

The Chairman presented the suggestions given by the experts and the action taken report of the previous BoS meeting held on 03.06.2023. Members of BOS approved the same.

The Stakeholders' feedback on curriculum was presented by the Chairman-BoS.

The chairman briefed the views expressed by the members of Department Advisory Committee (DAC) on the Honors and Minor Degree courses to be offered in the V semester under R 2019 A, curriculum and syllabus for the odd semester coursed under R2022 & R2019.

The following points were discussed.

***The following Discussion on Curriculum and Syllabus took place:***

- The Chairman introduced the curriculum and syllabus for the Regulation 2022 and discussed the III Semester courses in R2022.
- As per discussion with DAC members, the Minor Degree course 2IFT5601 – "Food Quality Analysis" and Honors course "21FT5205 – Food Technology and Management" (R 2019) was suggested to be offered in semester V.

**The following are the recommendations put forth by the BoS members,**

**For the Regulations 2022 Curriculum**

1. Based on the Feedback analysis , the following courses in semester III under R2022 had been suggested for revision by inclusion of topics relevant to the application of the basic concepts:
   1. **22FT3202 - Fundamentals of Heat and Mass Transfer**
   2. **22FT3002 - Food Microbiology Laboratory**
2. Experts suggested to offer the value-added course "22VAFT01 - Introduction to Food Technology" in semester III.

**For the Regulation 2019 curriculum and syllabus**

**The following changes have been made in the courses in Semester V for the students admitted in the academic year 2021-22 onwards:**

- Revision of the course title was suggested by the BOS member and academic expert from "21FT5203- Poultry, Meat and Fish Processing Technology" to "21FT5203 – Livestock and Fish Processing Technology" and insisted to include few topics in all the units. University nominee

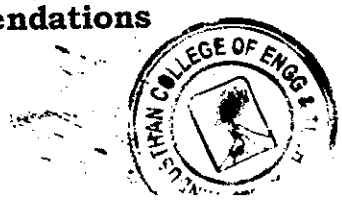
had also suggested to include Marine processing unit and merge Poultry and egg products.

- Revision of "21FT5002 Unit Operations in Food Processing Laboratory" Experts suggested to change the experiments VII, VIII, IX, XIII.
- The university nominee suggested to combine the Honors vertical "Food Technology and Management" & "Entrepreneurship and Management" and introduce verticals based on IOT applications in Semester V.
- The courses 21FT5307- Food Colors and Flavor Technology was introduced as Professional Elective I for Semester V.
- Experts suggested to offer the value-added course "21VAFT02 - Skill development in sensory assessment techniques" in semester V.

**The following changes have been made in the courses in Semester VII for the students admitted in the academic year 2020-21 onwards:**

- Revision of "19FT7201R Food Analysis and Quality Control": New portions were included in all the units. Few topics were deleted in Unit 1,2,3,5
- Revision of "19FT7202R Food Packaging"; Topics related to packaging materials; plastic packaging has been added. Suggestions were made by experts to include the topic "Types of Inks"
- Revision of "19FT7001R - Food Packaging Laboratory" : Changes in experiment III, IV, VIII, X were suggested
- As per the University nominee's suggestion, the course "19FT7002R - Food Analysis and Quality Control Laboratory" was revised. Repetition of experiments in Food Chemistry and Food Analysis have been rectified.
- Experts suggested to offer the value-added course "19VAFT03 - Food Product Development" in semesterVII.

**General Recommendations**



1. University Nominee and subject experts suggested to plan Product expos and Novel Technology lab establishment for the students.
2. Suggested to guide students to participate in project contest and widen their entrepreneurial skills.

**The following resolutions were made in the Board of Studies meeting,**

**For Regulation 2019:**

- In almost all the courses, changes have been done as per the current needs.
- The curriculum and syllabus of 2019 with update for the VII$^{th}$ semester, V Semester and III semester courses of B.Tech. Food Technology program for the students admitted during the academic year 2020, 2021 and 2022 onwards was suggested to move on to Academic council.

**For Regulation 2022:**

- The syllabus for the Semester – I courses, "22HE1073 Introduction to Soft Skills", "22MC1093/22MC1091 தமிழர்மரபு /Heritage of Tamil", "22MC1095 - Universal Human values"; Syllabus for Semester III courses – "22MA3107 Numerical Methods" and "22MC3191 - Essence of Indian tradition" under R 2022 passed by the Board of Science and Humanities, are permitted to move on Academic Council by the members of Food Technology.

- Chairman has confirmed that, the suggestions given by the subject experts will be considered and the syllabus will be updated based on the suggestions given in this BoS meeting.

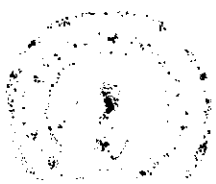
The meeting ended with thanks to the Chair at 12.30 p.m.

**Chairman**
**(Board of Studies)**
**Chairman - BoS**
**FT - HiCET**

**Copy:**

1. The Principal
2. Dean Academics
3. Controller of Examinations
4. All the Members of BoS
5. File





# Hindusthan College of Engineering and Technology

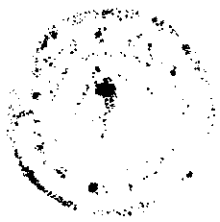
(An Autonomous Institution, Affiliated to Anna University, Chennai)
Valley Campus, Pollachi Highway, Coimbatore – 641032

## DEPARTMENT OF FOOD TECHNOLOGY

09.06.2023

## ATTENDANCE OF BOS MEETING

| S.No | Name of the Person | Position | Signature |
|---|---|---|---|
| 1. | Dr. G. Jeevarathinam | Chairman | |
| 2. | Dr. J. Deepa | Member | |
| 3. | Ms. T. Nivetha | Member & Autonomous Coordinator | |
| 4. | Dr. R. Navarasam | Member | |
| 5. | Mrs. G. Nageswari | Member | |
| 6. | Mr. S. Dillwyn | Member | |
| 7. | Mr. J. Prem kumar | Member | |
| 8. | Ms. C. Ronitalini | Alumni | Ronitalini |
| 9. | Ms. Tejaswini V M | Student member | V. M. Tejaswini |
| 10. | Mr. Naveen Kumar M | Student member | |
| 11. | Ms. A. Kowsalya | Student member | Kowsalya |
| 12. | Mr. R. Shellamuthu | Parent member | Shellamuthu |



**Hindusthan College of Engineering and Technology**
Accredited with 'A' Grade by NAAC, Affiliated to Anna University)
Valley Campus, Pollachi Highway, Coimbatore – 641032

Date: 12.06.2023

# ACTION TAKEN REPORT

Name of the Department: Food Technology

The Board of studies meeting of the Department of Food Technology was conducted on 09.06.2023. The Board of studies members reviewed Regulation 2022, 2019 and Curriculum and Syllabus of 2019 of Food Technology for the academic year 2023 - 2024 (Odd). This report consolidates the findings of the panel and the suggestions and area of improvements possible in the future put forth by the panel.

**(i) Syllabus Revision:**

| S. No | Subject in which revision has been done | Action taken | Percentage Syllabus Revised |
|---|---|---|---|
| 1. | 22FT3202 - Fundamentals of Heat and Mass Transfer | Modified | 12% |
| 2. | 22FT3002 Food Microbiology Laboratory | Incorporated | 53.8% |
| 3. | 2IFT5203 Poultry, Meat and Fish Processing Technology | Revised | 50% |
| 4. | 21FT5002 Unit Operations in Food Processing Laboratory | Modified | 30.7% |
| 5. | 19FT7201R - Food Analysis and Quality Control | Revised | 20 % |
| 6. | 19FT7202R - Food Packaging | Modified | 20% |
| 7. | 19FT7001RFood Packaging Laboratory | Modified | 30.7% |
| 8. | 19FT7002R Food Analysis and Quality Control Laboratory | Revised | 15% |

**Overall Percentage of syllabus revision made in the BoS: 8/32 * 100 = 25%**



**General Suggestions:**

| S.No | Suggestions/Comments | Action taken | Remarks |
|---|---|---|---|
| 1. | University Nominee and subject experts suggested to plan project expo for Academic Year 2022-2023. | Suggestions passed on the standing committee | Suggestion approved |
| 2. | Suggested to create opportunities for the students to participate in many project contests | Suggestions passed on the standing committee | Suggestion approved |
| 3. | Based on the recommendations from the DAC members and expert feedback, the following courses mentioned above under i) syllabus revison sswere suggested for revision through modification of topics: | Suggestions passed on the standing committee | Suggestion approved |

Chairman
(Board of Studies)

**Chairman - BoS**
**FT - HiCET**

Dean Academics

**Dean (Academics)**
**HiCET**

HICET

# *Hindusthan College of Engineering and Technology*

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Coimbatore – 641 032

## DEPARTMENT OF CHEMICAL ENGINEERING

## MINUTES OF BOARD OF STUDIES MEETING

Name of the Department: **Chemical Engineering** **Date:** 26.05.2023

The VIII Board of Studies meeting of regulation 2019 and regulation 2022 (for the students to be admitted from 2022-23 onwards) for the academic year 2023-2024 ODD Semester was conducted on 26.05.2023 at 02.30 p.m. in the Chemical Engg., HoD cabin (Online mode), Hindusthan College of Engineering and Technology.

Google Meet: https://meet.google.com/ruh-dmpp-puc

The following members were present:

| S.No. | Name of the Member | Position |
|---|---|---|
| 1. | **Dr Seenuvasan M**<br>Professor & Head,<br>Department of Chemical Engineering, HICET. | Chairman |
| 2. | **Dr Venkatesan S**<br>Professor and Head<br>Department of Petrochemical Technology<br>University College of Engineering<br>Bharathidasan Institute of Technology (BIT) Campus<br>Anna University, Tiruchirappalli | University Nominee |
| 3. | **Dr Prabhakaran D**<br>Professor, Department of Chemical Engineering,<br>Coimbatore Institute of Technology,<br>Coimbatore | Academic Expert |
| 4. | **Dr Parthiban R**<br>Professor and Head, Department of Chemical Engineering,<br>SSN College of Engineering,<br>Rajiv Gandhi Salai (Old Mahabalipuram Road,<br>SSN Nagar, Kalavakkam<br>Chennai. | Academic Expert |
| 5. | **Dr Tamilarasan K**<br>Associate Professor,<br>Department of Chemical Engineering,<br>SRM Institute of Science and Technology,<br>Kattankulathur, Chennai. | Academic Expert |
| 6. | **Dr Raja T**<br>Professor,<br>Department of Chemical Engineering,<br>Engineering Department,<br>Salalah College of Technology, Salalah 211, Sultanate of Oman,<br>Oman. | Academic Expert |
| 7. | **Mr Sivanesan K**<br>Asst. Manager,<br>LSFM , ( TNPL Cement ), | Industry Expert |

| | | |
|---|---|---|
| | Kagithapuram ,<br>Karur. | |
| 8. | **Dr Sarojini G**<br>Associate Professor<br>Department of Chemical Engineering, HICET | Member |
| 9. | **Dr Balasubramani K**<br>Associate Professor<br>Department of Chemical Engineering, HICET | Member |
| 10. | **Dr Vivek M S**<br>Assistant Professor<br>Department of Chemical Engineering, HICET | Member |
| 11. | **Mr Nagul Dev S**<br>Assistant Professor<br>Department of Chemical Engineering, HICET | Member |
| 12. | **Mr Gokul Jothi R**<br>Simgrosys Consulting Service Pvt.Ltd | Alumini |
| 13. | **Mr Harish Kumar M**<br>Student, Department of Chemical Engineering, HICET | Student Member |
| 14. | **Mr Ihlas Ahmed**<br>Student, Department of Chemical Engineering, HICET | Student Member |
| 15. | **Mr Prabhakaran S**<br>Parent | Parent Member |

All the other external members attended the meeting via online (Google Meet)

- The Chairman-BoS welcomed the University nominee, Subject Experts, special invitees and all the internal members for the Eighth Board of Studies meeting.
- Chairman presented the suggestions given by the experts and the action taken report of the previous BoS meeting held on 26.05.2023. Members of the BOS approved the same.
- The feedback and analysis required on curriculum by the stakeholders was presented by the Chairman-BoS.
- Chairman also gave an outline of the changes to be made in the curriculum given by the Department Advisory Committee (DAC) and emphasized the importance of curriculum to be in line with the industry needs.
- As recommended by DAC members, syllabus revision/Updation for the odd semester under regulation 2019, regulation 2019 with amendment & regulation 2022 in Chemical Engineering Thermodynamics-I, Energy Technology, Process Equipment Design, Mechanical Operation, Chemical Process Calculation, Fluid Flow Operations, Water Treatment and Solid waste management were discussed in the meeting.
- The Chairman discussed the new vertical to be introduced under **Honors with Specialization** under regulation 2019 with amendment & regulation 2022 for the students admitted from the academic year 2021-2022onwards.
- The Chairman discussed the curriculum and syllabus for the new courses under regulation 2019 (VII semester) .

The following are the recommendations put forth by the BoS members,

1. In "21CH5301 – "Energy Technology" recommended 20% revisions **and updates in Unit – I, III and IV (For the Batch admitted from 2021 – 2022 onwards).**
2. In "21CH5251 – "Water Treatment and Solid waste management" recommended 20% revisions **(For the Batch admitted from 2021 – 2022 onwards).**
3. In "19CH7202- "Process Equipment Design", 25 % **syllabus revision has been recommended. (For the Batch admitted from 2020 – 2021 onwards).**
4. In "22CH3201" – "Chemical Process Calculations" recommended 20% revisions **(For the Batch admitted from 2022 – 2023 onwards).**
5. In "22CH3202 – "Fluid Flow Operations" 20 % revision **has been recommended (For the Batch admitted from 2022 – 2023 onwards).**
6. In "22CH3203 – "Chemical Engineering Thermodynamics-I" 20 % revision **has been recommended (For the Batch admitted from 2022 – 2023 onwards).**
7. In "22CH3251 – "Mechanical Operations" 20 % revision **has been recommended (For the Batch admitted from 2022 – 2023 onwards).**
8. **Members of BoS recommended the inclusion of laboratory component under new vertical "Instrumental Chemical Analysis" for Honors with Specialization under regulation 2019 with amendment & regulation 2022 for the students admitted from the academic year 2021-2022 onwards.**
9. **The new courses introduced-** Principles of Mass Spectrometry, Advanced Analytical Separation Techniques, Advanced Spectrometry: ICP-MS and LC-MS, Instruments for Morphology and Structural Characterization, Statistical Analysis and Data Processing Laboratory, Troubleshooting Analytical Methods and Instruments,( under regulation 2019 with amendment & regulation 2022 for the students admitted from the academic year 2021-2022 onwards.), Chemical Manufacturing Plant Operation, Chemical storage Plant operation, Chemical Effluent treatment plant operation and Analytical Instruments operation (under regulation 2019 for the students admitted from the academic year 2020-2021 onwards.)
10. **In Regulation 2022 "Essence of Indian tradition knowledge has shifted to III sem for the batch admitted during 2022-23 onwards" as recommended and passed in the board of** Science and Humanities and presented in Chemical Engineering BoS..
11. **In Regulation 2022 "Indian Constitution in IV sem for the batch admitted during 2023-24 onwards as recommended and passed in Science and Humanities BoS and presented in Chemical Engineering BoS.**

12. The additional credit course Industrial Automation (19VACH01) and Introduction to Chemical Engineering MATLAB (21VACH04) recommend as value added course.
13. Recommended the new course "21CH5302 "Petroleum Formation Evaluation" by replacing the existing course "Petroleum Technology"
14. Recommended the MOOC course under NPTEL platform: The Students can opt the course under Professional Elective –I "21CH5302 "Petroleum Formation Evaluation" through NPTEL platform (12 weeks).
15. Skill Development courses introduced for member's approval.

    Principles of Mass Spectrometry
16. Employability Enhance courses introduced for member's approval.

    19CH7901-Design Project PHASE-I, 19CH7301-Chemical Manufacturing Plant Operation, 19CH7308-Chemical Storage Plant operation, 19CH7309-Chemical Effluent treatment plant operation and 19CH7310-Analytical Instruments operation

**General Recommendations:**

1. Recommended more Industry Integration for Curriculum Enrichment.
2. Recommended to provide more opportunities towards skill development courses.

**The following resolutions were made in the Board of Studies meeting,**

**For Regulations 2019:**

- The curriculum and syllabus for the VII semester Elective Courses R2019 was passed by the Chemical Engineering board and permitted to move on Academic Council by the BoS members of Chemical Engineering.
- The curriculum and syllabi of 2019 with revision and updation for the V,VII semester Courses of B. Tech Chemical Engineering program was suggested to move on to Academic Council.

**For Regulation 2022:**

- The syllabus for Semester – III under regulation 2022 passed by the Board of Science and Humanities, Mechanical Engineering are permitted to move on Academic Council by the members of Chemical Engineering.
- Chairman has confirmed that, the suggestions given by the subject experts will be considered and the syllabus will be updated based on the suggestions given in this BoS meeting.

  The meeting ended with thanks to the Chair at 4.30PM.

Chairman
**(Board of studies)**

**Enclose:**

1. Previous BoS Minutes- ATR
2. Updated Curriculum and Syllabi 2019
3. Updated Curriculum under R2022

**Copy:**

1. The Principal
2. Dean Academics
3. Controller of Examinations
4. All the members of BoS
5. File

# *Hindusthan College of Engineering And Technology*

Approved by AICTE, New Delhi, Accredited with 'A' Grade by NAAC
**(An Autonomous Institution, Affiliated to Anna University, Chennai)**
Coimbatore – 641 032

Date: 29.05.2023

## ACTION TAKEN REPORT

**Name of the Department**: Chemical Engineering

The meeting of VIII board of studies of Regulation 2019, Regulation 2019 with ammendment & Regulation 2022 for the Department of Chemical Engineering Under Graduate Programme was conducted on 26.05.2023 at 02.30 pm through online mode, Hindusthan College of Engineering and Technology.

**(I) Syllabus Revision under the Regulations 2019&2022**

| S.No | Subject in which revision has been done | Action taken | Percentage Syllabus Revised |
|---|---|---|---|
| 1. | 21CH5301 – Energy Technology | Modified | 20% |
| 2 | 21CH5251 – Water Treatment and Solid waste management | Modified | 20% |
| 3 | 19CH7202- Process Equipment Design | Modified | 25% |
| 4 | 22CH3201 – Chemical Process Calculations | Modified | 20% |
| 5 | 22CH3202 – Fluid Flow Operations | Modified | 20% |
| 6 | 22CH3203- Chemical Engineering Thermodynamics-I | Modified | 20% |
| 7 | 22CH3251 – "Mechanical Operations | Modified | 20% |

**Overall Percentage of revision made in the BoS : 23.33 %**

**(II) New Course Introduced (R2019):**

| S. No | Regulation | Course Code with Name | Credits |
|---|---|---|---|
| 1 | R2019 | 21CH5206-Principles of Mass Spectrometry | 3 |
| 2 | R2019 | 21CH6208-Advanced Analytical Separation Techniques | 3 |
| 3 | R2019 | 21CH6209-Advanced Spectrometry: ICP-MS and LC-MS | 4 |
| 4 | R2019 | 21CH7209-Instruments for Morphology and Structural Characterization | 3 |
| 5 | R2019 | 21CH7210-Statistical Analysis and Data Processing (Lab) | 2 |
| 6 | R2019 | 21CH8204-Troubleshooting Analytical Methods and Instruments | 3 |

| | | | |
|---|---|---|---|
| 7 | **R2019** | 19CH7307-Chemical Manufacturing Plant Operator | 3 |
| 8 | **R2019** | 19CH7308-Chemical storage Plant operator | 3 |
| 9 | **R2019** | 19CH7309-Chemical Effluent treatment plant operator | 3 |
| 10 | **R2019** | 19CH7310-Analytical Instruments operator | 3 |
| 11 | **R2019** | 21CH5302-Petroleum Formation Evaluation | 3 |

**(III) Additional Credit Courses (R2019):**

| S.No. | Course Code with Name |
|---|---|
| 1. | 19VACH01-Industrial Automation |
| 2. | 21VACH04-Introduction to Chemical Engineering MATLAB |

**(IV) Course in the Updated Curriculum under R2022**

| S.No. | Course Code | Course Title | Credits |
|---|---|---|---|
| 1. | 22MA1101 | Matrices and Calculus (Common) | 4 |
| 2. | 22HE1151 | English for Engineers (Common) | 3 |
| 3. | 22PH1151 | Physics of Materials | 3 |
| 4. | 22ME1201 | Engineering Drawing | 3 |
| 5. | 22IT1151 | Python Programming and Practices | 3 |
| 6. | 22HE1071 | Universal Human Values (Common) | 2 |
| 7. | 22HE1072 | Entrepreneurship & Innovation (Common) | 1 |
| 8. | 22MC1091/ 22MC1092 | அறிவியல்தமிழ்/Indian Constitution | 0 |
| 9 | 22HE2151 | Effective Technical Communication(Common) | 3 |
| 10 | **22MA2104** | Fourier Analysis and Laplace Transforms | 4 |
| 11 | **22PH2101** | Basics of Material Science | 2 |
| 12 | **22CY2101** | Environmental Studies | 2 |
| 13 | 22CH2201 | Introduction to Chemical Engineering | 3 |
| 14 | **22CY2151** | Chemistry for Engineers | 3 |
| 15 | 22ME2001 | Engineering Practices (Common) | 2 |
| 16 | 22HE2071 | Design Thinking (Common) | 2 |
| 17 | **22HE2072** | Soft Skills and Aptitude-I | 1 |
| 18 | 22MC2091/ 22MC2092 | தமிழர்மரபு/ Heritage of Tamil | 0 |
| 19 | 22MC3091 | Essence of Indian Traditional Knowledge | |
| 20 | 22MA3107 | Numerical Methods | 4 |
| 21 | 22CH3201 | Chemical Process Calculations | 4 |
| 22 | 22CH3202 | Fluid Flow Operations | 3 |
| 23 | 22CH3203 | Chemical Engineering Thermodynamics – I | 3 |
| 24 | 22CH3251 | Mechanical Operations | 3 |
| 25 | 22ME3253 | Basic Mechanical Engineering | 3 |

| | | | |
|---|---|---|---|
| 26 | 22CH3001 | Fluid Flow Operations Lab | 2 |
| 27 | 22CH3002 | Technical Analysis Lab | 2 |
| 28 | 22HE3071 | Soft Skills -2 (Common) | 1 |
| 29 | 22HE4101 | IPR and Start-ups(Common) | 2 |
| 30 | 22CH4201 | Mass Transfer Operations - I | 3 |
| 31 | 22CH4202 | Chemical Engineering Thermodynamics – II | 3 |
| 32 | 22CH4203 | Process Heat Transfer | 3 |
| 33 | 22CH4204 | Chemical Process Industries | 2 |
| 34 | 22EE4251 | Basics of Electrical &Electronics Engineering | 2 |
| 35 | 22CH4251 | Chemical Reaction Engineering-I | 3 |
| 36 | 22MA4151 | Probability and statistics with R programming | 3 |
| 37 | 22CH4001 | Heat Transfer Lab | 2 |
| 38 | 22HE4071 | Soft Skills -3(Common) | 1 |
| 39 | 22CH5201 | Mass Transfer Operations - II | 3 |
| 40 | 22CH5202 | Process Instrumentation Dynamics & Control | 3 |
| 41 | 22CH53XX | Professional Elective-1 | 3 |
| 42 | 22CH53XX | Professional Elective-2 | 3 |
| 43 | 22CH53XX | Professional Elective-3 | 3 |
| 44 | 22CH5251 | Chemical Reaction Engineering-II | 3 |
| 45 | 22CH5001 | Mass Transfer Operations Lab | 2 |
| 46 | 22HE5071 | Soft Skills -4/Foreign languages | 1 |
| 47 | 22CH6201 | Transport Phenomena | 3 |
| 48 | 22HE6101 | Professional Ethics (Common) | 3 |
| 49 | 22CH63XX | Professional Elective-4 | 3 |
| 50 | 22CH63XX | Professional Elective-5 | 3 |
| 51 | 22XX64XX | Open Elective – 1* | 3 |
| 52 | 22XX64XX | Open Elective – 2* | 3 |
| 53 | 22CH6001 | Process Control Lab | 2 |
| 54 | 22CH6002 | Computational Chemical Engineering Lab | 2 |
| 55 | 22HE6071 | Soft Skills – 5(Common) | 2 |
| 56 | 22CH7201 | Process Economics and Engineering Management | 3 |
| 57 | 22CH7202 | Process Equipment Design | 4 |
| 58 | 22CH73XX | Professional Elective-6 | 3 |
| 59 | 22XX74XX | Open Elective – 3* | 3 |
| 60 | 22XX74XX | Open Elective – 4* | 3 |
| 61 | 22CH7001 | Design and Simulation Lab | 2 |
| 62 | 22CH7701 | Internship | 2 |
| 63 | 22CH8901 | Project Work/Granted Patent(Common) | 10 |
| **OPEN ELECTIVE I AND II** | | | |
| 64 | 22CH6401 | Biomass and Bio refinery | 3 |
| **OPEN ELECTIVE III** | | | |
| 65 | 22CH7401 | Waste to Energy Conversion | 3 |
| **OPENELECTIVE IV** | | | |
| 66 | 22LS7401 | General studies for competitive examinations | 3 |
| 67 | 22LS7402 | Human Rights, Women Rights and Gender equity | 3 |
| 68 | 22LS7403 | Indian ethos and Human values | 3 |
| 69 | 22LS7404 | Financial independence and management | 3 |
| 70 | 22LS7405 | Yoga for Human Excellence | 3 |
| 71 | 22LS7406 | Democracy and Good Governance | 3 |
| 72 | 22LS7407 | NCC Level – II | 3 |

| PROFESSIONAL ELECTIVE COURSES | | | |
|---|---|---|---|
| **DETAILS OF VERTICAL I : PETROLEUM PROCESS TECHNOLOGY** | | | |
| 73 | 22CH5301 | Petroleum Chemistry and Refining Fundamentals | 3 |
| 74 | 22CH5302 | Primary Refining Technology | 3 |
| 75 | 22CH5303 | Secondary Refining Technology | 3 |
| 76 | 22CH6301 | Refinery Advancements and Environmental Regulations | 3 |
| 77 | 22CH6302 | Petroleum Equipment Design | 3 |
| 78 | 22CH7301 | Petrochemical Technology | 3 |
| **DETAILS OF VERTICAL II : ENERGY ENGINEERING** | | | |
| 79 | 22CH5304 | Bioenergy | 3 |
| 80 | 22CH5305 | Renewable Energy Resources | 3 |
| 81 | 22CH5306 | Pinch Technology | 3 |
| 82 | 22CH6303 | Hydrogen And Fuel Cell Technology | 3 |
| 83 | 22CH6304 | Power Plant Engineering | 3 |
| 84 | 22CH7302 | Non-Renewable Energy Sources | 3 |
| **DETAILS OF VERTICAL III : BIOCHEMICAL ENGINEERING** | | | |
| 85 | 22CH5307 | Biochemistry | 3 |
| 86 | 22CH5308 | Bioprocess Technology | 3 |
| 87 | 22CH5309 | Fermentation & Bioprocessing | 3 |
| 88 | 22CH6305 | Bio separation & Downstream Processing | 3 |
| 89 | 22CH6306 | Enzyme Immobilization Technology | 3 |
| 90 | 22CH7303 | Bioreactor Design | 3 |
| **DETAILS OF VERTICAL IV: ENVIORNMENTAL AND SAFETY ENGINEERING** | | | |
| 91 | 22CH5310 | Biochemistry | 3 |
| 92 | 22CH5311 | Bioprocess Technology | 3 |
| 93 | 22CH5312 | Fermentation & Bioprocessing | 3 |
| 94 | 22CH6307 | Bio separation & Downstream Processing | 3 |
| 95 | 22CH6308 | Enzyme Immobilisation Technology | 3 |
| 96 | 22CH7304 | Bioreactor Design | 3 |
| **DETAILS OF VERTICAL V: COMPUTATIONAL ENGINEERING** | | | |
| 97 | 22CH5313 | Computational Techniques | 3 |
| 98 | 22CH5314 | Optimization of Chemical Processes | 3 |
| 99 | 22CH5315 | Process Modeling and Simulation | 3 |
| 100 | 22CH6309 | Pinch Analysis and Heat Exchange Network Design | 3 |
| 101 | 22CH6310 | Chemical Process Flow sheeting | 3 |
| 102 | 22CH7305 | Computational Fluid Dynamics | 3 |
| **DETAILS OF VERTICAL VI : COMPUTATIONAL ENGINEERING** | | | |
| 103 | 22CH5316 | Chemical Plant Design | 3 |
| 104 | 22CH5317 | Plant Layout | 3 |
| 105 | 22CH5318 | Design Safety | 3 |
| 106 | 22CH6311 | Material Selection | 3 |
| 107 | 22CH6312 | Statutory Requirements & Customer Care | 3 |
| 108 | 22CH7306 | Process Plant Utilities | 3 |

| | | | |
|---|---|---|---|
| **VERTICALS FOR MINOR DEGREE**<br>**CHEMICAL ENGINEERING OFFERING MINOR DEGREE**<br>Minor Specialization in Chemical Engineering | | | |
| 108 | 22CH5231 | Introduction to Chemical Process | 3 |
| 109 | 22CH6231 | Fluid Flow Operations in Chemical Engineering | 4 |
| 110 | 22CH6232 | Fundamentals of Chemical Thermodynamics | 3 |
| 111 | 22CH7231 | Process Heat and Mass Transfer | 3 |
| 112 | 22CH7232 | Reaction Engineering | 3 |
| 113 | 22CH8231 | Unit Operations and Process Laboratory | 2 |
| **Additional courses for Minor Degree** | | | |
| **VERTICAL I: FINTECH AND BLOCK CHAIN** | | | |
| 114 | 22MB5231 | Financial Management | 3 |
| 115 | 22MB6231 | Fundamentals of Investment | 3 |
| 116 | 22MB6232 | Banking, Financial Services and Insurance | 3 |
| 117 | 22MB7231 | Introduction to Block chain and its Applications | 3 |
| 118 | 22MB7232 | Fintech Personal Finance and Payments | 3 |
| 119 | 22MB8231 | Introduction to Fintech | 3 |
| **VERTICAL II: ENTREPRENEURSHIP** | | | |
| 120 | 22MB5232 | Foundations of Entrepreneurship | 3 |
| 121 | 22MB6233 | Team Building & Leadership Management for Business | 3 |
| 122 | 22MB6234 | Creativity & Innovation in Entrepreneurship | 3 |
| 123 | 22MB7233 | Principles of Marketing Management For Business | 3 |
| 124 | 22MB7234 | Human Resource Management for Entrepreneurs | 3 |
| 125 | 22MB8232 | Financing New Business Ventures | 3 |
| **VERTICAL III: ENVIRONMENT AND SUSTAINABILITY** | | | |
| 126 | 22CE5232 | Sustainable infrastructure Development | 3 |
| 127 | 22AG6233 | Sustainable Agriculture and Environmental Management | 3 |
| 128 | 22BM6233 | Sustainable Bio Materials | 3 |
| 129 | 22ME7233 | Materials for Energy Sustainability | 3 |
| 130 | 22CE7233 | Green Technology | 3 |
| 131 | 22CE8232 | Environmental Quality Monitoring and Analysis | 3 |
| **B Tech (Hons) Chemical Engineering with Specialization in Computer Aided Process Engineering** | | | |
| 132 | 22CH5203 | Process Flow Sheeting | 3 |
| 133 | 22CH6202 | Transport Phenomena | 4 |
| 134 | 22CH6203 | Advanced Process Optimization | 3 |
| 135 | 22CH7203 | Artificial Intelligence in Process Engineering | 3 |
| 136 | 22CH7204 | Digital Twin and Soft Computing in Process Modelling | 3 |
| 137 | 22CH8201 | Advanced Process Modelling and Simulation | 2 |
| **B Tech (Hons) Chemical Engineering with Specialization in Polymer Technology** | | | |
| 138 | 22CH5204 | Polymer Chemistry | 3 |
| 139 | 22CH6204 | Processing Technology | 3 |
| 140 | 22CH6205 | Rubber Technology | 3 |
| 141 | 22CH7205 | Polymer Product Design, Blends, and Alloys | 3 |

| | | | |
|---|---|---|---|
| 142 | 22CH7206 | Polymer Structure and property relationships | 3 |
| 143 | 22CH8202 | Polymer Compounding Technology | 3 |
| **B Tech (Hons) Chemical Engineering with Specialization in Petroleum Engineering** | | | |
| 144 | 22CH5205 | Petroleum Geology | 3 |
| 145 | 22CH6206 | Petroleum Exploration | 3 |
| 146 | 22CH6207 | Drilling Technology | 3 |
| 147 | 22CH7207 | Petroleum Production Engineering | 3 |
| 148 | 22CH7208 | Petroleum Reservoir Engineering | 3 |
| 149 | 22CH8203 | Offshore Engineering | 3 |
| **B Tech (Hons) Chemical Engineering with Specialization in Instrumental Chemical Analysis** | | | |
| 150 | 22CH5206 | Principles of Mass Spectrometry | 3 |
| 151 | 22CH6208 | Advanced Analytical Separation Techniques | 3 |
| 152 | 22CH6209 | Advanced Spectrometry: ICP-MS and LC-MS | 4 |
| 153 | 22CH7209 | Instruments for Morphology and Structural Characterization | 3 |
| 154 | 22CH7210 | Statistical Analysis and Data Processing Laboratory | 2 |
| 155 | 22CH8204 | Troubleshooting Analytical Methods and Instruments | 3 |

**(V). General Recommendations:**

| S. No | Suggestion Given by the BoS Experts | Action Taken |
|---|---|---|
| 1 | Recommended more Industry Integration for Curriculum Enrichment. | Considered |
| 2 | Recommended to provide more opportunities towards skill development courses. | Considered |

**Chairman**
**(Board of Studies)**

**Dean Academics**

HINDUSTHAN EDUCATIONAL AND CHARITABLE TRUST
HICET

# *Hindusthan College of Engineering and Technology*

Approved by AICTE, New Delhi, Accredited with 'A' Grade by NAAC
**(An Autonomous Institution, Affiliated to Anna University, Chennai)**
Coimbatore – 641 032

**Date: 14.06.2023**

## DEPARTMENT OF COMPUTER SCIENCE AND ENGINEERING

## MINUTES OF BOARD OF STUDIES MEETING

Name of the Department: **COMPUTER SCIENCE AND ENGINEERING**

The 12th Board of Studies meeting of regulation R2019 & R2022 for the academic year 2023 -2024 Odd Semester was conducted on 14.06.2023 at 10.00 a.m. in Hybrid mode, Hindusthan College of Engineering and Technology. (Google Meet: meet.google.com/vkk-mdwf-yjs).

The following members were present:

| S. No. | Name of the Member | Position |
|---|---|---|
| 1 | **Dr Shankar S**<br>**Professor & HOD**<br>Department of Computer Science and Engineering,<br>Hindusthan College of Engineering and Technology | Chairman |
| 2 | **Dr Thulasimani K**<br>Professor, Department of Computer Science and Engineering, Government College of Engineering, Tirunelveli-627007 | University Nominee |
| 3 | **Dr Sudha Sadasivam G**<br>Professor<br>Department of Computer Science and Engineering,<br>PSG College of Technology,<br>Coimbatore. | Subject Expert |
| 4 | **Dr Surendiran B**<br>Associate Professor<br>Dept of Computer Science and Engineering, National Institute of Technology, Puducherry. | Subject Expert |
| 5 | **Dr Prakash P**<br>Associate Professor<br>School of Computer Science and Engineering, VIT Chennai. | Member from QIS rated Institution |
| 6 | **Mr Rajesh Kumar H**<br>Founder<br>BuzzTech Training Institute, Coimbatore. | Industry Expert |
| 7 | **Mr Manuraj Rajamanikandan**<br>Non-Functional Consultant<br>Cognizant, Kochi,<br>Kerala. | Alumni |

| | | |
|---|---|---|
| 8 | **Dr .Jameer Basha A**<br>**Professor & HOD**<br>Department of Computer Science and Engineering,<br>Hindusthan Institute of Technology | Member from sister concern |
| 9 | **Ms Sathya S**<br>Assistant Professor<br>Department of Computer Science and Engineering,<br>Hindusthan College of Engineering and Technology,<br>Coimbatore-641032 | Autonomous Coordinator & BoS Member |
| 10 | **Dr Satheesh Kumar D**<br>Associate Professor<br>Department of Computer Science and Engineering,<br>Hindusthan College of Engineering and Technology,<br>Coimbatore-641032 | Member |
| 11 | **Dr Prakash J**<br>Associate Professor<br>Department of Computer Science and Engineering,<br>Hindusthan College of Engineering and Technology,<br>Coimbatore-641032 | Member |
| 12 | **Mr Mahesh D**<br>Assistant Professor<br>Department of Computer Science and Engineering,<br>Hindusthan College of Engineering and Technology,<br>Coimbatore-641032 | Member |
| 13 | **Mr. Sriram S**<br>19104145 - IV BE CSE C<br>Department of Computer Science and Engineering,<br>Hindusthan College of Engineering and Technology,<br>Coimbatore-641032 | Student Member |
| 14 | **Mr. M.Kamalesh Kumar**<br>20104102 - III BE CSE B<br>Department of Computer Science and Engineering,<br>Hindusthan College of Engineering and Technology,<br>Coimbatore-641032 | Student Member |
| 15 | **Mr Sivanandhan P**<br>Parent Member<br>F/o. Mr. Sriram<br>IV BE CSE C | Parent Member |
| 16 | **Mr.Mohan Kumar P**<br>Parent Member<br>F/o, Mr.Kamalesh Kumar,III BE CSE B | Parent Member |

- Dr.S.Shankar, Chairman, Board of Studies, welcomed the University nominee, Subject experts, Special Invitees and all the internal members for the twelfth Board of Studies meeting.

- Followed by, Chairman presented the suggestions given by the experts and the action taken report during the Previous BoS meeting, which was held during **18.02.2023**,was approved.

- The feedback received on the curriculum by the stakeholders was presented.

- Chairman also gave an outline of the changes to be made in the curriculum given by the Curriculum Development Cell (CDC) & Pre- Board of Studies (Pre- BoS)/ Department Advisory Committee (DAC) and emphasized the importance of including the Skill Development related courses in the curriculum to be in line with the industry needs.

- The Chairman also mentioned the revision of R2019 Syllabus, which meets on higher order thinking levels, based on the recommendations from Stakeholders and emphasized the following points.
    - Scheme of Regulation 2022-2023
    - Courses for the Programme.
    - Syllabus for the courses of the Third semester alone under 2022 regulation
    - Syllabus passed in the S&H board to be presented for the consent.
    - Syllabus for the courses of the Third semester alone under 2022 regulation
    - 5th semester Minors, Honors, Honors with specialization subject alone is discussed for 2019 regulation.

Also, the following points were discussed.

- Discussion of inclusion of Minor and Major Degree programmes for Scheme of Curriculum 2022-2023 with Minors, Honors, Honors with specialization system in new regulation 2022.
- The whole curriculum and syllabi of Third semester subject alone is discussed for 2022 regulation.
- The curriculum and syllabi of 5th semester Minors, Honors, Honors with specialization subject alone is discussed for 2019 regulation.

**The following are the recommendations put forth by the BoS members,**

1. The subject expert Dr Prakash P suggested to change the title of the subject Data Structures and Algorithms to Data Structures because the syllabus covers more on Data Structures concepts instead of Algorithmic concepts.
2. The Industry expert H. Rajesh Kumar in the Data Structures subject syllabus suggested to reframe with Python programming language, Dr Thulasimani K , Anna University Nominee Explained as "The STL makes it simple for code and support low level operations, scientific computing and data intensive applications. Useful for placement to get strong base in programming skills. it is preferable to have Data Structures using C in the curriculum instead of Data Structures using Python . Expert H.Rajesh Kumar accepted the same.
3. Dr Thulasimani K , Anna University Nominee suggested to have minimum of five Course Objectives and Course Outcomes for all the Subjects

4. In "Data Mining with Weka", the Industry expert H.Rajesh Kumar Insisted to change the title to "Data Mining and Warehousing" and suggested to add advanced machine learning tools in the lab experiments.
5. The subject expert Dr Surendiran B suggested in "Web Technology" subject as, Unit 5 can be removed, since the syllabus is heavy and the content of Unit 5 can be moved to higher semester.
6. Value added course Interactive Web Designing and Mobile Application Development is introduced which includes various courses for the students to enhance their technical skills.

**General Recommendations:**

1. Dr Thulasimani K , Anna University Nominee suggested to have minimum of five Course Objectives and Course Outcomes for all the Subjects

2. Dr Thulasimani K , Anna University Nominee appreciated for including industrial oriented courses and agreed that students would be surely benefitted and suggested to provide sufficient time to students to complete the courses
3. Dr Sudha Sadasivam G Subject Expert asked to remove the terms like "Basic, Fundamentals, Introduction, etc.," from the subject title.
4. The subject expert Dr Surendiran B Suggested to include recent editions of text and reference books in the syllabus. Also suggested that, if one text book covers all the units then one text book is enough. Otherwise, more than one text books may be included in the syllabus.
5. Dr Prakash, Subject Expert Suggested to include lab component courses for Specialization course ( Professional Electives, Open Electives and Minor Degree Courses).

The Chairman, BoS and all members accepted to incorporate the above in the curriculum.

**The following resolutions were made in the Board of Studies meeting,**

- The curriculum and syllabi of 2019 Regulation with Amendments for the VII semester was passed by the Computer Science and Engineering board and permitted to move on Academic Council by the BoS members of CSE for the students admitted during the academic year 2020 - 2021 and onwards.
- The curriculum and syllabi of 2019 Regulation with Amendments for the V semester Courses of Computer Science and Engineering Board for the students admitted during the academic year 2021 - 2022 and onwards was suggested to move on to Academic Council.
- The curriculum and syllabi of 2019 Regulation with Amendments for the V semester Courses of Minors, Honors, Honors with specialization subject were introduced and passed by the Computer Science and Engineering board and permitted to move on Academic Council for the students admitted during the academic year 2021 - 2022 onwards.
- The Curriculum and Syllabus of Regulation 2022 for the III Semester Subjects- 22MAXXX, 22PHXXX, 22HEXXX, and 22MCXXX were introduced and passed by

Science and Humanities board and permitted to move on Academic Council by the BoS members of Computer Science and Engineering for the students admitted during the academic year 2022-2023 onwards.

The meeting ended with thanks to the Chair at 11.00 AM.

**Chairman**

**(Board of studies)**

Chairman - BoS
CSE - HiCET

**Enclosure:**

1. Previous BoS Minutes- ATR
2. Regulation 2019 & 2022
3. Curriculum and Syllabi

**Copy:**

1. The Principal
2. Dean Academics
3. Controller of Examinations
4. All the members of BoS
5. File

HINDUSTHAN EDUCATIONAL AND CHARITABLE TRUST
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# *Hindusthan College of Engineering And Technology*

Approved by AICTE, New Delhi, Accredited with 'A' Grade by NAAC
**(An Autonomous Institution, Affiliated to Anna University, Chennai)**
Coimbatore – 641 032

Date: **14.06.2023**

## ACTION TAKEN REPORT ON BoS

Name of the Department: **COMPUTER SCIENCE AND ENGINEERING**

The 12th Board of Studies meeting of regulation R2019 & R2022 for the academic year 2023 -2024 Odd Semester was conducted on 14.06.2023 at 10.00 a.m. in Hybrid mode, Hindusthan College of Engineering and Technology.

(Google Meet: meet.google.com/vkk-mdwf-yjs).

**(I) Syllabus Revision for the Regulations 2019 & 2022**

| S.No | Courses in which revision has been done | Action taken | Percentage Syllabus Revised |
|---|---|---|---|
| 1 | 19CS7306- AI Analyst | Introduced | 100% |
| 2 | 21CS5253 - Data Mining And Warehousing | Modified | 100% |
| 3 | 21CS5231 - Data Structures And Design (Minor) | Introduced | 100% |
| 4 | 21CS5204 - Fundamentals of IOT (Honours) | Introduced | 100% |
| 5 | 21CS5205 - Public Key Infrastructure And Trust Management (Honours) | Introduced | 100% |
| 6 | 21CS5206 - Web Technology (Honours) | Introduced | 100% |
| 7 | 21CS5207 - Cloud Computing Fundamentals (Microsoft -Honours) | Introduced | 100% |
| 8 | 22CS3201- Data Structures | Introduced | 100% |
| 9 | 22CS3251 - Object Oriented Programming Using Java | Introduced | 100% |
| 10 | 22CS3203 - Digital Principles and Computer Organization | Introduced | 100% |
| 11 | 22CS3001 - Digital Principles and Computer Organization Laboratory | | |

**Overall Percentage of revision made in the BoS: 29 %**

**(II) New Course Introduced:**

| S. No | Regulation | Course Code with Name | Credits |
|---|---|---|---|
| 1 | 2019 | 19CS7306- AI Analyst | 3 |
| 2 | 2019 | 21CS5253 - Data Mining And Warehousing | 3 |
| 3 | 2019 | 21CS5601 - Data Structures And Design (Minor) | 3 |
| 4 | 2019 | 21CS5204 - Fundamentals of IOT (Honours) | 3 |
| 5 | 2019 | 21CS5205 - Public Key Infrastructure And Trust Management (Honours) | 3 |
| 6 | 2019 | 21CS5206 - Web Technology (Honours) | 3 |
| 7 | 2019 | 21CS5207 - Cloud Computing Fundamentals (Microsoft -Honours) | 3 |
| 8 | 2022 | 22CS3201- Data Structures | 3 |
| 9 | 2022 | 22CS3251 - Object Oriented Programming Using Java | 4 |
| 10 | 2022 | 22CS3203 - Digital Principles and Computer Organization | 3 |
| 11 | 2022 | 22CS3001 - Digital Principles and Computer Organization Laboratory | 2 |

**(III) Mandatory Courses**

| S.No. | Course Code with Name |
|---|---|
| 1. | 22MC1093/ 22MC1094 – தமிழர் மரபு /Heritage Of Tamil |
| 2. | 22MC1095 - Universal Human Values (Common To All Branches) |
| 3. | 22MC3191 - Essence of Indian Traditional Knowledge |
| 4. | 21HE5071 - Soft Skills - I |
| 5. | 21HE5072 - Design Thinking |

**(IV) Non-credit Mandatory Courses**

| S.No. | Course Code with Name |
|---|---|
| 1. | 22HE1073 - Introduction to Soft Skills. |
| 2. | 22MC1095 - Universal Human Values (Common To All Branches) |

**(V) Additional Credit Courses Introduced:**

| S.No. | Course Code with Name |
|---|---|
| 1. | 22MC1093/ 22MC1094 - தமிழர்மரபு /Heritage Of Tamil |
| 2. | 22MC1095 - Universal Human Values (Common To All Branches) |
| 3. | 21HE5071 - Soft Skills - I |
| 4. | 21HE5072 - Design Thinking |
| 5. | 22HE3071 - Soft Skills -2 (Common) |

**(VI) The following recommendations given by stakeholders are considered and incorporated.**

- **The subject expert Dr Prakash P** suggested to change the title of the subject Data Structures and Algorithms to Data Structures because the syllabus covers more on Data Structures concepts instead of Algorithmic concepts.

- **The Industry expert H. Rajesh Kumar** in the Data Structures subject syllabus suggested to reframe with Python programming language, **Dr Thulasimani K , Anna University Nominee** Explained as "The STL makes it simple for code and support low level operations, scientific computing and data intensive applications. Useful for placement to get strong base in programming skills. it is preferable to have Data Structures using C in the curriculum instead of Data Structures using Python . Expert H.Rajesh Kumar accepted the same.

- **Dr Thulasimani K , Anna University Nominee** suggested to have minimum of five Course Objectives and Course Outcomes for all the Subjects

- In "Data Mining with Weka", **the Industry expert H.Rajesh Kumar** Insisted to change the title to "Data Warehousing and Mining" and suggested to add advanced machine learning tools in the lab experiments.

- **The subject expert Dr Surendiran B** suggested in "Web Technology" subject as, Unit 5 can be removed, since the syllabus is heavy and the content of Unit 5 can be moved to higher semester.

- Employability courses introduced for member's approval.
    - 22HE1072 - Entrepreneurship & Innovation
    - 22HE1073 - Introduction to Soft Skills
    - 22HE3071 - Soft Skills -2 (Common)

**(VII). General Recommendations:**

| S. No | Suggestion Given by the BoS Experts | Action Taken |
|---|---|---|
| 1. | Dr Thulasimani K , Anna University Nominee suggested to have minimum of five Course Objectives and Course Outcomes for all the Subjects | Will be incorporated |
| 2 | Dr Sudha Sadasivam G Subject Expert asked to remove the terms like "Basic, Fundamentals, Introduction, etc.," from the subject title. | Will be incorporated |
| 3 | The subject expert Dr Surendiran B Suggested to include recent editions of text and reference books in the syllabus. Also suggested that, if one text book covers all the units then one text book is enough. Otherwise, more than one text books may be included in the syllabus. | Will be incorporated |
| 4 | Dr Prakash, Subject Expert Suggested to include lab component courses for Specialization course ( Professional Electives, Open Electives and Minor Degree Courses). | Will be incorporated |

**Chairman**
**(Board of Studies)**

Chairman - BoS
CSE - HiCET

**Dean Academics**

**Dean (Academics)**
**HiCET**

## MINUTES OF BOARD OF STUDIES MEETING

**Name of the Department: ELECTRICAL AND ELECTRONICS ENGINEERING**

Date: 08.06.2023

The meeting of 11th Board of Studies in the Department of Electronics and Instrumentation Engineering Undergraduate programme for the academic year 2023-24 was conducted on 14.06.2023 at 02.30 pm in Online Mode through Google Meet. (Meeting Link: https://meet.google.com/ece-cnxc-vvc)

The following members were present:

| S.No. | Name of the Member | Position |
|---|---|---|
| 1 | Dr.N.P.Ananthamoorthy | Chairman |
| 2 | Dr.T.Aruldoss Albert Victoire | University Nominee |
| 3 | Dr.K.Baskaran | Academic Expert |
| 4 | Dr. K. Ranjith kumar | Academic Expert |
| 5 | Mr.Rajesh kumar J | Industry Expert |
| 6 | Dr.K.Sekar | Member |
| 7 | Dr. K.Mathan | Member |
| 8 | Dr. R. Rajesh Kanna | Member |
| 9 | Ms.B.Nandhini | Member |
| 10 | Mr. M. P. Viswanathan | Member |
| 11 | Pradeep.D | Alumni |
| 12 | S.Dineshkumar | Student Member |
| 13 | R.Manisha | Student Member |
| 14 | K.V.Abhishek | Student Member |
| 15 | K.R.Venkat rao | Parent Member |

The Chairman-BoS (Dr. N.P. Ananthamoorthy ) welcomed all the members for the 11th Board of Studies meeting.

- Followed by Chairman presented the suggestions given by the experts and the action taken report during the Previous BoS meeting which was held on 23.02.2023 was approved.
- The feedback collected on curriculum by the stakeholders was presented by the Chairman.
- Thc Chairman gave an outline of the views expressed by the members of 11th Department Advisory Committee (DAC) related to the curriculum and Syllabus. The Board of Studies Members' suggestion has been sought in this regard.
- Chaiman, BoS has elaborated the Regulations 2022 Curriculum, newly introduced courses and their syllabus, Minor , Honours/Honours with specialization vertical subjects to the members.
- Chairman presented the Semester V (R2019 (admitted in 2021) & R2022) subjects with syllabus for Minor & Honours/Honours with specialization, and noted the experts suggestions.
- Chairman conveyed to the members that, the Minor & Honours/Honours with specialization scheme is to be implemented in R2019 (for the students who have admitted in 2021-22 and onwards).
- The curriculum and syllabi of Third semester subjects is discussed for 2022 regulation

**Recommendations by BoS members (Subject Related )**

The following recommendations put forth by the BoS Members,

- Dr.T.Aruldoss Albert Victoire – University nominee, appreciated the Regulation 2022 curriculum and syllabus for Minor & Honours / Honours with specialization courses (Sem V)
- Dr.K.Baskaran – Subject Expert, recommended to include Recent edition of Text books and Reference books for Sem III, Honours & Minor course syllabus.
- Chairman agreed to incorporate the above suggestions.
- Dr. V. Karthikeyan– Member form QS Rated Institution, appreciated the R2022 Curriculum, Minor & Honours / Honours with specialization vertical subjects.
- Dr. K. Ranjith kumar – Subject Expert, recommended to include additional subjects in the Honours/Honours with specialization verticals (in spite of 6 courses) so that, students can get more options to choose to enhance their basics on that corresponding stream.
- Chairman accepted and said, the suggestion is forwarded to standing committee for approval.
- Industry Expert (Mr.Rajesh kumar J) appreciated the R2022 curriculum and suggested to include more industry oriented and latest industrial technologies in the syllabus.

- Chairman agreed to incorporate the above suggestions while syllabus framing.
- In 3rd Sem, R-2022 , "22EE3202– Electrical Circuit Analysis" certain topics were suggested to include.
- In 5th Sem, R-2019 , "21EE5202– Renewable and Non-Renewable Energy Sources" suggested to include. Revision of syllabus about 20% was carried out.
- In 7th Sem, R-2019, "19EE7201– Solid State Drives" suggested to include some advanced topics Control of induction Motor was also recommended
- All members are accepted to incorporate the above modification.
- Members suggested the following course can be given as a Value Added Course in EVEN semester.

  (i) Matlab programming for Electrical Engineers and Control Engineers.
- Employability Enhancement courses introduced for member's approval.
  - 22HE3071 – Soft Skills – II (Passed by S&H board)
  - 22HE3072 – Fundamentals of JAVA Programming (Passed by CSE board)
- In general, the members suggested to ensure mapping of Course objectives and Course outcomes with course contents.
- The Chairman, BoS and all members accepted to incorporate the above in the curriculum.

**The following resolution was made in the Board of Studies meeting,**

- The syllabi of III semester of the UG Programmes (22MA3102 - Complex Analysis and Transforms, 22HE3071 - Soft Skills -II) for the students admitted during the academic year 2023 - 2024 and onwards was passed by S&H Board of Studies and permitted to move on Academic Council.
- The syllabi of I semester of the UG Programmes for the students admitted during the academic year 2023 - 2024 and onwards was passed by S&H Board of Studies and permitted to move on Academic Council

1. Percentage of Programmes where syllabus revision was carried out in BoS:

   - Semester V: 21EE5202– Renewable and Non-Renewable Energy Sources (R 2019): Credit 3 (20 % of Syllabus revisions made)

2. Introduced Course:

   Following new courses are introduced(R2022) for the students admitted in the year 2023-24 and onwards (Semester III)

   - 22EE3201 – Electronic Devices and Circuits: Credit 3
   - 22EE3202 - Electric Circuit Analysis: Credit 4

- 22EE3203 - Field Theory : Credit 3
- 22EI3251 - Digital Electronics: Credit 4

The meeting came to an end at 04.00 p.m with vote of thanks.

**Chairman**
**(Board of studies)**

**Enclosure:**

1. Previous BoS Minutes- ATR
2. Regulation 2019 & 2022
3. Curriculum and Syllabi

**Copy:**

1. The Principal
2. Dean Academics
3. Controller of Examinations
4. All the members of BoS
5. File

# *Hindusthan College of Engineering And Technology*

Approved by AICTE, New Delhi, Accredited with 'A' Grade by NAAC
**(An Autonomous Institution, Affiliated to Anna University, Chennai)**
Coimbatore – 641 032

Date: 16. 06. 2023

## ACTION TAKEN REPORT ON BoS

Name of the Department: ELECTRICAL AND ELECTRONICS ENGINEERING

The meeting of Eleventh board of studies of Regulation 2019& Regulation 2022 for the Department of Electrical and Electronics Engineering B.E Programme was conducted on 14.06.2023 at 2.30 pm, in Online Mode, Hindusthan College of Engineering and Technology.

**(I) Syllabus Revision for the Regulations 2019**

| S.No | Courses in which revision has been done | Action taken | Percentage Syllabus Revised |
|---|---|---|---|
| 1 | 21EE5202-Renewable and Non-Renewable Energy Sources | Incorporated | 20% |

**Overall Percentage of revision made in the BoS: %**

**(II) New Course Introduced:**

| S. No | Regulation | Course Code with Name | Credits |
|---|---|---|---|
| 1. | 2022 | 22EE3201 – Electronic Devices and Circuits | 3 |
| 2. | 2022 | 22EE3202 - Electric Circuit Analysis: | 4 |
| 3. | 2022 | 22EE3203 - Field Theory | 3 |
| 4. | 2022 | 22EI3251 - Digital Electronics | 4 |

**(III) Mandatory Courses**

| S.No. | Course Code with Name |
|---|---|
| 1. | 22MC1093/ 22MC1094 - தமிழர்மரபு/ Heritage of Tamil |
| 2. | 21HE5071- SoftSkills-I |
| 3. | 21HE5072- DesignThinking |

**(IV) Non-credit Mandatory Courses**

| S.No. | Course Code with Name |
|---|---|
| 1. | 22HE1073 - Introduction to Soft Skills<br>(Common to all branches) |
| | 22MC1095 - Universal Human Values<br>(Common to all branches) |

**(V) Additional Credit Courses Introduced:**

| S.No. | Course Code with Name |
|---|---|
| 1. | 22HE3071 – Soft Skills and Aptitude -I (Common to all) |
| 2. | 22HE3072 – Fundamentals of JAVA Programming |
| 3. | Graphical Programming using Virtual Instrumentation (VAC) |
| 4. | Instrumentation for Industry 4.0 (VAC) |

**(VI). General Recommendations:**

| S. No | Suggestion Given by the BoS Experts | Action Taken |
|---|---|---|
| 1. | Practical classes and Mini project can be given for minor degree students | Considered |
| 2. | Suggested to incorporate Recent editions of Text and Reference books in the syllabus. | Considered |

**Chairman**
**(Board of Studies)**

**Dean Academics**

HINDUSTHAN EDUCATIONAL AND CHARITABLE TRUST
HICET

*Hindusthan College of Engineering and Technology*
Approved by AICTE, New Delhi and Accredited with 'A' Grade by NAAC
**(An Autonomous Institution, Affiliated to Anna University, Chennai)**
Valley Campus, Pollachi Highway, Coimbatore

Date: 12.06.2023

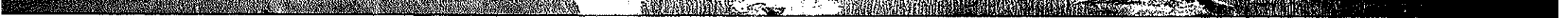
## MINUTES OF BOS MEETING

Name of the Department: BE-Electronics and Communication Engineering

The Twelfth Board of Studies meeting for BE Electronics and Communication Engineering for the academic year ODD 2023-2024 was conducted on 03.06.2023 at 10.00 am in Hybrid mode with Google meet - https://meet.google.com/ipy-hoob-pdg

The following members were present.

| S.No | Name of the Person | Department | Position |
|---|---|---|---|
| 1. | Dr.P.Vijayalakshmi<br>Professor<br>Hindusthan College of Engineering and Technology | ECE Dept | Chairperson |
| 2. | Dr.S.J.Thiruvengadam,<br>Professor and Dean (Academics),<br>Thiagarajar College of Engineering,<br>Madurai 625 015 | ECE Dept | University Nominee |
| 3. | Dr.C.Shanthi<br>Professor & Head of the Department,<br>Govt. College of Technology, Coimbatore-641 013. | ECE Dept | Subject Expert |
| 4. | Dr.Krishaveni V,<br>Professor (CAS) and Head,<br>PSG College of Technology, Coimbatore-641 004. | ECE Dept | Subject Expert |
| 5. | Ms.T.Vidhya Sri,<br>Director,<br>Institute Relations and HR,<br>Adroit technologies Innovation Solutions (IBM Partner),<br>Coimbatore. | Director | Industry Expert (IBM Partner) |
| 6. | Dr.R.Michaelraj Kingston,<br>Professor, Department of ECE,<br>Sri Eshwar College of Engineering,<br>Coimbatore. | ECE Dept | Alumni |
| 7. | Dr.M.Pachiyaannan,<br>Associate Professor<br>Vignan's foundation for Science, Technology and Research,<br>Guntur, AndraPradesh | ECE Dept | Member from QIS rated Institution |



| | | | |
|---|---|---|---|
| 8. | Dr.B.Paulchamy,<br>Professor, Department of ECE,<br>Hindusthan Institute of Technology | ECE Dept | Member from sister concern |
| 9. | Dr.R.Sabitha<br>Professor, Department of ECE,<br>Hindusthan College of Engineering and Technology | ECE Dept | Member & Autonomous Coordinator |
| 10. | Dr.K.Kalaiselvi<br>Associate Professor, Department of ECE,<br>Hindusthan College of Engineering and Technology | ECE Dept | Member |
| 11. | Dr.P.Geetha<br>Associate Professor, Department of ECE,<br>Hindusthan College of Engineering and Technology | ECE Dept | Member |
| 12. | Dr.J.Ramya<br>Associate Professor, Department of ECE,<br>Hindusthan College of Engineering and Technology | ECE Dept | Member |
| 13. | Mr.Hiteshwar R<br>IV ECE A, Department of ECE,<br>Hindusthan College of Engineering and Technology | ECE Dept | Student Member |
| 14. | Ms.Keerthana Devi R<br>III ECE B, Department of ECE,<br>Hindusthan College of Engineering and Technology | ECE Dept | Student Member |
| 15. | Ms.Hariniya S<br>II ECE A, Department of ECE,<br>Hindusthan College of Engineering and Technology | ECE Dept | Student Member |

- The Chairman-BoS welcomed the University nominee, Subject experts, special invitees and all the internal members for the eleventh Board of Studies meeting.
- Followed by, Chairman presented the suggestions given by the experts and the action taken report of the Previous, Eleventh BoS meeting held on 11.02.2023 and was approved.
- Chairman also presented the outline of the changes to be made in the curriculum suggested by the Curriculum Development Cell (CDC) & Department Advisory Committee (DAC) and emphasized the importance of including the industry supported courses as Professional Electives in the curriculum.
- Chairman presented the Curriculum & Syllabus for the courses to be completed in the AY 2023-2024 odd semester
- Chairman also put forward the Curriculum & Syllabus offered for the Minor Degree and Honors Degree Verticals under Regulation 2019 with Amendments for the batch admitted during AY 2021-2022 and for the batch admitted AY 2022-2023 onwards under Regulation 2022.

- Followed by the Chairman discussed the Revisions and updates made in the Curriculum & Syllabus under Regulation 2019 of the UG Program & PG Program under Regulation 2020 and Regulation 2022.

- Chairman also put forward the syllabus for industry oriented courses "Digital Design Verification" and "Embedded Controllers and IoT System Design" supported by Tessolve Semiconductors as new Professional Electives courses included for the VII semester under Regulation R2019A for the students admitted 2020-2021.
- Chairman gave an outline of the feedback on curriculum received from the stakeholders.
- The following are the recommendations put forth by the BoS members,

1. The syllabus presented for the V-Semester under R2019A is passed and approved by the BoS members of Electronics and Communication Engineering for the students admitted in the academic year of 2021-2022 and onwards
2. The syllabus presented for the VII-Semester under R2019A is passed and approved by the BoS members of Electronics and Communication Engineering for the students admitted in the academic year of 2020-2021
3. The third semester syllabus presented for courses under R2022 is passed and approved by the board of Electronics and Communication Engineering for the students admitted in the academic year of 2022-2023 and onwards.
4. The syllabus for R2022 with inclusion of minor degree, degree with honors and degree with honors specialization is passed by the board of Electronics and Communication Engineering and the same is approved by the BoS members of Electronics and Communication Engineering for the students admitted in the academic year of 2022-2023 and onwards.
5. BoS members suggested to include more number of courses in Minor and Honour degree verticals so that students will have choices in their selection of courses
6. The syllabus for the subject 'Circuits and Networks' for Sem-III under Regulation 2022 (for the students admitted in the academic year of 2022-23 onwards) is passed and approved by the BoS members of Electronics and Communication Engineering.
7. The changes in syllabus presented under R2019A is passed and approved by the BoS members of Electronics and Communication Engineering for the students admitted in the academic year of 2020-2021 and onwards

8. The syllabus for new industry oriented Professional Electives courses "Digital Design Verification" and "Embedded Controllers and IoT System Design" supported by Tessolve Semiconductors is passed and approved for the VII semester under Regulation R2019A for the students admitted 2020-2021

**Introduction of new courses**

1. Industry oriented Professional Electives courses "Digital Design Verification" and "Embedded Controllers and IoT System Design" are identified and included in VII Sem under R2019A for the students admitted in the academic year of 20202-2021.
2. 22EC3204-Circuits and Networks in the III semester (for the students admitted in the academic year of 2022-2023).
3. Additional Courses added in the honor verticals:
   i. Digital Switching Systems
   ii. Wireless Systems and Standards
   iii. Advanced Processor Architectures
   iv. Long term Evolution Technologies

**%Revision in the syllabus- R2022-BE ECE**

| S. No | Courses Code/ Title and revision | % revision |
|---|---|---|
| 1 | 22CE3203-Digital Electronics – Revision in Unit V | **10** |
| 2 | 22CE3202-Signals and Systems – Revision in Unit I | **6** |
| 3 | 22CE3001-Electronics Circuits Lab- Addition of new experiments | **10** |

**% Revision in the curriculum - R2022-BE ECE**

| | |
|---|---|
| **Total Number of courses passed in this BOS** | **20** |
| **No. of courses revised** | **4** |
| **% Revision in courses** | **20** |

**The following resolutions were made in the Board of Studies meeting,**

- In almost all the courses, changes have been done as per the current needs.
- The curriculum for all semesters with the inclusion of minor and honors degree of B.E Electronics and Communication Engineering program for the students admitted in the academic year 2022- 2023 and onwards was permitted to move on to Academic Council
- The curriculum and syllabi under regulation 2019 with amendments for the III, V, VII semester courses of B.E Electronics and Communication Engineering program for the students admitted in the academic year 2022- 2023, 2021-2022 and 2020-2021 was permitted to move on to Academic Council.
- Chairman conveyed that, the Suggestions given by the Previous Board of Studies members are ratified and resolved.

The meeting ended with thanks to the Chair at 03.30 P.M.

**Chairman**

**(Board of Studies)**

**Chairman - BoS**
**ECE - HiCET**

**Enclose:**

1. CDC Minutes
2. DAC meeting Minutes –ATR
3. Previous BoS Minutes-ATR
4. Regulation 2022
5. Curriculum and Syllabi of R2019 and R2022

**Copy:**

1. The Principal
2. Dean Academics
3. Controller of Examinations
4. All the Members of BoS
5. File

HINDUSTHAN EDUCATIONAL AND CHARITABLE TRUST
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*Hindusthan College of Engineering And Technology*
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**(An Autonomous Institution, Affiliated to Anna University, Chennai)**
Valley Campus, Pollachi Highway, Coimbatore

Date: 12.06.23

## ACTION TAKEN REPORT ON BOS

Name of the Department: BE Electronics and Communication Engineering

The Tenth Board of Studies meeting for BE Electronics and Communication Engineering for the academic year odd 2023-24 was conducted on 3.06.2023 at10.00am in Hybrid mode. Google meet (https://meet. meet.google.com/ipy-hoob-pdg).

I. New courses introduced(UG):

(a) Regulation 2019R

| S.No. | Regulation | Course code | Course name | Credits |
|---|---|---|---|---|
| 1. | 2019R | 19EC7305 | Digital Design Verification | 3 |
| 2. | 2019R | 19EC7306 | Embedded Controllers and IoT System Design | 3 |

(b)Regulation 2022

| S.No. | Regulation | Course code | Course name | Credits |
|---|---|---|---|---|
| 1 | R2022 | 22EC3204 | Circuits and Networks | 3 |

(b)Regulation 2022 and Regulation 2019R

| | | | | |
|---|---|---|---|---|
| **Honor Degree Vertical 1** | | | | |
| **Emerging Technologies in Communication Engineering** | | | | |
| 1. | R2022 | 22EC5204/19EC5204R | Tele Communication Switching and Networks | 3 |
| 2. | R2022 | 22EC6201/19EC6201R | Optical Communication Networks | 3 |
| 3. | R2022 | 22EC6202/22EC6203 & 19EC6202R/19EC6203R | Wireless Broadband Networks / Digital switching Systems | 3 |
| 4. | R2022 | 22EC7202/19EC7202R | Software Defined Networks | 3 |
| 5. | R2022 | 22EC7203/22EC7204 &19EC7203R/19EC7204R | 4G/5G Communication Networks/ Wireless systems and standards | 3 |
| 6. | R2022 | 22EC8201/19EC8201R | Underwater Communication | 3 |
| **Honor Degree Vertical 11** | | | | |
| **Sensor Technologies and IoT** | | | | |
| 7. | R2022 | 22EC5205/19EC5205R | Real-Time Embedded Systems Design | 3 |

| | | | | |
|---|---|---|---|---|
| 8. | R2022 | 22EC6204/22EC6205 & 19EC6204/19EC6205R | IOT Processors/ Advanced Processor Architectures | 3 |
| 9. | R2022 | 22EC6206/19EC6206R | Computer Vision | 3 |
| 10. | R2022 | 22EC7205/22EC7206 & 19EC6205R/19EC6206R | Wearable Devices / Long term Evolution Technologies | 3 |
| 11. | R2022 | 22EC7207/19EC7207R | Industrial IoT | 3 |
| 12. | R2022 | 22EC8202/19EC8202R | IoT based System Design | 3 |
| **Honor Degree Vertical 1II** | | | | |
| **Semiconductor Chip Design and Testing - TSOLVE Semiconductors** | | | | |
| 13. | R2022 | 22EC5206/19EC5206R | Digital System Design | 3 |
| 14. | R2022 | 22EC6207/19EC6207R | CMOS VLSI Design | 3 |
| 15. | R2022 | 22EC6208/19EC6208R | Low Power VLSI Design | 3 |
| 16. | R2022 | 22EC7208/19EC7208R | ASIC Design | 3 |
| 17. | R2022 | 22EC7209/19EC7209R | System Verilog | 3 |
| 18. | R2022 | 22EC8203/19EC5203R | VLSI Testing and Design for Testability | 3 |
| **Minor Degree Verticals** | | | | |
| **Embedded and IoT** | | | | |
| 19. | R2022 | 22EC5601/19EC5601R | Electronics for Embedded Systems | 3 |
| 20. | R2022 | 22EC6601/19EC6601R | Microcontroller and its Applications | 3 |
| 21. | R2022 | 22EC6602/19EC6602R | Sensor and Embedded Systems | 3 |
| 22. | R2022 | 22EC7601/19EC7601R | Fundamentals of IoT | 3 |
| 23. | R2022 | 22EC7602/19EC7602R | Industrial IoT and Industry 4.0 | 3 |
| 24. | R2022 | 22EC8601/19EC8601R | IoT for Smart Systems | 3 |

**General Recommendations:**

**Regulation R2022 ( for AY 2023-2024 admitted students)**

**Modifications:**

| S.No. | Course code | Course name | Suggestion given by the BoS experts | Action taken |
|---|---|---|---|---|
| 1. | 22CE3001 | Electronics Circuits Lab | Addition of new experiments | Considered |
| 2. | 22CE3202 | Signals and Systems | Revision in Unit I, Changes in Titles of units II and IV | Considered |
| 3. | 22CE3203 | Digital Electronics | Revision in Unit V | Considered |

CHAIRMAN

BOS/ECE

**Chairman - BoS**
**ECE - HiCET**

DEAN

ACADEMICS

**Dean (Academics)**
**HiCET**

[illegible]

## MINUTES OF BOARD OF STUDIES MEETING

**Name of the Department: ELECTRONICS AND INSTRUMENTATION ENGINEERING**

Date:08.06.2023

The meeting of 11th Board of Studies in the Department of Electronics and Instrumentation Engineering Undergraduate programme for the academic year 2023-24 was conducted on 08.06.2023 at 10.30 am in Online Mode through Google Meet. (Meeting Link: meet.google.com/kwj-bidq-qbq)

The following members were present:

| S.No. | Name of the Member | Position |
|---|---|---|
| 1 | Dr.B.Anand<br>Professor and Head | BoS, Chairman |
| 2 | Dr.T.Aruldoss Albert Victoire,<br>Associate Professor and Head i/c<br>Department of Electrical and Electronics Engineering,<br>Anna University Regional Campus Coimbatore,<br>Coimbatore-641 046. | Anna<br>University Nominee |
| 3 | Dr. V. Prasanna Moorthy,<br>Professor,<br>Department of Electronics and Instrumentation Engineering,<br>Government College of Technology,<br>Coimbatore – 641 013. | Subject Expert |
| 4 | Dr. C. Govindaraju,<br>Associate Professor & HoD,<br>Department of Electrical and Electronics Engineering,<br>Government College of Engineering,<br>Thanjavur. | Subject Expert |
| 5 | Mr.A.Ezhilmaran,<br>Project Manager (Control & Automation),<br>Axis Global Automation,<br>33,Near Manis Theatre, Kathir Avenue Street. Lakshmipuram,<br>Coimbatore - 641 004. | Representative from<br>Industry |

| | | |
|---|---|---|
| 6 | Dr.P.Karuppanan,<br>Professor,<br>Department of Electronics and Communication Engineering,<br>Motilal Nehru National Institute of Technology, Allahabad,<br>Uttar Pradesh – 211004. | Member from QS Rated Institution |
| 7 | Dr.B.Paulchamy,<br>Professor & Head,<br>Department of Electronics and Communication Engineering,<br>Hindusthan Institute of Technology,<br>Coimbatore – 641 032 | Member from HiTECH |
| 8 | Mr.D.Deivasigamani<br>Assistant Professor | Member& Department Autonomous Coordinator |
| 9 | Mr.D.Vijayanandh<br>Assistant Professor | Member |
| 10 | Mr.R.Vinothkumar<br>Assistant Professor | Member |
| 11 | Mr.M.Sudagar<br>Assistant Professor | Member |
| 12 | Mrs.N.Kavitha<br>Assistant Professor | Member |
| 13 | Mr.B.Chandran<br>Team Leader(Production & Testing),<br>Ojas Automation System,<br>S.no 20, Opp Rathinam college,<br>Pollachi main road,<br>Coimbatore – 641021. | Alumni |
| 14 | Mr.S.Divakarvel<br>P/o D.Kanishk<br>272, SMD complex<br>Chinna kadai veethi st,<br>Salem – 636001. | Parent Member |
| 15 | Mr.P.Duraiarasu | Student Member |
| 16 | Mr.M.Muthumani | Student Member |
| 17 | Mr.D.Kanishk | Student Member |

The Chairman-BoS (Dr.B.Anand) welcomed all the members for the 11th Board of Studies meeting.

- Followed by Chairman presented the suggestions given by the experts and the action taken report during the Previous BoS meeting which was held on 20.02.2023 was approved.
- The feedback collected on curriculum by the stakcholders was presented by the Chairman.
- The Chairman gave an outline of the views expressed by the members of 11th Department Advisory Committee (DAC) related to the curriculum and Syllabus. The Board of Studies Members' suggestion has been sought in this regard.
- Chaiman, BoS has elaborated the Regulations 2022 Curriculum, newly introduced courses and their syllabus, Minor , Honours/Honours with specialization vertical subjects to the members.
- Chairman presented the Semester V (R2019 (admitted in 2021) & R2022) subjects with syllabus for Minor & Honours/Honours with specialization, and noted the experts suggestions.
- Chairman conveyed to the members that, the Minor & Honours/Honours with specialization scheme is to be implemented in R2019 (for the students who have admitted in 2021-22 and onwards).
- The curriculum and syllabi of Third semester subjects is discussed for 2022 regulation.

**Recommendations by BoS members (Subject Related )**

The following recommendations put forth by the BoS Members,

- Dr.T.Aruldoss Albert Victoire – University nominee, appreciated the Regulation 2022 curriculum and syllabus for Minor & Honours / Honours with specialization courses (Sem V)
- Dr. V. Prasanna Moorthy – Subject Expert, recommended to include Recent edition of Text books and Reference books for Sem III, Honours & Minor course syllabus.
- Chairman agreed to incorporate the above suggestions.
- Dr.P.Karuppanan – Member form QS Rated Institution, appreciated the R2022 Curriculum, Minor & Honours / Honours with specialization vertical subjects.
- Dr. C. Govindaraju – Subject Expert, recommended to include additional subjects in the Honours/Honours with specialization verticals(in spite of 6 courses) so that, students can get more options to choose to enhance their basics on that corresponding stream.
- Chairman accepted and said, the suggestion is forwarded to standing committee for approval.

- Industry Expert (Mr.V.Ezhilmaran) appreciated the R2022 curriculum and suggested to include more industry oriented and latest industrial technologies in the syllabus.
- Chairman agreed to incorporate the above suggestions while syllabus framing.
- In 7th Sem, R-2019 , "19EI7201– Computer Control of Process" suggested to include Model based control algorithms like, MPC, IMC, DMC and Adaptive control.
- All members are accepted to incorporate the above modification.
- In 7th Sem, R-2019, "19EI7251– Bio-Medical Instrumentation" suggested to include some advanced topics like ICCU, robotic surgery, Nano robotics.
- All members are accepted to incorporate the above modification.
- Members suggested the following courses can be given as a Value Added Course in ODD semester.

  (i) Graphical Programming using Virtual Instrumentation

  (ii) Instrumentation for Industry 4.0

  (iii) Design Thinking
- All members are accepted to incorporate the above Value Added Courses.
- Skill Development courses introduced for member's approval
  - 19 LSZ401 –General Studies for Competitive Examinations
  - 19 LSZ402 – Human Rights, Women's Rights and Gender Equality
  - 19 LSZ403 – Indian Ethos and Human Values
  - 19 LSZ404 – Indian Constitution and Political System
  - 19 LSZ405 – Yoga for Human Excellence

- Employability Enhancement courses introduced for member's approval.
  - 22HE3071 – Soft Skills – II (Passed by S&H board)
  - 22HE3072 – Fundamentals of JAVA Programming (Passed by CSE board)

- In general, the members suggested to ensure mapping of Course objectives and Course outcomes with course contents.
- The Chairman, BoS and all members accepted to incorporate the above in the curriculum.

**The following resolution was made in the Board of Studies meeting,**

- The syllabi of III semester of the UG Programmes (22MA3102 - Complex Analysis and Transforms, 22HE3071 - Soft Skills -II) for the students admitted during the academic year 2022 - 2023 and onwards was passed by S&H Board of Studies and permitted to move on Academic Council.

- The syllabi of III semester of the UG Programmes (22HE3072 – Fundamentals of JAVA Programming) for the students admitted during the academic year 2022 - 2023 and onwards was passed by CSE Board of Studies and permitted to move on Academic Council

1. Percentage of Programmes where syllabus revision was carried out in BoS:

   - Semester VII: 19EI7201– Computer Control of Process (R 2019): Credit 3 (20 % of Syllabus revisions made)
   - Semester VII: 19EI7251- Bio-Medical Instrumentation (R 2019): Credit 3 (25 % of Syllabus revisions made)

2. Introduce Course:

   Following new courses are introduced(R2022) for the students admitted in the year 2022-23 and onwards (Semester III)

   - 22EI3201 – Electronic Instrumentation: Credit 3
   - 22EE3202 - Electric Circuit Analysis: Credit 4
   - 22EI3203 - Sensors and Transducers: Credit 3
   - 22EI3251 - Digital Electronics: Credit 4

The meeting came to an end at 11.30 a.m with vote of thanks.

**Chairman**

**(Board of studies)**

**Enclosure:**

1. Previous BoS Minutes- ATR
2. Regulation 2019 & 2022
3. Curriculum and Syllabi

**Copy:**

1. The Principal
2. Dean Academics
3. Controller of Examinations
4. All the members of BoS
5. File

# *Hindusthan College of Engineering And Technology*

Approved by AICTE, New Delhi, Accredited with 'A' Grade by NAAC
**(An Autonomous Institution, Affiliated to Anna University, Chennai)**
Coimbatore – 641 032

Date: 10. 06. 2023

## ACTION TAKEN REPORT ON BoS

Name of the Department: ELECTRONICS AND INSTRUMENTATION ENGINEERING

The meeting of 11th board of studies of Regulation 2019& Regulation 2022 for the Department of Electronics and Instrumentation Engineering was conducted on 08.06.2023 at 10.30 a.m in Online Mode through Google Meet.

**(I) Syllabus Revision for the Regulations 2019**

| S.No | Courses in which revision has been done | Action taken | Percentage Syllabus Revised |
|---|---|---|---|
| 1. | 19EI7201- Computer Control of Process | Incorporated | 20% |
| 2. | 19EI7251- Bio-Medical Instrumentation | Modified | 25% |

**Overall Percentage of revision made in the BoS: 21.38%**

**(II) New Courses Introduced:**

| S. No | Regulation | Course Code with Name | Credits |
|---|---|---|---|
| 1. | 2022 | 22EI3201 – Electronic Instrumentation | 3 |
| 2. | 2022 | 22EE3202 - Electric Circuit Analysis | 4 |
| 3. | 2022 | 22EI3203 - Sensors and Transducers | 3 |
| 4. | 2022 | 22EI3251 - Digital Electronics | 4 |

**(III) Mandatory Courses**

| S.No. | Course Code with Name |
|---|---|
| 1. | 22MC1093/ 22MC1094 - தமிழர் மரபு/ Heritage of Tamil |
| 2. | 21HE5071- Soft Skills - I |
| 3. | 21HE5072- Design Thinking |

**(IV) Non-credit Mandatory Courses**

| S.No. | Course Code with Name |
|---|---|
| 1. | 22HE1073 - Introduction to Soft Skills<br>(Common to all branches) |
| 2. | 22MC1095 - Universal Human Values<br>(Common to all branches) |

**(V) Additional Credit Courses Introduced:**

| S.No. | Course Code with Name |
|---|---|
| 1. | 22HE3071 – Soft Skills and Aptitude -I (Common to all) |
| 2. | 22HE3072 – Fundamentals of JAVA Programming |
| 3. | Graphical Programming using Virtual Instrumentation (VAC) |
| 4. | Instrumentation for Industry 4.0 (VAC) |

**(VI) General Recommendations:**

| S. No | Suggestion Given by the BoS Experts | Action Taken |
|---|---|---|
| 1. | Suggested to incorporate Recent editions of Text and Reference books in the syllabus. | Considered |
| 2. | Recommended to include additional subjects in the Honours/Honours with specialization verticals (irrespective of 6 courses) so that, students can get more options to choose to enhance their basics on that corresponding stream. | Forwarded to Standing Committee |

**Chairman**
**(Board of Studies)**

# *Hindusthan College of Engineering and Technology*

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Coimbatore – 641 032

## DEPARTMENT OF INFORMATION TECHNOLOGY

## MINUTES OF BOARD OF STUDIES MEETING

Name of the Department: INFORMATION TECHNOLOGY **Date: 14.06.2023**

The Twelfth Board of Studies meeting of regulation 2022 for the academic year 2023 -2024 Even Semester was conducted on 14.06.2023 at 12.00p.m. in Hybrid mode, Hindusthan College of Engineering and Technology.

The following members were present:

| S. No. | Name of the Member | Position |
|---|---|---|
| 1 | **Dr M Sabrigiriraj**<br>Professor and Head<br>Department of Information Technology<br>Hindusthan College of Engineering and Technology,<br>Coimbatore-641032 | Chairman |
| 2 | **Dr Thulasimani K**<br>Professor, Department of Computer Science and Engineering, Government College of Engineering,<br>Tirunelveli-627007 | University Nominee |
| 3 | **Dr. P. Sakthivel**<br>Professor and Dean<br>University College of Engineering<br>Anna University, Kancheepuram-631552 | Subject Expert |
| 4 | **Dr. S. Geetha**<br>Professor and Associate Dean, School of Computer Science and Engineering, VIT University, Chennai Campus,<br>Chennai-600127 | Subject Expert |
| 5 | **Mr. R. V. Vinay**<br>Senior Project Manager<br>Robert Bosch Engineering and Business Solutions India Ltd<br>Bangalore | Industry Expert |
| 6 | **Ms. Priya B Sathish**<br>Industry Expert<br>Director Technical<br>IBM India | Industry Expert |

| | | |
|---|---|---|
| 7 | **Mr. R. Gokul**<br>Senior Automation Developer<br>Cognizant Technology Solutions<br>Coimbatore-641035 | Alumni |
| 8 | **Dr. E. S. Gopi**<br>Associate professor<br>Departmepnt of Electronics and Communication Engineering<br>National Institute of Technology<br>Tiruchirappalli -620015 | Member from QIS rated Institution |
| 9 | **Mr. B. Manikandan**<br>Associate Professor<br>Department of Information Technology<br>Hindusthan Institute of Technology<br>Coimbatore-641032 | Member from sister concern |
| 10 | **Dr. Beaulah David**<br>Associate Professor<br>Department of Information Technology<br>Hindusthan College of Engineering and Technology,<br>Coimbatore-641032 | Autonomous Coordinator & BoS Member |
| 11 | **Mr. M. Ganesan**<br>Assistant Professor<br>Department of Information Technology<br>Hindusthan College of Engineering and Technology,<br>Coimbatore-641032 | Member |
| 12 | **Ms. T SakthiSree**<br>Assistant Professor<br>Department of Information Technology<br>Hindusthan College of Engineering and Technology,<br>Coimbatore-641032 | Member |
| 13 | **Ms. N. Yamuna**<br>Assistant Professor<br>Department of Information Technology<br>Hindusthan College of Engineering and Technology,<br>Coimbatore-641032 | Member |
| 14 | **Mr. N. Ilayaraja**<br>Assistant Professor<br>Department of Information Technology<br>Hindusthan College of Engineering and Technology,<br>Coimbatore-641032 | Member |
| 15 | **Mr. C. Babiyon Clement**<br>Student (IV Year-IT)<br>Department of Information Technology<br>Hindusthan College of Engineering and Technology,<br>Coimbatore-641032 | Student Member |
| 16 | **Mr. Irshad M Y**<br>Student (III Year-IT)<br>Department of Information Technology | Student Member |

| | | |
|---|---|---|
| | Hindusthan College of Engineering and Technology, Coimbatore-641032 | |
| 17 | **Mr. K. Jegan**<br>Student (II Year-IT)<br>Department of Information Technology<br>Hindusthan College of Engineering and Technology, Coimbatore-641032 | Student Member |
| 18 | **Mr. Jayachandran. V**<br>Parent Member<br>Associate Consultant(C3B),<br>Tata Consultancy Services,<br>Branch:Chennai One,<br>Thorraipakkam, Chennai. | Parent Member |

- Dr. M. Sabrigiriraj, Chairman, Board of Studies, welcomed the University nominee, Subject experts, Special Invitees and all the internal members for the twelfth Board of Studies meeting.

- Followed by, Chairman presented the suggestions given by the experts and the action taken report during the Previous BoS meeting, which was held during **18.02.2023**,was approved.

- The feedback received on the curriculum by the stakeholders was presented.

- Chairman also gave an outline of the changes to be made in the curriculum given by the Curriculum Development Cell (CDC) & Pre- Board of Studies (Pre- BoS)/ Department Advisory Committee (DAC) and emphasized the importance of including the Skill Development related courses in the curriculum to be in line with the industry needs.

- The Chairman also mentioned the R2019 Curriculum and Syllabus for the batch 2020,2021 batches and R2022 Curriculum and Syllabus for 2022, 2023 batches, which meets on higher order thinking levels, based on the recommendations from Stakeholders and emphasized the following points.

  - Scheme of Regulation 2022 for the academic 2023-2024
  - Syllabus passed in the S&H board to be presented for the consent.
  - Curriculum and Syllabus for courses in R2022.
  - Syllabus for the courses of the Third semester.
  - Syllabus for the courses of Fifth semester Honours and Minor courses.

- Regulation 2019 Curriculum of the seventh semester.
- Syllabus for minor degree courses passed by CSE, CIVIl and MBA ie Financial Management, Sustainable infrastructure Development and Foundation of Entrepreneurship.

- Value added course using Infosys Spring Board, Consensus is introduced in every semester, which includes various courses for the students to enhance their technical skills.

- *For **2020-2021** batch students, the following courses has been introduced/Revised*
  1. 19IT7202R - Data Science and Analytics course is revised 40% in the semester VII with 3 credits
  2. 19IT7001R - Distributed and Cloud Computing Laboratory course is revised 20% in the semester VII with credit 1.5.

- *For **2021-2022** batch students, the following courses has been introduced*
  1. 21IT5202 - Computer Networks course is revised 40% in the semester V with 3 credits
  2. 21IT5203 - Embedded Systems Design course is revised 60% in the semester V with credit 3.
  3. 21IT5206 - Fundamentals of Machine Learning course is introduced as new Honours degree course in the semester V with 3 credits.
  4. 21IT5207 - Ethical Hacking course is introduced as new Honours degree course in the semester V with 3 credits.
  5. 21IT5208 - Fundamentals of Blockchain Technology is introduced as new Honours degree course in the semester V with 3 credits.
  6. 21IT5231 - Database System course is introduced as new Minor degree course in the semester V with 3 credits

- *For **2022-2023** batch students, the following courses has been introduced*
  1. 22IT3201 - Data Structures course is introduced as new course in the semester III with credit 3.
  2. 2IT3202 - Operating System course is introduced as new course in semester III with 100% with credit 4.
  3. 22IT3203 - Digital Principles and Computer Organization course and 22IT3003- Digital Principles and Computer Organization laboratory course is introduced as new course in the semester III with credit 3 and 2 respectively.

to remove scenarios and graphs, which is mentioned in the syllabus for few experiments alone and also asked to reframe syllabus accordingly.

7. In "21IT5207 – Ethical Hacking", the Board of Studies subject expert recommended to change the course outcome four and five and asked to rewrite the course outcomes according to the unit 4 and unit 5.
8. In "21IT5231 – Introduction to Database System", the Board of Studies subject expert Thulasimani suggested to change the course title as "Database System" instead of having course title as "Introduction to Database System" which is a minor degree course provided by IT department for other department students.
9. Employability courses introduced for member's approval.
    - 22HE1072 - Entrepreneurship & Innovation
    - 22HE1073 - Introduction to Soft Skills
    - 22HE3071 - Soft Skills -2

**General Recommendations:**

1. BOS subject experts Dr. P. Sakthivel, Dr. E.S. Gopi and Industry Expert :Mr.R.V.Vinay, appreciated for courses and agreed that students would be surely benefitted and suggested to provide sufficient time to students to complete the courses and also insisted to include all the suggestions given for the beneficial of students.

**The following resolutions were made in the Board of Studies meeting,**

- The curriculum and syllabus for the VII semester was passed by the Information Technology board and permitted to move on Academic Council by the BoS members of Information Engineering for the students admitted during the academic year 2020 - 2024 and onwards.
- The curriculum and syllabi of 2019 with revision and updation for the V semester Courses of B. Tech Information Technology program for the students admitted during the academic year 2021 - 2025 and onwards was suggested to move on to Academic Council.
- The syllabus for Semester – III and if any revision and updation under regulation 2019 passed by the Board of Science and Humanities, Mechanical Engineering and Electrical and Electronics Engineering were permitted to move on Academic Council by the members of BoS members of Information technology

to remove scenarios and graphs, which is mentioned in the syllabus for few experiments alone and also asked to reframe syllabus accordingly.

7. In "21IT5207 – Ethical Hacking", the Board of Studies subject expert recommended to change the course outcome four and five and asked to rewrite the course outcomes according to the unit 4 and unit 5.
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**The following resolutions were made in the Board of Studies meeting,**

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- The curriculum and syllabi of 2019 with revision and updation for the V semester Courses of B. Tech Information Technology program for the students admitted during the academic year 2021 - 2025 and onwards was suggested to move on to Academic Council.
- The syllabus for Semester – III and if any revision and updation under regulation 2019 passed by the Board of Science and Humanities, Mechanical Engineering and Electrical and Electronics Engineering were permitted to move on Academic Council by the members of BoS members of Information technology

- Online certificate courses and value added courses undergone by the students are recommended for the additional credit and were suggested to move on to Academic Council.
- As discussed about the importance of online courses in the last Pre- BoS/ DAC meeting, students have completed online certificate course during the month of July 2022. BOS Members recommended the same and was suggested to move on to Academic Council.

The meeting ended with thanks to the Chair at 1.00 PM.

**Chairman**
**(Board of studies)**

Chairman - BoS
IT - HiCET

**Enclosure:**

1. Previous BoS Minutes- ATR
2. Regulation 2019 & 2022
3. Curriculum and Syllabi

**Copy:**

1. The Principal
2. Dean Academics
3. Controller of Examinations
4. All the members of BoS
5. File



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Coimbatore – 641 032

Date: 16. 06. 2023

## ACTION TAKEN REPORT ON BoS

Name of the Department: INFORMATION TECHNOLOGY

The meeting of Twelfth board of studies of Regulation 2019 and Regulation 2022 for the Department of Information Technology B.Tech Programme was conducted on 14.06.2023 at 12.00 pm, in Hybrid Mode, Hindusthan College of Engineering and Technology.

**(I) Syllabus Revision for the Regulations 2019 & 2022**

| S. No. | Course Code | Course Name (Theory/ Practical) | Percentage of Changes |
|---|---|---|---|
| 1 | 19IT7202 | Data Science and Analytics | 40% |
| 2 | 19IT7001R | Distributed and Cloud Computing Laboratory | 20% |
| 3 | 21IT5202 | Computer Networks | 40% |
| 4 | 21IT5203 | Embedded Systems Design | 60% |
| 5 | 21IT5206 | Fundamentals of Machine Learning (Honours) | 100% |
| 6 | 21IT5207 | Ethical Hacking (Honours) | 100% |
| 7 | 21IT5208 | Fundamentals of Blockchain Technology (Honours) | 100% |
| 8 | 21IT5231 | Database System (Minor) | 100% |
| 9 | 22IT3202 | Operating System | 100% |
| 10 | 22IT3201 | Data Structures | 100% |
| 11 | 22IT3203 | Digital Principles and Computer Organization | 100% |
| 12 | 22IT3001 | Operating System Laboratory | 100% |
| 13 | 22IT3002 | Digital Principles and Computer Organization Laboratory | 100% |
| 14 | 22IT3003 | Data Structures Laboratory | 100% |
| 15 | 22IT3251 | Java Programming | 100% |

**Overall Percentage of revision made in the BoS: 42 %**

**(II) New Course Introduced:**

| S. No | Regulation | Course Code with Name | Credits |
|---|---|---|---|
| 1 | 2019 | 21IT5203 - Embedded Systems Design | 3 |
| 2 | 2019 | 21IT5206 - Fundamentals of Machine Learning (Honours) | 3 |
| 3 | 2019 | 21IT5207 - Ethical Hacking (Honours) | 3 |
| 4 | 2019 | 21IT5208 - Fundamentals of Blockchain Technology (Honours) | 3 |
| 5 | 2019 | 21IT5231 - Database System (Minor) | 3 |
| 6 | 2022 | 22IT3201 – Data structures | 3 |
| 7 | 2022 | 22IT3202 - Operating System | 4 |
| 8 | 2022 | 22IT3203 - Digital Principles and Computer Organization | 3 |
| 9 | 2022 | 22IT3001 - Operating System Laboratory | 2 |
| 10 | 2022 | 22IT3002 - Digital Principles and Computer Organization Laboratory | 2 |
| 11 | 2022 | 22IT3003 - Data Structures Laboratory | 2 |
| 12 | 2022 | 22IT3251 – Java Programming | 4 |

**(III) Mandatory Courses**

| S.No. | Course Code with Name |
|---|---|
| 1. | 22MC1093/ 22MC1094 - தமிழர்மரபு /Heritage Of Tamil |
| 2. | 22MC1095 - Universal Human Values (Common To All Branches) |
| 3. | 22MC3191 - Essence of Indian Traditional Knowledge |
| 4. | 21HE5071 - Soft Skills - I |
| 5. | 21HE5072 - Design Thinking |

**(IV) Non-credit Mandatory Courses**

| S.No. | Course Code with Name |
|---|---|
| 1. | 22HE1073 - Introduction to Soft Skills. |
| 2. | 22MC1095 - Universal Human Values (Common To All Branches) |

**(V) Additional Credit Courses Introduced:**

| S.No. | Course Code with Name |
|---|---|
| 1. | 22MC1093/ 22MC1094 - தமிழர்மரபு /Heritage Of Tamil |
| 2. | 22MC1095 - Universal Human Values (Common To All Branches) |
| 3. | 21HE5071 - Soft Skills - I |
| 4. | 21HE5072 - Design Thinking |
| 5. | 22HE3071 - Soft Skills -2 (Common) |

**(VI) The following recommendations given by stakeholders are considered and incorporated.**

- In "22IT3201 – Data Structures", the Board of Studies subject expert Thulasimani suggested to rename the title of each unit and advised not to mention the words such as non-linear data structure, linear data structure specifically as already student would have learnt the various linear and non-linear data structures in Unit 1 itself.
- In "22IT3202 – Operating System", the Board of Studies subject expert Dr.K.Thulasimani suggested to change the credits from 3 to 4 in syllabus as syllabus needs 4 credits so that it would be sufficient enough for the students to learn properly.
- In "22IT3203 – Digital Principles and Computer Organization", the Board of Studies subject expert suggested not to mention "2 Variable, 3 Variable and 4 Variable" along with the title Karnaugh Map in the unit 1 as Karnaugh map includes variables.
- In "22IT3002 – Digital Principles and Computer Organization Laboratory", the Board of Studies subject expert recommended to reframe the course objective and course outcome as it is mismatche with the course outcomes and objectives.
- In "22IT3251 – Java Programming" is a theory with lab component and so the total hours should be 60 hours; The BOS member insisted to recheck the hour allocated for theory and lab and suggested to change the total hours to 60 hours.
- In "22IT3003 – Data Structures Laboratory", the Board of Studies subject expert Thulasimani suggested to either provide scenarios for all experiments or else suggested to remove scenarios and graphs, which is mentioned in the syllabus for few experiments alone and also asked to reframe syllabus accordingly.
- In "21IT5207 – Ethical Hacking", the Board of Studies subject expert recommended to change the course outcome four and five and asked to rewrite the course outcomes according to the unit 4 and unit 5.
- In "21IT5231 – Introduction to Database System", the Board of Studies subject expert Thulasimani suggested to change the course title as "Database System" instead of having course title as "Introduction to Database System" which is a minor degree course provided by IT department for other department students.
- Employability courses introduced for member's approval.
    - 22HE1072 - Entrepreneurship & Innovation
    - 22HE1073 - Introduction to Soft Skills
    - 22HE3071 - Soft Skills -2 (Common)

**(VII). General Recommendations:**

| S. No | Suggestion Given by the BoS Experts | Action Taken |
|---|---|---|
| 1. | BOS subject experts Dr. P. Sakthivel, Dr. E.S. Gopi and Industry Expert : Mr.R.V.Vinay, appreciated for courses and agreed that students would be surely benefitted and suggested to provide sufficient time to students to complete the courses and also insisted to include all the suggestions given for the beneficial of students. | Considered |

**Chairman**
**(Board of Studies)**

Chairman - BoS
IT - HiCET

**Dean Academics**

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Coimbatore – 641 032

**DEPARTMENT OF BIOMEDICAL ENGINEERING**

## MINUTES OF BOARD OF STUDIES MEETING

Name of the Department: BIOMEDICAL ENGINEERING Date: 19.05.2023

The Ninth Board of Studies meeting of Regulation 2022 for the Academic Year 2022-2023,Even Semester was conducted on 19.05.2023at 10:30 A.M. in Library Board Room in Hybrid Mode, Hindusthan College of Engineering and Technology and the Google Meet Link is https://meet.google.com/yzv-unnn-xat.

The following members were present

| S.No. | Name of the Member | Department | Position |
|---|---|---|---|
| 1. | Dr.S.Saravana Sundaram,<br>Professor and Head,<br>Department of Biomedical Engineering,HICET | Department of Biomedical Engineering | Chairman |
| 2. | Dr. S.J. Thiruvengadam,Professor<br>Thiyagarajar College of Engineering<br>,Madurai-625015<br>sjtece@tce.edu | Department of Electronics and Communication Engineering | University Nominee |
| 3. | Dr. Vidhya Priya,Prof & Head<br>Department of Biomedical Engineering,<br>PSG College of Technology, Coimbatore.<br>rvp.bme@psgtech.ac.in | Department of Biomedical Engineering | Academic Expert |

| | | | |
|---|---|---|---|
| 4. | Dr.P. Manimegalai,M.E., Ph.D.Associate Professor<br>Department of Biomedical Engineering, Karunya Institute of Technology and Science, Coimbatore.<br>manimegalaip@karunya.edu | Department of Biomedical Engineering | Academic Expert |
| 5. | A. Thirugnanam, Associate Professor and Head,<br>NIT Rourkela,Odisha,Department of Biotechnology and Medical Engineering,<br>thirugnanam.a@nitrkl.ac.in | Department of Biotechnology and Medical Engineering, | Member from QS rated institution |
| 6. | Dr.N.Nandakumar, Industry Expert,Prime Medical systems | Prime Medical systems | Industry Expert |
| 7. | Ms.Mano Alagammai, Batch (2018-22 batch) | CTS trainee Coimbatore | Alumni Member |
| 8. | Dr.T.Murugeswari,Assoc Professor/BME | Department of Biomedical Engineering | Internal Member |
| 9. | Dr.M.Ganga, Assoc Professor/BME | Department of Biomedical Engineering | Internal Member |
| 10. | Mrs.S. Shobha Christila,AP/BME | Department of Biomedical Engineering | Internal Member |
| 11. | Mrs M Deeparani, AP/BME | Department of Biomedical Engineering | Internal Member |
| 12. | Mr. K. Gobinath, AP/BME | Department of Biomedical Engineering | Internal Member |

| | | | |
|---|---|---|---|
| 13. | Mrs.M.Kirthika, , AP/BME | Department of Biomedical Engineering | Internal Member |
| 14. | Mr.B.Sonaimuthi | Department of Biomedical Engineering | Student-II BME |
| 15. | Ms.M.Bavithra | Department of Biomedical Engineering | Student-III BME |
| 16. | Mrs.S.Revathi Sundar Rajan ,M/O, Mr. S Siddharth, Student-IV BME | Department of Biomedical Engineering | Parent Member |

- Due to his/ her preoccupied schedule ___NIL_____ not attend the meeting.

- The chairman of the BoS, **Dr. S. Saravanasundaram** welcomed all the dignitaries for the meeting. **Chairman / Chairperson** introduced the BoS members.
- The feedback received on the curriculum by the stakeholders was presented.
- Chairman also gave an outline of the changes to be made in the curriculum given by the Curriculum Development Cell (CDC) & Pre-Board of studies (Pre-BoS)/ Department Advisory Committee (DAC).
- The **Chairman / Chairperson** presented the suggestions given by the experts and the action taken report during the Previous BoS meeting which was held during 08.02.2023 was approved.
- **Chairman / Chairperson** also gave an outline of the changes to be made in the curriculum given by the Curriculum Development Cell (CDC) & Department Advisory Committee (DAC) and emphasized the importance of including the employability enhancement courses, life skill, soft skill, design thinking and IPR related courses in the curriculum to be in line with the industry needs.

- Chairman presentation of revision/updation.
- Any other approval from the members
- Completed and current semester value-added courses.
- The curriculum and syllabus for the new courses

Also,

**The following are the recommendations put forth by the BoS members,**

- Honor and Minor for regulation 2021 are put forwarded by HoD.
- Hospital System Management In Regulation 2019 Theory with lab component has been converted into theory course.

**Regulation 2022**

- Academic Expert **(Dr.P.Manimegalai)** suggested that 3D Printing /Rapid Prototyping course can be introduced instead of Medical Coding.
- University Nominee **(Dr. S.J. Thiruvengadam)** suggested that there is Overlap of courses in honors with specialization programme that can be replaced by industry integrated courses.
- Academic Expert **(Dr.P.Manimegalai)** suggested that Minor Degree course Diagnostic and Therapeutic Medical Equipments course can be included.
- University Nominee **(Dr. S.J. Thiruvengadam)** suggested that in third semester Electron Devices and Circuits last 5$^{th}$ unit Communication Systems topics not correlated with the title of the course.
- Academic Expert **(Dr.Vidhya priya)** suggested that Communication systems can be included in Signals and Systems syllabus.
- University Nominee **(Dr. S.J. Thiruvengadam)** suggested that in the first unit of signals and systems communication systems can be included.
- Academic Expert **(Dr.P.Manimegalai)** suggested that in Electron Devices and Circuits LCD, OLED topics can be included in first unit.
- Member from QS rated institution (Dr.**A.Thirugnanam)** suggested that in Signals and Systems analogous systems can be removed.
- Academic Expert **(Dr.P.Manimegalai)** suggested that in Unit 5 application parts of biochemistry give a relevant title for the respective unit.
- University Nominee **(Dr. S.J. Thiruvengadam)** suggested that Logic Gates Topics can be added in Unit-I in of Digital Electronics.
- Academic Expert **(Dr.P.Manimegalai)** suggested that Telemedicine subjects can be included in Elective.
- Academic Expert **(Dr.P.Manimegalai)** suggested that in Electron Devices and Circuits Superposition Theorem is not needed since its been considered in electrical systems.
- Academic Expert **(Dr.P.Manimegalai)** suggested that National Health Policy topic can be included in Hospital System Management.

- Academic Expert **(Dr.Vidhya priya)** suggested that In Honors Degree programme Modeling of bones ,Properties of bones ,Hills Model topics can be included in the syllabus.
- University Nominee **(Dr. S.J. Thiruvengadam)** In honors degree courses similar courses can be removed and Industry 4.0 health care topics can be included.
- Industry Expert **(Dr.N.Nandakumar),** suggested that in programming related courses and gate topics can be included in the curriculum.
- Academic Expert **(Dr.P.Manimegalai)** suggested that in 3D Printing course can be introduced for honors degree programme.
- Industry Expert **(Dr.N.Nandakumar),** suggested that in minor degree programme basic biomedical courses can be included.

**The following resolutions are made in the Board of Studies meeting:**

- In almost all the courses, changes have been done as per the current needs.
- The Curriculum and Syllabus of Regulation 2022 for the III Semester Subjects- 22MAXXX were introduced and passed by Science and Humanities board and permitted to move on Academic Council by the BoS members of Biomedical Engineering for the students admitted during the academic year 2022-2023 onwards.
- Chairman conveyed that, the Suggestions given by the Board of Studies members are to be incorporated in Regulation 2022.
- Chairman conveyed that, the Suggestions given by the Previous Board of Studies members are ratified and resolved.

1. **<<if Department specific Board of Studies resolutions/Common Suggestions: >>**
   - Panel Members Suggested more new courses can be introduces in the new regulation which can be useful for placement and higher studies.

The meeting came to an end at 4 pm with vote of thanks.

**Chairman / Chairperson( B o S )**

Chairman - BoS
BME - HICET

**Enclose:**

1. Previous BoS Minutes-ATR

2. Regulation 2022
3. Curriculum and Syllabi

**Copy:**

1. The Principal
2. Dean Academics
3. Controller of Examinations
4. All the Members of BoS
5. File Copy

# *Hindusthan College of Engineering And Technology*

Approved by AICTE, New Delhi, Accredited with 'A' Grade by NAAC
**(An Autonomous Institution, Affiliated to Anna University, Chennai)**
Coimbatore – 641 032

Date:20. 05. 2023

## ACTION TAKEN REPORT ON BoS

Name of the Department: BIOMEDICAL ENGINEERING

The Ninth Board of Studies meeting of Regulation 2022 for the Academic Year 2022-2023,Even Semester was conducted on 19.05.2023 at 10:30 A.M. in Library Board Room in hybrid mode, Hindusthan College of Engineering and Technology and the Google Meet Link is https://meet.google.com/yzv-unnn-xat.

**(I) Syllabus Revision for the Regulations 2019**

| S.No | Courses in which revision has been done | Action taken | Percentage Syllabus Revised |
|---|---|---|---|
| 1 | Hospital System Management. | Incorporated | 20% |

**(II) New Course Introduced:**

| S.No | Regulation | Course Code | Course Name | Credits |
|---|---|---|---|---|
| 1. | 2022 | 22BM3201 | Signals and Systems | 3 |
| 2. | 2022 | 22BM3202 | Electron Devices and Circuits | 3 |
| 3. | 2019 | 21BM5XXX | 3D Printing and Rapid Prototyping | 3 |
| 4. | 2019 | 21BM5XXX | Diagnostic and Therapeutic Medical Equipment's | 3 |
| 5. | 2019 | 21BM5XXX | Modeling of Physiological systems | 3 |
| 6. | 2019 | 21BM5231 | Basics of Anatomy and Physiology | 3 |
| 7. | 2019 | 21BM5203 | Artificial Intelligence and Machine Learning | 3 |

**Number of Courses Revised: 8**
**Total Number of Courses Passed: 21**
**The Percentage of Course Revised: 38%**

**(III) Mandatory Courses**

| S.No. | Course Code with Name |
|---|---|
| 1. | 19HE5071 Soft Skill-I |
| 2. | 19HE5072 Design Thinking |
| 3. | 22MC1091/ 22MC1092 அறிவியல் தமிழ் /Indian Constitution |
| 4. | 22MC3191 Value education-Essence of Indian Traditional Knowledge |

**(IV) Non-credit Mandatory Courses**

| S.No. | Course Code with Name |
|---|---|
| 1 | 21HE3072 Career Guidance – Level III |
| 2.. | 21HE3073 Leadership Management Skills |

**(V) Additional Credit Courses Introduced:**

| S.No. | Course Code with Name |
|---|---|
| 1. | 22HE1071 Universal Human Values |
| 2. | 22HE1072 Entrepreneurship &Innovation |

**(VI) The following recommendations given by stakeholders are considered and incorporated.**

**(VII). General Recommendations:**

| S. No | Suggestion Given by the BoS Experts | Action Taken |
|---|---|---|
| 1. | Minor degree programme basic biomedical courses can be included. | Considered |

**Chairman**
**(Board of Studies)**

**Chairman BoS**
**BME - HiCET**

**Dean Academics**

HINDUSTHAN EDUCATIONAL AND CHARITABLE TRUST

HICET

# *Hindusthan College of Engineering and Technology*

Approved by AICTE, New Delhi, Accredited with 'A' Grade by NAAC

**(An Autonomous Institution, Affiliated to Anna University, Chennai)**

Coimbatore – 641 032

TÜVRheinland CERTIFIED

**Date: 14.06.2023**

## DEPARTMENT OF ARTIFICIAL INTELLIGENCE AND MACHINE LEARNING

## MINUTES OF BOARD OF STUDIES MEETING

Name of the Department: **ARTIFICIAL INTELLIGENCE AND MACHINE LEARNING**

The 7th Board of Studies meeting of regulation R2019 & R2022 for the academic year 2023 - 2024 Odd Semester was conducted on 14.06.2023 at 11.00 a.m. in Hybrid mode, Hindusthan College of Engineering and Technology. (Google Meet: meet.google.com/vkk-mdwf-yjs).

The following members were present:

| S. No. | Name of the Member | Position |
|---|---|---|
| 1 | **Dr Shankar S**<br>**Professor & HOD**<br>Department of Computer Science and Engineering, Hindusthan College of Engineering and Technology | Chairman |
| 2 | **Dr Thulasimani K**<br>Professor, Department of Computer Science and Engineering, Government College of Engineering, Tirunelveli-627007 | University Nominee |
| 3 | **Dr Marikkannan M**<br>Assistant Professor (Senior)<br>Dept of CSE, Institute of Road and Transport Technology, Erode - 638316. | Subject Expert |
| 4 | **Dr Sivaganesan D**<br>Professor<br>Department of Computer Science and Engineering,<br>PSG Institute of Technology and Applied Research, Coimbatore. | Subject Expert |
| 5 | **Dr PRAKASH P**<br>Associate Professor<br>School of Computer Science and Engineering, VIT Chennai. | Member from QIS rated Institution |
| 6 | **Mr Rajesh Kumar H**<br>Founder<br>BuzzTech Training Institute, Coimbatore. | Industry Expert |
| 7 | **Mr Manuraj Rajamanikandan**<br>Non-Functional Consultant<br>Cognizant, Kochi,<br>Kerala, | Alumni |
| 8 | **Dr .Jameer Basha A**<br>**Professor & HOD**<br>Department of Computer Science and Engineering, Hindusthan Institute of Technology | Member from sister concern |

| | | |
|---|---|---|
| 9 | **Ms Sathya S**<br>Assistant Professor<br>Department of Computer Science and Engineering,<br>Hindusthan College of Engineering and Technology,<br>Coimbatore-641032 | Autonomous Coordinator & BoS Member |
| 10 | **Dr Satheesh Kumar D**<br>Associate Professor<br>Department of Computer Science and Engineering,<br>Hindusthan College of Engineering and Technology,<br>Coimbatore-641032 | Member |
| 11 | **Dr Prakash J**<br>Associate Professor<br>Department of Computer Science and Engineering,<br>Hindusthan College of Engineering and Technology,<br>Coimbatore-641032 | Member |
| 12 | **Dr Kousalyadevi M**<br>Associate Professor<br>Department of Computer Science and Engineering,<br>Hindusthan College of Engineering and Technology,<br>Coimbatore-641032 | Member |
| 13 | **Ms. Ragavi P R**<br>20115040- III B.TECH AIML,<br>Hindusthan College of Engineering and Technology,<br>Coimbatore-641032 | Student Member |
| 16 | **Mr. A.Ramesh**<br>Parent Member<br>F/o, Ms. Ragavi P R, III B.TECH AIML | Parent Member |

- Dr.S.Shankar, Chairman, Board of Studies, welcomed the Anna University nominee, Subject experts, Special Invitees and all the internal members for the Seventh Board of Studies meeting.
- Followed by, Chairman presented the suggestions given by the experts and the action taken report during the Previous BoS meeting, which was held during **18.02.2023**,was approved.
- The feedback received on the curriculum by the stakeholders was presented.
- Chairman also gave an outline of the changes to be made in the curriculum given by the Curriculum Development Cell (CDC) & Pre- Board of Studies (Pre- BoS)/ Department Advisory Committee (DAC) and emphasized the importance of including the Skill Development related courses in the curriculum to be in line with the industry needs.

Also, the following points were discussed.

- Discussion of inclusion of Minor and Major Degree programmes for Scheme of Curriculum 2022-2023 with Minors, Honors, Honors with specialization system in Regulation 2019.
- The whole curriculum and syllabi of Third semester subject alone is discussed for 2022 regulation.

**The following are the recommendations put forth by the BoS members,**

1. Dr Thulasimani K , University Nominee Suggested to include recent editions of text and reference books in the syllabus. Also suggested that, if one text book covers all the units then one text book is enough. Otherwise, more than one text books may be included in the syllabus.
2. The subject expert Dr PRAKASH P suggested to change the title of the subject Data Structures and Algorithms to Data Structures because the syllabus covers more on Data Structures concepts instead of Algorithmic concepts.
3. The subject expert Dr Sivaganesan Suggested to include the subject "Robotics Process Automation " in Robotics Domain
4. In "Foundations of AI laboratory", the subject expert Dr.Marikkannan, Suggested to include scenario based questions and Mini Project
5. In "Microprocessor and Embedded Systems" subject, The subject expert Dr Sivaganesan suggested to include the basics of 8085, 8051 microcontroller topics.
6. The Industry expert H.Rajesh Kumar The Data Structures syllabus suggested to reframe with Python programming language, Dr Thulasimani K , University Nominee Explained as "The STL makes it simple for code and support low level operations, scientific computing and data intensive applications. Useful for placement to get strong base in programming skills. it is preferable to have Data Structures using C in the curriculum instead of Data Structures using Python . Expert H.Rajesh Kumar accepted the same.
7. Value added course Interactive Web Designing and Mobile Application Development is introduced which includes various courses for the students to enhance their technical skills.

**.General Recommendations:**

1. Dr Thulasimani K , Anna University Nominee appreciated for including industrial oriented courses and agreed that students would be surely benefitted and suggested to provide sufficient time to students to complete the courses
2. Dr Sudha Sadasivam G, Subject Expert asked to remove the terms like "Basic, Fundamentals, Introduction, etc.," from the subject title.
3. Dr Prakash, Subject Expert Suggested to include lab component courses for Specialization course ( Professional Electives, Open Electives and Minor Degree Courses).
4. The Chairman, BoS and all members accepted to incorporate the above in the curriculum.

**The following resolutions were made in the Board of Studies meeting,**

- The curriculum and syllabi of 2019 Regulation with revision and updation for the VII semester was introduced and passed by the ARTIFICIAL INTELLIGENCE AND MACHINE LEARNING board and permitted to move on Academic Council by the BoS members of CSE for the students admitted during the academic year 2020 - 2021 and onwards.
- The curriculum and syllabi of 2019 Regulation with Amendments for the V semester Courses of ARTIFICIAL INTELLIGENCE AND MACHINE LEARNING board for

the students admitted during the academic year 2021 - 2022 and onwards was suggested to move on to Academic Council.

- The Curriculum and Syllabus of Regulation 2022 for the III Semester Subjects- 22MAXXX, 22PHXXX, 22HEXXX, and 22MCXXX were introduced and passed by Science and Humanities board and permitted to move on Academic Council by the BoS members of ARTIFICIAL INTELLIGENCE AND MACHINE LEARNING for the students admitted during the academic year 2022-2023 onwards.

- Chairman conveyed that, the Suggestions given by the Previous Board of Studies members are ratified and resolved.
- Chairman thanked all the members for spending their valuable time in giving suggestions for all the courses. The meeting came to an end at 12:00 am with vote of thanks.

**Chairman**

**(Board of studies)**

Chairman - BoS
AIML - HiCET

**Enclosure:**

1. Previous BoS Minutes- ATR
2. Regulation 2019 & 2022
3. Curriculum and Syllabi

**Copy:**

1. The Principal
2. Dean Academics
3. Controller of Examinations
4. All the members of BoS
5. File

HINDUSTHAN EDUCATIONAL AND CHARITABLE TRUST
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# *Hindusthan College of Engineering And Technology*

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**(An Autonomous Institution, Affiliated to Anna University, Chennai)**
Coimbatore – 641 032

Date: **14.06.2023**

## ACTION TAKEN REPORT ON BoS

Name of the Department: **ARTIFICIAL INTELLIGENCE AND MACHINE LEARNING**

The 7th Board of Studies meeting of regulation R2019 & R2022 for the academic year 2023 -2024 Odd Semester was conducted on 14.06.2023 at 11.00 a.m. in Hybrid mode, Hindusthan College of Engineering and Technology.

(Google Meet: meet.google.com/vkk-mdwf-yjs).

**(I) Syllabus Revision for the Regulations 2019 & 2022**

| S.No | Courses in which revision has been done | Action taken | Percentage Syllabus Revised |
|---|---|---|---|
| 1 | 19AI7202 - AI Analyst | Introduced | 100% |
| 2 | 19AI7203 - Ethics And Policy Issues In AI Computing | Introduced | 100% |
| 3 | 19AI7251- Deep Learning Techniques | Introduced | 100% |
| 4 | 19AI7301- Computer Vision | Introduced | 100% |
| 5 | 19AI7302 - Intelligent Multi Agent And Expert Systems | Introduced | 100% |
| 6 | 19AI7303 - Cognitive Systems | Introduced | 100% |
| 7 | 19AI7304 - Quantum Computing | Introduced | 100% |
| 8 | 19AI7305 - Web And Social Media Mining | Introduced | 100% |
| 9 | 21AI5601- Data structures using C Programming (Minor) | Introduced | 100% |
| 10 | 21AI5203- Foundations Of Robotics (Honours) | Introduced | 100% |
| 11 | 21AI5204 - Public Key Infrastructure And Trust Management (Honours) | Introduced | 100% |
| 12 | 21AI5205 - Principles Of Cyber Physical Systems (Honours) | Introduced | 100% |
| 13 | 22CS3201- Data Structures | Introduced | 100% |
| 14 | 22AI3203 - Microprocessor And Embedded Systems | Introduced | 100% |
| 15 | 22AI3001 - Microprocessor And Embedded System Laboratory | Introduced | 100% |

**Overall Percentage of revision made in the BoS: 39 %**

**(II) New Course Introduced:**

| S. No | Regulation | Course Code with Name | Credits |
|---|---|---|---|
| 1 | 2019 | 19AI7202 - AI Analyst | 3 |
| 2 | 2019 | 19AI7203 - Ethics And Policy Issues In AI Computing | 2 |
| 3 | 2019 | 19AI7251- Deep Learning Techniques | 3 |
| 4 | 2019 | 19AI7301- Computer Vision | 3 |
| 5 | 2019 | 19AI7302 - Intelligent Multi Agent And Expert Systems | 3 |
| 6 | 2019 | 19AI7303 - Cognitive Systems | 3 |
| 7 | 2019 | 19AI7304 - Quantum Computing | 3 |
| 8 | 2019 | 19AI7305 - Web And Social Media Mining | 3 |
| 9 | 2019 | 21AI5601- Data structures using C Programming (Minor) | 3 |
| 10 | 2019 | 21AI5203- Foundations Of Robotics (Honours) | 3 |
| 11 | 2019 | 21AI5204 - Public Key Infrastructure And Trust Management (Honours) | 3 |
| 12 | 2019 | 21AI5205 - Principles Of Cyber Physical Systems (Honours) | 3 |
| 13 | 2022 | 22CS3201- Data Structures | 3 |
| 14 | 2022 | 22AI3203 - Microprocessor And Embedded Systems | 3 |
| 15 | 2022 | 22AI3001 - Microprocessor And Embedded System Laboratory | 2 |

**(III) Mandatory Courses**

| S.No. | Course Code with Name |
|---|---|
| 1. | 22MC1093/ 22MC1094 – தமிழர் மரபு /Heritage Of Tamil |
| 2. | 22MC1095 - Universal Human Values (Common To All Branches) |
| 3. | 22MC3191 - Essence of Indian Traditional Knowledge |
| 4. | 21HE5071 - Soft Skills - I |
| 5. | 21HE5072 - Design Thinking |

**(IV) Non-credit Mandatory Courses**

| S.No. | Course Code with Name |
|---|---|
| 1. | 22HE1073 - Introduction to Soft Skills. |
| 2. | 22MC1095 - Universal Human Values (Common To All Branches) |

**(V) Additional Credit Courses Introduced:**

| S.No. | Course Code with Name |
|---|---|
| 1. | 22MC1093/ 22MC1094 - தமிழர்மரபு /Heritage Of Tamil |
| 2. | 22MC1095 - Universal Human Values (Common To All Branches) |
| 3. | 21HE5071 - Soft Skills - I |
| 4. | 21HE5072 - Design Thinking |
| 5. | 22HE3071 - Soft Skills -2 (Common) |

**(VI) The following recommendations given by stakeholders are considered and incorporated.**

1. Dr Thulasimani K , Anna University Nominee Suggested to include recent editions of text and reference books in the syllabus. Also suggested that, if one text book covers all the units then one text book is enough. Otherwise, more than one text books may be included in the syllabus.
2. The subject expert Dr PRAKASH P suggested to change the title of the subject Data Structures and Algorithms to Data Structures because the syllabus covers more on Data Structures concepts instead of Algorithmic concepts.
3. The subject expert Dr Sivaganesan Suggested to include the subject "Robotics Process Automation " in Robotics Domain
4. In "Foundations of AI laboratory", the subject expert Dr.Marikkannan, Suggested to include scenario based questions and Mini Project
5. In "Microprocessor and Embedded Systems" subject, The subject expert Dr Sivaganesan suggested to include the basics of 8085, 8051 microcontroller topics.
6. The Industry expert H. Rajesh Kumar in the Data structures using C Programming subject syllabus suggested to reframe with Python programming language, Dr Thulasimani K , Anna University Nominee Explained as "The STL makes it simple for code and support low level operations, scientific computing and data intensive applications. Useful for placement to get strong base in programming skills. it is preferable to have Data Structures using C in the curriculum instead of Data Structures using Python . Expert H.Rajesh Kumar accepted the same.

- Employability courses introduced for member's approval.
    - 22HE1072 - Entrepreneurship & Innovation
    - 22HE1073 - Introduction to Soft Skills
    - 22HE3071 - Soft Skills -2 (Common)

**(VII). General Recommendations:**

| S. No | Suggestion Given by the BoS Experts | Action Taken |
|---|---|---|
| 1. | Dr Thulasimani K , Anna University Nominee suggested to have minimum of five Course Objectives and Course Outcomes for all the Subjects | Will be incorporated |
| 2 | Dr Sudha Sadasivam G Subject Expert asked to remove the terms like "Basic, Fundamentals, Introduction, etc.," from the subject title. | Will be incorporated |
| 3 | Dr Prakash, Subject Expert Suggested to include lab component courses for Specialization course ( Professional Electives, Open Electives and Minor Degree Courses). | Will be incorporated |

**Chairman**
**(Board of Studies)**

**Dean Academics**

**Dean (Academics)**

**Academic Year : 2023-2024**

**Board of Studies Meeting- MINUTES**

The meeting of the Eleventh Board of Studies in Department of SCIENCE&HUMANITIES Undergraduate programme was conducted on **15 May 2023** at 10.30 am through both Physical and Online Mode (Google Meet).

Venue : Library & **Link :** https://meet.google.com/pnk-taht-vof

**The following members were present:**

| S.No | Name of the Person | Department | Position |
|---|---|---|---|
| 1 | **Dr. K.P.Uma**<br>HoD of Science and Humanities,<br>Hindusthan College of Engineering & Technology<br>Coimbatore-641 032<br>Mobile No.:9442021062<br>E-mail: umamaths95@gmail.com | S&H | Chairman |
| 2 | **Dr.C.Porkodi**<br>Professor,<br>Department of Mathematics,<br>PSG College of Technology,<br>Mobile: 7550357410<br>E-mail: cpg.maths@psgtech.ac.in | Mathematics | University Nominee |
| 3 | **Dr.N.Muthukumarasamy,**<br>Prof. and Head<br>Deparment of Physics,<br>Coimbatore Institute of Technology,<br>Coimbatore – 641 014.<br>Mobile No.9442954202<br>Vishnukutty2002@yahoo.co.in | Physics | Subject Expert |
| 4 | **DrJoseph Ponniah**<br>Professor,<br>Department of English<br>National Institute of Technology, Tiruchirappalli.<br>Mobile No :9487368155<br>E_mail:josephponniahr@gmail.com | English | Subject Expert /Member from QIS rated Institution |
| 5 | **Dr. P.A.Periasamy**<br>Associate Professor in Chemistry,<br>Dr.Mahalingam College of Engineering and Technology<br>Mobile: 7373227754<br>E-mail: pap@drmcet.ac.in | Chemistry | Subject Expert |
| 6 | **Dr. Lakshmana Gomathi Nayagam. V**<br>Professor, Department of Maths<br>National Institute of Technology, Tiruchirappalli<br>Mobile No :9443881718<br>E_mail:velulakshmanan@nit.edu | Mathematics | Subject Expert /Member from QIS rated Institution |
| 8 | **Ms. A. Narmatha**<br>Assistant Professor of Mathematics<br>Hindusthan College of Engineering & Technology<br>Coimbatore-641 032<br>Mobile No.: 9843268171<br>E-mail: narmadhakrishna@gmail.com | Mathematics | Member |
| 9 | **Dr.K.Kannan**<br>Professor of Mathematics<br>Hindusthan College of Engineering & Technology<br>Coimbatore-641 032<br>Mobile No.: 9842257356<br>E-mail: Kannan.maths@hicet.ac.in | Mathematics | Member |
| 9 | **Dr. K. Sivakumar**<br>Associate Professor of Physics<br>Hindusthan College of Engineering & Technology<br>Coimbatore-641 032<br>Mobile No.: 9842048708 | Physics | Member |

| | | | |
|---|---|---|---|
| | E-mail:sivakphy@gmail.com | | |
| | | | |
| 10 | **Ms. B. Jeyagowri**<br>Assistant Professor of Chemistry<br>Hindusthan College of Engineering & Technology<br>Coimbatore-641 032<br>Mobile No.: 9894245562<br>E-mail:gowrivasu2007@gmail.com | Chemistry | Member |
| 11 | **Dr.E.Sumathi**<br>Assistant Professor of English<br>Department of Science and Humanities<br>Hindusthan College of Engineering and Technology<br>Mobile No.: 9994334100<br>E-mail: marimuthunarmatha@gmail.com | English | Member |
| 12 | **Dr. .S.Padma**<br>Assistant Professor of Mathematics<br>Hindusthan College of Engineering & Technology<br>Coimbatore-641 032<br>Mobile No.: 9940900391<br>E-mail: Padma.maths@hicet.ac.in | Mathematics | Autonomous Coordinator |
| 13 | **Dr.T.Rojamary**<br>Assistant Professor of Mathematics<br>Hindusthan College of Engineering & Technology<br>Coimbatore-641 032<br>Mobile No.: 9659471916<br>E-mail: rojamary.maths@hicet.ac.in | Mathematics | Autonomous Coordinator |
| 14 | **Mr.A.Sivaganesh**<br>**Asso.Analyst, WIPRO,**<br>**Olympia Tech Park, Guindy, Chennai.** | — | Alumni |

The Chairman of BoS Dr.K.P. UMA greeted all the dignitaries for the meeting and introduced BoS members.

Followed by, Chairman presented the suggestions given by the experts and the action taken report during the Previous BoS meeting which was held on **10.02.2023** and it was approved. Chairman also gave an outline of the scheme of new regulations R2022 and changes to be brought in the curriculum and syllabus discussed in the Department Advisory Committee (DAC) Meeting held on 08.05.2023.

## Recommendations by BoS Subject Experts (Subject Related)

### 22HE1151 & 22HE2151 - ENGLISH FOR ENGINEERS & EFFECTIVE TECHNICAL COMMUNICATION:

- It was discussed in the meeting that all units for odd sem and even sem syllabi must include reading parts.
- In addition, the syllabus is being modified, and reading components are included.

### 22MA3106 –DISCRETE MATHEMATICS AND 22MA3103 - DISCRETE MATHEMATICS AND GRAPH THEORY (CSE )OF III SEMESTER

- Jean-Paul Tremblay and R. Manohar "Discrete Mathematical Structures with Applications to Computer Science" book may be included in the list of Text/Reference books.

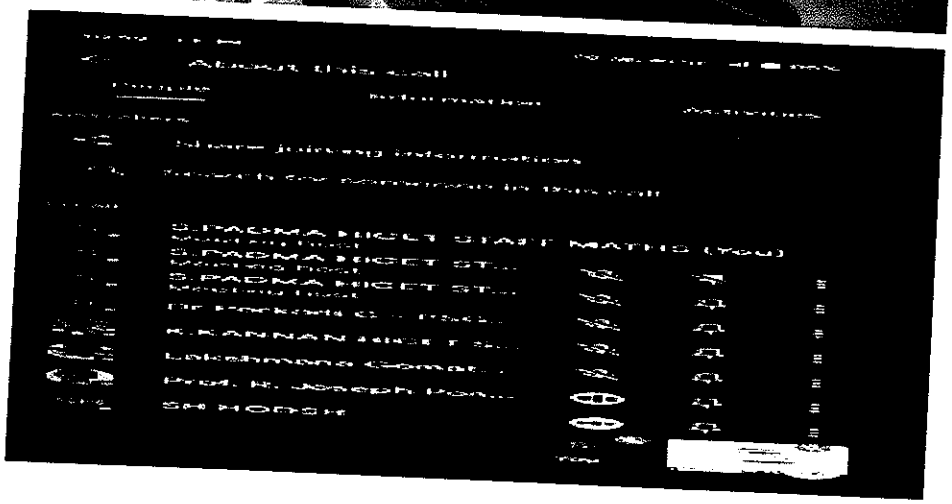
### 22PH1151 - PHYSICS FOR NON- CIRCUIT ENGINEERING I – SEM (AERO,AUTO,AGRI,CHEM,CIVIL,MECH,MCT &FT)

- The topic - Testing of thickness of surface- Michelson interferometer may be included in the third unit Wave Optics.









**Chairman**

**(Board of studies)**

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## DEPARTMENT OF SCIENCE & HUMANITIES

## MINUTES OF BOARD OF STUDIES MEETING

Name of the Department: **-Science & Humanities** **Date: 15.05.2023**

The Tenth Board of Studies meeting of regulation 2022 for the academic year 2023-2024 Even Semester was conducted on 15.05.2023 at 10.15 a.m. in Library, Hindusthan College of Engineering and Technology.

The following members were present:

| S.No. | Name of the Member | Position | Signature |
|---|---|---|---|
| 1. | **Dr. K.P.Uma,** HoD of Science and Humanities,<br>Hindusthan College of Engineering & Technology,Coimbatore-641 032<br>Mobile No.:9442021062 ,E-mail: umamaths95@gmail.com | Chairman | 15/5/23 |
| 2. | **Dr.C.Porkodi** ,Professor,Department of Mathematics,<br>PSG College of Technology,Mobile: 7550357410E-mail: cpg.maths@psgtech.ac.in | University Nominee | Attended thru' online. |
| 3. | **Dr.N.Muthukumarasamy,**Prof. and Head, Deparment of Physics,<br>Coimbatore Institute of Technology,Coimbatore – 641 014.<br>Mobile No.9442954202, Vishnukutty2002@yahoo.co.in | Academic Expert - Physics | |
| 4. | **DrJoseph Ponniah,** Professor,,Department of English<br>National Institute of Technology, Tiruchirappalli.<br>Mobile No :9487368155,E_mail:josephponniahr@gmail.com | Academic Expert- English (from QIS rated Institution) | Attended thru' online. |
| 5. | **Dr. P.A.Periasamy,**Associate Professor in Chemistry,<br>Dr.Mahalingam College of Engineering and Technology<br>Mobile: 7373227754,E-mail: pap@drmcet.ac.in | Academic Expert- Chemistry | 15/5/23 |
| 6. | **Dr. Lakshmana Gomathi Nayagam. V,**Professor, Department of Maths<br>National Institute of Technology, Tiruchirappalli<br>Mobile No :9443881718, E_mail:velulakshmanan@nit.edu | Academic Expert- Mathematics (from QIS rated Institution) | Attended thru' online |

| | | | |
|---|---|---|---|
| 7. | **Ms. A. Narmatha,**Assistant Professor of Mathematics<br><br>Hindusthan College of Engineering & Technology,Coimbatore-641 032<br><br>Mobile No.: 9843268171,E-mail: narmadhakrishna@gmail.com | Member | |
| 8. | **Dr.K.Kannan,**Professor of Mathematics<br><br>Hindusthan College of Engineering & Technology,Coimbatore-641 032<br><br>Mobile No.: 9842257356,E-mail: Kannan.maths@hicet.ac.in | Member | |
| 9. | **Dr. K. Sivakumar,**Associate Professor of Physics<br><br>Hindusthan College of Engineering & Technology,Coimbatore-641 032<br><br>Mobile No.: 9842048708,E-mail:sivakphy@gmail.com | Member | |
| 10. | **Ms. B. Jeyagowri,**~~Assistant~~ Professor of Chemistry<br><br>Hindusthan College of Engineering & Technology,Coimbatore-641 032<br><br>Mobile No.: 9894245562,,E-mail:gowrivasu2007@gmail.com | Member | |
| 11. | **Dr.E.Sumathi** ,Assistant Professor of English<br><br>Department of Science and Humanities,<br><br>Hindusthan College of Engineering and Technology<br><br>Mobile No.: 9994334100,E-mail: marimuthunarmatha@gmail.com | Member | |
| 12. | **Ms.S.Padma,**Assistant Professor of Mathematics<br><br>Hindusthan College of Engineering & Technology,Coimbatore-641 032<br><br>Mobile No.: 9940900391,E-mail: Padma.maths@hicet.ac.in | Autonomous Coordinator | |
| 13. | **Dr.T.Rojamary,**Assistant Professor of Mathematics<br><br>Hindusthan College of Engineering & Technology,Coimbatore-641 032<br><br>Mobile No.: 9659471916,E-mail: rojamary.maths@hicet.ac.in | Autonomous Coordinator | |
| 14. | **Mr.A.Sivaganesh,Asso.Analyst,**<br><br>**WIPRO,Olympia Tech Park, Guindy, Chennai** | Alumni Member | Attended thro' online. |

# *Hindusthan College of Engineering And Technology*

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**(An Autonomous Institution, Affiliated to Anna University, Chennai)**
Coimbatore – 641 032

Date : 15.06.2023

## ACTION TAKEN REPORT ON BoS

Name of the Department: SCIENCE & HUMANITIES

The meeting of **ELEVENTH** board of studies of Regulation 2022 for the Department of **SCIENCE & HUMANITIES** was conducted on **14.06.2023** at 02.00P.M in Library, Hindusthan College of Engineering and Technology.

### (I) Syllabus Revision for the Regulations 2019

| S.No | Courses in which revision has been done | Action taken | Percentage Syllabus Revised |
|---|---|---|---|
| 1 | **22PH1151** PHYSICS FOR NON CIRCUIT ENGINEERING ( aaa AGRI, CHEM , FT, AERO, AUTO, CIVIL ,MECH, MECT) - The topic - Testing of thickness of surface- Michelson interferometer may be included in the third unit Wave Optics. | Approved & Incorporated | 5% |
| 2 | **2HE1151 ENGLISH FOR ENGINEERS** - All units odd sem and even sem syllabi must include reading parts. | Approved & Incorporated | 20% |
| | **22MA3106 –DISCRETE MATHEMATICS AND 22MA3103 - DISCRETE MATHEMATICS AND GRAPH THEORY (CSE )OF III SEMESTER** - Jean-Paul Tremblay and R. Manohar "Discrete Mathematical Structures with Applications to Computer Science" book may be included in the list of Text/Reference books. | Approved & Incorporated | -- |

### (II) Syllabus Related Recommendations for I semester – R2022

| S.No | Courses in which revision has been done | Action taken | Percentage Syllabus Revised |
|---|---|---|---|
| 1 | As per Anna University direction, □□□□□□□□□□ /Heritage of Tamils and □□□□□□□□ □□□□□□□□□□□□□□□□□ / Tamils and Technology are to be introduced **with one credit** in the I and II semester curriculum respectively. | Approved & Incorporated | ---- |

| | | | |
|---|---|---|---|
| 2 | Also as per the recommendation of Stake holders given in Department Advisory committee meeting, it is suggested to bring the Introduction to soft skill course in the I semester **(with Zero credit)** and the Soft skills and Aptitude –I course in the II semester **(with one credit)** which would be enhancing the employability skills. | Incorporated | ---- |
| 3 | It is recommended to Universal Human values as the mandatory course in Semester I with zero credit. | Incorporated | ---- |

**Overall Percentage of revision made in the BoS: 2/36 = 5.55 %**

**(III) New Courses Introduced:**

| S. No | Regulation | Course Code with Name | Credits |
|---|---|---|---|
| 1 | **22MA3101** | APPLIED STATISTICS AND QUEUING THEORY **(IT)** | 4 |
| 2 | **22MA3102** | COMPLEX ANALYSIS AND TRANSFORMS ( **ECE,EEE,EIE)** | 4 |
| 3 | **22MA3103** | DISCRETE MATHEMATICS AND GRAPH THEORY**(CSE)** | 4 |
| 4 | **22MA3104** | FOURIER ANALYSIS AND NUMERICAL TECHNIQUES **(AUTO, AERO)** | 4 |
| 5 | **22MA3105** | FOURIER SERIES AND TRANSFORMS**( MECT, MECH)** | 4 |
| 6 | **22MA3106** | DISCRETE MATHEMATICS**(AIML)** | 4 |
| 7 | **22MA3107** | NUMERICAL METHODS ( **CHEM & FT)** | 4 |
| 8 | **22MA3108** | STATISTICS & NUMERICAL METHODS **(CIVIL )** | 4 |
| 9 | **22MA3109** | TRANSFORMS AND APPLICATIONS **(AGRI)** | 4 |
| 10 | 22MA3151 | STATISTICS AND NUMERICAL METHODS WITH R PROGRAM(BME) | 4 |

**(IV) Mandatory Courses**

| **S.No.** | **Course Code with Name** |
|---|---|
| 22MC1093/22MC1094 | தமிழர்மரபு /HERITAGE OF TAMIL |

**(V) Non-credit Mandatory Courses – Newly Introduced**

| S.No. | Course Code with Name |
|---|---|
| 1. | - 22MC1095 UNIVERSAL HUMAN VALUES WITH ZERO CREDIT (Common to all branches) |

**(VI) Additional Credit Courses Introduced:**

| S.No. | Course Code with Name |
|---|---|
| NIL | |

(VII) The following recommendations given by stakeholders are considered and incorporated.

- It is recommended to change the existing Mandatory courses of Indian Constitution and Essence of Indian Traditional Knowledge from I & II semester to higher semesters (III and IV semester respectively) for the students admitted in the year 2023 and onwards.
- Also as per the recommendation of Stake holders given in Department Advisory committee meeting, it is suggested to bring the Introduction to soft skill course in the I semester (**with Zero credit**) and the Soft skills and Aptitude –I course in the II semester (**with one credit**) which would be enhancing the employability skills.
- It is recommended to Universal Human values as the mandatory course in Semester I with zero credit.

**(VIII). General Recommendations:**

| S. No | Suggestion Given by the BoS Experts | Action Taken |
|---|---|---|
| 1. | No revision or updating required in existing I semester Mathematics and Chemsitry courses | Considered |
| 2 | Existing & also proposed Employability enhancement course and Mandatory courses are appreciable and recommended to continue the same. | Considered |

**Chairman**
**(Board of Studies)**

**Dean Academics**

Dean (Academics)
HiCET

(5)

HINDUSTHAN EDUCATIONAL AND CHARITABLE TRUST
HICET

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Valley Campus, Pollachi Highway, Coimbatore

TÜVRheinland CERTIFIED

Date: 12.06.23

## MINUTES OF BOS MEETING

Name of the Department: ME Communication Systems

The Twelfth Board of Studies meeting for BE Electronics and Communication Engineering for the academic year odd 2023-24 was conducted on 03.06.2023 at 10.00am in Hybrid mode with Google meet- https://meet.google.com/ipy-hoob-pdg

The following members were present.

| S. No | Name of the Person | Department | Position |
|---|---|---|---|
| 1. | Dr.P.Vijayalakshmi<br>Professor<br>Hindusthan College of Engineering and Technology | ECE Dept | Chairperson |
| 2. | Dr.S.J.Thiruvengadam,<br>Professor and Dean (Academics),<br>Thiagarajar College of Engineering,<br>Madurai 625 015 | ECE Dept | University Nominee |
| 3. | Dr.C.Shanthi<br>Professor & Head of the Department,<br>Govt. College of Technology, Coimbatore-641 013. | ECE Dept | Subject Expert |
| 4. | Dr.Krishaveni V,<br>Professor (CAS) and Head,<br>PSG College of Technology, Coimbatore-641 004. | ECE Dept | Subject Expert |
| 5. | Ms.T.Vidhya Sri,<br>Director,<br>Institute Relations and HR,<br>Adroit technologies Innovation Solutions (IBM Partner),<br>Coimbatore. | Director | Industry Expert (IBM Partner) |
| 6. | Dr.R.Michaelraj Kingston,<br>Professor,<br>Sri Eshwar College of Engineering,<br>Coimbatore. | ECE Dept | Alumni |

| | | | |
|---|---|---|---|
| 7. | Dr.M.Pachiyaannan,<br>Associate Professor<br>Vignan's foundation for Science,Technology and Research,<br>Guntur,AndraPradesh | ECE Dept | Member from QIS rated Institution |
| 8. | Dr.B.Paulchamy,<br>Professor<br>Hindusthan Institute of Technology | ECE Dept | Member from sister concern |
| 9. | Dr.R.Sabitha<br>Professor<br>Hindusthan College of Engineering and Technology | ECE Dept | Member & Autonomous Coordinator |
| 10. | Dr.K.Kalaiselvi<br>Associate Professor<br>Hindusthan College of Engineering and Technology | ECE Dept | Member |
| 11. | Dr.P.Geetha<br>Associate Professor<br>Hindusthan College of Engineering and Technology | ECE Dept | Member |
| 12. | Dr.J.Ramya<br>Associate Professor<br>Hindusthan College of Engineering and Technology | ECE Dept | Member |
| 13. | Mr. Shanamithraa M<br>II ME CS<br>Hindusthan College of Engineering and Technology | ECE Dept | Student Member |
| 14. | Mr.M.D.Hassain<br>II ME AE<br>Hindusthan College of Engineering and Technology | ECE Dept | Student Member |

- The Chairman-BoS welcomed the University nominee, Subject experts, special invitees and all the internal members for the eleventh Board of Studies meeting.

**The following resolutions were made in the Board of Studies meeting,**

**For Regulations 2022: M.E Communication Systems:**

- The curriculum and syllabi under regulation R2022 for all semesters of **M.E Communication Systems program** for the students admitted in the academic year 2022 – 2023 and onwards was permitted to move on to Academic Council.
- Chairman conveyed that, the ssuggestions given by the Previous Board of Studies members are ratified and resolved.

The meeting ended with thanks to the Chair at 03.30 P.M.

**Chairman**

**(Board of Studies)**

**Chairman - BoS**
**ECE - HiCET**

**Enclose:**

1. CDC Minutes
2. DAC meeting Minutes –ATR
3. Previous BoS Minutes-ATR
4. Regulation 2022
5. Curriculum and Syllabi of R2019 and R2022

**Copy:**

1. The Principal
2. Dean Academics
3. Controller of Examinations
4. All the Members of BoS
5. File

HINDUSTHAN EDUCATIONAL AND CHARITABLE TRUST
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Valley Campus, Pollachi Highway, Coimbatore

Date: 12.06.23

## ACTION TAKEN REPORT ON BOS

Name of the Department: PG-(ME-Communication Systems)

The Tenth Board of Studies meeting for BE Electronics and Communication Engineering for the academic year odd 2023-24 was conducted on 3.06.2023 at10.00am in Hybrid mode. Google meet (https://meet. meet.google.com/ipy-hoob-pdg).

- No Modifications has been suggested in the 2019 Curriculum and Syllabi.

CHAIRMAN
BOS/ECE
**Chairman - BoS**
**ECE - HiCET**

DEAN
ACADEMICS
**Dean (Academics)**
**HiCET**

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Valley Campus, Pollachi Highway, Coimbatore

Date: 12.06.23

## MINUTES OF BOS MEETING

Name of the Department: ME Applied Electronics

The Twelth Board of Studies meeting for BE Electronics and Communication Engineering for the academic year ODD 2023-24 was conducted on 03.06.2023 at 10.00am in Hybrid mode with Google meet (https://meet.google.com/ipy-hoob-pdg).

The following members were present.

| S.No. | Name of the Person | Department | Position |
|---|---|---|---|
| 1. | Dr.P.Vijayalakshmi<br>Professor<br>Hindusthan College of Engineering and Technology | ECE Dept | Chairperson |
| 2. | Dr.S.J.Thiruvengadam,<br>Professor and Dean (Academics),<br>Thiagarajar College of Engineering,<br>Madurai 625 015 | ECE Dept | University Nominee |
| 3. | Dr.C.Shanthi<br>Professor & Head of the Department,<br>Govt. College of Technology, Coimbatore-641 013. | ECE Dept | Subject Expert |
| 4. | Dr.Krishaveni V,<br>Professor (CAS) and Head,<br>PSG College of Technology, Coimbatore-641 004. | ECE Dept | Subject Expert |
| 5. | Ms.T.Vidhya Sri,<br>Director,<br>Institute Relations and HR,<br>Adroit technologies Innovation Solutions (IBM Partner),<br>Coimbatore. | Director | Industry Expert (IBM Partner) |
| 6. | Dr.R.Michaelraj Kingston,<br>Professor,<br>Sri Eshwar College of Engineering,<br>Coimbatore. | ECE Dept | Alumni |

| | | | |
|---|---|---|---|
| 7. | Dr.M.Pachiyaannan,<br>Associate Professor<br>Vignan's foundation for Science,Technology and Research,<br>Guntur,AndraPradesh | ECE Dept | Member from QIS rated Institution |
| 8. | Dr.B.Paulchamy,<br>Professor<br>Hindusthan Institute of Technology | ECE Dept | Member from sister concern |
| 9. | Dr.R.Sabitha<br>Professor<br>Hindusthan College of Engineering and Technology | ECE Dept | Member & Autonomous Coordinator |
| 10. | Dr.K.Kalaiselvi<br>Associate Professor<br>Hindusthan College of Engineering and Technology | ECE Dept | Member |
| 11. | Dr.P.Geetha<br>Associate Professor<br>Hindusthan College of Engineering and Technology | ECE Dept | Member |
| 12. | Dr.J.Ramya<br>Associate Professor<br>Hindusthan College of Engineering and Technology | ECE Dept | Member |
| 13. | Mr. Shanamithraa M<br>II ME CS<br>Hindusthan College of Engineering and Technology | ECE Dept | Student Member |
| 14. | Mr.M.D.Hassain<br>II ME AE<br>Hindusthan College of Engineering and Technology | ECE Dept | Student Member |

- The Chairman-BoS welcomed the University nominee, Subject experts, special invitees and all the internal members for the eleventh Board of Studies meeting.
- The following courses are added in the Professional Electives list and the syllabi is presented to the BoS members and passed.
    i. Testing of VLSI Circuits
    ii. Low Power VLSI Design
    iii. System on Chip Design
    iv. Nanoelectronics and
    v. MEMS.

**The following resolutions were made in the Board of Studies meeting,**

**For Regulations 2022 M.E Applied Electronics:**

**% revision in the curriculum- R2022 ME-AE**

| | |
|---|---|
| **Total Number of courses passed in this BOS** | **5** |
| **No. of courses revised** | **0** |
| **% revision in courses** | **0** |

- The curriculum and syllabi of R2022 for all semesters of **M.E Applied Electronics program** for the students admitted during the academic year 2022 – 2023 and onwards was passed and forwarded to Academic Council.
- Chairman conveyed that, the Suggestions given by the Previous Board of Studies members are ratified and resolved.

The meeting ended with thanks to the Chair at 03.30 P.M.

P. Hayle

**Chairman**

**(Board of Studies)**

**Chairman - BoS**
**ECE - HiCET**

**Enclose:**

1. CDC Minutes
2. DAC meeting Minutes –ATR
3. Previous BoS Minutes-ATR
4. Regulation 2022
5. Curriculum and Syllabi of R2019 and R2022

**Copy:**

1. The Principal
2. Dean Academics
3. Controller of Examinations
4. All the Members of BoS
5. File

Date: 23.02.2023

## MINUTES OF THE BOARD OF STUDIES MEETING

Name of the Department: **Electrical and Electronics Engineering**

The Third Board of Studies meeting for the ME Embedded Systems program of Regulation 2020 for the academic year 2022-2023 was conducted on 23.02.2023 at 11.00 am in ONLINE mode through Google Meet.

The following members were present.

| S.No. | Name of the Member | Position |
|---|---|---|
| 1. | Dr.N.P.Ananthamoorthy | Chairman |
| 2. | Dr.T.Aruldoss Albert Victoire | University Nominee |
| 3. | Dr.K.Baskaran | Academic Expert |
| 4. | Dr. K. Ranjith kumar | Academic Expert |
| 5. | Mr.Rajesh kumar J | Industry Expert |
| 6. | Dr.K.Sekar | Member |
| 7. | Dr. K.Mathan | Member |
| 8. | Dr. R. Rajesh Kanna | Member |
| 9. | Ms.B.Nandhini | Member |
| 10. | Mr. M. P. Viswanathan | Member |
| 11. | S.Sathiyaraj | Student Member |
| 12. | S.M.Anushiya | Student Member |
| 13. | M.Vinoth Kumar | Student Member |

- The Chairman-BoS welcomed the University nominee, Subject experts, special invitees, and all the internal members for the Third Board of Studies meeting.
- Chairman also gave an outline of the changes to be made in the curriculum given by the Curriculum Development Cell (CDC) & Pre-Board of studies/ Department Advisory Committee (DAC).
- The feedback received on the curriculum by the stakeholders was presented.
- The Chairman conveyed to the members that, based on the Anna University Curriculum, the Curriculum and syllabus for I – IV semesters of M.E, Embedded Systems was framed.

**Comments by Experts:**

1. Chairman presented and requested the board members to accept the syllabi of Regulation 2020 for I to IV semester subjects which were passed by Electrical and Electronics Engineering.

**The following resolutions are made in the Board of Studies meeting**

- In almost all the courses, changes have been done as per the current needs.
- All the courses in the curriculum are framed based on the Employability, Skill development, and Entrepreneurship context to meet the industry needs.
- The curriculum and syllabus of Regulation 2020 for I to IV semester subjects were reviewed and permitted to move on Academic Council by the BoS members of Electrical and Electronics Engineering for the students admitted during the academic year 2022-2023 onwards.
- The Board Members Emphasized to include new Text books in the Syllabus.

The meeting ended with thanks by the Chairman at 12.30 P.M

Chairman (Board of Studies)

**Chairman - BoS**
**EEE - HiCET**

**Enclose:**

1. Pre-Board of studies/ DAC meeting Minutes
2. Curriculum and Syllabi

**Copy:**

1. The Principal
2. Dean Academics
3. Controller of Examinations
4. All the Members of BoS

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## Department of Electrical and Electronics Engineering

Date: 23.02.2023

**Action taken report on BoS**

Action taken report for the Third Board of Studies meeting for ME Embedded Systems Postgraduate programme of Regulation 2020 for the academic year 2022-2023 was conducted on 23.02.2023 at 11.00 AM in Online Mode.

**General Recommendations:**

| BOS Members Suggestions | | | |
|---|---|---|---|
| **Subject Name** | **Suggestions** | **Explanation / Action Taken** | **Remarks** |
| For I - IV Semester subjects | The curriculum and syllabus of these semesters were reviewed and accepted without any changes | Nil | |

**Chairman**
**Board of Studies**

**Chairman - BoS**
**EEE - HiCET**

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Coimbatore – 641 032

Date: **14.06.2023**

## MINUTES OF THE BOARD OF STUDIES MEETING

Name of the Department: **M.E COMPUTER SCIENCE AND ENGINEERING**

The Board of Studies meeting for the M.E CSE program of Regulation 2020 for the academic year 2023-2024 was conducted on 14.06.2023 at 10.00 a.m. in Hybrid mode, Hindusthan College of Engineering and Technology. (Google Meet: meet.google.com/vkk-mdwf-yjs).

The following members were present:

| S. No. | Name of the Member | Position |
|---|---|---|
| 1 | **Dr Shankar S**<br>**Professor & HOD**<br>Department of Computer Science and Engineering,<br>Hindusthan College of Engineering and Technology | Chairman |
| 2 | **Dr Thulasimani K**<br>Professor, Department of Computer Science and Engineering, Government College of Engineering, Tirunelveli-627007 | University Nominee |
| 3 | **Dr Sudha Sadasivam G**<br>Professor<br>Department of Computer Science and Engineering,<br>PSG College of Technology,<br>Coimbatore. | Subject Expert |
| 4 | **Dr Surendiran B**<br>Assistant Professor<br>Dept of Computer Science and Engineering, National Institute of Technology, Puducherry. | Subject Expert |
| 5 | **Dr PRAKASH P**<br>Associate Professor<br>School of Computer Science and Engineering, VIT Chennai. | Member from QIS rated Institution |
| 6 | **Mr Rajesh Kumar H**<br>Founder<br>BuzzTech Training Institute, Coimbatore. | Industry Expert |
| 7 | **Mr Manuraj Rajamanikandan**<br>Non-Functional Consultant<br>Cognizant, Kochi,<br>Kerala. | Alumni |
| 8 | **Dr JAMEER BASHA A**<br>**Professor & HOD** | Member from sister |

| | | |
|---|---|---|
| | Department of Computer Science and Engineering,<br>Hindusthan Institute of Technology | concern |
| 9 | **Ms SATHYA S**<br>Assistant Professor<br>Department of Computer Science and Engineering,<br>Hindusthan College of Engineering and Technology,<br>Coimbatore-641032 | Autonomous Coordinator & BoS Member |
| 10 | **Dr SATHEESH KUMAR D**<br>Associate Professor<br>Department of Computer Science and Engineering,<br>Hindusthan College of Engineering and Technology,<br>Coimbatore-641032 | Member |
| 11 | **Dr PRAKASH J**<br>Associate Professor<br>Department of Computer Science and Engineering,<br>Hindusthan College of Engineering and Technology,<br>Coimbatore-641032 | Member |
| 12 | **Mr Mahesh D**<br>Assistant Professor<br>Department of Computer Science and Engineering,<br>Hindusthan College of Engineering and Technology,<br>Coimbatore-641032 | Member |
| 13 | **Mr. Sriram S**<br>19104145 - IV BE CSE C<br>Department of Computer Science and Engineering,<br>Hindusthan College of Engineering and Technology,<br>Coimbatore-641032 | Student Member |
| 14 | **Mr. M.Kamalesh Kumar**<br>20104102 - III BE CSE B<br>Department of Computer Science and Engineering,<br>Hindusthan College of Engineering and Technology,<br>Coimbatore-641032 | Student Member |
| 15 | **Mr Sivanandhan P**<br>Parent Member<br>F/o. Mr. Sriram<br>IV BE CSE C | Parent Member |
| 16 | **Mr.Mohan Kumar P**<br>Parent Member<br>F/o, Mr.Kamalesh Kumar,III BE CSE B | Parent Member |

- The Chairman-BoS welcomed the University nominee, Subject experts, special invitees, and all the internal members for the Board of Studies meeting.
- Chairman also gave an outline of the changes to be made in the curriculum given by the Curriculum Development Cell (CDC) & Pre-Board of studies/ Department Advisory Committee (DAC).
- The feedback received on the curriculum by the stakeholders was presented.
- The Chairman conveyed to the members that, based on the Anna University Curriculum, the Curriculum and syllabus for I – IV semesters of M.E, CSE was framed.

**Comments by Experts:**

1. Chairman presented and requested the board members to accept the syllabi of Regulation 2020 for I to IV semester subjects which were passed by Computer Science and Engineering.

**The following resolutions are made in the Board of Studies meeting**

- In almost all the courses, changes have been done as per the current needs.
- All the courses in the curriculum are framed based on the Employability, Skill development, and Entrepreneurship context to meet the industry needs.
- The curriculum and syllabus of Regulation 2020 for I to IV semester subjects were reviewed and permitted to move on Academic Council by the BoS members of M.E CSE for the students admitted during the academic year 2023-2024 onwards.
- The Board Members Emphasized to include new Text books in the Syllabus.

The meeting ended with thanks by the Chairman at 12.30 P.M

**Chairman**

**(Board of Studies)**

**Chairman - BoS**
**CSE - HiCET**

**Enclose:**

1. Pre-Board of studies/ DAC meeting Minutes
2. Curriculum and Syllabi

**Copy:**

1. The Principal
2. Dean Academics
3. Controller of Examinations
4. All the Members of BoS

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HICET

## Department of Computer Science and Engineering

**Date: 14.06.2023**

**Action taken report on BoS**

Action taken report for the Board of Studies meeting for ME CSE Post graduate programme of Regulation 2020 for the academic year 2023-2024 was conducted on 14.06.2023 at 10.00 AM in Hybrid Mode. (Google Meet: meet.google.com/vkk-mdwf-yjs).

**General Recommendations:**

| BOS Members Suggestions | | | |
|---|---|---|---|
| **Subject Name** | **Suggestions** | **Explanation / Action Taken** | **Remarks** |
| For I - IV Semester subjects | The curriculum and syllabus of all semesters were reviewed and accepted without any changes | Nil | |

**Chairman**
**(Board of Studies)**

**Chairman - BoS**
**CSE - HiCET**

**Dean Academics**

**Dean (Academics)**
**HiCET**

Date :14.06.2023

## MINUTES OF BOS MEETING

**Name of the Department: DEPARTMENT OF COMPUTER APPLICATIONS**

- Welcome address was given by the chairman Dr.A.RJayasudha.

**The following members were present.**

| S.No | Name of the Person | Department | Position | Signature |
|---|---|---|---|---|
| 1 | Dr. K. Thulasimani | Computer Science and Engineering | **Anna University Nominee**<br>Professor, Department of Computer Science and Engineering<br>Government College of Engineering,<br>Tirunelveli – 627 007<br>Mail :thulasimani@gcetly.ac.in<br>Mob No :9486939882 | 14/06/2023 |
| 2 | Dr.T. Padma | Department of MCA | **Subject Expert - 1**<br>Professor and Head<br>Department of MCA<br>Sona College of Technology<br>Salem- 63 005.<br>Mail :padmat@sonatech.ac.in<br>Mob No : 9443203008. | 14/6/2023 |
| 3 | Mr. Gowri Shankar B U | Alumni | **Alumni**<br>2016 – 2019 Batch<br>Software Developer,<br>Larsen & Toubro Infotech,<br>Mumbai | |
| 4 | Dr.A.R.Jayasudha | MCA | Chairman | 14/6/23 |
| 5 | Mrs.M.Nirmala | MCA | Member | 14/6/23 |
| 6 | Dr.Princess Maria John | MCA | Member | 14/6/23 |

BoS chairman welcomed the members.

**R – 2020 SEMESTER 1**

1. Communicative Skills for Business English of semester 1 is replaced by an Soft skill course / Communication course / Technical course through NPTEL .

2. Members suggested to enhance the portions of Probability Statistics instead of Operation Research
3. Suggestions were given to phrase Course Objectives and course outcomes relatively.
4. In UI design and development correlation of Course objective and Course outcome should be done.
5. Anna university nominee suggested to rename Unit 1 in Computer networks as **FUNDAMENTALS**
6. Suggestions to interchange unit 2 and unit 1 in Java programming.
7. Suggestions to rename the unit headings in DBMS.

**R – 2020 SEMESTER III**

8. Suggested to reframe the Deep Learning to Deep Learning Techniques
9. Suggested to change the Unit 5 heading in Cryptography and network security as Intrusion Detection and to distribute the concepts of unit 2 and unit 3. Authentication and Application
10. Member suggested to include Domain name in Mini Project instead of simple descriptions.
11. Suggestions were given to review Ecommerce 3rd Unit.
12. Suggested to rename unit 5 of Research Methodology paper as Patents and Licensing

**Suggested to conduct web development technology as Value added course.**

The curriculum and the syllabus of semester 1 and 3, Bridge Course (1st Semester) and electives for the Academic year 2023 – 2024(Odd Sem) is approved by the above committee.

14/6/2023

**CHAIRMAN BOARD OF STUDIES**

**Chairman - BoS**
**MCA - HiCET**

1. Enclosed Approved syllabus

**Date : 14.06.2023**

## BOARD OF STUDIES MEETING – ATTENDANCE SHEET

**Name Of The Department : Department Of Computer Applications**

The eleventh Board of Studies meeting of Regulation 2020 for the academic Year 2023 – 2024 (Odd Sem) was conducted on 14.06.2023, 2.00 p.m. at Library Conference Hall

The following members were Present

| Sl.No. | Name of the person | Department | Position | Signature |
|---|---|---|---|---|
| 1 | DR.K. THULASIMANI PROFESSOR, GOVERNMENT COLLEGE OF ENGINEERING | COMPUTER SCIENCE & ENGG | PROFESSOR AU NOMINEE | 14/06/2023 |
| 2 | DR.T. PADMA PROF & HEAD, SONA COLLEGE OF TECHNOLOGY | MCA | PROFESSOR & HEAD | 14/6/2023 |
| 3. | MR.GOWRISHANKAR B U SENIOR SOFTWARE DEVELOPER | L&T MUMBAI | ALUMNI | |
| 4. | DR.A.R. JAYASUDHA PROFESSOR & HEAD I/C MCA | MCA | PROFESSOR & HEAD, BOS CHAIRMAN | 14/6/2023 |
| 5. | M. NIRMALA AP I/C MCA | MCA | BOS-MEMBER | 14/6/2023 |
| 6. | DR. PRINCESS MARIA JOHN AP I/C MCA | MCA | BOS-MEMBER | 14/6/23 |
| | | | | |
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# *Hindusthan College of Engineering And Technology*

Approved by AICTE, New Delhi, Accredited with 'A' Grade by NAAC
**(An Autonomous Institution, Affiliated to Anna University, Chennai)**
Coimbatore – 641 032

Date14.06.2023

## ACTION TAKEN REPORT ON BoS

Name of the Department: Department of Computer Applications

The meeting of Computer Applications board of studies of Regulation 2020 for the Department of Computer Applications Post Graduate Programme was conducted on 14.06.2023 at 02.00pm, in Department of Computer Applications, Hindusthan College of Engineering and Technology.

**(I) Syllabus Revision for the Regulations 2020**

| S.No | Courses in which revision has been done | Action taken | Percentage Syllabus Revised |
|---|---|---|---|
| 1. | 21CA1205 – Probability and Statistics | Modified | 30% |
| 2 | 21CA3310 – Fundamentals of Cloud Computing | Modified | 20% |

**Overall Percentage of revision made in the BoS: 23%**

**(III) New Course Introduced:**

| S. No | Regulation | Course Code with Name | Credits |
|---|---|---|---|
| 1 | R2020 | 21CA3206 – Deep Learning techniques | 4 |
| 2 | R2020 | 21CA3252 – Data Visualization using Tableau | 4 |
| 3 | R2020 | 21CA3003 –Deep Learning Lab. | 1.5 |

**(IV) Mandatory Courses (if any) - Nil**

**(V) Non-credit Mandatory Courses (if any)**

| S.No. | Course Name |
|---|---|
| 1. | Web Development Technology |

**(VI) Additional Credit Courses Introduced: Nil**

(VII) The following recommendations given by stakeholders are considered and incorporated.

- Value added courses on Web Development Technologyhas been introduced.

**(VIII). General Recommendations:**

| S. No | Suggestion Given by the BoS Experts | Action Taken |
|---|---|---|
| 1. | It was recommended to replace Communicative Skills for Business English of semester 1 by Communicative Skills for Business English of semester 1 is replaced by an Soft skill course / Communication course / Technical course through NPTEL | Considered |
| 2. | Suggested to enhance the portions of Probability Statistics instead of Operation Research. | Considered |
| 3. | In UI Design and Development suggestion was given to correlate the course objective and course outcome. | Considered |
| 4. | Anna university nominee suggested to rename Unit 1 in Computer networks as **FUNDAMENTALS** | Considered |
| 5. | Suggestions to interchange unit 2 and unit 1 in Java programming. | Considered |
| 6. | It was recommended to reframe the title of Deep Learning to Deep Learning Techniques. | Considered |
| 7. | Suggested to change the Unit 5 heading of Cryptography and network security as Intrusion Detection unit 3 AS Authentication and Applications. | Considered |
| 8. | Subject expert suggested to include Domain name in the Mini Project instead of simple descriptions. | Considered |
| 9. | It was recommended to rename unit 5 of Research Methodology paper as Patents and Licensing. | Considered |

**Chairman**
**(Board of Studies)**
**Chairman - BoS**
**MCA - HiCET**

**Dean Academics**
**Dean (Academics)**
**HiCET**

**Academic Year: 2023-2024**

**Minutes of the Board of Studies Meeting**

The Eleventh Board of Studies meeting of the Department of Management Sciences post graduate programme was conducted on 03.06.2023 in the Hybrid Mode(Google Meet: https://meet.google.com/oiz-zwdk-ksw)

The following members were present:

| S.No. | Name of the Person | Department | Position |
|---|---|---|---|
| 1 | Dr.K.Samuvel | Professor & Head, Department of Management Sciences | Chairman |
| 2 | Dr.R.Krishnaveni | Retired Professor, Department of Management Studies,PSG Institute of Management, Coimbatore | University Nominee |
| 3 | Dr. K. Ramamurthi | Principal, VLB Janakiammal College of Arts & Science,Kovaipudur, Coimbatore. | Subject Expert |
| 4 | Dr.J.Ashok | Professor, School of Business & Management, Christ University,Yeshwanthpur Campus. | Subject Expert |
| 5 | Dr.Bhawna Chahar | Associate Professor ,Department of Business Administration, Manipal University Jaipur, Jaipur, Rajasthan. | Subject Expert |

| | | | |
|---|---|---|---|
| 6 | Mr.M.Shyam Sundar | Procurement Operations Manager,Adidas | Industry Expert |
| 7 | Mr.R.Praveen Kumar | City Manager (TN & PY)<br>Ather Energy Pvt Ltd | Alumni |
| 8 | Dr.M.Bhuvaneswari | Professor, Department of Management Sciences | Member |
| 9 | Dr.S.Kamalasaravanan | Professor, Department of Management Sciences | Member |
| 10 | Dr.K.Nithyavathi | Associate Professor, Department of Management Sciences | Member |
| 11 | Dr.A.Jayanthi | Associate Professor, Department of Management Sciences | Member |
| 12 | Dr.V.Kanimozhi | Assistant Professor, Department of Management Sciences | Member |
| 13 | Lt.R.Manoj | Assistant Professor, Department of Management Sciences | Member |
| 14 | Mr.A.Prasanth | Assistant Professor, Department of Management Sciences | Member |
| 15 | Mr. G.Chandrasekaran | I MBA | Student Member |
| 16 | Ms.N.Saptha Prriya | I MBA | Student Member |
| 17 | Mr.P.Nallathambi | 47/1, Palaniyappa Layout,<br>SIDCO / Madhukarai Taluk<br>Coimbatore | Parent Member |

The chairman of the BOS, Dr.K.Samuvel welcomed all the members for the Tenth Board of Studies meeting.The chairman introduced the BOS members.

The Chairman presented the suggestions given by the experts and the action taken report during the Previous BoS meeting which was held during 15.02.2023 was approved.

The chairman gave an outline of the views expressed by the members of Department Advisory Committee (DAC) related to the Regulation 2020 curriculum and syllabus. The Board of Studies member's suggestion has been sought in this regard.

The following points were discussed.

*The following Discussion on Curriculum and Syllabus took place:*

| S.No | Name of the Course | Suggestions incorporated |
|---|---|---|
| 1 | 20BA1201-Business Organizational and Management | Business Organization Types. |
| 2 | 20BA1203-Accounting for Managers | Balance Sheet Preparation for different organizations. |
| 3 | 20BA3302-International Business | International Rules in Marketing. |

*The following UG Degree Minor Courses were approved by the BOS Members:*

| S.No | Name of the Course | Suggestions incorporated |
|---|---|---|
| 1 | 22BA5601-Foundation of Entrepreneurship | Course Approved and following suggestions included:<br>Unit 3- Need and Importance - Steps in identification of Business Opportunity. Techniques of market Survey – Market Research Procedure.<br>Unit 4- Critical risk contingencies of the proposal, Scheduling and milestones. |
| 2 | 22BA6601-Introduction to Business Venture | Suggested the Course and following topics to be included: IPR, GST, Government Scheme. |
| 3 | 22BA6602-Team Building & Leadership Management for Business | Course Approved |
| 4 | 22BA7601-Creativity & Innovation in Entrepreneurship | Course Approved |
| 5 | 22BA7602-Principles of Marketing Management for Business | Course Approved |
| 6 | 22BA8601Human Resource Management for Entrepreneurs | Course Approved |
| 7 | 22BA8602-Financing New Business Ventures | Course Approved |

**General Suggestions from members of Board of Studies**

| S.No | Suggested by | Suggestions |
|---|---|---|
| 1 | Dr.R.Krishnaveni,<br>University Nominee,<br>Retired Professor,<br>PSG IM. | 1. Asked to include Introduction to Business Venture in Vertical II Entrepreneurship(UG)<br>2.Asked to include International Marketing Rules in IBM |
| 2 | Dr. K. Ramamurthi<br>Principal, VLB Janakiammal College of Arts& Science,Kovaipudur, Coimbatore. | 1.Asked to include Business Organisation types in BOM<br>2. Asked to include Balance Sheet Preparation based on Organization types in Accounting for Managers. |
| 3 | Dr.J.Ashok<br>Professor, School of Business & Management, Christ University, Yeshwanthpur Campus. | 1.Critical risk contingencies of the proposal, Scheduling and milestones in Foundation of Entrepreneurship.<br>2. Focus on Analytics in the area of HR, Marketing and Finance. |
| 4 | Dr.Bhawna Chahar ,<br>Associate Professor ,Department of Business Administration,<br>Manipal University Jaipur, Rajasthan. | 1. Need and Importance - Steps in identification of Business Opportunity. Techniques of market Survey – Market Research Procedure in Foundation of Entrepreneurship.<br>2.Focus on Online Certifications. |
| 5 | Mr.M.Shyam Sundar,<br>Industry Expert,<br>Procurement Operations Manager,<br>Adidas. | 1.Case based Teaching<br>2.Focus on Internship<br>3. MoU's,<br>4. Other Language Training. |
| 6 | Mr.R.PraveenKuamr,<br>Alumni Student. | 1. Focus on Business Analytics |

Course faculties are advised to conduct or organize guest lectures, seminars, workshops and outbound activities for each courses under any of the clubs.

Chairman thanked all the members for spending their valuable time in giving suggestions for all the courses.

The meeting came to an end at 12.45 pm with vote of thanks.

Chairman - BoS

**Chairman - BoS**
**MBA - HiCET**

**Enclose:**

1. Previous BoS meeting Minutes
2. Action Taken Report
3. Curriculum and Syllabi

**Copy:**

1. The Principal
2. Dean Academics
3. Controller of Examinations
4. All the Members of BoS
5. File

HINDUSTHAN EDUCATIONAL LAND CHARITABLE TRUST
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Valley Campus, Pollachi Highway, Coimbatore, Tamilnadu

TÜVRheinland CERTIFIED

# Department of Management Sciences (MBA)

Date: 08.06.2023

## Action Taken Report on 11th BoS

The Eleventh Board of Studies meeting of Regulation 2020 for the academic year 2023-2024 was conducted on 03.06.2023 at 10.30 pm via Google Meet (Link: https://meet.google.com/oiz-zwdk-ksw).

**1. Syllabus Revision**

| S.No. | Subject in which revision has been done | Percentage Syllabus Revised |
|---|---|---|
| 1. | 20BA1201-Business Organizational and Management | 5% |
| 2. | 20BA1203-Accounting for Managers | 5% |
| 3. | 20BA3302-International Business | 3% |
| 4. | 22BA5601-Foundation of Entrepreneurship | 23% |
| 5. | 22BA6601-Introduction to Business Venture | 9% |
| 6. | 22BA6602-Team Building & Leadership Management for Business | - |
| 7. | 22BA7601-Creativity & Innovation in Entrepreneurship | - |
| 8. | 22BA7602-Principles of Marketing Management for Business | - |
| 9. | 22BA8601Human Resource Management for Entrepreneurs | - |
| 10. | 22BA8602-Financing New Business Ventures | - |

**2. New Courses Introduced for UG Degree (Minor Courses):**

| S.No | Regulation | Course code with name | Credits |
|---|---|---|---|
| 1. | 2022 | 22BA5601-Foundation of Entrepreneurship | 3 |
| 2. | 2022 | 22BA6601-Introduction to Business Venture | 3 |
| 3. | 2022 | 22BA6602-Team Building & Leadership Management for Business | 3 |
| 4. | 2022 | 22BA7601-Creativity & Innovation in Entrepreneurship | 3 |
| 5. | 2022 | 22BA7602-Principles of Marketing Management for Business | 3 |
| 6. | 2022 | 22BA8601Human Resource Management for Entrepreneurs | 3 |
| 7. | 2022 | 22BA8602-Financing New Business Ventures | 3 |

**3. Syllabus Revision:**

| S.No | Subject in which revision has been done | Action taken | Percentage Syllabus Revised |
|---|---|---|---|
| 1. | 20BA1201-Business Organizational and Management | Suggestions Incorporated | 5% |
| 3. | 20BA1203-Accounting for Managers | Suggestions Incorporated | 5% |
| 4. | 20BA3302-International Business | Suggestions Incorporated | 3% |
| 5. | 22BA5601-Foundation of Entrepreneurship | Suggestions Incorporated | 23% |
| 6. | 22BA6601-Introduction to Business Venture | Suggestions to be Incorporated | 9% |

**4. General Recommendations:**

| S.No | Suggestion given in the BoS experts | Action taken |
|---|---|---|
| 1 | Focus on Analytics in the area of HR, Marketing & Finance. | Considered |
| 2 | Focus on Online Certifications like NPTEL..etc | Considered |
| 3 | Focus on Case based Teaching. | Considered |
| 4 | Focus on Internship. | Considered |
| 5 | Insisted to sign with MoU's with Companies. | Considered |
| 6 | Suggested to give Other Language Training to Students. | Considered |

Chairman

Board of Studies

Chairman - BoS
MBA - HiCET

HINDUSTHAN EDUCATIONAL AND CHARITABLE TRUST

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# Hindusthan

## College of Engineering and Technology

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## Board of Studies – Minutes & Action Taken Report

## Academic Year (2023 – 2024) – Even Semester

## Departments

1. **Aeronautical Engineering**
2. **Automobile Engineering**
3. **Civil Engineering**
4. **Mechanical Engineering**
5. **Mechatronics Engineering**
6. **Agricultural Engineering**
7. **Food Technology**
8. **Chemical Engineering**
9. **Computer Science Engineering**
10. **Electrical and Electronics Engineering**
11. **Electronics and Communication Engineering**
12. **Electronics and Instrumentation Engineering**
13. **Information Technology**
14. **Biomedical Engineering**
15. **Artificial Intelligence & Machine learning**
16. **Science and Humanities**
17. **M.B.A**
18. **M.C.A**

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Valley Campus, Pollachi Highway, Coimbatore – 641032

Date: 13.12.2023

## BOARD OF STUDIES MEETING

Name of the Department: **Aeronautical Engineering**

The 12th Board of Studies meeting of Regulation 2022 for the academic year 2023-24 EVEN semester was conducted on 13-12-2023 (Wednesday) 09.30 am to 11.30 am through hybrid mode.

Venue: Aero board room, HiCET.

(Meet Link: https://meet.google.com/mkl-sfhz-gfb)

| Sl.No | Name of the Person | Department | Position |
|---|---|---|---|
| 1 | Dr. V.T. Gopinathan | Associate Professor & Head,<br>Department of Aeronautical Engineering,<br>Hindusthan College of Engineering and Technology, Coimbatore | Chairman |
| 2 | Dr.S.Periyasamy | Associate Professor,<br>Department of Mechanical Engineering,<br>Government College of Technology,<br>Coimbatore. | University Nominee |
| 3 | Dr.R. Arravind | Professor & Head,<br>Department of Aeronautical Engineering,<br>Paavai Engineering College, Namakkal | Academic Expert |
| 4 | Dr.S.Venkatachalam | Associate Professor,<br>Department of Aerospace Engineering,<br>Karunya Institute of Technology and Sciences,<br>Coimbatore | Academic Expert |
| 5 | Dr.S Gurusideswar | Assistant Professor,<br>Department of Aerospace Engineering,<br>SRM Institute of Science & Technology,<br>Chennai. | Member From QS Rated Institution |
| 6 | Mr. Asvath Arunraj | Manager,<br>Vibrant NDT Services Pvt. Ltd, Coimbatore. | Industry Expert |

| | | | |
|---|---|---|---|
| 7 | Mr.Alexander A | Deputy Manager,<br>Market Research & Competitive Intelligence,<br>Quest Global, Bengaluru | Alumni Member |
| 8 | Mr.Maheswaran N | Assistant Professor,<br>Department of Aeronautical Engineering,<br>Hindusthan Institute of Technology,<br>Coimbatore. | Member from sister concern |
| 9 | Dr Ganesh M | Associate Professor,<br>Department of Aeronautical Engineering,<br>Hindusthan College of Engineering and Technology, Coimbatore | Autonomous Coordinator |
| 10 | Mr Arulmozhinathan T | Assistant Professor,<br>Department of Aeronautical Engineering,<br>Hindusthan College of Engineering and Technology, Coimbatore | DAC Coordinator |
| 11 | Dr. P N Karthikeyan | Professor,<br>Department of Aeronautical Engineering,<br>Hindusthan College of Engineering and Technology, Coimbatore | Member |
| 12 | Mr. Saravanan R | Assistant Professor,<br>Department of Aeronautical Engineering,<br>Hindusthan College of Engineering and Technology, Coimbatore | Member |
| 13 | Mr. Arunraja KK | Assistant Professor,<br>Department of Aeronautical Engineering,<br>Hindusthan College of Engineering and Technology, Coimbatore | Member |
| 14 | Mr. Manojkumar K | Assistant Professor,<br>Department of Aeronautical Engineering,<br>Hindusthan College of Engineering and Technology, Coimbatore | Member |
| 15 | Mr. Saravana kumar V | Assistant Professor,<br>Department of Aeronautical Engineering,<br>Hindusthan College of Engineering and Technology, Coimbatore | Member |
| 16 | Mr Tamilvenda D | Assistant Professor,<br>Department of Aeronautical Engineering,<br>Hindusthan College of Engineering and Technology, Coimbatore | Member |
| 17 | Mr. Mageshkumar M | Assistant Professor,<br>Department of Aeronautical Engineering,<br>Hindusthan College of Engineering and Technology, Coimbatore | Member |
| 18 | Ms. Gopika G Nair | IV YEAR AERO | Student Member |
| 19 | Mr. Aashik Hilahi B | IV YEAR AERO | Student Member |

| | | | |
|---|---|---|---|
| 20 | Mr. Bharathi T | III YEAR AERO | Student Member |
| 21 | Mr. Benadic Richard A | II YEAR AERO | Student Member |

The Chairman-BoS welcomed all the members for the 11th Board of Studies meeting.

- Followed by Chairman presented the suggestions given by the experts and the action taken report during the Previous BoS meeting which was held on 02.06.2023 was approved.
- The feedback collected on curriculum by the stakeholders was presented by the Chairman.
- The Chairman gave an outline of the views expressed by the members of 12th Department Advisory Committee (DAC) related to the curriculum and Syllabus. The Board of Studies Members' suggestion has been sought in this regard.
- Chairman presented the Semester VI (R2019 -admitted in 2021 & R2022) subjects with syllabus for Minor & Honours/Honours with specialization, and noted the experts suggestions.
- The curriculum and syllabi of Fourth semester subjects is discussed for 2022 regulation.

**Recommendations by BoS members (Subject Related )**

1. For course 22AE4201 - Aerodynamics – I, topics like Ideal flow, Magnus effect, D'Alembert's paradox can be included in Unit II.
2. In course 22AE4202-Mechanics of machines,
    - Topics like vibrations of systems, wobbling can be included
    - Unit -4 title 'Force analysis' can be replaced.
3. In course 22AE4203- Gas Turbine Propulsion, topics like HHV – LHV can be expanded in detail.
4. For course 22AE4251- Aircraft Structures-I,
    - Elastic supported beam experiment can be included.
    - Flexural rigidity of various beam can be included.
    - Principle of virtual work can be included in unit 3.
    - S-N curve can be included in unit 5.
    - Credit for this course can be increased to 4
5. For course 22AE4002- Propulsion Laboratory, open source software related experiment could be included and revisit the experiments related to Aircraft propulsion.
6. For Minor degree course 21AE6232- Aircraft Materials and Processes,
    - 'Introduction to 3-D printing' topic can be included.
    - Unit 3 and 4 can be swapped.
7. For Honors with Specialization in Space Technology,

- In course 21AE6205- Heat Transfer in Aerospace Applications, Unit -5 can be revisited.

8. For Honors with Specialization in Applied Aerodynamics,
    - In course 21AE6206- Experimental methods in fluid mechanics, Unit -1 title can be changed.
    - Topics in Units-1, 2 & 3 can be minimized in course 21AE6206- Experimental methods in fluid mechanics.
    - In course 21AE6206- Experimental methods in fluid mechanics, in Unit -5 more analysis of experimental data methods can be included.
    - In course 21AE6207- Introduction to turbulence, syllabus can be revisited.
    - In course 21AE6207- Introduction to turbulence, in Unit-5 recent advancement can be included.
9. Skill Development courses introduced for member's approval
    - 22HE4101- IPR and Start-ups (Passed by Mechanical board)
10. Employability Enhancement courses introduced for member's approval.
    - 22HE4071 – Soft Skills – III (Passed by S&H board)
11. In general, the members suggested ensuring mapping of Course objectives and Course outcomes with course contents.
12. The Chairman, BoS and all members accepted to incorporate the above in the curriculum.

**The following resolution was made in the Board of Studies meeting,**

- The syllabi of IV semester of the UG Programmes (22MA4151 - Probability And Statistics with R Programming, 22HE4071 - Soft Skills - III) for the students admitted during the academic year 2022 - 2023 and onwards was passed by S&H Board of Studies and permitted to move on Academic Council.
- The syllabi of I semester of the UG Programmes for the students admitted during the academic year 2023 - 2024 and onwards was passed by S&H Board of Studies and permitted to move on Academic Council

**Chairman**

**(Board of Studies)**

**Chairman - BoS**
**AERO - HiCET**

**Enclose:**

1. Previous BoS Minutes-ATR

2. Copy of Regulation 2022
3. Curriculum and Syllabi

**Copy:**

1. The Principal
2. Dean Academics
3. Controller of Examinations
4. All the Members of BoS
5. File

# Hindusthan College of Engineering and Technology

Approved by AICTE, New Delhi and Accredited with 'A' Grade by NAAC

**(An Autonomous Institution, Affiliated to Anna University, Chennai)**

Othakalmandabam Post, Coimbatore

## Department of Aeronautical Engineering

Date: **28.12.2023**

## Action Taken Report on BoS

Name of the Department: Aeronautical Engineering

The 12th Board of Studies meeting of Regulation 2022 (for the students to be admitted from 2023-24 onwards) for the academic year 2023-24 was conducted on 13.12.2023 (Wednesday) at 9.30 AM in the Aero board room, HICET, Coimbatore through online Mode

(Google Meet Link: https://meet.google.com/mkl-sfhz-gfb)

**(i) Courses Introduced under Regulation 2022:**

| S.No. | Regulation | Course code with name | | Credits |
|---|---|---|---|---|
| 1 | 2022 | 22HE4101 | IPR and Start-ups | 2 |
| 2 | 2022 | 22AE4201 | Aerodynamics - I | 3 |
| 3 | 2022 | 22AE4202 | Mechanics of machines | 4 |
| 4 | 2022 | 22AE4203 | Gas Turbine Propulsion | 3 |
| 5 | 2022 | 22MA4151 | Probability And Statistics with R Programming | 3 |
| 6 | 2022 | 22AE4251 | Aircraft Structures-I | 4 |
| 7 | 2022 | 22AE4001 | Aerodynamics Laboratory | 2 |
| 8 | 2022 | 22AE4002 | Propulsion Laboratory | 2 |
| 9 | 2022 | 22HE4071 | Soft Skills -III | 1 |
| 10 | 2022 | 22MC4191 | Indian Constitution | 0 |
| 11 | 2019 | 21AE6231 | Aircraft Systems and Instruments | 3 |
| 12 | 2019 | 21AE6232 | Aircraft Materials and Processes | 3 |
| 13 | 2019 | 21AE6204 | Space Propulsion Systems | 3 |
| 14 | 2019 | 21AE6205 | Heat Transfer in Aerospace Applications | 3 |
| 15 | 2019 | 21AE6206 | Experimental methods in fluid mechanics | 3 |
| 16 | 2019 | 21AE6207 | Introduction to turbulence | 3 |

**General Recommendations:**

| S.No. | Suggestion given in the BoS experts | Action taken |
|---|---|---|
| 1 | In Honors degree courses, Applied Structural Mechanics can be included. | Considered |
| 2 | In general, the members suggested ensuring mapping of Course objectives and Course outcomes with course contents. | Considered |

CHAIRMAN

BoS/AERO

Chairman - BoS
AERO - HiCET

# Hindusthan
## College of Engineering and Technology
## Coimbatore-641032

**DEPARTMENT OF AUTOMOBILE ENGINEERING**

Date: 14.12.2023

**TWELFTH BOS MEETING MINUTES**

The Twelfth BOS meeting of regulation R2022 and R2019R for the academic year 2023-2024 (Even Semester) was conducted on 13.12.2023 in hybrid mode (online using Google Meet) and offline in Automobile department seminar hall). The objective of the meeting was to discuss the curriculum and syllabi for R2022 (Fourth Semester) and R2019 (Sixth Semester) with all professional elective courses minor and honor degree courses, open elective courses and newly added courses.

Note: Google meeting link: http://meet.google.com/gxs-ruct-nqc?hs=224

The following members were present

| S.No. | Name of the Expert | Affiliation | Nomination |
|---|---|---|---|
| 1 | Dr Sabarinathan C | Professor and Head / Automobile Engineering, Hindusthan College of Engineering and Technology | Chairman |
| 2 | Dr Periyasamy S | Associate Professor, Department of Mechanical Engineering, Government College of Technology, Coimbatore | University Nominee |
| 3 | Dr Somasundaram P | Professor and Head, Department of Automobile Engineering, Kongu Engineering College, Erode. | Subject Expert |
| 4 | Dr Bharathi Mohan M P | Assistant Professor (SG), Department of Automobile Engineering, PSG College of Technology, Coimbatore. | Subject Expert |
| 5 | Mr Manikandan G | Senior Manager - Controlling, Daimler India Commercials Vehicles, Chennai | Industry Expert |

| | | | |
|---|---|---|---|
| 6 | Mr Sivakumar P K | Regional Training Manager,<br>Volvo Eicher Commercial vehicles Pvt. Ltd. | Industry Expert – Special Invitee |
| 7 | Mr Arun R | Senior Section Manager,<br>Sales and marketing,<br>John Deere tractors Pvt. Ltd, Kanchipuram | Alumni Expert |
| 8 | Prof Udhayakumar S | Asso. Professor and Head,<br>Department of Automobile Engineering,<br>Hindusthan Institute of Technology, Coimbatore. | Special Invitee |
| 9 | Mrs Anitha Kumari P<br>(M/o Ambadi A, IV yr) | Teacher, - Govt Town UP school<br>Kayamkulam, Alappuzha district,<br>Kerala. | Parent |
| 10 | Mrs. Mekalai R<br>(M/o. Siddharth S M,<br>III yr) | Headmistress - Lisieux CMI International School,<br>Coimbatore – 641 011. | Parent |
| 11 | Mrs. Fathima banu<br>(M/o) Aneesh Akthar,<br>II Yr | Accountant – PPS & Co, Kurichi Pirivu,<br>Coimbatore - 641023 | Parent |
| 12 | Dr.Sankar Ganesh R | Asso.Professor / Automobile Engg. | Member |
| 13 | Mr Yogaraja J | Asst.Professor / Automobile Engg. | Member |
| 14 | Dr Krishnaraj J | Asst.Professor / Automobile Engg. | Member |
| 15 | Mr Ragu S | Asst.Professor / Automobile Engg. | Member |
| 16 | Mr Mujiburrahman K | Asst.Professor / Automobile Engg. | Member |
| 17 | Mr Prabhu G | Asst.Professor / Automobile Engg. | Member |
| 18 | Mr Satheesh Kumar K | Asst.Professor / Automobile Engg. | Member |
| 19 | Mr Prakash R S | Asst.Professor / Automobile Engg. | Member |
| 20 | Mr Gowtham T | Final Year Automobile Engineering | Student Member |
| 21 | Mr Balaji C | Third Year Automobile Engineering | Student Member |
| 22 | Mr. Aneesh Akthar | Second Year Automobile Engineering | Student Member |

The chairman of the BOS, welcomed all the dignitaries for the meeting. He has presented the department vision and mission statements to the forum. Also, he has given an outline of the institution and department and salient features of the new Regulation 2022 Curriculum and Syllabi.

Followed by he has also presented the suggestions given by the experts and the action taken during the Eleventh BOS meeting which was held during 02.06.2023 and action taken report on the suggestions.

The chairman has presented the curriculum and syllabus of R2019 with Minor and Honor Degree courses, and curriculum of R2022 with syllabus of IV semester courses.

**Comments given by BoS members:**

**Dr Periyasamy S (University Nominee):**

- He suggested to incorporate case studies like Autonomous vehicle systems in order to get idea in current trend in Electric and Autonomous vehicles in "Advanced Electrical and Electronics system".
- He suggested to incorporate the topics "Brakes" in "Mechanism of Machines" to get an clear view of Application of friction in Unit IV.
- He suggested to compare the syllabus of all courses with Anna University Syllabus since the Entrance Exams for Higher studies and Recruitments were based on Anna university Syllabus.
- He suggested to add the content on "Pneumatic Machines" in "Fluid and Pneumatic systems"
- He suggested to change the title of the course "Fluid and Pneumatic systems" to "Fluid Mechanics and Actuation systems"
- He suggested to update the Test book and reference books with new editions.

**Dr Bharathi Mohan M P (Subject Expert):**

- He suggested to include more Electrical system design related to motor sports in "Motorsports Electric Vehicle"
- He suggested to included simpler problems in "Fluid and Pneumatic systems"

**Mr Manikandan G (Industry Expert):**

- He suggested to change the Title of "Advanced Electrical and Electronics System" to "Automotive Electrical and Electronics system".
- He has also recommended to showcase the recent and future skill requirements for automobile engineers.
- He has suggested to add the 'Flex-fuel engines' and 'Hydrogen fuel cells' technologies in alternate fuels-based courses.

**Mr Siva P K (Industry Expert):**

- He has suggested to add the latest and upcoming emission norms and technology in any of the suitable courses.

**Mr.Arun R (Alumni):**

- He sugessted syllabus could include opportunities for networking with alumni and industry professionals. Guest lectures, workshops, or alumni-led seminars would allow students to connect with successful graduates and gain valuable insights into different career paths.

**Mr.Gowtham T (Student Member):**

- He has suggested that exposure to cutting-edge tools and techniques would give students a competitive advantage in the job market.

**Recommendations by BoS members (Subject Related)**

**The following points were summarized by chairman as per the suggestions of BoS members and stakeholders**

**In R2022:**

- The following courses are approved for II semester

| | |
|---|---|
| 22MA2101 | Differential equations and complex analysis |
| 22PH2101 | Basics of material science |
| 22CY2101 | Environmental science |
| 22ME2101 | Engineering Mechanics |
| 22HE2151 | Effective Technical Communication |
| 22CY2152 | Applied Chemistry |
| 22ME2001 | Engineering Practices |
| 22MC2094/ | தமிழரும் தொழில் நுட்பமும் |
| 22MC2093 | NCC */NSS / YRC / Sports / Clubs / Society Service – Enrollment (Common) |

- The following courses are approved for IV semester

| | |
|---|---|
| 22HE4101 | IPR and Start-ups |
| 22AU4201 | Automotive Chassis components Design |
| 22AU4202 | Automotive Electricals and Electronics systems |
| 22AU4203 | Mechanics of Machines |
| 22AU4204 | Fluid mechanics and Actuating Systems |
| 22AU4251 | Fundamentals of Heat Transfer |
| 22AU4001 | Automotive Electricals and Electronics Laboratory |
| 22AU4002 | Computer Aided Engine components design Laboratory |
| 22HE4071 | Soft Skills -III |

- The following courses are approved for VI semester

| | |
|---|---|
| 21AU6201 | Total Quality Management$ |
| 21AU6202 | Vehicle Dynamics and Control Systems*#$ |
| 21AU6203 | Finite Element Analysis |
| 21AU6251 | Automotive Vehicle Body and Aerodynamics* |
| 21AU6001 | Finite Element Analysis Lab## |
| 21AU6701 | Internship Training / In plant Training |
| 21HE6071 | Soft Skill-II |
| 21HE6072 | Intellectual Property Rights (IPR) |

| | |
|---|---|
| 21AU6301 | Automotive Airconditioning |
| 21AU6302 | Fuel Cell Technology |
| 21AU6303 | Ergonomics in Automotive Design |
| 21AU6304 | Additive Manufacturing |
| 21AU6305 | Robotics |

**In R2019:**

As per the directions of Anna University,

- **B E (Hons),**

| Honors Degree - **Electric and hybrid vehicle development** | | |
|---|---|---|
| **S.No** | **Course Code** | **Course Name** |
| 1 | 21AU6204 | Battery Technology |
| 2 | 21AU6205 | Automotive Embedded Systems |
| Honors Degree - **Motorsport Engineering** | | |
| **S.No** | **Course Code** | **Course Name** |
| 3 | 21AU6206 | High performance engine design |
| 4 | 21AU6207 | Motorsports Electric Vehicle |
| Honors Degree - **Vehicle Development and Validation** | | |
| **S.No** | **Course Code** | **Course Name** |
| 5 | 21AU6208 | Noise, Vibration and Harshness |
| 6 | 21AU6209 | Automotive Instrumentation |

- **B E with minor degree**

| Minor Degree - **Automotive Vehicle Technology (Offered by Automobile Engineering )** | | |
|---|---|---|
| **S.No** | **Course Code** | **Course Name** |
| 1 | 21AU6601 | Automotive Chassis |
| 2 | 21AU6602 | Automotive Transmission |

Are approved for the academic batch (2021 - 2025) admitted in the academic year 2021 – 2022 under Regulation 2019.

For the same, three specialization verticals for B E (Hons) degree and one vertical for B E with Automobile Engineering minor degree are approved by the Board of Studies.

**Verticals for B E (Hons) in Automobile Engineering**

| **Semester in which courses are offered** | **Vertical I Electric and hybrid vehicle development** | **Vertical II Motorsport Engineering** | **Vertical III Vehicle Development and Validation** |
|---|---|---|---|
| **Semester V** | Fundamentals of Electric and Hybrid Vehicles | Composite Structure | Automotive Product Design and Development |
| **Semester VI** | Battery Technology | High performance engine design | Noise, Vibration and Harshness |
| **Semester VI** | Automotive Embedded Systems | Motorsports Electric Vehicle | Automotive Instrumentation |
| **Semester VII** | Advanced Automotive Safety Systems | Motorsports Vehicle Body Engineering | Testing and Measurement Systems |
| **Semester VII** | Special Purpose Electric Vehicle | Motorsports Race Electronics and Control Systems | Homologation |
| **Semester VIII** | Electric Vehicles and its Sustainable Development | Motorsports racing circuits and Design | Automotive Prototyping |

**Verticals for B E with minor degree**

| Semester in which courses are offered | Vertical offered by Automobile Engineering | Verticals common to all departments | | |
|---|---|---|---|---|
| | | **Vertical I Fintech and Block Chain** | **Vertical II Entrepreneurship** | **Vertical III Environment and Sustainability** |
| **Semester V** | Automotive Engines | Financial Management | Foundations of Entrepreneurship | Sustainable infrastructure Development |
| **Semester VI** | Automotive Chassis | Fundamentals of Investment | Team Building & Leadership Management for Business | Sustainable Agriculture and Environmental Management |
| **Semester VI** | Automotive Transmission | Banking, Financial Services and Insurance | Creativity & Innovation in Entrepreneurship | Sustainable Bio Materials |
| **Semester VII** | Automotive Electronics | Introduction to Blockchain and its Applications | Principles of Marketing Management for Business | Materials for Energy Sustainability |
| **Semester VII** | Intelligent vehicular systems | Fintech Personal Finance and Payments | Human Resource Management for Entrepreneurs | Green Technology |
| **Semester VIII** | Electric and Hybrid vehicles | Introduction to Fintech | Financing New Business Ventures | Environmental Quality Monitoring and Analysis |

**The following resolutions were made in the Board of Studies meeting,**

- Department Vision and Mission - The vision and mission statements of the department were found to be good and accepted without any changes.
- In almost all the courses, changes have been done as per the current needs.
- The curriculum and syllabus of Regulation 2022 for the I & II semester subjects were passed by the Science and Humanities board and permitted to move on Academic Council by the BoS members of Automobile Engineering for the students admitted during the academic year 2023-2024 and onwards.

- As per the suggestion of CDC, the Honors degree verticals such as 'Electric and hybrid vehicle development', 'Motorsport Engineering', 'Motorsports racing circuits and Design' 'Vehicle research and validation' and minor degree vertical of Automobile Engineering are to be added to the R2019 regulation students admitted during the academic year 2021 - 2022.
- Also, the minor degree program and honors degree program to be added to the regulation of students admitted during the academic year 2021 - 2022.
- The Chairman conveyed that; the Suggestions given by the Board of Studies members are to be incorporated in all years of R2019 and R2022 curriculum.
- Chairman conveyed that, the Suggestions given by the Previous Board of Studies members are ratified and resolved.

With these words the chairman thanked the gathering for their presence in the BOS meeting.

**Overall Percentage of New Concepts Introduced – 15%**

**CHAIRMAN**
**Dr.C.Sabarinathan**
**Chairman - BoS**
**AUTO - HiCET**

**Hindusthan College of Engineering and Technology**
Accredited with 'A' Grade by NAAC, Affiliated to Anna University)
Valley Campus, Pollachi Highway, Coimbatore – 641032

Date: 14.12.2023

## Action taken report on Twelfth BoS

Name of the Department: **Automobile Engineering**

The Twelfth BOS meeting of regulation R2022 and R2019 for the academic year 2023 – 24 was conducted on 13.12.2023 in hybrid mode (online using Google Meet) and offline in Automobile department seminar hall). The objective of the meeting was to discuss the curriculum and syllabi for R2022 for IV semester and R2019 with all professional elective courses, open elective courses, newly added courses, Minor and Honor Degree courses.

Note: Google meeting link: http://meet.google.com/gxs-ruct-nqc?hs=224

### (I) Courses Introduced under Regulation 2019

| S.No. | Regulation | Course code with name | | Credits |
|---|---|---|---|---|
| 1. | 2019R | 21AU6201 | Total Quality Management$ | 3 |
| 2. | 2019R | 21AU6202 | Vehicle Dynamics and Control Systems*#$ | 3 |
| 3. | 2019R | 21AU6203 | Finite Element Analysis | 4 |
| 4. | 2019R | 21AU6251 | Automotive Vehicle Body and Aerodynamics* | 3.5 |
| 5. | 2019R | 21AU6001 | Finite Element Analysis Lab## | 1.5 |
| 6. | 2019R | 21AU6701 | Internship Training / In plant Training | 1 |
| 7. | 2019R | 21HE6071 | Soft Skill-II | 1 |
| 8. | 2019R | 21HE6072 | Intellectual Property Rights (IPR) | 1 |

| S.No. | Regulation | Course name | | Credits |
|---|---|---|---|---|
| **Minor Degree - Automotive Vehicle Technology** | | | | |
| 1 | 2019R | 21AU5601 | Automotive Engines | 3 |
| 2 | 2019R | 21AU6601 | Automotive Chassis | 3 |

| | | | | |
|---|---|---|---|---|
| 3 | 2019R | 21AU6602 | Automotive Transmission | 3 |
| 4 | 2019R | 21AU7601 | Automotive Electronics | 3 |
| 5 | 2019R | 21AU7602 | Intelligent vehicular systems | 3 |
| 6 | 2019R | 21AU8601 | Electric and Hybrid vehicles | 3 |
| **Honors (Electric and Hybrid Vehicle)** | | | | |
| 7 | 2019R | 21AU5204 | Fundamentals of Electric and Hybrid Vehicles | 3 |
| 8 | 2019R | 21AU6204 | Battery Technology | 3 |
| 9 | 2019R | 21AU6205 | Automotive Embedded Systems | 3 |
| 10 | 2019R | 21AU7203 | Advanced Automotive Safety Systems | 3 |
| 11 | 2019R | 21AU7204 | Special Purpose Electric Vehicle | 3 |
| 12 | 2019R | 21AU8201 | Electric Vehicles and its Sustainable Development | 3 |
| **Honors (Motorsports Engineering)** | | | | |
| 13 | 2019R | 21AU5205 | Composite Structure | 3 |
| 14 | 2019R | 21AU6206 | High performance engine design | 3 |
| 15 | 2019R | 21AU6207 | Motorsports Electric Vehicle | 3 |
| 16 | 2019R | 21AU7205 | Motorsports Vehicle Body Engineering | 3 |
| 17 | 2019R | 21AU7206 | Motorsports Race Electronics and Control Systems | 3 |
| 18 | 2019R | 21AU8202 | Motorsports racing circuits and Design | 3 |
| **Honors (Vehicle Development and Validation)** | | | | |
| 19 | 2019R | 21AU5206 | Automotive Product Design and Development | 3 |
| 20 | 2019R | 21AU6208 | Noise, Vibration and Harshness | 3 |
| 21 | 2019R | 21AU6209 | Automotive Instrumentation | 3 |
| 22 | 2019R | 21AU7207 | Testing and Measurement Systems | 3 |
| 23 | 2019R | 21AU7208 | Homologation | 3 |
| 24 | 2019R | 21AU8203 | Automotive Prototyping | 3 |

**(II) Courses Introduced under Regulation 2022 Batch (2022-2026)**

| S.No. | Regulation | Course code with name | | Credits |
|---|---|---|---|---|
| 1. | 2022 | **22HE4101** | IPR and Start-ups | 3 |
| 2. | 2022 | **22AU4201** | Automotive Chassis components Design | 4 |
| 3. | 2022 | **22AU4202** | Automotive Electricals and Electronics systems | 3 |
| 4. | 2022 | **22AU4203** | Mechanics of Machines | 4 |
| 5. | 2022 | **22AU4204** | Fluid Mechanic and Actuation System | 3 |
| 6. | 2022 | **22AU4251** | Fundamentals of Heat Transfer | 3 |
| 7. | 2022 | **22AU4001** | Automotive Electricals and Electronics Laboratory | 2 |
| 8. | 2022 | **22AU4002** | Computer Aided Engine components design Laboratory | 2 |
| 9. | 2022 | **22HE4071** | Soft Skills -III | 2 |

**Batch (2023-2027)**

| S.No. | Regulation | Course code with name | | Credits |
|---|---|---|---|---|
| 1. | 2022 | **22MA2101** | Differential equations and complex analysis | 4 |
| 2. | 2022 | **22PH2101** | Basics of material science | 3 |
| 3. | 2022 | **22CY2101** | Environmental science | 3 |
| 4. | 2022 | **22ME2101** | Engineering Mechanics | 3 |
| 5. | 2022 | **22HE2151** | Effective Technical Communication | 3 |
| 6. | 2022 | **22CY2152** | Applied Chemistry | 2 |
| 7. | 2022 | **22ME2001** | Engineering Practices | 1 |
| 8. | 2022 | **22MC2094/ 22MC2095** | தமிழரும் தொழில் நுட்பமும் / Tamils and Technology | 0 |
| 9. | 2022 | **22MC2093** | NCC */NSS / YRC / Sports / Clubs / Society Service - Enrollment (Common) | 4 |

**(III) General Recommendations:**

| S.No. | Suggestions / Comments given by the Members for 2019 Regulation | Action Taken | Report |
|---|---|---|---|
| 1 | Suggested to incorporate case studies like Autonomous vehicle systems in order to get idea in current trend in Electric and Autonomous vehicles in "Advanced Electrical and Electronics system". | Suggestion accepted | Case study added. |
| 2 | Suggested to Change the Title "Advanced Electrical and Electronics system" to "Automotive Electrical and Electronics system" | Suggestion accepted | Updated |
| 3 | Suggested to incorporate the topics "Brakes" in "Mechanism of Machines" to get an clear view of Application of friction in Unit IV. | Suggestion accepted | To be incorporated in higher semesters |
| 4 | Suggested to compare the syllabus of all courses with Anna University Syllabus since the Entrance Exams for Higher studies and Recruitments were based on Anna university Syllabus. | Suggestion accepted | Compared |
| 5 | Suggested to add the content on "Pneumatic Machines" in "Fluid and Pneumatic systems" | Suggestion accepted | To be incorporated in higher semesters |
| 6 | Suggested to change the title of the course "Fluid and Pneumatic systems" to "Fluid Mechanics and Actuation systems" | Suggestion accepted | Title changed |
| 7 | Suggested to update the Test book and reference books with new editions. | Suggestion accepted | Updated |
| 8 | Suggested to include more Electrical system design related to motor sports in "Motorsports Electric Vehicle" | Suggestion accepted | To be incorporated in higher semesters |
| 9 | Suggested to included simpler problems in "Fluid and Pneumatic systems" | Suggestion accepted | To be incorporated in higher semesters |

Chairman
(Board of Studies)
Chairman - BoS
AUTO - HiCET

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Coimbatore - 641 032

# DEPARTMENT OF CIVIL ENGINEERING

Date: 14.12.2023

## BOARD OF STUDIES MEETING

Name of the Department: Civil Engineering

The Board of Studies meeting (12th BoS) of Civil Engineering to discuss the curriculum & syllabus of Regulation 2019 & 2022 for the academic year 2023-2024 (Even Semester) was conducted on 19.12.2023 at 10.30 am in the ONLINE mode through Google Meet.

**(Meeting Link:https:https://meet.google.com/oee-scyk-pvs)**

The following members were present.

| S.No | Name of the Person | Department | Position |
|---|---|---|---|
| 1. | **Dr. K. Akil** | Professor and Head,<br>Department of Civil Engineering,<br>Hindusthan College of Engineering and Technology. | **Chairman** |
| 2 | **Dr. G. Arun Kumar** | Associate Professor (CAS),<br>Government College of Engineering,<br>Salem. | **University Nominee** |
| 3 | **Dr. S. Shantha Kumar** | Professor,<br>School of Civil Engineering,<br>Vellore Institute of Technology (VIT),<br>Vellore. | **Academic Expert** |
| 4 | **Dr. V. M. Shanthi** | Principal,<br>Government College of Engineering,<br>Srirangam. | **Academic Expert** |
| 5 | **Dr. J. Jegan** | Professor,<br>Department of Civil Engineering,<br>Anna University, University College of Engineering,<br>Ramanathapuram. | **Academic Expert** |
| 6 | **Mr. J. Prem Kumar** | Principal Consultant,<br>M/s Infinustech,<br>Coimbatore. | **Special invitee** |
| 7 | **Dr. A. Sudhahar** | CEO - Dimensions Structural Designs,<br>#57, KrishnasamyMudhaliar Street,<br>Brooke Bond Road, R S Puram,Coimbatore | **Industry Member** |

| | | | |
|---|---|---|---|
| 8 | **Dr. S. Deepa Shri** | Professor<br>Department of Civil Engineering,<br>Hindusthan College of Engineering and Technology | **Member** |
| 9 | **Mr. R. Senthil Kumar** | Assistant Professor,<br>Department of Civil Engineering,<br>Hindusthan College of Engineering and Technology. | **Member** |
| 10 | **Mr. A. Alex Livingston Raja** | Assistant Professor,<br>Department of Civil Engineering,<br>Hindusthan College of Engineering and Technology. | **Member** |
| 11 | **Ms. K. Saraswathi** | Assistant Professor,<br>Department of Civil Engineering,<br>Hindusthan College of Engineering and Technology. | **Member** |
| 12 | **Ms. V. Suresh** | Assistant Professor,<br>Department of Civil Engineering,<br>Hindusthan College of Engineering and Technology. | **Member** |
| 13 | **Mr. B. Thamizhinian** | Research Scholar,<br>Indian Institute of Technology,<br>Roorkee,Haridwar,<br>Uttarakhand | **Alumni Member** |
| 14 | **Ms. K. Nivetha** | IV Year Student<br>Department of Civil Engineering,<br>Hindusthan College of Engineering and Technology | **Student Member** |
| 15 | **Mr. K. Arun** | III Year Student<br>Department of Civil Engineering,<br>Hindusthan College of Engineering and Technology | **Student Member** |
| 16 | **Mr. S. Sukumaran** | II Year Student<br>Department of Civil Engineering,<br>Hindusthan College of Engineering and Technology | **Student Member** |

- The Chairman-BoS welcomed the University nominee, Subject experts, special invitees and all the internal members for the eleventh Board of Studies meeting.
- Chairman disseminated Vision and Mission of the Institution and the Department, Programme Educational Objectives (PEOs), Programme Specific Outcomes (PSOs), Programme Outcomes (POs)
- Chairman also presented the new regulation 2022 and the curriculumgiven by the Curriculum Development Cell (CDC) &Department Advisory Committee (DAC).
- Followed by, Chairmanpresented the suggestions given by the experts and the action taken report during the Previous BoS meeting which was held during **17.02.2023** was approved.

**For Regulations 2022 (Batch 2023 - 2027) :**

- Changes have been done as per the current needs in curriculum and syllabus of Regulation 2022.
- Based on Regulation 2022, the revised curriculum and syllabi for II and IV semesters of R2022 were reviewed for the B.E Civil Engineering program for the students admitted in the academic year 2021 - 2022 and onwards and permitted to move on to the Academic Council.

**For Regulations 2019 (Batch 2020 - 2023) :**

- Changes have been done as per the current needs in curriculum and syllabus of Regulation 2019.
- Based on Regulation 2019, the revised curriculum and syllabi for VIII semesters of R2019 were reviewed for the B.E Civil Engineering program for the students admitted in the academic year 2020 - 2021 and onwards and permitted to move on to the Academic Council.

**Value added Courses:**

- Building Information Modeling using Autodesk Revit Software Modeling, Analysis and Design of Elements using Bentley STAAD.Pro to be introduced as value added courses for IV Semester & VI Semester respectively.

**Following are the Comments put forth by the Experts:**

| S.No | Title of the course viewed by experts | Experts suggestion and comments |
|---|---|---|
| 1. | 21CE6203 Wastewater Engineering | Regulatory requirements for wastewater disposal to be included |

- Chairman conveyed that, the Suggestions given by the Previous Board of Studies members are ratified and resolved.

The meeting ended with thanks by the Chairman at 1.30 p.m.

**Chairman - BoS**
**CIVIL - HiCET**

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Coimbatore - 641 032

# DEPARTMENT OF CIVIL ENGINEERING

Date: 28.12.2023

## ACTION TAKEN REPORT ON BOS

Name of the Department: **CIVIL ENGINEERING**

The Board of Studies meeting (12th BOS) of Regulation 2019 & 2022 for the academic year 2023 - 2024 was conducted on 19.12.2023 at 10.30 p.m. at ONLINE mode thorough Google Meet.

This report consolidates the findings of the panel and the suggestions and area of improvements possible in the future put forth by the panel.

**(i) Syllabus Revision:**

| S. No | Subject in which revision has been done | | Action taken | Percentage Syllabus Revised |
|---|---|---|---|---|
| 1. | 22CE4201 | Structural Analysis | Suggestion passed on the standing committee | 56% |
| 2. | 22CE4202 | Concrete Technology | Suggestion passed on the standing committee | 43% |
| 3. | 22CE4203 | Highway and Railway Engineering | Suggestion passed on the standing committee | 27% |
| 4. | 22CE4251 | Surveying | Suggestion passed on the standing committee | 100 % |
| 5. | 22CE4252 | Soil Mechanics | Suggestion passed on the standing committee | 100 % |
| 6. | 22CE4253 | Hydraulic Engineering | Suggestion passed on the standing committee | 100 % |
| 7. | 22CE4001 | Concrete and Highway Engineering Lab | Suggestion passed on the standing committee | 100 % |
| 8. | 21CE6205 | Advanced Concrete Structures | Suggestion passed on the standing committee | 100 % |
| 9. | 21CE6206 | Design of Physico-Chemical Treatment Systems | Suggestion passed on the standing committee | 100 % |
| 10. | 21CE6207 | Site Exploration and Soil Investigation | Suggestion passed on the standing committee | 100 % |
| 11. | 21CE6208 | Advanced Remote Sensing | Suggestion passed on the standing committee | 100 % |

| | | | | |
|---|---|---|---|---|
| 12. | 21CE6209 | Finite Element Analysis in Structural Engineering | Suggestion passed on the standing committee | 100 % |
| 13. | 21CE6210 | Design of Biological Treatment Systems | Suggestion passed on the standing committee | 100 % |
| 14. | 21CE6211 | Environmental Geo-technology | Suggestion passed on the standing committee | 100 % |
| 15. | 21CE6212 | Fundamentals of Geodesy | Suggestion passed on the standing committee | 100 % |
| 16. | 21CE5601 | Principles of Surveying | Suggestion passed on the standing committee | 100 % |
| 17. | 21CE6601 | Construction Technology | Suggestion passed on the standing committee | 100 % |
| 18. | 21CE5602 | Sustainable infrastructure Development | Suggestion passed on the standing committee | 100 % |
| 19. | 21CE6603 | Sustainable Agriculture and Environmental Management | Suggestion passed on the standing committee | 100 % |

- Chairman conveyed that the suggestions given by the Board of Studies members shall be incorporated with the approval of standing committee.

**Chairman - BoS**
**CIVIL - HiCET**

# *Hindusthan College of Engineering and Technology*

(An Autonomous Institution, Affiliated to Anna University, Chennai
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## DEPARTMENT OF CIVIL ENGINEERING

BOARD OF STUDIES MEMBERS (12th Bos)

| S.No | Name of the Person | Department | Position |
|---|---|---|---|
| 1. | **Dr. K. Akil** | Professor and Head,<br>Department of Civil Engineering,<br>Hindusthan College of Engineering and Technology. | **Chairman** |
| 2 | **Dr. G. Arun Kumar** | Associate Professor (CAS),<br>Government College of Engineering,<br>Salem. | **University Nominee** |
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| 4 | **Dr. V. M. Shanthi** | Principal,<br>Government College of Engineering,<br>Srirangam. | **Academic Expert** |
| 5 | **Dr. J. Jegan** | Professor,<br>Department of Civil Engineering,<br>Anna University, University College of Engineering,<br>Ramanathapuram. | **Academic Expert** |
| 6 | **Mr. J. Prem Kumar** | Principal Consultant,<br>M/s Infinustech,<br>Coimbatore. | **Special invitee** |
| 7 | **Dr. A. Sudhahar** | CEO - Dimensions Structural Designs,<br>#57, KrishnasamyMudhaliar Street,<br>Brooke Bond Road, R S Puram,Coimbatore | **Industry Member** |
| 8 | **Dr. S. Deepa Shri** | Professor<br>Department of Civil Engineering,<br>Hindusthan College of Engineering and Technology | **Member** |
| 9 | **Mr. R. Senthil Kumar** | Assistant Professor,<br>Department of Civil Engineering,<br>Hindusthan College of Engineering and Technology. | **Member** |
| 10 | **Mr. A. Alex Livingston Raja** | Assistant Professor,<br>Department of Civil Engineering,<br>Hindusthan College of Engineering and Technology. | **Member** |

| | | | |
|---|---|---|---|
| 11 | **Ms. K. Saraswathi** | Assistant Professor,<br>Department of Civil Engineering,<br>Hindusthan College of Engineering and Technology. | **Member** |
| 12 | **Ms. V. Suresh** | Assistant Professor,<br>Department of Civil Engineering,<br>Hindusthan College of Engineering and Technology. | **Member** |
| 13 | **Mr. B. Thamizhinian** | Research Scholar,<br>Indian Institute of Technology,<br>Roorkee,Haridwar,<br>Uttarakhand | **Alumni Member** |
| 14 | **Ms. K. Nivetha** | IV Year Student<br>Department of Civil Engineering,<br>Hindusthan College of Engineering and Technology | **Student Member** |
| 15 | **Mr. K. Arun** | III Year Student<br>Department of Civil Engineering,<br>Hindusthan College of Engineering and Technology | **Student Member** |
| 16 | **Mr. S Sugumaran** | II Year Student<br>Department of Civil Engineering,<br>Hindusthan College of Engineering and Technology | **Student Member** |

Chairman - BoS
CIVIL - HiCET

HINDUSTHAN EDUCATIONAL AND CHARITABLE TRUST
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**Hindusthan College of Engineering and Technology**
(An Autonomous Institution, Affiliated to Anna University, Chennai
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Valley Campus, Pollachi Highways, Coimbatore, Tamilnadu.

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**Academic Year: 2023-2024**

**12th Board of Studies Meeting Minutes**

The meeting of 12th Board of Studies in the Department of Mechanical Engineering Undergraduate programme for the academic year 2023-24 was conducted on 19.12.2023 at 11.00 a.m in Physical Mode.

The following members were present:

| S.No. | Name of the Expert | Nomination | Remarks |
|---|---|---|---|
| 1 | **Dr. K. Siva**<br>Professor and Head,<br>Mechanical Engineering Department,<br>Hindusthan College of Engineering and Technology | Chairman | Present |
| 2 | **Dr. S.Periyasamy,**<br>Associate Professor,<br>Department of Mechanical Engineering,<br>Government College of Technology, Coimbatore. | Anna University Nominee | Present |
| 3 | **Dr. L. Godson Asirvatham,**<br>Professor and head ,<br>Department of Mechanical Engineering,<br>Karunya institute of technology and science, Coimbatore | Academic Expert | Present |
| 4 | **Dr. M. Senthilkumar ,**<br>Professor & Head, Department of Production Engineering,<br>PSG College of Technology, Coimbatore. | Academic Expert | Absent |
| 5 | **Dr.S.R.Rajabalayanan**<br>Professor and Head<br>Mechanical Engineering Department,<br>Hindusthan Institute of Technology | Members from Sister Concern – HiTECH | Present |
| 6 | **Dr. C.Nithyanandam**<br>Associate Professor<br>Mechanical Engineering Department,<br>Hindusthan College of Engineering and Technology | Member | Present |
| 7 | **Dr. J. Manikandan**<br>Associate Professor<br>Mechanical Engineering Department,<br>Hindusthan College of Engineering and Technology | Member | Present |
| 8 | **Dr. V. Senthilmurugan**<br>Associate Professor<br>Mechanical Engineering Department,<br>Hindusthan College of Engineering and Technology | Member | Present |
| 9 | **Dr. Y. Rasmathew**<br>Associate Professor<br>Mechanical Engineering Department, | Member | Present |

| | | | |
|---|---|---|---|
| | Hindusthan College of Engineering and Technology | | |
| 10 | **Mr. A.F. BAGGIO,**<br>Managing Director, Redeem Tissues,<br>195/2D, Sundarapuram, LIC Colony, Coimbatore | Alumnus | Present |
| 11 | **Mr. C. Milan Harsish (III)**<br>Mechanical Engineering Department,<br>Hindusthan College of Engineering and Technology | 21-25 Batch Student | Present |
| 12 | **Mr. N. Praveen (IV)**<br>Mechanical Engineering Department,<br>Hindusthan College of Engineering and Technology | 20-24 Batch Student | Present |
| 13 | **Mrs N. Selvi**<br>Ward Councillor<br>Othakalmandapam<br>Coimbatore | Parent Member | Absent |

The chairman of the BOS, welcomed all the dignitaries for the meeting. He introduced the BoS members. Also, he has given an outline of the institution and department along with the salient features of the Curriculum and Syllabi.

During the presentation he emphasized the importance of employability enhancement courses, life skill, soft skill, design thinking and IPR related subjects.

Further, the following points are discussed

- The Chairman –BoS (Dr.K.Siva) welcomed all the members for the 12th Board of Studies meeting.
- The Chaiman, BoS elaborated the Regulations 2022 Curriculum scheme to the members also he explained the new inclusion categories in the curriculum like Professional elective verticals, Minor Degree , Honours degree , SEC, AEC etc., with internal mark weightage system.

**Recommendations by BoS members (Subject Related )**

The following recommendations are put forth by the BoS Members,

**Dr PERIYASAMY S (University Nominee)**

- Unit V 'Latest Amendments' topic can be included in 'IPR and Startups' Subject.
- Unit II 'Patent Ethics' topic can be included in 'IPR and Startups' Subject.
- Suggested to check and compare the GATE Syllabus in 'Kinematics of machinery' subject.
- Unit IV can be reduced in 'Hydraulic and Pneumatic' Systems Subject.
- Unit I heading is to modified as 'Air standard cycles' in Thermal Engineering Subject.
- Suggested to remove the word angle in 'tool and angle grinding' in 'Manufacturing technology laboratory II' subject.

**Enclosure:**

1. Previous BoS meeting Minutes
2. Action Taken Report
3. Curriculum and Syllabi (R2019)
4. Curriculum and Syllabi (R2022)

**Copy:**

1. The Principal
2. Dean Academics
3. Controller of Examinations
4. All the Members of BoS
5. File

**Dr. L. GODSON ASIRVATHAM (Academic Expert)**

- Unit II 'Procedure to follow the methods of IP agents ' to be included in 'IPR and Startups' Subject.
- Latest text books, Publications and Publishers to be mentioned in 'IPR and Startups' Subject.
- Objectives can be reduced in 'Hydraulics and Pneumatic Systems' Subject.
- Unit IV 'impact analysis' experiment to be included in 'Strength of materials' theory and lab subject.

**Dr. P. SURESH KUMAR, (Industry Member)**

- Unit V 'Case studies with application of computing skills' can be included in 'Hydraulics and Pneumatic' Systems Subject
- Unit II and III can be combined in ' Manufacturing Technology II' Subject.
- CNC topic can be extended in ' Manufacturing Technology II' Subject.
- Practical to be corrected as per the unit in 'Strength of materials' Subject.
- '3D Printing exercise' to be added in 'Manufacturing Technology II laboratory' Subject.

General Suggestions

- 'Should be able to' is to be removed from objectives in all subjects syllabus.
- Using Blooms taxonomy instead of 'understanding' and 'remember', 'apply', 'analyze' kind of words if possible can be included.
- Paragraph alignment should be checked.
- Latest text books, Publications and Publishers to be mentioned.

**The following resolution was made in the Board of Studies meeting,**

- The syllabi of IV semester of the UG Programmes for the students admitted during the academic year 2022 - 2023 and onwards was passed and permitted to move on Academic Council.

Chairman conveyed that, the Suggestions given by the Previous Board of Studies members are ratified and resolved.

The meeting ended with thanks to the Chair at 01.30 P.M.

**Chairman / Chairperson (BoS)**

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Othakalmandabam Post, Coimbatore
Department of Mechanical Engineering

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Date: 20.12.2023

## Action Taken Report - UG

The meeting of the 12th Board of Studies for the Department of Mechanical Engineering Undergraduate Programme for the academic year 2023-24 was conducted on 19.12.2023 at 11.00 a.m in Physical Mode

**Syllabus related Recommendations:**

| S. No | Course Code & Course Name | Suggestions given by BoS experts | Action taken |
|---|---|---|---|
| 1. | 22HE4101 IPR and Start-ups | Suggested to remove excluding topic. Unit V 'Latest Amendments', Unit II 'Patent Ethics' and Unit II 'Procedure to follow the methods of IP agents' topics to be included. Latest text books, Publications and Publishers to be mentioned | Suggestion passed and to be incorporated in the forthcoming Even semester of Academic year 2023-24. |
| 2. | 22ME4201 Kinematics of Machinery | Suggested to check and compare the GATE Syllabus. | |
| 3 | 22ME4202 Hydraulics and Pneumatics Systems | Objectives can be reduced. Unit IV can be reduced. Unit V 'Case studies with application of computing skills' can be included. | |
| 4 | 22ME4203 Thermal Engineering | Unit I heading is to modified as 'Air standard cycles'. | |
| 5 | 22ME4251 Strength of Materials | Unit IV 'impact analysis' experiment to be included. Practical to be corrected as per the unit | |
| 6 | 22ME4202 Manufacturing Technology – II | Suggested to remove the word angle in 'tool and angle grinding'. Unit II and III can be combined. CNC topic can be extended. '3D Printing exercise' to be added. | |

**Chairman BOS/Mech**

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**Academic Year: 2023-2024**

**12th Board of Studies Meeting Minutes**

The meeting of 12th Board of Studies in the ME CAD/CAM Postgraduate programme for the academic year 2023-24 was conducted on 19.12.2023 at 11.00 a.m in Physical Mode.

The following members were present:

| S.No. | Name of the Expert | Nomination | Remarks |
|---|---|---|---|
| 1 | **Dr. K. Siva**<br>Professor and Head,<br>Mechanical Engineering Department,<br>Hindusthan College of Engineering and Technology | Chairman | Present |
| 2 | **Dr. S.Periyasamy,**<br>Associate Professor,<br>Department of Mechanical Engineering,<br>Government College of Technology, Coimbatore. | Anna University Nominee | Present |
| 3 | **Dr. L. Godson Asirvatham,**<br>Professor and head ,<br>Department of Mechanical Engineering,<br>Karunya institute of technology and science, Coimbatore | Academic Expert | Present |
| 4 | **Dr. M. Senthilkumar ,**<br>Professor & Head, Department of Production Engineering,<br>PSG College of Technology, Coimbatore. | Academic Expert | Absent |
| 5 | **Dr.S.R.Rajabalayanan**<br>Professor and Head<br>Mechanical Engineering Department,<br>Hindusthan Institute of Technology | Members from Sister Concern – HiTECH | Present |
| 6 | **Dr. C.Nithyanandam**<br>Associate Professor<br>Mechanical Engineering Department,<br>Hindusthan College of Engineering and Technology | Member | Present |
| 7 | **Dr. J. Manikandan**<br>Associate Professor<br>Mechanical Engineering Department,<br>Hindusthan College of Engineering and Technology | Member | Present |
| 8 | **Dr. V. Senthilmurugan**<br>Associate Professor<br>Mechanical Engineering Department,<br>Hindusthan College of Engineering and Technology | Member | Present |

| | | | |
|---|---|---|---|
| 9 | **Dr. Y. Rasmathew**<br>Associate Professor<br>Mechanical Engineering Department,<br>Hindusthan College of Engineering and Technology | Member | Present |
| 10 | **Mr. A.F. BAGGIO,**<br>Managing Director, Redeem Tissues,<br>195/2D, Sundarapuram, LIC Colony, Coimbatore | Alumnus | Present |
| 11 | **Mr. C. Milan Harsish (III)**<br>Mechanical Engineering Department,<br>Hindusthan College of Engineering and Technology | 21-25 Batch Student | Present |
| 12 | **Mr. N. Praveen (IV)**<br>Mechanical Engineering Department,<br>Hindusthan College of Engineering and Technology | 20-24 Batch Student | Present |
| 13 | **Mrs N. Selvi**<br>Ward Councillor<br>Othakalmandapam<br>Coimbatore | Parent Member | Absent |

The chairman of the BOS, welcomed all the dignitaries for the meeting. He introduced the BoS members. Also, he has given an outline of the institution and department along with the salient features of the Curriculum and Syllabi.

During the presentation he emphasized the importance of employability enhancement courses, life skill, soft skill, design thinking and IPR related subjects.

Further, the following points are discussed

- The Chairman –BoS (Dr.K.Siva) welcomed all the members for the 12th Board of Studies meeting.
- The Chaiman, BoS elaborated the Regulations 2020 Curriculum scheme to the members also he explained the new inclusion categories in the curriculum like Professional elective and with internal mark weightage system.

**Recommendations by BoS members (Subject Related )**

The following recommendations put forth by the BoS Members,

- **Dr. S.PERIYASAMY,**– Anna University Nominee suggested to add recent manufacturing technologies topics in Computer Aided Manufacturing subject.
- **Dr. L. GODSON ASIRVATHAM -** Acedemic expert suggested to add Design Calculation topics in Computer Aided Design subject.
- The Chairman, BoS and all members accepted to incorporate the above said modification.

**The following resolution was made in the Board of Studies meeting,**

- The syllabi of III semester of the PG Programmes for the students admitted during the academic year 2022 - 2023 and onwards was passed and permitted to move on Academic Council.

Chairman conveyed that, the Suggestions given by the Previous Board of Studies members are ratified and resolved.

The meeting ended with thanks to the Chair at 01.30 P.M.

**Chairman / Chairperson (BoS)**

**Enclose:**

1. Previous BoS meeting Minutes
2. Action Taken Report
3. Curriculum and Syllabi (R2019)
4. Curriculum and Syllabi (R2022)

**Copy:**

1. The Principal
2. Dean Academics
3. Controller of Examinations
4. All the Members of BoS
5. File

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Othakalmandabam Post, Coimbatore
Department of Mechanical Engineering

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Date: 20.12.2023

## Action Taken Report - PG

The meeting of the 12th Board of Studies for the CAD/CAM Postgraduate Programme for the academic year 2023-24 was conducted on 19.12.2023 at 11.00 a.m in Physical Mode

**Syllabus related Recommendations:**

| S. No | Course Code & Course Name | Suggestions given by BoS experts | Action taken |
|---|---|---|---|
| 1. | 20CC1203 Computer Aided Manufacturing | suggested to add recent manufacturing technologies topic. | Suggestion passed and to be incorporated in the forthcoming Even semester of Academic year 2023-24. |
| 2. | 20CC1201 Computer Aided Design | suggested to add Design Calculation topic. | |

**Chairman BOS/Mech**

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Coimbatore – 641 032

## DEPARTMENT OF MECHATRONICS ENGINEERING

## MINUTES OF BOARD OF STUDIES MEETING

Name of the Department: **Mechatronics Engineering**

**Date: 29.11.2023**

The Twelfth Board of Studies meeting of regulation R2022 for the academic year 2023-2024 EvenSemester was conducted on 28.11.2023 at 10.30a.m.in board room,Hindusthan College of Engineering and Technology.

The following members were present:

| S.No. | Name of the Member | Position |
|---|---|---|
| 1. | Dr. P.T.Saravanakumar<br>Professor & Head,<br>Department of Mechatronics Engineering,<br>Hindusthan College of Engineering and Technology, Coimbatore | Chairman |
| 2. | Dr.S.Periyasamy<br>Associate Professor,<br>Department of Mechanical Engineering,<br>Government of Technology,<br>Coimbatore | University Nominee |
| 3. | Dr.M.Poongothai<br>Associate professor,<br>Department of Electronics and communication Engineering,<br>Coimbatore Institute of Technology, Coimbatore | Academic Expert |
| 4. | Dr.S.Saravanan<br>Professor & Associate Dean – Autonomous Functioning,<br>Department of Production Engineering,<br>PSG College of Technology, Coimbatore. | Academic Expert |
| 5. | Mr.Gomathinayagam<br>Deputy General manager, Design & Analysis<br>Product Development Centre,,<br>Larsen & Toubro, Coimbatore - 641044 | Industry Expert |
| 6. | Dr.A.ArockiaRajan<br>Professor<br>Solid Mechanics Division,<br>Department of Applied Mechanics,<br>Indian Institute of Technology Madras,Chennai – 600 036. | Member from QS Rated Institution |
| 7. | Dr.B.Paulchamy<br>Professor and Head,<br>Department of Electronics and communication Engineering<br>Hindusthan College of Technology, Coimbatore | Member from Sister Concern (HiTech) |
| 8. | Dr.T.Vandarkuzhali<br>Professor,<br>Department of Mechatronics Engineering,<br>Hindusthan College of Engineering and Technology, Coimbatore | Internal Member |

| | | |
|---|---|---|
| 9. | Dr.R.Madhusudhanan<br>Associate Professor,<br>Department of Mechatronics Engineering,<br>Hindusthan College of Engineering and Technology, Coimbatore | Internal Member |
| 10. | Dr.Pradeep Johnson<br>Associate Professor,<br>Department of Mechatronics Engineering,<br>Hindusthan College of Engineering and Technology, Coimbatore | Internal Member |
| 11. | Mr.S.PremAnand<br>Assistant Professor,<br>Department of Mechatronics Engineering,<br>Hindusthan College of Engineering and Technology, Coimbatore | Internal Member |
| 12. | Mr.C.P.Jeyakishan<br>Chief Executive Engineer,<br>MEG, Ganapathy, Coimbatore-641006 | Alumni Member |
| 13. | Mr.Sufyan Ahmed<br>Third year<br>Department of Mechatronics Engineering,<br>Hindusthan College of Engineering and Technology, Coimbatore | Student Member |

- The Chairman welcomed University nominee, Subject experts, special invitees and all the internal members for the Board of Studies meeting.
- The chairperson briefly explained the Salient features of Regulation 2019& 2022 to all the BoS members
- Chairman also gave an outline of the changes to be made in the curriculum given by the Curriculum Development Cell (CDC) &Department Advisory Committee (DAC).
- The feedback received on curriculum by the stakeholders was presented.
- As per the direction of Curriculum Development Cell (CDC), B.Tech honor courses of single vertical can be reframed to three verticals for the R2022 & R2019 (Batch 2021-2025) and also we introduce for minor degrees for R2019 (Batch 2021-2025).
- Curriculum & Syllabus for the courses to be passed in the 2023-2024 Even semester.
- Syllabus offered for the Minor degree and Honour degree (6th Semester only) by the individual U.G Programme under Regulation 2019 for the batch admitted during 2021-22
- Employability Enhancement Courses can be update in R2022 curriculum
- Vision & Mission of the department are discussing to reframe according to the PEO.
- Skill Enhancement courses are opted as a value-added course in upcoming Odd/Even Semester
- Followed by, Chairmanpresented the suggestions given by the BoS experts and the action taken report during the Previous BoS meeting, which was held during 30.05.2023,was approved.

**The following are the recommendations put forth by the BoS members,**

1. For R2022"22MT4201 - Processor and controller", insert Temperature Controller using 8085- Keyboard / Display Controller 8279: Pin diagram- Architecture- Interfacing 8279 with 8085.
2. For R2022 "22MT4202- Metrology and Measurements" In unit V Force Measurements in Industrial Applications topics replaced by A Case Study of Metrology in Pharmaceutical Industry.
3. For R2022 "22MT4203- Theory of machines" In Unit 3 force analysis to be removed, Unit 1 cams to be separate unit with recent applications and Unit 2, gears and gear trains are consider as unit 3.

**General Recommendations:**

1. Chairman conveyed that; the Suggestions given by the Board of Studies members to be incorporated in R2022.
2. Course objectives and Course Outcomes should be follow the bloom's Taxonomy.
3. Chairman conveyed about the Consideration of MOOC courses like NPTEL/Coursera / Edxetc as Additional credit courses so that students can get wide exposure on knowledge sharing.

**The following resolutions were made in the Board of Studies meeting,**

The syllabi of IV semester of the UG Programmes for the students admitted during the academic year 2022-2023 and onwards was passed by S&H Board of studies and permitted to move on Academic Council.

Chairman conveyed that, suggestions given by the Previous Board of Studies members are ratified and resolved.

The meeting ended with thanks to the chair at 12.30 pm.

**Chairman**

**(Board of studies)**

Chairman - BoS
MCT - HiCET

**Enclosure:**

1. Previous BoS Minutes- ATR
2. Regulation 2019 & 2022
3. Curriculum and Syllabi

**Copy:**

1. The Principal
2. Dean Academics
3. Controller of Examinations
4. All the members of BoSrun
5. File

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Coimbatore – 641 032


Date: 21.12.2023

## ACTION TAKEN REPORT ON BoS

Name of the Department: Mechatronics Engineering

The meeting of eleventhboard of studies of Regulation 2019& Regulation 2022 for the Department of Mechatronics Engineering, Under GraduateProgramme was conducted on 28.11.2023 at 10.30 am, in IQAC Board room, Hindusthan College of Engineering and Technology.

### (I) Syllabus Revision for the Regulations 2019

| S.No | Courses in which revision has been done | Action taken | Percentage Syllabus Revised |
|---|---|---|---|
| 1. | NIL | | |

**Overall Percentage of revision made in the BoS: NIL**

### (II) Syllabus Revision for the Regulations 2022

| S.No | Courses in which revision has been done | Action taken | Percentage Syllabus Revised |
|---|---|---|---|
| 1 | 22MT4201 - Processor and controller | INSERTION | 5% |
| 2 | 22MT4202- Metrology and Measurements | DELETION& INSERTION | 2.5% |
| 3 | 22MT4203 - Theory of Machines | DELETION& INSERTION | 30% |

**Overall Percentage of revision made in the BoS: 37.5%**

**(III) New Course Introduced:**

| S. No | Regulation | Course Code with Name | Credits |
|---|---|---|---|
| 1 | R2022 | 22HE4101 - IPR and Start-ups | 2 |
| 2 | R2022 | 22MT4251 - Sensors and Transducers | 3 |
| 3 | R2022 | 22MT4252- Fluid Power System | 3 |
| 4 | R2022 | 22MT4001 - Processor and controller Laboratory | 2 |
| 5 | R2022 | 22MT4001 -CAD Laboratory | 2 |
| 6 | R2019 | 21MT6601 - Sensors and Interfacing | 3 |
| 7 | R2019 | 21MT6601- Hydraulics and Pneumatics | 3 |
| 8 | R2019 | 21MT6203- Drives and Actuators for Automation | 3 |
| 9 | R2019 | 21MT6204- Power Electronics | 3 |
| 10 | R2019 | 21MT6205- Brain Computer Interface and its Applications | 3 |
| 11 | R2019 | 21MT6206- Digital Image Processing | 3 |
| 12 | R2019 | 21MT6207- Medical Robotics | 3 |
| 13 | R2019 | 21MT6208- Agricultural Robotics andAutomation | 3 |

**(IV). General Recommendations:**

| S. No | Suggestion Given by the BoS Experts | Action Taken |
|---|---|---|
| 1. | For R2022 "22MT4201 - Processor and controller", insert Temperature Controller using 8085- Keyboard / Display Controller 8279: Pin diagram- Architecture- Interfacing 8279 with 8085. | Considered |
| 2. | For R2022 "22MT4202- Metrology and Measurements" In unit V Force Measurements in Industrial Applications topics replaced by A Case Study of Metrology in Pharmaceutical Industry. | Considered |
| 3. | For R2022 "22MT4203- Theory of machines" In Unit 3 force analysis to be removed, Unit 1 cams to be separate unit with recent applications and Unit 2, gears and gear trains are consider as unit 3. | Considered |

Chairman
(Board of Studies)
Chairman - BoS
MCT - HiCET

Dean Academics
Dean (Academics)
HiCET

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## DEPARTMENT OF AGRICULTURAL ENGINEERING

## MINUTES OF BOARD OF STUDIES MEETING

Name of the Department: **Agricultural Engineering** **Date:** 14.12.2023

The Tenth Board of Studies meeting of regulation 2019 Regulation, 2019 Regulation with amendments and 2022 Regulation (for the students to be admitted from 2020-2021, 2021-2022 and 2022-23 onwards) for the academic year 2023-2024 EVEN Semester was conducted on 13.12.2023 at 3.00 p.m. in the Board Room (Virtual mode), Hindusthan College of Engineering and Technology.

Google Meet link: https://meet.google.com/zxf-yxat-qug

The following members were present:

| S.No. | Name of the Member | Position |
|---|---|---|
| 1 | Dr Sridhar M<br>Associate Professor & Head,<br>Department of Agricultural Engineering, HiCET. | Chairman |
| 2 | Dr.M.Krishnaveni<br>Professor (Agrl. Engg), Centre for Water Resources<br>Anna University,<br>Chennai. | University Nominee |
| 3 | Mr. C.Mayilsamy<br>Professor & Head<br>Dept of Agrl. Engg,<br>Karunya Institute of Technology and Sciences,<br>Coimbatore | Academic Expert |
| 4 | Dr.M. Singaravelu<br>Professor<br>Dept of Agrl. Engg<br>SNS College of Engineering<br>Coimbatore. | Academic Expert |
| 5 | Dr.Manickavasagan Annamalai<br>Associate Professor,<br>University of Guelph,Ontario, Canada | Academic Expert |
| 6 | Mr.C.V.Madheswaran<br>Managing Director,<br>KSNM Marketing, Coimbatore<br>BME Industrial Expert;<br>SF NO 29/1B Onapalayam<br>Coimbatore- 641190. | Industry Expert |
| 7 | Er.Ranjitha S<br>Manager-Farm Operations<br>Greenzy- Krishirishi Agrofarms LLP. | Alumni |

| | | |
|---|---|---|
| | Coimbatore. | |
| 8 | Er.Sakthi Kumar M | Alumni |
| 9 | Mr.Seerangurayar T<br>Assistant Professor<br>Department of Agricultural Engineering, HiCET. | Member |
| 10 | Dr. Dinesh Kumar S<br>Assistant Professor<br>Department of Agricultural Engineering, HiCET. | Member |
| 11 | Mrs.Kalaiselvi M<br>Assistant Professor<br>Department of Agricultural Engineering, HiCET. | Member |
| 12 | Ms.Sowmiya V<br>Assistant Professor<br>Department of Agricultural Engineering, HiCET. | Member |
| 13 | Dr.Dhayalan V<br>Assistant Professor<br>Department of Agricultural Engineering, HiCET. | Member |
| 14 | Mrs.K.Ramya<br>Assistant Professor<br>Department of Agricultural Engineering, HiCET. | Member |
| 15 | Dr.Rajaravi C<br>Associate Professor<br>Department of Agricultural Engineering, HiCET. | Member |
| 16 | Mr. Manogaran P | Parents |
| 17 | Mrs. Bharathi D | Parents |
| 18 | Siddhartha B D<br>Department of Agricultural Engineering, HiCET. | Student Member |
| 19 | Jeba Jeni J<br>Department of Agricultural Engineering, HiCET. | Student Member |

The university Nominee Dr.M.Krishnaveni and all the other external members attended the meeting via online (Google Meet)

- The Chairman-BoS welcomed the University nominee, Subject Experts, special invitees and all the internal members for the Tenth Board of Studies meeting.
- Chairman presented the suggestions given by the experts and the action taken report of the previous BoS meeting held on 07.06.2023. Members of the BOS approved the same.
- The feedback received on curriculum by the stakeholders was presented by the Chairman-BoS

- Chairman also gave an outline of the changes to be made in the curriculum given by the Department Advisory Committee (DAC) and emphasized the importance of curriculum to be in line with the industry needs.
- Chairman explained about the integration of curriculum with Indian Institute of Technology, Kharagpur (Department of Agricultural, Food, and Artificial Intelligence in Agriculture) under regulation 2022 for skill development and its importance to BoS members.
- Chairman indicated that the syllabus of B.Tech (Hons) and Hons. With Specialization has been added in the current syllabus related to IIT, Kharagpur for skill development and explained the value added courses.
- As recommended by DAC members, syllabus revision/updation under regulation 2019 Regulation, 2019 Regulation with amendments and 2022 Regulation Even semester in Theory, Theory with lab components and laboratory experiments for Agricultural Engineers were discussed in the meeting.
- The Chairman discussed the verticals of B.Tech (Hons) and Hons. With Specialization of syllabus under regulation 2022 for the students.

**The following are the recommendations put forth by the BoS members,**

**For the Regulations 2022 Curriculum**

1. Suggested to have modifications in B.Tech (Hons) and Hons. With Specialization syllabus and to have advanced courses in same domain.
2. Suggested to include advances in agriculture and employability course in the curriculum.
3. Suggested to allow the students for learning Python language integrated with agricultural courses.

**For the Regulations 2019 with amendments curriculum and Syllabus**

1. University Nominee Dr.M.Krishnaveni recommended 30 % revisions in "**21AG6201-Hydrology and Water Resources Engineering**" and updates in Unit II, Unit IV and Unit V (For the Batch 2021 – 2025).

2. Dr.M.Singaravelu recommended 5 % syllabus revision in "**21AG6181 - Professional Ethics**", has been for the Batch 2021 – 2025. Suggestion are to add the topic "Maintain physical health in yoga" in Unit I and delete the topic "Uses of Ethical Theories" from Unit II.

3. Dr. C. Mayilsamy recommended 13 % syllabus revision in "**21AG6251 - Food and Dairy Engineering**" the Batch 2021 – 2025 to delete the topic "Production of high quality milk - Method of raw milk procurement aseptic packaging" from Unit I , "Cleaning and Sanitation – Dairy effluent treatment and disposal" from Unit II, "Raoult"s law, Norrish, Ross, Salwin - Slawson equations" from Unit III and "Coffee, Tea processing - manufacture of margarine" from Unit IV and to add the topic "testing of milk" in Unit I and "GAB model isotherms, Gordon–Taylor equation and WLF equation" in Unit III.
4. Mr. Manogaran P suggested add one more practical in Principles and Practices of Crop Production and Mr.C.V.Madheswaran recommended 10 % of syllabus content change in "**22AG2252R & Principles and Practices of Crop**" by Delete the topics "and its crop production" in Unit I and the topic "cropping system add cropping pattern", "Establishment of an adequate crop stand and ground cover, including " in Unit II and add the topic "main field preparation", Delete the topics "need for supplementation to soil supplied " , "of supplemental nutrients including fertigation scheduling" and "Types and methods of harvest" in Unit III and add the topic "irrigation- types – irrigation scheduling – crop water requirement ", Delete the topics "such as those grown for green manure and fodder in Unit IV and add the topic "irrigation- types – irrigation scheduling – crop water requirement "
5. Er.Sakthi Kumar M Suggested to change Unit content in B.Tech (Minor) course Farm Machinery and Equipments
6. Er.Rangitha S Suggested to add application based syllabus content in B.Tech ( Hons ) courses
7. Dr. Sridhar N suggested the course 21AG6203 Design of Farm Machinery and System & 21AG6204 Tractor Systems Design –I under the vertical I Farm Machinery and Power
8. Ms.Sowmiya V suggested the course 21AG6205 Water Resources System Engineering & 21AG6206 Watershed Management and Modelling under the vertical II Simulation and Modelling in Irrigation.
9. Mr.Seerangurayar suggested the course 21AG6207 Instrumentation and Control in Food Industries & 21AG6208 Food Plant and Equipment Design under the vertical III Food Engineering
10. Dr. Dinesh Kumar S suggested the course 21AG6209 Basics of solar PV systems and components & 21AG6210 Basics of Agronomic practices and components under the vertical IV Agrivoltaics Technology.

11. Dr.Dhayalan V suggested the course 21AG6211 Dependable and Secure AI-ML & 21AG6212 Deep Learning Foundations and Applications under the vertical V Artificial Intelligence Machine Learning and Applications.
12. Ms. Mrs.Kalaiselvi M suggested the course 21AG6601 Soil & Water Conservation Engineering & 21AG6602 Farm Machinery and Equipment's under the Minor verticals.
13. 21VAAGO3- Training on Mobile App and Web Development for monitoring agricultural practices and 22VAAG01 - Principles of machine drawing as additional Credit Courses are recommended by the University Nominee Dr.M.Krishnaveni .

**General Recommendations:**

1. University Nominee suggested to create awareness among students related to MOOC Courses and credit transfer.
2. Siddhartha B D and Jeba Jeni J Suggested to invite the industrial expert to conduct the hands on training to the students.

**The following resolutions were made in the Board of Studies meeting,**

**For Regulations 2019:**

- The curriculum and syllabus for the VIII semester was passed by the Agriculture Engineering board and permitted to move on Academic Council by the BoS members of Agriculture Engineering for the students admitted during the academic year 2020-2021 and onwards.
- The curriculum and syllabi of 2019 regulation with amendments along with revision and updation for the VI semester Courses of B.E Agriculture Engineering program for the students admitted during the academic year 2021-2022 and onwards was suggested to move on to Academic Council.

**For Regulation 2022:**

- The syllabus for Semester – II under regulation 2022 passed by the Agriculture Engineering board are permitted to move on Academic Council by the members of Agricultural Engineering with modification.
- The syllabus for Semester – IV under regulation 2022 passed by the Agriculture Engineering board are permitted to move on Academic Council by the members of Agricultural Engineering as such.
- Chairman has confirmed that, the suggestions given by the subject experts will be considered and the syllabus will be updated based on the suggestions given in this BoS meeting.

The meeting ended with thanks to the Chair at 4.30PM.

**Chairman**

**(Board of studies)**

Chairman - BoS
AGRI - HiCET

**Enclose:**

1. Previous BoS Minutes- ATR
2. Regulation 2019 and 2022 with amendments
3. Curriculum and Syllabi

**Copy:**

1. The Principal
2. Dean Academics
3. Controller of Examinations
4. All the members of BoS
5. File

# *Hindusthan College of Engineering and Technology*

Approved by AICTE, New Delhi, Accredited with 'A++' Grade by NAAC
**(An Autonomous Institution, Affiliated to Anna University, Chennai)**
Coimbatore – 641 032


Date: 15.12.2023

## ACTION TAKEN REPORT ON 10th BOS

Name of the Department: **Agricultural Engineering**

The meeting of Tenth Board of studies of Regulation 2019 and Regulation 2022 for the Department of Agricultural Engineering under Graduate Programme was conducted on 13.12.2023 at 3.00 PM in the Board Room, Hindusthan College of Engineering and Technology.

**(I) Syllabus Revision for the Regulations 2019 with Amendments (2021 Batch) and Regulation 2022**

| S.No | Subject in which revision has been done | Action taken | Percentage Syllabus Revised |
|---|---|---|---|
| 1 | 21AG6201- Hydrology and Water Resources Engineering | Included and Modified | 30% |
| 2 | 21AG6181- Professional Ethics | Included and Deleted | 5% |
| 3 | 21AG6251 - Food and Dairy Engineering | Included and Deleted | 13% |
| 4 | 22AG2252R - Principles and Practices of Crop Production | Included and Modified | 10% |

**Syllabus Revision carried out in 2023-2024 EVEN Semester**

**2022 Regulation (2023 batch) - II semester = 10 %**
**2019 Regulation with amendments (2021 batch) - VI semester = 8 %**

**(II) New Course Introduced: NIL**

**(III) Additional Credit Courses Introduced:**

| S.No. | Course Code with Name |
|---|---|
| 1. | 21VAAGO3- Training on Mobile App and Web Development for monitoring agricultural practices. |
| 2. | 22VAAG01 - Principles of machine drawing |

**(IV) B. Tech (HONS) & B.Tech (HONS with specialization) and Minor Degree Agricultural Engineering curriculum introduced under Regulation 2022**

| S.No | Regulation | Course Code with Name | Credits |
|---|---|---|---|
| 1 | 2022 | 21AG6203 & Design of Farm Machinery and System | 3 |
| 2 | 2022 | 21AG6204 & Tractor Systems Design -I | 3 |
| 3 | 2022 | 21AG6205 & Water Resources System Engineering | 3 |
| 4 | 2022 | 21AG6206 & Watershed Management and Modelling | 3 |
| 5 | 2022 | 21AG6207 & Instrumentation and Control in Food Industries | 3 |
| 6 | 2022 | 21AG6208 & Food Plant and Equipment Design | 3 |
| 7 | 2022 | 21AG6209 & Basics of solar PV systems and components | 3 |
| 8 | 2022 | 21AG6210 & Basics of Agronomic practices and components | 3 |
| 9 | 2022 | 21AG6211 & Dependable and Secure AI-ML | 3 |
| 10 | 2022 | 21AG6212 & Deep Learning Foundations and Applications | 3 |
| 11 | 2022 | 21AG6601 & Soil & Water Conservation Engineering | 3 |
| 12 | 2022 | 21AG6602 & Farm Machinery and Equipment's | 3 |

**(V). General Recommendations:**

| S. No | Suggestion Given by the BoS Experts | Action Taken |
|---|---|---|
| 1 | Suggested to create awareness among students related to MOOC Courses and credit transfer. | Considered |
| 2 | Recommended to arrange more internship opportunities for the students | Considered |

**Chairman**
**(Board of Studies)**

Chairman - BoS
AGRI - HiCET

**Dean Academics**

Dean (Academics)
HiCET

HINDUSTHAN EDUCATIONAL AND CHARITABLE TRUST
HICET

**Hindusthan College of Engineering and Technology**
(An Autonomous Institution, Affiliated to Anna University, Chennai
Approved by AICTE, New Delhi & Accredited by NAAC with 'A++' Grade)
Valley Campus, Pollachi Highways, Coimbatore, Tamilnadu.

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## DEPARTMENT OF FOOD TECHNOLOGY

## MINUTES OF THE BOARD OF STUDIES MEETING

Name of the Department: **Food Technology**

The Tenth Board of Studies meeting of regulation 2019 and regulation 2022 (for the students to be admitted from 2022-23 onwards) for the academic year 2023-2023 Even semester was conducted on 15.12.2023 at 10.00 a.m. in the Department of Food Technology, HICET, Coimbatore through hybrid Mode (Offline and Online - Google meet: meet.google.com/mcx-ivie-wps).

The following members were present:

| S. No. | Name of the Person | Department | Position |
|---|---|---|---|
| 1. | Dr. Jeevarathinam G | Associate Professor & Head,<br>Department of Food Technology, HICET. | Chairman |
| 2. | Dr. Nandhini Devi G | Associate Professor,<br>Centre for Food Technology,<br>ACT Campus,<br>Anna University,<br>Chennai. | University Nominee |
| 3. | Dr. Shanmugasundaram S | Registrar (i/c),<br>Department of Food Process Engineering,<br>NIFTEM-T (Formerly Indian Institute of Food Processing Technology),<br>Ministry of Food Processing Industries,<br>Government of India<br>Pudukkottai Road, Thanjavur. | Subject Expert |
| 4. | Dr. Eyarkai Nambi V | Associate Professor,<br>Department of Academics and HRD,<br>NIFTEM-T (Indian Institute of Food Processing Technology),<br>Ministry of Food Processing Industries,<br>Government of India<br>Pudukkottai Road, Thanjavur. | Subject Expert |
| 5. | Mrs. Vidyalakshmi Y | Head of Quality Assurance,<br>Olam international Pvt., Ltd,<br>Kerala. | Industry Expert |

| | | | |
|---|---|---|---|
| 6. | Dr. Pandiselvam R | Scientist,<br>Physiology, Biochemistry and Post-Harvest Technology Division,<br>ICAR –Central Plantation Crops Research Institute,<br>Kasaragod-671 124, India. | Member from QIS rated Institution |
| 7. | Dr. Deepa J | Assistant Professor,<br>Department of Food Technology, HICET. | Member |
| 8. | Ms Nivetha T | Assistant Professor,<br>Department of Food Technology, HICET. | Member |
| 9. | Dr. Navarasam R | Assistant Professor,<br>Department of Food Technology, HICET. | Member |
| 10. | Mrs. Nageswari G | Assistant Professor,<br>Department of Food Technology, HICET. | Member |
| 11. | Mr. Dillwyn S | Assistant Professor,<br>Department of Food Technology, HICET. | Member |
| 12. | Mr. Premkumar J | Assistant Professor,<br>Department of Food Technology, HICET. | Member |
| 13. | Ms. C. Ronitalini | Crystal Tea India Private Limited,<br>Coimbatore. | Alumini |
| 14. | Ms. V. M. Tejaswini | Student, Department of Food Technology, HICET | Student Member |
| 15. | Mr Naveen Kumar M | Student, Department of Food Technology, HICET | Student Member |
| 16. | Ms. A. Kowsalya | Student, Department of Food Technology, HICET | Student Member |
| 17. | Mr. R. Shellamuthu | Parent | Parent Member |

The chairman of the BoS, **Dr Jeevarathinam G** welcomed the university nominee, Subject Experts, special invitees and all the internal members for the X Board of Studies meeting. The chairman introduced the BoS members.

The Chairman presented the suggestions given by the experts and the action taken report of the previous BoS meeting held on 09.06.2023. Members of BOS approved the same.

The consolidated feedback on curriculum by the stakeholders was presented by the Chairman-BoS.

The chairman gave an outline of the suggestions given by the members of Department Advisory Committee (DAC) related to the curriculum and syllabus. The Board of Studies member's suggestion had been sought in this regard.

The following points were discussed.

***The following Discussion on Curriculum and Syllabus took place:***

- The Chairman briefed the curriculum and Syllabus for the Regulation 2019 and 2022.

- The chairman presented the curriculum and syllabus for II and IV Semester for the R 2022 and VI and VIII Semester for the R 2019

**The following are the recommendations were put forth by the BoS members:**

**For the Regulations 2022 Curriculum**

In almost all the courses, changes have been done as per the current needs and the stakeholders feedback

1. Suggested to change the title of the course 22FT2251 – Biochemistry to Food Biochemistry and Nutrition and include the topics related to metabolic pathways, biochemical changes and Nutrition.
2. suggested to include recent advances experiments in 22FT4002 Unit Operations in Food Processing Laboratory.
3. suggested to include Refrigeration equipment topics in 22FT4202 Refrigeration in Cold Chain Management.

**For the Regulation 2019 curriculum and syllabus**

Theory with Lab component course was suggested (in the previous ACM meeting) to be introduced in Honour degree verticals in the regulation 2019.

1. Technology of snack and extruded foods
2. Mushroom Processing Technology
3. Fermentation Technology
4. Enzymes in Food Processing

**General Recommendations**

1. University Nominee and subject experts suggested to plan workshops, Industry training and encourage students to publish research articles in reputed journals.
2. Suggested to create opportunities for the students to participate in National Level Start-up and idea contests.

**The following resolutions were made in the Board of Studies meeting,**

**For Regulation 2019:**

- The curriculum and syllabus of 2019 with update for the VIII$^{th}$ semester courses of B.Tech. Food Technology program for the students admitted during the academic year 2020-2021 and onwards was suggested to move on to Academic council.
- The syllabus for the value-added course Waste Management in Food Industries and Skill Development in Sensory Assessment Techniques was presented.

**For Regulation 2022:**

- The curriculum under regulation 2022 for the students admitted from the academic year 2022-2023 onwards for the B.Tech. Food Technology and the same were presented and discussed. It was suggested to move on to Academic council.
- The syllabus for the Semester – II under regulation 2022 passed by the Board of Science and Humanities, Information Technology, Mechanical Engineering are permitted to move on Academic Council by the members of Food Technology.
- The syllabus for the value-added course Food Colors and Flavors Technology was presented.
- Chairman has confirmed that, the suggestions given by the subject experts will be considered and the syllabus will be updated based on the suggestions given in this BoS meeting.

The meeting ended with thanks to the Chair at 11.30 p.m.

**Chairman**

**(Board of Studies)**

**Chairman - BoS**
**FT - HiCET**

**Enclose:**

1. Previous BoS meeting Minutes
2. Action Taken Report
3. Regulation 2019 with amendments
4. Curriculum and Syllabi

**Copy:**

1. The Principal
2. Dean Academics
3. Controller of Examinations
4. All the Members of BoS
5. File

# Hindusthan College of Engineering and Technology

(An Autonomous Institution, Affiliated to Anna University, Chennai)
Valley Campus, Pollachi Highway, Coimbatore – 641032

## DEPARTMENT OF FOOD TECHNOLOGY

15.12.2023

## ATTENDANCE OF BOS MEETING (X)

| S.No | Name of the Person | Position | Signature |
|---|---|---|---|
| 1. | Dr. G. Jeevarathinam | Chairman | |
| 2. | Ms. T. Nivetha | Member | |
| 3. | Dr. J. Deepa | Member & Autonomous Coordinator | |
| 4. | Dr. R. Navarasam | Member | |
| 5. | Dr. J. Prem kumar | Member | |
| 6. | Mr. S. Dillwyn | Member | |
| 7. | Mrs. G. Nageswari | Member | |
| 8. | Ms. C. Ronitalini | Alumni | |
| 9. | Ms. V. M. Tejaswini | Student member | |
| 10. | Mr Naveen Kumar M | Student member | |
| 11. | Ms. A. Kowsalya | Student member | |
| 12. | Mr. R. Shellamuthu | Parent member | |

CHAIRMAN BOS
Chairman - BoS
FT - HiCET

**Hindusthan College of Engineering and Technology**
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Valley Campus, Pollachi Highway, Coimbatore – 641032

**Date: 18.12.2023**

## DEPARTMENT OF FOOD TECHNOLOGY

## ACTION TAKEN REPORT on BoS

The tenth Board of Studies meeting for the regulation 2019 and regulation 2022 (for the students to be admitted from 2022-23 onwards) for the academic year 2023-2024 Even semester was conducted on 15.12.2023 at 11.00 a.m. at HICET, Coimbatore through hybrid Mode (Offline and Online: meet.google.com/mcx-ivie-wps).

### (I) Syllabus Revision for the regulation 2022

| S. No | Subject in which revision has been done | Action taken | Percentage Syllabus Revised |
|---|---|---|---|
| 1. | 22FT4002 - Unit Operations in Food Processing Laboratory | Incorporated | 20% |
| 2. | 22FT4203 - Unit Operations in Food Processing | Incorporated | 20% |
| 3. | 22FT4202 - Refrigeration in Cold Chain Management | Modified | 20% |

**Overall Syllabus Revision: 10.71%**

### (III) Courses Introduced in R2022

| S. No | Subject in which revision has been done | Action taken |
|---|---|---|
| 1. | 22FT2251 - Food Biochemistry and Nutrition | Incorporated |
| 2. | 21FT6204 - Ready to eat foods | Incorporated |
| 3. | 21FT6205 - Cane Sugar Technology | Incorporated |
| 4. | 21FT6601 - Fruits and Vegetable Processing Technology | Incorporated |
| 5. | 21FT6602 - Poultry, Meat, and Fish Processing Technology | Incorporated |

### (IV) General Recommendations:

| S.No. | Suggestions / Comments given by the Members for 2019 Regulation | Action Taken | Report |
|---|---|---|---|
| 1. | The new course 22FT2251- Food Biochemistry and Nutrition in the Semester II was introduced | Suggestion passed | Suggestion approved |

| | | | |
|---|---|---|---|
| 2. | The Syllabus for the following Honours degree courses to be offered in the even semester under R 2019 was discussed<br><br>21FT6204 Ready to eat foods<br>21FT6205 Cane Sugar Technology | Suggestion passed on the standing committee | Suggestion Approved |
| 3. | The Syllabus for the following Minor degree courses under R 2019 was discussed<br><br>21FT6601 Fruits and Vegetable Processing Technology<br>21FT6602 Poultry, Meat, and Fish Processing Technology | Suggestion passed on the standing committee | Suggestion Approved |
| 4. | The revision of course content for the following courses under R2022 were proposed<br><br>22FT4002 Unit Operations in Food Processing Laboratory<br>22FT4203 Unit Operations in Food Processing<br>22FT4202 Refrigeration in Cold Chain Management | Suggestion passed on the standing committee | Suggestion Approved |
| 5. | The syllabus for the following value-added courses were presented in the Bos Meeting<br>1. Waste Management in Food Industries<br>2. Skill Development in Sensory Assessment Techniques<br>3. Food Colors and Flavors Technology | Suggestion passed on the standing committee | Suggestion Approved |
| 6. | As per the suggestions given in the previous Academic council meeting, Theory with Lab component courses were introduced under the verticals of the Honors degree program<br><br>1. Technology of snack and extruded foods<br>2. Mushroom Processing Technology<br>3. Fermentation Technology<br>4. Enzymes in Food Processing | Suggestion passed on the standing committee | Suggestion Approved |
| **S.No** | **General Suggestions / Comments given by the Members** | **Action Taken** | **Report** |
| 1. | University Nominee and subject experts suggested to plan workshops, Industry training and encourage students to publish research articles in reputed journals. | Suggestion passed on the standing committee | Suggestion Approved |

| | | | |
|---|---|---|---|
| 2. | Suggested to create opportunities for the students to participate in National Level Start-up and idea contests. | Suggestion passed on the standing committee | Suggestion Approved |

Chairman
(Board of Studies)

Chairman - BoS
FT - HiCET

Dean Academics

Dean (Academics)
HiCET

HINDUSTHAN EDUCATIONAL AND CHARITABLE TRUST
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# Hindusthan College of Engineering and Technology

An Autonomous Institution, Approved by AICTE, New Delhi, Affiliated to Anna University, Chennai
Accredited by NBA (AERO, AUTO, CIVIL, CSE, ECE, EEE, IT, MECH, MECHATRONICS)
Accredited by NAAC with 'A++' Grade, An ISO Certified Institution
**Valley Campus, Coimbatore – 641 032, Tamilnadu, INDIA**
Tel: +91 422 4242424 www.hicet.ac.in

## DEPARTMENT OF CHEMICAL ENGINEERING

## MINUTES OF BOARD OF STUDIES MEETING

Name of the Department: **Chemical Engineering** **Date:** 24.11.2023

The IX Board of Studies meeting of regulation 2019, 2019 with amendement and regulation 2022 for the academic year 2023-2024 EVEN Semester was conducted on 24.11.2023 at 10.30 a.m. in the Principal Board room, Hindusthan College of Engineering and Technology.

The following members were present:

| S.No. | Name of the Member | Position | Stutus |
|---|---|---|---|
| 1. | **Dr Seenuvasan M**<br>Professor & Head,<br>Department of Chemical Engineering, HICET. | Chairman | Present |
| 2. | **Dr Venkatesan S**<br>Professor and Head<br>Department of Petrochemical TechnologyUniversity College of Engineering<br>Bharathidasan Institute of Technology (BIT) CampusAnna University,<br>Tiruchirappalli | University Nominee | Absent |
| 3. | **Dr Prabhakaran D**<br>Professor, Department of Chemical Engineering,<br>Coimbatore Institute of Technology,Coimbatore | Academic Expert | Present |
| 4. | **Dr Karunakaran.S**<br>Associate Professor, Department of Chemical Engineering,KPR Institute of Engineering & Technology<br>Arasur,Coimbatore-641047. | Academic Expert | Present |
| 5. | **Dr Raja T**<br>Professor,<br>Department of Chemical Engineering,Engineering Department,<br>Salalah College of Technology, Salalah 211, Sultanate of Oman,<br>Oman.<br>(Attended through online: Google Meet: https://meet.google.com/ysk-quosj-ibs) | Academic Expert | Present |

| | | | |
|---|---|---|---|
| 6. | **Mr.Venkatesan Jayraman**<br>Product Engineering Manager-Acid Gas Products<br>Schlumberger,<br>Cameron India,III floor,TIDEL Park<br>Coimbatore | Industry Expert | Present |
| 7. | **Mr Gokul Jothi R**<br>Engineer-CFD<br>Simgrosys Consulting Service Pvt.Ltd | Alumini | Present |
| 8. | **Dr Balasubramani K**<br>Associate Professor<br>Department of Chemical Engineering, HICET | Member | Present |
| 9. | **Dr Vivek M S**<br>Assistant Professor<br>Department of Chemical Engineering, HICET | Member | Present |
| 10. | **Mr Nagul Dev S**<br>Assistant Professor<br>Department of Chemical Engineering, HICET | Member | Present |
| 11. | **Mr.Dinesh Kumar.M**<br>Assistant Professor<br>Department of Chemical Engineering, HICET | Member | Present |
| 12. | **Mr Harish Kumar M**<br>Student, Department of Chemical Engineering, HICET | Student Member | Present |
| 13. | **Mr Ihlas Ahmed**<br>Student, Department of Chemical Engineering, HICET | Student Member | Present |
| 14. | **Ms.Vaishali.B**<br>Student, Department of Chemical Engineering, HICET | Student Member | Present |
| 15. | **Mr Prabhakaran S**<br>Parent | Parent Member | Present |

- The Chairman-BoS welcomed the Experts, special invitees and all the internal members for the IX Board of Studies meeting.
- Chairman presented the suggestions given by the experts and the action taken report of the previous BoS meeting held on 24.11.2023. Members of the BOS approved the same.
- The feedback and analysis required on curriculum by the stakeholders was presented by the Chairman-BoS.
- Chairman also gave an outline of the changes to be made in the curriculum given by the Department Advisory Committee (DAC) and emphasized the importance of curriculum to be in line with the industry needs.
- As recommended by DAC members, syllabus revision/Updation for the Even semester under regulation 2022 in Chemical Engineering Thermodynamics-II, Process Heat Transfer, Mass Transfer Operations-I, Chemical Reaction Engineering-I, Chemical Process Industries, and Heat Transfer lab were discussed in the meeting.
- The Chairman discussed the two new courses to be introduced under **Honors with**

**Specialization** (Advanced Analytical Separation Techniques, Advanced Spectrometry: ICP-MS and LC-MS) & Two courses Minor Degree (Fluid Flow Operations in Chemical Engineering, Fundamentals of Chemical Thermodynamics) under regulation 2019 with amendment for the students admitted from the academic year 2021-2022 onwards.

The following are the recommendations put forth by the BoS members,

1. In "22CH4201" – "Mass Transfer Operations-I" recommended 25% revisions (For the Batch admitted from 2022 – 2023 onwards).
2. In "22CH4202 – "Chemical Engineering Thermodynamics-II" 20 % revision has been recommended (For the Batch admitted from 2022 – 2023 onwards).
3. In "22CH4203 – "Process Heat Transfer" 20 % revision has been recommended (For the Batch admitted from 2022 – 2023 onwards).
4. In "22CH4204 – "Chemical Process Industries" 20 % revision has been recommended (For the Batch admitted from 2022 – 2023 onwards).
5. In "22CH4251 – "Chemical Reaction Engineering-I" 20 % revision has been recommended (For the Batch admitted from 2022 – 2023 onwards).
6. In "22CH4001 – "Heat Transfer lab" 20 % revision has been recommended (For the Batch admitted from 2022 – 2023 onwards).
7. The new courses introduced- Advanced Analytical Separation Techniques, Advanced Spectrometry: ICP-MS and LC-MS, Fluid Flow Operations in Chemical Engineering, Fundamentals of Chemical Thermodynamics (under regulation 2019 for the students admitted from the academic year 2020-2021 onwards.)
8. The additional credit course Bulk Solid handling for Chemical Engineers (21VACH02) and Introduction to Chemical Engineering MATLAB (21VACH04) recommend as value added course.
9. Skill Development courses introduced and recommended by the member's.
    - Advanced Analytical Separation Techniques
    - Advanced Spectrometry: ICP-MS and LC-MS
10. Employability Enhance course passed and recommended by the member's

[redacted]

**General Recommendations:**

1. Recommended more Industry Integration for Curriculum Enrichment.
2. Recommended to provide more opportunities towards skill development courses.
3. Recommended more awareness towards MOOC courses

**The following resolutions were made in the Board of Studies meeting,**

**For Regulations 2019:**

- The curriculum and syllabus for the VII semester Elective Courses R2019 was passed by the Chemical Engineering board and permitted to move on Academic Council by the BoS members of Chemical Engineering.

**For Regulation 2022:**

- The syllabus for Semester – IV under regulation 2022 passed by the Board of Science and Humanities, Electrical & Electronics Engineering are permitted to move on Academic Council by the members of Chemical Engineering.
- Chairman has confirmed that, the suggestions given by the subject experts will be considered and the syllabus will be updated based on the suggestions given in this BoS meeting.

The meeting ended with thanks to the Chair at 12.30 PM.

Chairman
(Board of studies)
Chairman - BoS
CHE - HiCET

**Enclose:**

1. Previous BoS Minutes- ATR
2. Updated Curriculum and Syllabi under regulation 2019 with amendment & regulation 2022

**Copy:**

1. The Principal
2. Dean Academics
3. Controller of Examinations
4. All the members of BoS
5. File

# *Hindusthan College of Engineering And Technology*

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Coimbatore – 641 032

Date: 28.11.2023

## ACTION TAKEN REPORT

**Name of the Department**: Chemical Engineering

The meeting of IX board of studies of Regulation 2019, Regulation 2019 with ammendment & Regulation 2022 for the Department of Chemical Engineering Under Graduate Programme was conducted on 24.11.2023 at 10.30 a.m through Offline & Online mode, Hindusthan College of Engineering and Technology.

**(I) Syllabus Revision under the Regulations 2022**

| S.No | Subject in which revision has been done | Action taken | Percentage Syllabus Revised |
|---|---|---|---|
| 1. | 22CH4201" – "Mass Transfer Operations-I" | Modified | 25% |
| 2 | 22CH4202 – "Chemical Engineering Thermodynamics-II" | Modified | 20% |
| 3 | 22CH4203 – "Process Heat Transfer" | Modified | 25% |
| 4 | 22CH4204 – "Chemical Process Industries" | Modified | 20% |
| 5 | "22CH4251 – "Chemical Reaction Engineering-I" | Modified | 20% |
| 6 | "22CH4001 – " Heat Transfer lab" | Modified | 20% |

**Overall Percentage of revision made in the BoS : 21.42 %**

**(II) New Course Introduced (R2019 with amendment):**

| S. No | Regulation | Course Code with Name | Credits |
|---|---|---|---|
| 1 | R2019 | 21CH6209-Advanced Analytical Separation Techniques | 3 |
| 2 | R2019 | 21CH6210-Advanced Spectrometry: ICP-MS and LC-MS | 3 |
| 3 | R2019 | 21CH6601- Fluid Flow Operations in Chemical Engineering | 3 |
| 4 | R2019 | 21CH6602- Fundamentals of Chemical Thermodynamics | 3 |

## (III) Additional Credit Courses (R2019):

| S.No. | Course Code with Name |
|---|---|
| 1. | 21VACH02- Bulk Solid handling for Chemical Engineers |
| 2. | 21VACH04-Introduction to Chemical Engineering MATLAB |

## (IV) Course in the Updated Curriculum under R2022

| S.No. | Course Code | Course Title | Credits |
|---|---|---|---|
| 1. | 22MA1101 | Matrices and Calculus (Common) | 4 |
| 2. | 22HE1151 | English for Engineers (Common) | 3 |
| 3. | 22PH1151 | Physics of Materials | 3 |
| 4. | 22ME1201 | Engineering Drawing | 3 |
| 5. | 22IT1151 | Python Programming and Practices | 3 |
| 6. | 22HE1071 | Universal Human Values (Common) | 2 |
| 7. | 22HE1072 | Entrepreneurship & Innovation (Common) | 1 |
| 8. | 22MC1091/ 22MC1092 | □□□□□□□□□□□□□/Indian Constitution | 0 |
| 9 | 22HE2151 | Effective Technical Communication(Common) | 3 |
| 10 | **22MA2104** | Fourier Analysis and Laplace Transforms | 4 |
| 11 | **22PH2101** | Basics of Material Science | 2 |
| 12 | **22CY2101** | Environmental Studies | 2 |
| 13 | 22CH2201 | Introduction to Chemical Engineering | 3 |
| 14 | **22CY2151** | Chemistry for Engineers | 3 |
| 15 | 22ME2001 | Engineering Practices (Common) | 2 |
| 16 | 22HE2071 | Design Thinking (Common) | 2 |
| 17 | **22HE2072** | Soft Skills and Aptitude-I | 1 |
| 18 | 22MC2091/ 22MC2092 | Heritage of Tamil | 0 |
| 19 | 22MC3091 | Essence of Indian Traditional Knowledge | |
| 20 | 22MA3107 | Numerical Methods | 4 |
| 21 | 22CH3201 | Chemical Process Calculations | 4 |
| 22 | 22CH3202 | Fluid Flow Operations | 3 |
| 23 | 22CH3203 | Chemical Engineering Thermodynamics – I | 3 |
| 24 | 22CH3251 | Mechanical Operations | 3 |
| 25 | 22ME3253 | Basic Mechanical Engineering | 3 |
| 26 | 22CH3001 | Fluid Flow Operations Lab | 2 |
| 27 | 22CH3002 | Technical Analysis Lab | 2 |
| 28 | 22HE3071 | Soft Skills -2 (Common) | 1 |
| 29 | 22HE4101 | IPR and Start-ups(Common) | 2 |
| 30 | 22CH4201 | Mass Transfer Operations - I | 3 |
| 31 | 22CH4202 | Chemical Engineering Thermodynamics – II | 3 |
| 32 | 22CH4203 | Process Heat Transfer | 3 |
| 33 | 22CH4204 | Chemical Process Industries | 2 |
| 34 | 22EE4251 | Basics of Electrical &Electronics Engineering | 2 |
| 35 | 22CH4251 | Chemical Reaction Engineering-I | 3 |
| 36 | 22MA4151 | Probability and statistics with R programming | 3 |
| 37 | 22CH4001 | Heat Transfer Lab | 2 |

| | | | |
|---|---|---|---|
| 38 | 22HE4071 | Soft Skills -3(Common) | 1 |
| 39 | 22CH5201 | Mass Transfer Operations - II | 3 |
| 40 | 22CH5202 | Process Instrumentation Dynamics & Control | 3 |
| 41 | 22CH53XX | Professional Elective-1 | 3 |
| 42 | 22CH53XX | Professional Elective-2 | 3 |
| 43 | 22CH53XX | Professional Elective-3 | 3 |
| 44 | 22CH5251 | Chemical Reaction Engineering-II | 3 |
| 45 | 22CH5001 | Mass Transfer Operations Lab | 2 |
| 46 | 22HE5071 | Soft Skills -4/Foreign languages | 1 |
| 47 | 22CH6201 | Transport Phenomena | 3 |
| 48 | 22HE6101 | Professional Ethics (Common) | 3 |
| 49 | 22CH63XX | Professional Elective-4 | 3 |
| 50 | 22CH63XX | Professional Elective-5 | 3 |
| 51 | 22XX64XX | Open Elective – 1* | 3 |
| 52 | 22XX64XX | Open Elective – 2* | 3 |
| 53 | 22CH6001 | Process Control Lab | 2 |
| 54 | 22CH6002 | Computational Chemical Engineering Lab | 2 |
| 55 | 22HE6071 | Soft Skills – 5(Common) | 2 |
| 56 | 22CH7201 | Process Economics and Engineering Management | 3 |
| 57 | 22CH7202 | Process Equipment Design | 4 |
| 58 | 22CH73XX | Professional Elective-6 | 3 |
| 59 | 22XX74XX | Open Elective – 3* | 3 |
| 60 | 22XX74XX | Open Elective – 4* | 3 |
| 61 | 22CH7001 | Design and Simulation Lab | 2 |
| 62 | 22CH7701 | Internship | 2 |
| 63 | 22CH8901 | Project Work/Granted Patent(Common) | 10 |
| **OPEN ELECTIVE I AND II** | | | |
| 64 | 22CH6401 | Biomass and Bio refinery | 3 |
| **OPEN ELECTIVE III** | | | |
| 65 | 22CH7401 | Waste to Energy Conversion | 3 |
| **OPENELECTIVE IV** | | | |
| 66 | 22LS7401 | General studies for competitive examinations | 3 |
| 67 | 22LS7402 | Human Rights, Women Rights and Gender equity | 3 |
| 68 | 22LS7403 | Indian ethos and Human values | 3 |
| 69 | 22LS7404 | Financial independence and management | 3 |
| 70 | 22LS7405 | Yoga for Human Excellence | 3 |
| 71 | 22LS7406 | Democracy and Good Governance | 3 |
| 72 | 22LS7407 | NCC Level – II | 3 |
| **PROFESSIONAL ELECTIVE COURSES** | | | |
| **DETAILS OF VERTICAL I : PETROLEUM PROCESS TECHNOLOGY** | | | |
| 73 | 22CH5301 | Petroleum Chemistry and Refining Fundamentals | 3 |
| 74 | 22CH5302 | Primary Refining Technology | 3 |
| 75 | 22CH5303 | Secondary Refining Technology | 3 |
| 76 | 22CH6301 | Refinery Advancements and Environmental Regulations | 3 |
| 77 | 22CH6302 | Petroleum Equipment Design | 3 |
| 78 | 22CH7301 | Petrochemical Technology | 3 |
| **DETAILS OF VERTICAL II : ENERGY ENGINEERING** | | | |
| 79 | 22CH5304 | Bioenergy | 3 |

| | | | |
|---|---|---|---|
| 80 | 22CH5305 | Renewable Energy Resources | 3 |
| 81 | 22CH5306 | Pinch Technology | 3 |
| 82 | 22CH6303 | Hydrogen And Fuel Cell Technology | 3 |
| 83 | 22CH6304 | Power Plant Engineering | 3 |
| 84 | 22CH7302 | Non-Renewable Energy Sources | 3 |
| **DETAILS OF VERTICAL III : BIOCHEMICAL ENGINEERING** | | | |
| 85 | 22CH5307 | Biochemistry | 3 |
| 86 | 22CH5308 | Bioprocess Technology | 3 |
| 87 | 22CH5309 | Fermentation & Bioprocessing | 3 |
| 88 | 22CH6305 | Bio separation & Downstream Processing | 3 |
| 89 | 22CH6306 | Enzyme Immobilization Technology | 3 |
| 90 | 22CH7303 | Bioreactor Design | 3 |
| **DETAILS OF VERTICAL IV: ENVIORNMENTAL AND SAFETY ENGINEERING** | | | |
| 91 | 22CH5310 | Biochemistry | 3 |
| 92 | 22CH5311 | Bioprocess Technology | 3 |
| 93 | 22CH5312 | Fermentation & Bioprocessing | 3 |
| 94 | 22CH6307 | Bio separation & Downstream Processing | 3 |
| 95 | 22CH6308 | Enzyme Immobilisation Technology | 3 |
| 96 | 22CH7304 | Bioreactor Design | 3 |
| **DETAILS OF VERTICAL V: COMPUTATIONAL ENGINEERING** | | | |
| 97 | 22CH5313 | Computational Techniques | 3 |
| 98 | 22CH5314 | Optimization of Chemical Processes | 3 |
| 99 | 22CH5315 | Process Modeling and Simulation | 3 |
| 100 | 22CH6309 | Pinch Analysis and Heat Exchange Network Design | 3 |
| 101 | 22CH6310 | Chemical Process Flow sheeting | 3 |
| 102 | 22CH7305 | Computational Fluid Dynamics | 3 |
| **DETAILS OF VERTICAL VI : COMPUTATIONAL ENGINEERING** | | | |
| 103 | 22CH5316 | Chemical Plant Design | 3 |
| 104 | 22CH5317 | Plant Layout | 3 |
| 105 | 22CH5318 | Design Safety | 3 |
| 106 | 22CH6311 | Material Selection | 3 |
| 107 | 22CH6312 | Statutory Requirements & Customer Care | 3 |
| 108 | 22CH7306 | Process Plant Utilities | 3 |

**VERTICALS FOR MINOR DEGREE**

**CHEMICAL ENGINEERING OFFERING MINOR DEGREE**

Minor Specialization in Chemical Engineering

| | | | |
|---|---|---|---|
| 108 | 22CH5231 | Introduction to Chemical Process | 3 |
| 109 | 22CH6231 | Fluid Flow Operations in Chemical Engineering | 4 |
| 110 | 22CH6232 | Fundamentals of Chemical Thermodynamics | 3 |
| 111 | 22CH7231 | Process Heat and Mass Transfer | 3 |
| 112 | 22CH7232 | Reaction Engineering | 3 |
| 113 | 22CH8231 | Unit Operations and Process Laboratory | 2 |

| Additional courses for Minor Degree | | | |
|---|---|---|---|
| **VERTICAL I: FINTECH AND BLOCK CHAIN** | | | |
| 114 | 22MB5231 | Financial Management | 3 |
| 115 | 22MB6231 | Fundamentals of Investment | 3 |
| 116 | 22MB6232 | Banking, Financial Services and Insurance | 3 |
| 117 | 22MB7231 | Introduction to Block chain and its Applications | 3 |
| 118 | 22MB7232 | Fintech Personal Finance and Payments | 3 |
| 119 | 22MB8231 | Introduction to Fintech | 3 |
| **VERTICAL II: ENTREPRENEURSHIP** | | | |
| 120 | 22MB5232 | Foundations of Entrepreneurship | 3 |
| 121 | 22MB6233 | Team Building & Leadership Management for Business | 3 |
| 122 | 22MB6234 | Creativity & Innovation in Entrepreneurship | 3 |
| 123 | 22MB7233 | Principles of Marketing Management For Business | 3 |
| 124 | 22MB7234 | Human Resource Management for Entrepreneurs | 3 |
| 125 | 22MB8232 | Financing New Business Ventures | 3 |
| **VERTICAL III: ENVIRONMENT AND SUSTAINABILITY** | | | |
| 126 | 22CE5232 | Sustainable infrastructure Development | 3 |
| 127 | 22AG6233 | Sustainable Agriculture and Environmental Management | 3 |
| 128 | 22BM6233 | Sustainable Bio Materials | 3 |
| 129 | 22ME7233 | Materials for Energy Sustainability | 3 |
| 130 | 22CE7233 | Green Technology | 3 |
| 131 | 22CE8232 | Environmental Quality Monitoring and Analysis | 3 |
| **B Tech (Hons) Chemical Engineering with Specialization in Computer Aided Process Engineering** | | | |
| 132 | 22CH5205 | Process Flow Sheeting | 3 |
| 133 | 22CH6203 | Transport Phenomena | 4 |
| 134 | 22CH6204 | Advanced Process Optimization | 3 |
| 135 | 22CH7203 | Artificial Intelligence in Process Engineering | 3 |
| 136 | 22CH7204 | Digital Twin and Soft Computing in Process Modelling | 3 |
| 137 | 22CH8201 | Advanced Process Modelling and Simulation | 2 |
| **B Tech (Hons) Chemical Engineering with Specialization in Polymer Technology** | | | |
| 138 | 22CH5206 | Polymer Chemistry | 3 |
| 139 | 22CH6205 | Processing Technology | 3 |
| 140 | 22CH6206 | Rubber Technology | 3 |
| 141 | 22CH7205 | Polymer Product Design, Blends, and Alloys | 3 |
| 142 | 22CH7206 | Polymer Structure and property relationships | 3 |
| 143 | 22CH8202 | Polymer Compounding Technology | 3 |
| **B Tech (Hons) Chemical Engineering with Specialization in Petroleum Engineering** | | | |
| 144 | 22CH5207 | Petroleum Geology | 3 |
| 145 | 22CH6207 | Petroleum Exploration | 3 |
| 146 | 22CH6208 | Drilling Technology | 3 |
| 147 | 22CH7207 | Petroleum Production Engineering | 3 |
| 148 | 22CH7208 | Petroleum Reservoir Engineering | 3 |
| 149 | 22CH8203 | Offshore Engineering | 3 |

| B Tech (Hons) Chemical Engineering with Specialization in Instrumental Chemical Analysis | | | |
|---|---|---|---|
| 150 | 22CH5208 | Principles of Mass Spectrometry | 3 |
| 151 | 22CH6209 | Advanced Analytical Separation Techniques | 3 |
| 152 | 22CH6210 | Advanced Spectrometry: ICP-MS and LC-MS | 4 |
| 153 | 22CH7209 | Instruments for Morphology and Structural Characterization | 3 |
| 154 | 22CH7210 | Statistical Analysis and Data Processing Laboratory | 2 |
| 155 | 22CH8204 | Troubleshooting Analytical Methods and Instruments | 3 |

**(V). General Recommendations:**

| S. No | Suggestion Given by the BoS Experts | Action Taken |
|---|---|---|
| 1 | Recommended more Industry Integration for Curriculum Enrichment. | Considered |
| 2 | Recommended to provide more opportunities towards skill development courses. | Considered |

Chairman
(Board of Studies)
Chairman - BoS
CHE - HiCET

Dean Academics
Dean (Academics)
HiCET

HINDUSTHAN EDUCATIONAL AND CHARITABLE TRUST
HICET

# *Hindusthan College of Engineering and Technology*

Approved by AICTE, New Delhi, Accredited with 'A' Grade by NAAC
**(An Autonomous Institution, Affiliated to Anna University, Chennai)**
Coimbatore – 641 032

**Date: 09.12.2023**

## DEPARTMENT OF COMPUTER SCIENCE AND ENGINEERING

## MINUTES OF BOARD OF STUDIES MEETING

Name of the Department: **COMPUTER SCIENCE AND ENGINEERING**

The 13th Board of Studies meeting of regulation R2019 & R2022 for the academic year 2023 -2024 Even Semester was conducted on 09.12.2023 at 10.00 a.m. in Hybrid mode, Hindusthan College of Engineering and Technology. (Google Meet: meet.google.com/vkk-mdwf-yjs).

The following members were present:

| S. No. | Name of the Member | Position |
|---|---|---|
| 1 | **Dr Shankar S**<br>**Professor & HOD**<br>Department of Computer Science and Engineering,<br>Hindusthan College of Engineering and Technology | Chairman |
| 2 | **Dr Thulasimani K**<br>Professor, Department of Computer Science and Engineering, Government College of Engineering, Tirunelveli-627007 | University Nominee |
| 3 | **Dr Karthika Renuka D**<br>Professor, Department of Information Technology,<br>PSG College of Technology,<br>Coimbatore. | Subject Expert |
| 4 | **Dr Surendiran B**<br>Associate Professor<br>Dept of Computer Science and Engineering, National Institute of Technology, Puducherry. | Member from QIS rated Institution |
| 5 | **Dr Prakash P**<br>Associate Professor<br>School of Computer Science and Engineering, VIT Chennai. | Member from QIS rated Institution |
| 6 | **Mr Dinesh Raja**<br>Managing Director,<br>Haqto Technologies, Coimbatore | Industry Expert |
| 7 | **Mr Balamukesh**<br>Coimbatore | Alumni |
| 9 | **Ms Sathya S**<br>Assistant Professor<br>Department of Computer Science and Engineering,<br>Hindusthan College of Engineering and Technology, | Autonomous Coordinator & BoS Member |

| | | |
|---|---|---|
| | Coimbatore-641032 | |
| 10 | **Dr Satheesh Kumar D**<br>Associate Professor<br>Department of Computer Science and Engineering,<br>Hindusthan College of Engineering and Technology,<br>Coimbatore-641032 | Autonomous Coordinator & BoS Member |
| 11 | **Dr Prakash J**<br>Associate Professor<br>Department of Computer Science and Engineering,<br>Hindusthan College of Engineering and Technology,<br>Coimbatore-641032 | Member |
| 12 | **Mr Mahesh D**<br>Assistant Professor<br>Department of Computer Science and Engineering,<br>Hindusthan College of Engineering and Technology,<br>Coimbatore-641032 | Member |
| 13 | **Mr. DHANASELVAN J U**<br>720721104076 - III BE CSE B<br>Department of Computer Science and Engineering,<br>Hindusthan College of Engineering and Technology,<br>Coimbatore-641032 | Student Member |
| 14 | **Mr. M.Kamalesh Kumar**<br>20104102 - IV BE CSE B<br>Department of Computer Science and Engineering,<br>Hindusthan College of Engineering and Technology,<br>Coimbatore-641032 | Student Member |
| 15 | **Mr . Jayaprakash T**<br>Parent Member<br>F/o. **Mr. DHANASELVAN J U**<br>720721104076 - III BE CSE B | Parent Member |
| 16 | **Mr.Mohan Kumar P**<br>Parent Member<br>F/o, Mr.Kamalesh Kumar,IV BE CSE B | Parent Member |

- Dr.S.Shankar, Chairman, Board of Studies, welcomed the University nominee, Subject experts, Special Invitees and all the internal members for the thirteen Board of Studies meeting.

- Followed by, Chairman presented the suggestions given by the experts and the action taken report during the Previous BoS meeting, which was held during **14.06.2023** ,was approved.

- The feedback received on the curriculum by the stakeholders was presented.

- Chairman also gave an outline of the changes to be made in the curriculum given by the Curriculum Development Cell (CDC) & Pre- Board of Studies (Pre- BoS)/ Department Advisory Committee (DAC) and emphasized the importance of including the Skill Development related courses in the curriculum to be in line with the industry needs.

- The Chairman also mentioned the revision of R2019 Syllabus, which meets on higher order thinking levels, based on the recommendations from Stakeholders and emphasized the following points.
    - Scheme of Regulation 2022-2023
    - Courses for the Programme.
    - Syllabus for the courses of the Fourth semester alone under 2022 regulation
    - 6th semester Minors, Honors subject alone is discussed for 2019 regulation.

Also, the following points were discussed.

- Discussion of inclusion of Minor and Major Degree programmes for Scheme of Curriculum 2022-2023 with Minors, Honors system in new regulation 2022.
- The whole curriculum and syllabi of Fourth semester subject alone is discussed for 2022 regulation.
- The curriculum and syllabi of 6th semester Minors, Honors, Honors with specialization subject alone is discussed for 2019 regulation.
- Syllabus for minor degree courses passed by CSE, Civil and MBA ie Fundamentals of Investment, Banking, Financial Services and Insurance, Introduction to Business Venture.

*For **2021-2022** batch students, the following courses has been introduced or revised*

1. 21CS6601 - Databases and SQL course is introduced as new Minor degree course in the semester VI with 3 credits.
2. 21CS6602 - Principles of Internet Of Things course is introduced as new Minor degree course in the semester VI with 3 credits.
3. 21CS6203 - IOT Design course is introduced as new Honours degree course in the semester VI with 3 credits.
4. 21CS6204 - Privacy and Security in IoT course is introduced as new Honours degree course in the semester VI with 3 credits.
5. 21CS6205 - Introduction to block chain course is introduced as new Honours degree course in the semester VI with 3 credits.
6. 21CS6206 - Cryptocurrency course is introduced as new Honours degree course in the semester VI with 3 credits.

7. 21CS6207 - Front End Development with REACT JS and TYPESCRIPT course is introduced as new Honours degree course in the semester VI with 3 credits.
8. 21CS6208 - Back End Development with NodeJS course is introduced as new Honours degree course in the semester VI with 3 credits.

- *For **2022-2023** batch students, the following courses has been introduced or revised*

1. 22CS4201 - Database Management Systems course is a theory course and it is introduced as new course in semester IV with credit 3.
2. 22CS4251 - Design And Analysis Of Algorithms course is a theory with lab component course and it is introduced as new course in semester IV with credit 4.
3. 22CS4203 - Software Design with UML course is a theory course and it is introduced as new course in semester IV with credit 3.

- *For **2023-2024** batch students, the following courses has been introduced*

1. 22HE2071 - Design Thinking course is introduced as new course in the semester-II as Employability course with two credits.
2. 22HE2072 - Soft Skills and Aptitude 1 course is introduced as new course in the semester I as Employability course with one credit
3. 22MC2094 - தமிழரும் தொழில்நுட்பமும் course is introduced as new course in the semester I as mandatory course with one credit
4. 22MC2095 - Tamils And Technology course is introduced as new course in the semester I as mandatory course with one credit

**The following are the recommendations put forth by the BoS members,**

1. The subject expert Dr Prakash P Suggested to change the title from software Analysis & Design to "Software Design with UML" because the syllabus covers more on Unified Modeling Language concepts instead of Design concepts
2. The Industry expert Dinesh Raja Suggested to include typescript ,Spring boot tools in the Node js syllabus.
3. Dr Thulasimani K , Anna University Nominee Suggested to include scenario based questions in lab component
4. The subject expert Karthika renuka Suggested to replaced R programming with Python, Chairman Explained as already students studying python in other courses like Machine Learning, NLP etc..
5. The subject expert Dr Surendiran B Suggested to include SIOT topic in UNIT -5.
6. Value added course Advanced java programming and html,css is introduced which includes various courses for the students to enhance their technical skills.

**General Recommendations:**

1. Dr Thulasimani K , Anna University Nominee appreciated for including industrial oriented courses and agreed that students would be surely benefitted and suggested to provide sufficient time to students to complete the courses
2. Industry Expert Dinesh Raja, recommended to create awareness in the field of cyber security to the students and conduct hands-on workshop in this field.
3. The subject expert Dr Surendiran B Suggested to include recent editions of text and reference books in the syllabus. Also suggested that, if one text book covers all the units then one text book is enough. Otherwise, more than one text books may be included in the syllabus.
4. Dr Prakash, Subject Expert Suggested to include lab component courses for Specialization course ( Professional Electives, Open Electives and Minor Degree Courses).

The Chairman, BoS and all members accepted to incorporate the above in the curriculum.

**The following resolutions were made in the Board of Studies meeting,**

- The curriculum and syllabi of 2019 Regulation with Amendments for the VIII semester was passed by the Computer Science and Engineering board and permitted to move on Academic Council by the BoS members of CSE for the students admitted during the academic year 2020 - 2021 and onwards.
- The curriculum and syllabi of 2019 Regulation with Amendments for the VI semester Courses of Computer Science and Engineering Board for the students admitted during the academic year 2021 - 2022 and onwards was suggested to move on to Academic Council.
- The curriculum and syllabi of 2019 Regulation with Amendments for the IV semester Courses of Minors, Honors, Honors with specialization subject were introduced and passed by the Computer Science and Engineering board and permitted to move on Academic Council for the students admitted during the academic year 2022 - 2023 onwards.
- The Curriculum and Syllabus of Regulation 2022 for the II Semester Subjects- 22MAXXX, 22PHXXX, 22HEXXX, and 22MCXXX were introduced and passed by Science and Humanities board and permitted to move on Academic Council by the BoS members of Computer Science and Engineering for the students admitted during the academic year 2023-2024 onwards.

The meeting ended with thanks to the Chair at 11.00 AM.

Chairman

(Board of studies)

Chairman - BoS
CSE - HiCET

**Enclosure:**

1. Previous BoS Minutes- ATR
2. Regulation 2019 & 2022
3. Curriculum and Syllabi

**Copy:**

1. The Principal
2. Dean Academics
3. Controller of Examinations
4. All the members of BoS
5. File

HINDUSTHAN EDUCATIONAL AND CHARITABLE TRUST
HICET

# Hindusthan College of Engineering And Technology

Approved by AICTE, New Delhi, Accredited with 'A' Grade by NAAC
**(An Autonomous Institution, Affiliated to Anna University, Chennai)**
Coimbatore – 641 032

Date: **09.12.2023**

## ACTION TAKEN REPORT ON BoS

Name of the Department: **COMPUTER SCIENCE AND ENGINEERING**

The 13th Board of Studies meeting of regulation R2019 & R2022 for the academic year 2023 -2024 Even Semester was conducted on 09.12.2023 at 10.00 a.m. in Hybrid mode, Hindusthan College of Engineering and Technology.

(Google Meet: meet.google.com/vkk-mdwf-yjs).

### (I) Syllabus Revision for the Regulations 2019 & 2022

| S.No | Courses in which revision has been done | Action taken | Percentage Syllabus Revised |
|---|---|---|---|
| 1 | 21CS6601 - Databases and SQL | Introduced | 100% |
| 2 | 21CS6602 - Principles of Internet Of Things | Introduced | 100% |
| 3 | 21CS6203 - IOT Design | Introduced | 100% |
| 4 | 21CS6204 - Privacy and Security in IoT | Introduced | 100% |
| 5 | 21CS6205 - Introduction to block chain | Introduced | 100% |
| 6 | 21CS6206 - Cryptocurrency | Introduced | 100% |
| 7 | 21CS6207 - Front End Development with REACT JS and TYPESCRIPT | Introduced | 100% |
| 8 | 21CS6208 - Back End Development with NodeJS | Introduced | 100% |
| 9 | 22CS4201 - Database Management Systems | Introduced | 100% |
| 10 | 22CS4251 - Design And Analysis Of Algorithms | Introduced | 100% |
| 11 | 22CS4203 - Software Design with UML | Introduced | 100% |

**Overall Percentage of revision made in the BoS: 33%**

### (II) New Course Introduced:

| S. No | Regulation | Course Code with Name | Credits |
|---|---|---|---|
| 1 | 2019 | 21CS6601 - Databases and SQL | 3 |
| 2 | 2019 | 21CS6602 - Principles of Internet Of Things | 3 |
| 3 | 2019 | 21CS6203 - IOT Design | 3 |
| 4 | 2019 | 21CS6204 - Privacy and Security in IoT | 3 |
| 5 | 2019 | 21CS6205 - Introduction to block chain | 3 |
| 6 | 2019 | 21CS6206 - Cryptocurrency | 3 |
| 7 | 2019 | 21CS6207 - Front End Development with REACT JS | 3 |

| | | | |
|---|---|---|---|
| | | and TYPESCRIPT | |
| 8 | 2019 | 21CS6208 - Back End Development with NodeJS | 3 |
| 9 | 2022 | 22CS4201 - Database Management Systems | 3 |
| 10 | 2022 | 22CS4251 - Design And Analysis Of Algorithms | 4 |
| 11 | 2022 | 22CS4203 - Software Design with UML | 3 |
| 12 | 2022 | 22MC2094 - தமிழரும் தொழில்நுட்பமும் | 1 |
| 13 | 2022 | 22MC2095 - Tamils And Technology | 1 |

**(III) Mandatory Courses**

| S.No. | Course Code with Name |
|---|---|
| 1. | 22MC2094 - தமிழரும் தொழில்நுட்பமும் |
| 2. | 22MC2095 - Tamils And Technology |
| 3. | 22MC2093 - NCC */NSS / YRC / Sports / Clubs / Society Service - Enrollment (Common) |
| 4. | 21CS6701 - Internship/Industrial Training |
| 5. | 21HE6071 - Soft Skill-II |
| 6. | 21HE6072 - Intellectual Property Rights(IPR) |

**(IV) Non-credit Mandatory Courses**

| S.No. | Course Code with Name |
|---|---|
| 1. | 22MC2093 - NCC */NSS / YRC / Sports / Clubs / Society Service - Enrollment (Common) |

**(V) Additional Credit Courses Introduced:**

| S.No. | Course Code with Name |
|---|---|
| 1. | 21CS6701 - Internship/Industrial Training |
| 2. | 21HE6071 - Soft Skill-II |
| 3. | 21HE6072 - Intellectual Property Rights(IPR) |

**(VI) The following recommendations given by stakeholders are considered and incorporated.**

1. The subject expert Dr Prakash P Suggested to change the title from software Analysis & Design to "Software Design with UML" because the syllabus covers more on Unified Modeling Language concepts instead of Design concepts
2. The Industry expert Dinesh Raja Suggested to include typescript ,Spring boot tools in the Node js syllabus.
3. Dr Thulasimani K , Anna University Nominee Suggested to include scenario based questions in lab component

4. The subject expert Karthika renuka Suggested to replaced R programming with Python, Chairman Explained as already students studying python in other courses like Machine Learning, NLP etc..
5. The subject expert Dr Surendiran B Suggested to include SIOT topic in UNIT -5.

**(VII). General Recommendations:**

| S. No | Suggestion Given by the BoS Experts | Action Taken |
|---|---|---|
| 1 | Industry Expert Dinesh Raja, recommended to create awareness in the field of cyber security to the students and conduct hands-on workshop, seminars in this field. | Incorporated |
| 2 | The subject expert Dr Surendiran B Suggested to include recent editions of text and reference books in the syllabus. Also suggested that, if one text book covers all the units then one text book is enough. Otherwise, more than one text books may be included in the syllabus. | Incorporated |
| 3 | Dr.Prakash, Subject Expert Suggested to include lab component courses for Specialization course ( Professional Electives, Open Electives and Minor Degree Courses). | Incorporated |

**Chairman**
**(Board of Studies)**

Chairman - BoS
CSE - HiCET

**Dean Academics**

Dean (Academics)
HiCET

HINDUSTHAN EDUCATIONAL AND CHARITABLE TRUST
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# Hindusthan College of Engineering and Technology

(An Autonomous Institution, Affiliated to Anna University, Chennai
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Valley Campus, Pollachi Highways, Coimbatore, Tamilnadu.

TÜVRheinland CERTIFIED

## MINUTES OF BOARD OF STUDIES MEETING

**Name of the Department: ELECTRICAL AND ELECTRONICS ENGINEERING**

Date: 18.12.2023

The meeting of 12th Board of Studies in the Department of Electrical and Electronics Engineering Undergraduate programme for the academic year 2023-24 was conducted on 18.12.2023 at 12.30 pm in Hybrid Mode through Google Meet. (Meeting Link: https://meet.google.com/akn-avtg-jsy)

The following members were present:

| S.No. | Name of the Member | Position | Signature |
|---|---|---|---|
| 1 | Dr.N.P.Ananthamoorthy | Chairman | |
| 2 | Dr.T.Aruldoss Albert Victoire | University Nominee | online |
| 3 | Dr.K.Baskaran | Academic Expert | 18/12/2023 |
| 4 | Dr. K. Ranjith kumar | Academic Expert | online |
| 5 | Mr.Rajesh kumar J | Industry Expert | online |
| 6 | Dr.K.Sekar | Member | |
| 7 | Dr. K.Mathan | Member | |
| 8 | Dr. R. Rajesh Kanna | Member | |
| 9 | Ms.B.Nandhini | Member | |
| 10 | Mr. M. P. Viswanathan | Member | |
| 11 | Mr.G.Muthuram | Member | |
| 12 | Mr.K.Saravanakumar | Member | |
| 13 | Mr.N.Maheshkumar | Member | |
| 14 | Pradeep.D | Alumni | online |
| 15 | S.Dineshkumar | Student Member | |
| 16 | S.Jayaprasanth | Student Member | |
| 17 | S.Awini | Student Member | |

The Chairman-BoS (Dr. N.P. Ananthamoorthy) welcomed all the members for the 12th Board of Studies meeting.

- Followed by Chairman presented the suggestions given by the experts and the action taken report during the Previous BoS meeting which was held on 14.06.2023 was approved.
- The feedback collected on curriculum by the stakeholders was presented by the Chairman.
- The Chairman gave an outline of the views expressed by the members of 12th Department Advisory Committee (DAC) related to the curriculum and Syllabus. The Board of Studies Members' suggestion has been sought in this regard.
- Chaiman, BoS has elaborated the Regulations 2022 Curriculum, newly introduced courses and their syllabus, Minor , Honours/Honours with specialization vertical subjects to the members.
- Chairman presented the Semester VI (R2019 (admitted in 2021) &R2022) subjects with syllabus for Minor & Honours/Honours with specialization, and noted the experts suggestions.
- Chairman conveyed to the members that, the Minor & Honours/Honours with specialization scheme has been implemented in R2019 (for the students who have admitted in 2021-22 and onwards).
- The curriculum and syllabi for Fourth semester subjects is discussed for 2022 Regulation.
- The equivalence for transferred student was also justified by the chairman.

**Recommendations by BoS members (Subject Related )**

The following recommendations put forth by the BoS Members,

- Dr.Ranjith Kumar – Academic Expert, appreciated the Regulation 2022 curriculum and syllabus for Minor & Honours / Honours with specialization courses (Sem VI)
- Dr.K.Baskaran - Subject Expert, suggested to reduce certain syllabus. He went through the transmission and Distribution syllabus and gave very important suggestions in revising the syllabus.
- Chairman agreed to incorporate the above suggestions.
- Dr.K.Karthikeyan – Member form QS Rated Institution, appreciated the R2022 Curriculum, Minor & Honours / Honours with specialization vertical subjects. And suggested to remove some obsolete titles and recommended to further revisions.
- Dr. Ranjith Kumar – Subject Expert, suggested to include "Power Plant Engineering" instead "Renewable Energy system" for Minor Degree.
- Chairman accepted to include the above suggestions.
- Industry Expert (Mr.Rajesh kumar.J) appreciated the R2022 curriculum and suggested to include more applications oriented subjects so that student will be benefited for Industry 4.0.

- Chairman agreed to incorporate the above suggestions.
- Dr.T.Aruldoss Albert Victoire – University nominee, recommended to provide the standard keywords in Course Objectives & Course Outcomes for CO-PO-PSO mapping and fulfill the OBE.
- All members are accepted for the above recommendations.
- The service subject offered for chemical engineering students for 4th semester was presented by chairman all the experts accepted it without any change.
- Suggestions to include Sic and Multilevel Inverters in Power Electronics subjects in the next coming Bos were recommended. In Dc-Dc Converter they requested to clearly mention whether it is boost or buck converter.
- All members are accepted to incorporate the above modification.
- Members suggested the following course can be given as a Value Added Course in EVEN semester.
  (i) Fundamentals on LabVIEW Programming for Electrical Engineers
  (ii) Electrical Safety and Software Tools
- Skill Development courses introduced for member's approval
  - 19 LSZ401 –General Studies for Competitive Examinations
  - 19 LSZ402 – Human Rights, Women's Rights and Gender Equality
  - 19 LSZ403 – Indian Ethos and Human Values
  - 19 LSZ404 – Indian Constitution and Political System
  - 19 LSZ405 – Yoga for Human Excellence
- Employability Enhancement courses introduced for member's approval.
  - 22HE4071 – Soft Skills – III (Passed by S&H board)
- The equivalence arrived for the transfer candidate was presented and approval was obtained in the BoS.
- The Chairman, BoS and all members are accepted to incorporate the above recommendations in the syllabus.

**The following resolution was made in the Board of Studies meeting,**

- The syllabi of IV semester of the UG Programmes (22HE4101 - IPR and Start-ups, 22HE4071 - Soft Skills -III) for the students admitted during the academic year 2022 - 2023 and onwards was passed by S&H Board of Studies and permitted to move on Academic Council.
- The syllabi of II semester of the UG Programmes for the students admitted during the academic year 2023 - 2024 and onwards was passed by S&H Board of Studies and permitted to move on Academic Council.

1. Percentage of Programmes where syllabus revision was carried out in BoS: Nil

2. Introduce Course:

Following new courses are introduced(R2022) for the students admitted in the year 2022-23 and onwards (Semester IV)

- 22EE4201 – Electrical Machines -I: Credit 3
- 22EE4202 – Integrated Circuits: Credit 4
- 22EE4203 – Transmission and Distribution: Credit 3
- 22EE4204 – Power Plant Engineering : Credit 3
- 22EE4001 - Electrical Machines Laboratory: Credit 2
- 22EE4002 - Integrated Circuits Laboratory: Credit 2

Following new courses are introduced(R2019)for the students admitted in the year 2021-22 and onwards (Semester VI)

- 21EE6205 - Advanced Power Plant Engineering: Credit 3
- 21EE6206- Instrumentation for EnergySystems : Credit 3
- 21EE6601 - Power Plant Engineering: Credit 3
- 21EE6602 - Solar photovoltaic Fundamentals and Its Applications: Credit 3

Following new courses are introduced(R2022) for the students admitted in the year 2022-23 and onwards (Semester IV) Chemical Engineering

- 22EE4205- Basics of Electrical and Electronics Engineering

The meeting came to an end at 2.30 p.m with vote of thanks.

**Chairman**
**(Board of studies)**

**Chairman - BoS**
**EEE - HiCET**

**Enclosure:**

1. Previous BoS Minutes- ATR
2. Regulation 2019 & 2022
3. Curriculum and Syllabi

**Copy:**

1. The Principal
2. Dean Academics
3. Controller of Examinations
4. All the members of BoS
5. File

# *Hindusthan College of Engineering And Technology*

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Coimbatore – 641 032

Date: 16. 06. 2023

## ACTION TAKEN REPORT ON BoS

Name of the Department: ELECTRICAL AND ELECTRONICS ENGINEERING

The meeting of 12th Board of Studies of Regulation 2019& Regulation 2022 for the Department of Electrical and Electronics Engineering B.E Programme was conducted on 18.12.2023 at 12.30 pm, in Hybrid Mode, Hindusthan College of Engineering and Technology.

**(I) Syllabus Revision for the Regulations 2019: Nil**

**Overall Percentage of revision made in the BoS: 32.4%**

**(II) New Course Introduced:**

| S. No | Regulation | Course Code with Name | Credits |
|---|---|---|---|
| 1. | 2022 | 22EE4201 – Electrical Machines -I | 3 |
| 2. | 2022 | 22EE4202 – Integrated Circuits and Its Applications | 4 |
| 3. | 2022 | 22EE4203 - Transmission and Distribution | 3 |
| 4. | 2022 | 22EE4204 – Power Plant Engineering | 3 |
| 5. | 2022 | 22EI4251 – Electrical and Electronic Measurements | 3 |
| 6. | 2022 | 22EE4001 - Electrical Machines Laboratory | 2 |
| 7. | 2022 | 22EE4002 – Integrated Circuits Laboratory | 2 |
| 8. | 2021 | 21EE6205 - Advanced Power Plant Engineering | 3 |
| 9. | 2021 | 21EE6206- Instrumentation for EnergySystems | 3 |
| 10. | 2021 | 21EE6601 - Power Plant Engineering | 3 |
| 11. | 2021 | 21EE6602 - Solar photovoltaic Fundamentals and Its Applications | 3 |
| 12. | 2022 | 22EE4205- Basics of Electrical and Electronics Engineering | 2 |

**(III) Mandatory Courses**

| S.No. | Course Code with Name |
|---|---|
| 1. | 22HE4071- Soft Skills - III |

**(IV) Additional Credit Courses Introduced:**

| S.No. | Course Code with Name |
|---|---|
| 1. | Fundamentals on LabVIEW Programming for Electrical Engineer (VAC) |
| 2. | Electrical Safety and Software Tools (VAC) |

**(VI). General Recommendations:**

| S. No | Suggestion Given by the BoS Experts | Action Taken |
|---|---|---|
| 1. | Practical classes and Mini project can be given for minor degree students | Considered |
| 2. | Suggested to incorporate Recent editions of Text and Reference books in the syllabus. | Considered |

**Chairman**
**(Board of Studies)**
Chairman - BoS
EEE - HiCET

**Dean Academics**
Dean (Academics)
HiCET

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Date: 20.12.2023

## MINUTES OF BOS MEETING

Name of the Department: Electronics and Communication Engineering

The Thirteenth Board of Studies meeting for BE-Electronics and Communication Engineering for the academic year 2023-24, even semenster was conducted on 11.12.2023 at 10.00am in hybrid mode using Google meet link : https://meet.google.com/rke-sgkz-oeb.

The following members were present for the meeting.

| S. No. | Name of the Person | Department | Position |
|---|---|---|---|
| 1. | Dr.P.Vijayalakshmi<br>Professor<br>Hindusthan College of Engineering and Technology | ECE Dept | Chairperson |
| 2. | Dr.S.J.Thiruvengadam,<br>Professor and Dean (Academics),<br>Thiagarajar College of Engineering,<br>Madurai 625 015 | ECE Dept | University Nominee |
| 3. | Dr.C.Shanthi<br>Professor & Head of the Department,<br>Govt. College of Technology, Coimbatore-641 013. | ECE Dept | Subject Expert |
| 4. | Dr.Krishaveni V,<br>Professor (CAS) and Head,<br>PSG College of Technology, Coimbatore-641 004. | ECE Dept | Subject Expert |
| 5. | Ms.T.Vidhya Sri,<br>Director, Institute Relations and HR,<br>Adroit technologies Innovation Solutions (IBM Partner),<br>Coimbatore. | Director | Industry Expert (IBM Partner) |
| 6. | Dr.R.Michaelraj Kingston,<br>Professor,<br>Sri Eshwar College of Engineering, Coimbatore. | ECE Dept | Alumni |
| 7. | Dr.M.Pachiyaannan,<br>Associate Professor,<br>Vignan's Foundation for Science, Technology and Research,<br>Guntur, Andra Pradesh | ECE Dept | Member from QIS rated Institution |
| 8. | Dr.B.Paulchamy,<br>Professor,<br>Hindusthan Institute of Technology, Coimbatore | ECE Dept | Member from sister concern |

| | | | |
|---|---|---|---|
| **9.** | Dr.R.Sabitha<br>Professor<br>Hindusthan College of Engineering and Technology | ECE Dept | Member & Autonomous Coordinator |
| **10.** | Dr.K.Kalaiselvi<br>Associate Professor<br>Hindusthan College of Engineering and Technology | ECE Dept | Member |
| **11.** | Dr.A.Udhaya Kumar<br>Associate Professor<br>Hindusthan College of Engineering and Technology | ECE Dept | Member & Autonomous Coordinator |
| **12.** | Dr.P.F.Khaleelur Rahiman,<br>Associate Professor<br>Hindusthan College of Engineering and Technology | ECE Dept | Member |
| **13.** | Dr.J.Ramya<br>Associate Professor<br>Hindusthan College of Engineering and Technology | ECE Dept | Member |
| **14.** | Mr.Manikandan<br>IV ECE B<br>Hindusthan College of Engineering and Technology | ECE Dept | Student Member |
| **15.** | Ms.Hariniya S<br>III ECE A<br>Hindusthan College of Engineering and Technology | ECE Dept | Student Member |
| **16.** | Ms.Durga<br>II ECE A<br>Hindusthan College of Engineering and Technology | ECE Dept | Student Member |

- The Chairman-BoS welcomed the University nominee, Subject experts, special invitees and all the internal members for the Thirteenth Board of Studies meeting.
- Followed by, Chairman presented the suggestions given by the experts and the action taken report during the Previous Twelfth BoS meeting which was held on 03.06.2023.
- Chairman also gave an outline of the changes to be made in the curriculum given by the Curriculum Development Cell & Department Advisory Committee (DAC) and emphasized the importance of including the cutting-edge technology courses as electives in the curriculum to be in line with the industry needs.
- Chairman presented the syllabus for
  - R-2022-IV Semester (for the students admitted from 2022 onwards),
  - R-2019A-VI Semester (for the students admitted from 2021 onwards), and
  - R-2019 -VIII Semester (for the students admitted from 2020 onwards)
- Chairman also presented the syllabus for Honors and Minor degree courses offered during this even semester under R-2022 (for the students admitted from 2022 onwards) d R-2019A (for the students admitted from 2021 onwards) and R2019.
- Chairman gave an outline of the feedback on curriculum received from the various stakeholders in the meeting.

The following are the suggestions/recommendations put forth by the BoS members,

Common Suggestions Given by All Expert Members

1. Theory courses: Pre Requisite to be added for courses wherever applicable.
2. Lab Courses:

➢ COs should represent Report/ Document/ Record preparation

➢ Tools used for experimentation to be mentioned

3) In text books of courses it is not necessary to mention units covered by the books for the courses.

**Regulation 2022 :**

1.Subject Expert (Dr. C.Shanthi) & suggested to include more topics in Demodulator in the course 22EC4202 - Analog Communication. She also suggested to include the topics like Random processes, Friss formula, Multiplexing, TDM, Quantization in the same.

2.Subject Expert Dr.C.Shanthi & Dr.R.Michaelraj Kingston(Alumni) suggested to include experiment on noise, all 3 AM waveforms and PAM in 22EC4002 Analog Communication Lab. Also they insisted to mention hardware and software tools used for the same.

3. Member from QIS rated Institution (Dr.M.Pachiyaannan) suggested that, Units I and II in 22EC4201 - Electro Magnetic Fields course has to be revised and suggested to include the text book "Elements Of Electromagnetics" by Sadiku as Text book.

4. University Nominee (Dr.S.J.Thiruvengadam) suggested revision in unit titles for the course 22EC4304 - Transmission Lines and Waveguides.

**Regulation 2019A:**

1. Dr.M.Pachiyannan (Member from QIS rated Institution) suggested to swap the units II & III and modify the Unit IV title as Frequency Independent antennas in 21EC6202 -Antenna and Wave Propagation course. He also suggested to include topics on Antenna and Measurement in the same course.

2. University Nominee (Dr.S.J.Thiruvengadam) suggested to include the topic 3G/4G/5G Transitions as basics in Unit-I. He suggested to reduce the contents of unit III as it is vast. He also suggested to Include OFDM topic in Unit IV and to distribute contents uniformly for the course 21EC6303 -Mobile Communication.

3.Dr.R.Michaelraj Kingston(Alumni) and Dr.V.Krishnaveni suggested to include the topics Nyquiste sampling, Eye pattern, Pulse shaping criteria, Base band signaling, Constellation diagrams, BPSK (in unit 3), 2PAM, 4PAM, Parity check codes, NSR calculations, Line coding in 21EC6253-Digital Communication course.

4. Member from QIS rated Institution (Dr.M.Pachiyaannan) suggested that ARM processors has to be included in 21EC6251-Embedded Systems and IOT course also depth is needed in 21EC7401-Introduction to IOT course.

5. Subject expert Dr.V.Krishnaveni has suggested to add the book titles as "Digital Communication" Authored by John G. Proakis as one of the Text Books for the course 21EC6253-Digital Communication.

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**% revision in the syllabus(BE ECE)**

| S.No | Course code | Course name | % revision |
|---|---|---|---|
| **Regulation 2022** | | | |
| 1 | 22EC4201 | Electro Magnetic Fields | 25 |
| 2 | 22EC4202 | Analog Communication | 25 |
| 3 | 22EC4304 | Transmission Lines and Waveguides | 5 |
| 4 | 22EC4002 | Analog Communication Lab | 10 |
| **Regulation 2019A** | | | |
| 5 | 21EC6202 | Antenna and Wave Propagation | 20 |
| 6 | 21EC6303 | Mobile Communication | 20 |
| 7 | 21EC7401 | Introduction to IOT | 10 |
| 8 | 21EC6251 | Embedded Systems and IOT | 20 |
| 9 | 21EC6253 | Digital Communication | 30 |

**% Revision in the Curriculum**

| | |
|---|---|
| Total number of courses passed in this BOS | 33(regular)+(6*3=)18(Honors)+(1*6=)6 (Minor) = 57 |
| No. of courses revised | 10 |
| % revision in courses | 17.5 % |

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**Regulation 2019 and 2019A:**

Chairman presented the syllabi for the following Honor Degree Verticals I, II, III and the Minor Degree Courses.

| | Regulation | Course Name | Name | Credits |
|---|---|---|---|---|
| **Honor Degree Vertical 1** | | | | |
| **Emerging Technologies in Communication Engineering** | | | | |
| 1. | R2022 | 22EC6201/19EC6201R | Optical Communication Networks | 3 |
| 2. | R2022 | 22EC6202/ 19EC6202R | Wireless Broadband Networks | 3 |
| 3. | R2022 | 22EC7202/19EC7202R | Software Defined Networks | 3 |
| 4. | R2022 | 22EC7203 19EC7203R | 4G/5G Communication Networks | 3 |
| 5. | R2022 | 22EC8201/19EC8201R | Underwater Communication | 3 |
| **Honor Degree Vertical 1I** | | | | |
| **Sensor Technologies and IoT** | | | | |
| 6. | R2022 | 22EC6204/19EC6204R | Sensor for IOT Applications | 3 |
| 7. | R2022 | 22EC6205/19EC6205R | Advanced Processor Architectures | 3 |
| 8. | R2022 | 22EC7205/19EC7205R | Wearable Devices | 3 |
| 9. | R2022 | 22EC7206/19EC7206R | IOT Processors | 3 |
| 10. | R2022 | 22EC8202/19EC7207R | IOT based system design | 3 |
| **Honor Degree Vertical III** | | | | |
| **Semiconductor Chip Design and Testing - TESSOLVE Semiconductors** | | | | |
| 11. | R2022 | 22EC6207/19EC6207R | CMOS VLSI Design | 3 |
| 12. | R2022 | 22EC6208/19EC6208R | Low Power VLSI Design | 3 |
| 13. | R2022 | 22EC7208/19EC7208R | ASIC Design | 3 |
| 14. | R2022 | 22EC7209/19EC7209R | System Verilog | 3 |
| 15. | R2022 | 22EC8203/19EC5203R | VLSI Testing and Design for Testability | 3 |
| **Minor Degree Vertical** | | | | |
| **Embedded and IoT** | | | | |
| 16. | R2022 | 22EC6601/19EC6601R | Microcontroller and its Applications | 3 |
| 17. | R2022 | 22EC6602/19EC6602R | Sensor and Embedded Systems | 3 |
| 18. | R2022 | 22EC7601/19EC7601R | Fundamentals of IoT | 3 |
| 19. | R2022 | 22EC7602/19EC7602R | IoT for Smart Agriculture | 3 |
| 20. | R2022 | 22EC8601/19EC8601R | IoT for Smart Cities | 3 |

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**The following resolutions were made in the Board of Studies meeting**

The following Syllabi was permitted to move on to Academic Council members under various regulations, after incorporating the suggestions and corrections given by BoS members.

- Syllabi for
  - R-2022-IV Semester (for the students admitted from 2022 onwards),
  - R-2019A-VI Semester (for the students admitted from 2021 onwards), and
  - R-2019 -VIII Semester (for the students admitted from 2020 onwards) and
- The syllabi for Honors and Minor degree courses offered during this even semester under R-2022 (for the students admitted from 2022 onwards), R-2019A (for the students admitted from 2021 onwards) and R2019.

The meeting ended with thanks to the Chair at 02.00 P.M.

P. Hayla
**Chairman**

**(Board of Studies)**

Chairman - Bos
ECE - HiCET

**Enclose:**

1. CDC Minutes
2. DAC meeting Minutes –ATR
3. Previous BoS Minutes-ATR
4. Regulation 2022
5. Curriculum and Syllabi of R2019 and R2022

**Copy:**

1. The Principal
2. Dean Academics
3. Controller of Examinations
4. All the Members of BoS
5. File

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Date: 18.12.23

## ACTION TAKEN REPORT ON BOS

Name of the Department: BE Electronics and Communication Engineering

The Thirteenth Board of Studies meeting for BE-Electronics and Communication Engineering for the academic year 2023-24, even semester was conducted on 11.12.2023 at 10.00am in hybrid mode using Google meet link : https://meet.google.com/rke-sgkz-oeb.

**General Recommendations:**
**Modifications:**

| S. No. | Suggestions Given | Actions Taken |
|---|---|---|
| | **Common Suggestions** | |
| 1. | Given by All Expert Members<br>1. Theory courses: Pre Requisite to be added for courses wherever applicable.<br>2. Lab Courses:<br>➢ COs should represent Report/ Document/ Record preparation<br>➢ Tools used for experimentation have to be mentioned<br>3) In text books of courses it is not necessary to mention units covered by the books for the courses | Suggestions are incorporated |

| S. No. | Course Title | Suggestions Given | Actions Taken |
|---|---|---|---|
| | | **Regulations 2022** | |
| 1. | 22EC4201 - Electro Magnetic Fields | • Revision of Units I and II<br>• Include the text book "Elements Of Electromagnetics" by Sadiku as Text book | Suggestions are incorporated |

| | | | |
|---|---|---|---|
| 2. | 22EC4202 - Analog Communication | • Include more topics for Demodulator,<br>• Include topics like Random processes, Friss formula, Multiplexing, TDM and Quantization. | Suggestions are incorporated |
| 3. | 22EC4304 - Transmission Lines and Waveguides | • Revision In Unit Titles | Suggestions are incorporated |
| 5. | 22EC4002 -Analog Communication Lab | • Include noise experiment, Generation of all 3 AM waveforms and PAM<br>• Mention hardware and software tools used. | Suggestions are incorporated |
| **Regulations 2019A** | | | |
| 6. | 21EC6202 -Antenna and Wave Propagation | • Units II & III to be swapped<br>• Change of Unit IV title as Frequency Independent antennas,<br>• Include topics on Antenna and Measurement | Suggestions are incorporated |
| 7. | 21EC6303 -Mobile Communication | • Include 3G/4G/5G Transitions as basics in Unit-I,<br>• Unit III is vast and reduce the contents<br>• Include OFDM topic in Unit IV.<br>• Distribute contents uniformly. | Suggestions are incorporated |
| 8 | 21EC7401- Introduction to IOT | • Depth of Embedded systems is needed | Suggestions are incorporated |
| 9. | 21EC6251- Embedded Systems and IOT | • ARM processors has to be included | Suggestions are incorporated |

| | | | |
|---|---|---|---|
| 10. | 21EC6253 -Digital Communication | • Include John Proakis as one of the Text Books.<br>• Include the topics Nyquiste sampling, Eye pattern, Pulse shaping criteria, Base band signaling, Constellation diagrams, BPSK (in unit 3), 2PAM, 4PAM, Parity check codes, SNR calculations and Line coding | Suggestions are incorporated |

CHAIRMAN

BOS/ECE

Chairman - Bos
ECE - HiCET

DEAN

ACADEMICS

Dean (Academics)
HiCET

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Date: 20.12.2023

## MINUTES OF BOS MEETING

Name of the Department: Electronics and Communication Engineering

The Thirteenth Board of Studies meeting for M.E-Communication Systems and M.E Applied Electronics for the academic year 2023-24, even semester was conducted on 11.12.2023 at 10.00am in hybrid mode using Google meet link : https://meet.google.com/rke-sgkz-oeb.

The following members were present for the meeting.

| S. No. | Name of the Person | Department | Position |
|---|---|---|---|
| 1. | Dr.P.Vijayalakshmi<br>Professor<br>Hindusthan College of Engineering and Technology | ECE Dept | Chairperson |
| 2. | Dr.S.J.Thiruvengadam,<br>Professor and Dean (Academics),<br>Thiagarajar College of Engineering,<br>Madurai 625 015 | ECE Dept | University Nominee |
| 3. | Dr.C.Shanthi<br>Professor & Head of the Department,<br>Govt. College of Technology, Coimbatore-641 013. | ECE Dept | Subject Expert |
| 4. | Dr.Krishaveni V,<br>Professor (CAS) and Head,<br>PSG College of Technology, Coimbatore-641 004. | ECE Dept | Subject Expert |
| 5. | Ms.T.Vidhya Sri,<br>Director, Institute Relations and HR,<br>Adroit technologies Innovation Solutions (IBM Partner),<br>Coimbatore. | Director | Industry Expert (IBM Partner) |
| 6. | Dr.R.Michaelraj Kingston,<br>Professor,<br>Sri Eshwar College of Engineering, Coimbatore. | ECE Dept | Alumni |
| 7. | Dr.M.Pachiyaannan,<br>Associate Professor,<br>Vignan's Foundation for Science, Technology and Research,<br>Guntur, Andra Pradesh | ECE Dept | Member from QIS rated Institution |
| 8. | Dr.B.Paulchamy,<br>Professor,<br>Hindusthan Institute of Technology, Coimbatore | ECE Dept | Member from sister concern |

| | | | |
|---|---|---|---|
| **9.** | Dr.R.Sabitha<br>Professor<br>Hindusthan College of Engineering and Technology | ECE Dept | Member & Autonomous Coordinator |
| **10.** | Dr.K.Kalaiselvi<br>Associate Professor<br>Hindusthan College of Engineering and Technology | ECE Dept | Member |
| **11.** | Dr.A.Udhaya Kumar<br>Associate Professor<br>Hindusthan College of Engineering and Technology | ECE Dept | Member & Autonomous Coordinator |
| **12.** | Dr.P.F.Khaleelur Rahiman,<br>Associate Professor<br>Hindusthan College of Engineering and Technology | ECE Dept | Member |
| **13.** | Dr.J.Ramya<br>Associate Professor<br>Hindusthan College of Engineering and Technology | ECE Dept | Member |
| **14.** | Mr.Manikandan<br>IV ECE B<br>Hindusthan College of Engineering and Technology | ECE Dept | Student Member |
| **15.** | Ms.Hariniya S<br>III ECE A<br>Hindusthan College of Engineering and Technology | ECE Dept | Student Member |
| **16.** | Ms.Durga<br>II ECE A<br>Hindusthan College of Engineering and Technology | ECE Dept | Student Member |

- The Chairman-BoS welcomed the University nominee, Subject experts, special invitees and all the internal members for the Thirteenth Board of Studies meeting.
- Followed by, Chairman presented the suggestions given by the experts and the action taken report during the Previous Twelfth BoS meeting which was held on 03.06.2023.
- Chairman also gave an outline of the changes to be made in the curriculum given by the Curriculum Development Cell & Department Advisory Committee (DAC) and emphasized the importance of including the cutting-edge technology courses as electives in the curriculum to be in line with the industry needs.
- Chairman presented the syllabus for
    - R-2020-II Semester (for the students admitted from 2020 onwards),
    - R-2020-IV Semester (for the students admitted from 2020 onwards), and
- Chairman gave an outline of the feedback on curriculum received from the various stakeholders in the meeting.

The following are the suggestions/recommendations put forth by the BoS members,

Common Suggestions Given by All Expert Members

1) Theory courses: Pre Requisite to be added and course objectives are modified for courses wherever applicable.
2) In text books of courses, it is not necessary to mention units covered by the books for the courses.

**Regulation 2020 : M.E (APPLIED ELECTRONICS)**

1.Subject Expert (Dr. C.Shanthi) & suggested to change some topics in 20AE2202 VLSI Design Techniques course. She also suggested to include the topics like VLSI design flow and pseudo nmos transistor.

2.Subject Expert Dr.R.Michaelraj Kingston (Alumni) suggested to change some topics in Actel ACT , Xilinx LCA, Altera FLEX and MAX in 20AE2303- ASIC and FPGA Design course.

3. Member from QIS rated Institution (Dr.M.Pachiyaannan) suggested that, Units I and II in 20AE2304-Physical Design of VLSI Circuits course has to be revised Logic Synthesis, Physical Design: Verification and Testing and SoC Design.

4. University Nominee (Dr.S.J.Thiruvengadam) suggested revision in unit titles for the course 20AE2304-Physical Design of VLSI Circuits.

SEMESTER II

| S.No. | Course Code | Course Title | Category | L | T | P | C | CIA | ESE | TOTAL |
|---|---|---|---|---|---|---|---|---|---|---|
| **THEORY** | | | | | | | | | | |
| 1 | 20AE2201 | Analog Integrated Circuit Design | PC | 3 | 0 | 0 | 3 | 40 | 60 | 100 |
| 2 | 20AE2202 | VLSI Design Techniques | PC | 3 | 0 | 0 | 3 | 40 | 60 | 100 |
| 3 | 20AE23XX | **Professional Elective I** | PE | 3 | 0 | 0 | 3 | 40 | 60 | 100 |
| 4 | 20AE23XX | **Professional Elective II** | PE | 3 | 0 | 0 | 3 | 40 | 60 | 100 |
| 5 | 20AE23XX | **Professional Elective III** | PE | 3 | 0 | 0 | 3 | 40 | 60 | 100 |
| 6 | 20AC20XX | AUDIT COURSE II | | 2 | 0 | 0 | 0 | | | |
| **PRACTICAL** | | | | | | | | | | |
| 7 | 20AE2001 | VLSI Design Laboratory | PC | 0 | 0 | 4 | 2 | 50 | 50 | 100 |
| 8 | 20AE2901 | MINI PROJECT | PC | 2 | 0 | 0 | 2 | 50 | 50 | 100 |
| **Total Credits:** | | | | **19** | **00** | **08** | **19** | | | |

SEMESTER IV

| S.No. | Course Code | Course Title | Category | L | T | P | C | CIA | ESE | TOTAL |
|---|---|---|---|---|---|---|---|---|---|---|
| **PRACTICAL** | | | | | | | | | | |
| 1 | 20AE4901 | DISSERTATION - II | PC | 0 | 0 | 30 | 15 | 50 | 50 | 100 |
| **Total Credits:** | | | | **0** | **0** | **30** | **15** | | | |

## LIST OF PROFESSIONAL ELECTIVES

**Second Semester- (List of Professional Electives I, II, III)**

| S.No. | Course Code | Course Title | Category | L | T | P | C | CIA | ESE | TOTAL |
|---|---|---|---|---|---|---|---|---|---|---|
| 1. | 20AE2303 | ASIC and FPGA Design | PE | 3 | 0 | 0 | 3 | 40 | 60 | 100 |
| 2. | 20AE2304 | Physical Design of VLSI circuits | PE | 3 | 0 | 0 | 3 | 40 | 60 | 100 |
| 3. | 20AE2308 | Wireless Adhoc and Sensor Networks | PE | 3 | 0 | 0 | 3 | 40 | 60 | 100 |
| 4. | 20AE2313R | Machine Learning | PE | 3 | 0 | 0 | 3 | 40 | 60 | 100 |
| 5. | 20AE2319 | Cognitive Radio Network | PE | 3 | 0 | 0 | 3 | 40 | 60 | 100 |

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## % revision in the syllabus (M.E-APPLIED ELECTRONICS)

| S.No | Subject code | Subject Title | % Revision |
|---|---|---|---|
| 1 | 20AE2202 | VLSI Design Techniques | 5 |
| 2 | 20AE2303 | ASIC and FPGA Design | 20 |
| 3 | 20AE2304 | Physical Design of VLSI circuits | 40 |

## % Revision in the Curriculum

| | |
|---|---|
| Total number of courses passed in this BOS | 15 |
| No. of courses revised | 03 |
| % revision in courses | 20% |

## Regulation 2020 : M.E (COMMUNICATION SYSTEMS)

| II SEMESTER | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|
| S.No | CODE | Courses | CAT | L | T | P | C | CIA | ESE | TOTAL |
| Theory | | | | | | | | | | |
| 1 | 20CM2201 | Advanced Wireless Communication and Networks | PCC | 3 | 0 | 0 | 3 | 40 | 60 | 100 |
| 2 | 20CM2202 | Microwave Integrated Circuits | PCC | 4 | 0 | 0 | 4 | 40 | 60 | 100 |
| 3 | 20CM23XX | Professional Elective I | PE | 3 | 0 | 0 | 3 | 40 | 60 | 100 |
| 4 | 20CM23XX | Professional Elective II | PE | 3 | 0 | 0 | 3 | 40 | 60 | 100 |
| 5 | 20CM23XX | Professional Elective III | PE | 3 | 0 | 0 | 3 | 40 | 60 | 100 |
| 6 | 20AC20XX | Audit Course II | AC | 2 | 0 | 0 | 0 | - | - | - |
| Practical Courses | | | | | | | | | | |
| 7 | 20CM2001 | Communication Networks Laboratory | PCC | 0 | 0 | 4 | 2 | 50 | 50 | 100 |
| 8 | 20CM2002 | Mini Project / Internship | EEC | 0 | 1 | 2 | 2 | 50 | 50 | 100 |
| | | **Total Credits** | | **18** | **1** | **6** | **20** | | | |

| IV SEMESTER | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|
| S.No | CODE | Courses | CAT | L | T | P | C | CIA | ESE | TOTAL |
| Practical Courses | | | | | | | | | | |
| 1 | 20CM4901 | Project Phase II | EEC | 0 | 0 | 24 | 12 | 50 | 50 | 100 |
| | | **Total Credits** | | **0** | **0** | **24** | **12** | | | |

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## LIST OF PROFESSIONAL ELECTIVES

**PROFESSIONAL ELECTIVES -I, II & III offered during Semester -II**

| S. No. | Course Code | Course Title | CAT | L | T | P | C | CIA | ESE | TOTAL |
|---|---|---|---|---|---|---|---|---|---|---|
| 1. | 20CM2301 | Information Theory and Coding Techniques | PE | 3 | 0 | 0 | 3 | 40 | 60 | 100 |
| 2. | 20CM2302 | Signal Estimation for wireless communication | PE | 3 | 0 | 0 | 3 | 40 | 60 | 100 |
| 3. | 20CM2305 | Embedded and IOT | PE | 3 | 0 | 0 | 3 | 40 | 60 | 100 |
| 4. | 20CM3308 | Micro-Electro Mechanical Systems | PE | 3 | 0 | 0 | 3 | 40 | 60 | 100 |
| 5. | 20CM3304 | Advanced Radiation Systems | PE | 3 | 0 | 0 | 3 | 40 | 60 | 100 |

**The following resolutions were made in the Board of Studies meeting**

The following Syllabi was permitted to move on to Academic Council members under various regulations, after incorporating the suggestions and corrections given by BoS members.

- Syllabi for
  - R-2020-II and IV Semester (for the students admitted from 2020 onwards),

The meeting ended with thanks to the Chair at 02.00 P.M.

P. Hari
**Chairman**

**(Board of Studies)**

**Chairman - Bos**
**ECE - HiCET**

**Enclose:**

1. CDC Minutes
2. DAC meeting Minutes –ATR
3. Previous BoS Minutes-ATR
4. Regulation 2022
5. Curriculum and Syllabi of R2019 and R2022

**Copy:**

1. The Principal
2. Dean Academics
3. Controller of Examinations
4. All the Members of BoS
5. File

Clinton - Bess
WCC - Hagel

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## MINUTES OF BOARD OF STUDIES MEETING

**Name of the Department: ELECTRONICS AND INSTRUMENTATION ENGINEERING**

Date:11.12.2023

The meeting of 12th Board of Studies in the Department of Electronics and Instrumentation Engineering Undergraduate programme for the academic year 2023-24 was conducted on 11.12.2023 at 10 am in Hybrid Mode.

The following members were present:

| S.No. | Name of the Member | Position |
|---|---|---|
| 1 | Dr.B.Anand<br>Professor and Head | BoS, Chairman |
| 2 | Dr.T.Aruldoss Albert Victoire,<br>Associate Professor and Head i/c<br>Department of Electrical and Electronics Engineering,<br>Anna University Regional Campus Coimbatore,<br>Coimbatore-641 046. | Anna<br>University Nominee |
| 3 | Dr. V. Prasanna Moorthy,<br>Professor,<br>Department of Electrical and Electronics Engineering,<br>Government College of Engineering,<br>Bargur– 635104. | Subject Expert |
| 4 | Dr. C. Govindaraju,<br>Associate Professor & HoD,<br>Department of Electrical and Electronics Engineering,<br>Government College of Engineering,<br>Thanjavur-613402. | Subject Expert |
| 5 | Mr.A.Ezhilmaran,<br>Project Manager (Control & Automation),<br>Axis Global Automation,<br>33,Near Manis Theatre, Kathir Avenue Street. Lakshmipuram,<br>Coimbatore - 641 004. | Representative from<br>Industry |

| | | |
|---|---|---|
| 6 | Dr.P.Karuppanan,<br>Professor,<br>Department of Electronics and Communication Engineering,<br>Motilal Nehru National Institute of Technology, Allahabad,<br>Uttar Pradesh – 211004. | Member from QS Rated Institution |
| 7 | Mr.D.Deivasigamani<br>Assistant Professor | Member& Department Autonomous Coordinator |
| 8 | Mr.D.Vijayanandh<br>Assistant Professor | Member |
| 9 | Mr.R.Vinothkumar<br>Assistant Professor | Member |
| 10 | Mr.M.Sudagar<br>Assistant Professor | Member |
| 11 | Mrs.N.Kavitha<br>Assistant Professor | Member |
| 12 | Mr.B.Chandran<br>Team Leader(Production & Testing),<br>Ojas Automation System,<br>S.no 20, Opp Rathinam college,<br>Pollachi main road,<br>Coimbatore – 641021. | Alumni |
| 13 | Mr.S.Divakarvel<br>P/o D.Kanishk<br>272, SMD complex<br>Chinna kadai veethi st,<br>Salem – 636001. | Parent Member |
| 14 | Mr.P.Duraiarasu | Student Member |
| 15 | Mr.D.Kanishk | Student Member |
| 16 | Mr.Gowtham P.S | Student Member |

The Chairman-BoS (Dr.B.Anand) welcomed all the members for the 12th Board of Studies meeting.

- Followed by Chairman presented the suggestions given by the experts and the action taken report during the Previous BoS meeting which was held on 08.06.2023 was approved.
- The feedback collected on curriculum by the stakeholders was presented by the Chairman.

- The Chairman gave an outline of the views expressed by the members of 12th Department Advisory Committee (DAC) related to the curriculum and Syllabus. The Board of Studies Members' suggestion has been sought in this regard.
- Chaiman, BoS has elaborated the Regulations 2022 Curriculum, newly introduced courses and their syllabus, Minor , Honours/Honours with specialization vertical subjects to the members.
- Chairman presented the Semester VI(R2019 (admitted in 2021) &R2022) subjects with syllabus for Minor & Honours/Honours with specialization, and noted the experts suggestions.
- Chairman conveyed to the members that, the Minor & Honours/Honours with specialization scheme has been implemented in R2019 (for the students who have admitted in 2021-22 and onwards).
- The curriculum and syllabi for Fourth semester subjects discussed for 2022 Regulation.

**Recommendations by BoS members (Subject Related )**

The following recommendations put forth by the BoS Members,

- Dr.T.Aruldoss Albert Victoire – University nominee, appreciated the Regulation 2022 curriculum and syllabus for Minor & Honours / Honours with specialization courses (Sem VI)
- Dr.C.Govindaraju - Subject Expert, suggested to include Signal conditioning topics by replacing Flow, Temperature, displacement, level sensors in Unit IV &V in "21EI6203 - Principles of sensors and signal conditioning"
- Chairman agreed to incorporate the above suggestions.
- Dr. V. Prasanna Moorthy – Subject Expert, recommended to include Recent edition of Text books and Reference books for Sem IV, Honours & Minor course syllabus.
- Chairman agreed to incorporate the above suggestions.
- Dr.P.Karuppanan – Member from QS Rated Institution, appreciated the R2022 Curriculum, Minor & Honours / Honours with specialization vertical subjects.
- Dr. C. Govindaraju – Subject Expert, suggested to modify the Unit V in "22EI4205 - Industrial Instrumentation -I" by replacing the following topics "special techniques for high temperature measurement, thermal well"
- Chairman accepted to include the above suggestions.

- Industry Expert (Mr.V.Ezhilmaran) appreciated the R2022 curriculum and suggested to include more applications in Unit V "21EI6204 -Embedded Systems for IoT", so that students can get wide knowledge on IoT applications development.
- Chairman agreed to incorporate the above suggestions.
- Dr.T.Aruldoss Albert Victoire – University nominee, recommended to provide the standard keywords in Course Objectives & Course Outcomes for CO-PO-PSO mapping and fulfill the OBE.
- All members are accepted for the above recommendations.
- In 2nd Sem, R-2022, "22EI2251– Electronic Devices and Circuits" UNIT II is revised by including the following topics "MOSFET, MOSFET types, early effect"
- All members are accepted to incorporate the above modification.
- Members suggested the following course can be given as a Value Added Course in this semester.

  (i) Fundamentals of LabVIEW Programming for Instrumentation Engineers.
- Skill Development courses introduced for member's approval
  - 21LSZ401 –General Studies for Competitive Examinations
  - 21LSZ402 – Human Rights, Women's Rights and Gender Equality
  - 21LSZ403 – Indian Ethos and Human Values
  - 21LSZ404 – Indian Constitution and Political System
  - 21LSZ405 – Yoga for Human Excellence

- Employability Enhancement courses introduced for member's approval.
  - 22HE4071 – Soft Skills – III (Passed by S&H board)

- The Chairman, BoS and all members are accepted to incorporate the above recommendations in the syllabus.

**The following resolution was made in the Board of Studies meeting,**

- The syllabi of IV semester of the UG Programmes (22HE4101 - IPR and Start-ups, 22HE4071 - Soft Skills -III) for the students admitted during the academic year 2022 - 2023 and onwards was passed by Mechanical Board & S&H Board and permitted to move on Academic Council.

- The syllabi of II semester of the UG Programmes for the students admitted during the academic year 2023 - 2024 and onwards was passed by S&H Board of Studies and permitted to move on Academic Council.

1. Percentage of Programmes where syllabus revision was carried out in BoS:

    - Semester II: 22EI2251– Electronic Devices and Circuits (R 2022): Credit 3 (20 % of Syllabus revisions made)

2. Introduce Course:

    Following new courses are introduced(R2022) for the students admitted in the year 2022-23 and onwards (Semester IV)

    - 22EI4201 – Electrical Machines: Credit 3
    - 22EE4202 – Integrated Circuits and Its Applications: Credit 4
    - 22EI4203 – Industrial Instrumentation-I: Credit 3
    - 22EI4204 – Analytical Instrumentation: Credit 3
    - 22EI4251 – Electrical and Electronic Measurements: Credit 3
    - 22EI4001 - Electrical Machines Laboratory: Credit 2
    - 22EE4002 - Integrated Circuits Laboratory: Credit 2

    Following new courses are introduced(R2019)for the students admitted in the year 2021-22 and onwards (Semester VI)

    - 21EI6203 – Principles of Sensors and Signal conditioning: Credit 3
    - 21EI6204 – Embedded Systems for IoT: Credit 3
    - 21EI6205 – Adaptive Control: Credit 3
    - 21EI6206– Advanced Process Control: Credit 3
    - 21EI6207 – Applied Industrial Instrumentation: Credit 3
    - 21EI6208 – Instrumentation in Building Automation: Credit 3
    - 21EI6231 – Measurements and Measuring Instruments: Credit 3
    - 21EI6232– Industrial Instrumentation: Credit 3

The meeting came to an end at 11.30 a.m with vote of thanks.

**Chairman**

**(Board of studies / EIE)**

**Chairman - BoS**
**EIE - HiCET**

**Enclosure:**

1. Previous BoS Minutes- ATR
2. Regulation 2019 & 2022
3. Curriculum and Syllabi

**Copy:**

1. The Principal
2. Dean Academics
3. Controller of Examinations
4. All the members of BoS
5. File

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Date: 14. 12. 2023

## ACTION TAKEN REPORT ON BoS

Name of the Department: ELECTRONICS AND INSTRUMENTATION ENGINEERING

The meeting of 12th board of studies of Regulation 2019& Regulation 2022 for the Department of Electronics and Instrumentation Engineering was conducted on 11.12.2023 at 10 a.m in Hybrid Mode.

**(I) Syllabus Revision for the Regulations 2022**

| S.No | Courses in which revision has been done | Action taken | Percentage Syllabus Revised |
|---|---|---|---|
| 1. | 22EI2251- Electronic Devices and Circuits | Modified | 20% |

**Overall Percentage of revision made in the BoS: 25.58%**

**(II) New Courses Introduced:**

| S. No | Regulation | Course Code with Name | Credits |
|---|---|---|---|
| 1. | 2022 | 22EI4201 – Electrical Machines | 3 |
| 2. | 2022 | 22EE4202 – Integrated Circuits and Its Applications | 4 |
| 3. | 2022 | 22EI4203 – Industrial Instrumentation - I | 3 |
| 4. | 2022 | 22EI4204– Analytical Instrumentation | 3 |
| 5. | 2022 | 22EI4251 – Electrical and Electronic Measurements | 3 |
| 6. | 2022 | 22EI4001 – Electrical Machines Laboratory | 2 |
| 7. | 2022 | 22EE4002 – Integrated Circuits Laboratory | 2 |
| 8. | 2019 | 21EI6203 – Principles of Sensors and Signal conditioning | 3 |
| 9. | 2019 | 21EI6204 – Embedded Systems for IoT | 3 |
| 10. | 2019 | 21EI6205 – Adaptive Control | 3 |
| 11. | 2019 | 21EI6206– Advanced Process Control | 3 |
| 12. | 2019 | 21EI6207 – Applied Industrial Instrumentation | 3 |
| 13. | 2019 | 21EI6208 – Instrumentation in Building Automation | 3 |
| 14. | 2019 | 21EI6231 – Measurements and Measuring Instruments | 3 |
| 15. | 2019 | 21EI6232– Industrial Instrumentation | 3 |

**(III) Mandatory Courses**

| S.No. | Course Code with Name |
|---|---|
| 1. | 22HE4071- Soft Skills - III |

**(IV). Additional Credit Courses Introduced:**

| S.No. | Course Code with Name |
|---|---|
| 1. | 21VEI5101- Fundamentals of LabVIEW Programming for Instrumentation Engineers |

**(V). General Recommendations:**

| S. No | Suggestion Given by the BoS Experts | Action Taken |
|---|---|---|
| 1. | Suggested to incorporate Recent edition of Text and Reference books in the syllabus. | Considered |
| 2. | Recommended to provide the standard keywords (Blooms Taxonomy verbs) in Course Objectives & Course Outcomes for CO-PO-PSO mapping in order to fulfill the OBE. | Considered |

**Chairman**
**(Board of Studies)**

**Chairman - BoS**
**EIE - HiCET**

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Coimbatore – 641 032

## DEPARTMENT OF INFORMATION TECHNOLOGY

## MINUTES OF BOARD OF STUDIES MEETING

Name of the Department: INFORMATION TECHNOLOGY **Date: 09.12.2023**

The Thirteenth Board of Studies meeting of regulation 2022 for the academic year 2023 -2024 Even Semester was conducted on 09.12.2023 at 11.00p.m. in Hybrid mode, Hindusthan College of Engineering and Technology.

The following members were present:

| S. No. | Name of the Member | Position |
|---|---|---|
| 1 | **Dr M Sabrigiriraj**<br>Professor and Head<br>Department of Information Technology<br>Hindusthan College of Engineering and Technology,<br>Coimbatore-641032 | Chairman |
| 2 | **Dr Thulasimani K**<br>Professor, Department of Computer Science and Engineering, Government College of Engineering, Tirunelveli-627007 | University Nominee |
| 3 | **Dr. P. Sakthivel**<br>Professor and Dean<br>University College of Engineering<br>Anna University, Kancheepuram-631552 | Subject Expert |
| 4. | **Dr. D. Veera Vanitha,**<br>Associate Professor<br>Department of Electronics and Communication Engineering, Avinashilingam Institute for Home Science and Higher Education for Women, Coimbatore | Subject Expert |
| 5. | **Dr. S. Geetha**<br>Professor and Associate Dean, School of Computer Science and Engineering, VIT University, Chennai Campus, Chennai-600127 | QS rated institution member |
| 6. | **Mr. R. V. Vinay**<br>Senior Project Manager<br>Robert Bosch Engineering and Business Solutions India Ltd<br>Bangalore | Industrial Expert |

| | | |
|---|---|---|
| 7 | **Mr. R. Gokul**<br>Senior Automation Developer<br>Cognizant Technology Solutions<br>Coimbatore-641035 | Alumni |
| 8 | **Mr. B. Manikandan**<br>Associate Professor<br>Department of Information Technology<br>Hindusthan Institute of Technology<br>Coimbatore-641032 | Member from sister concern |
| 9 | **Dr. Beaulah David**<br>Associate Professor<br>Department of Information Technology<br>Hindusthan College of Engineering and Technology,<br>Coimbatore-641032 | Autonomous Coordinator & BoS Member |
| 10 | **Mr. M. Ganesan**<br>Assistant Professor<br>Department of Information Technology<br>Hindusthan College of Engineering and Technology,<br>Coimbatore-641032 | Member |
| 11 | **Ms. T SakthiSree**<br>Assistant Professor<br>Department of Information Technology<br>Hindusthan College of Engineering and Technology,<br>Coimbatore-641032 | Member |
| 12 | **Ms. N. Yamuna**<br>Assistant Professor<br>Department of Information Technology<br>Hindusthan College of Engineering and Technology,<br>Coimbatore-641032 | Member |
| 13 | **Mr. N. Ilayaraja**<br>Assistant Professor<br>Department of Information Technology<br>Hindusthan College of Engineering and Technology,<br>Coimbatore-641032 | Member |
| 14 | **Mr. C. Babiyon Clement**<br>Student (IV Year-IT)<br>Department of Information Technology<br>Hindusthan College of Engineering and Technology,<br>Coimbatore-641032 | Student Member |
| 15 | **Mr. Irshad M Y**<br>Student (III Year-IT)<br>Department of Information Technology<br>Hindusthan College of Engineering and Technology,<br>Coimbatore-641032 | Student Member |
| 16 | **Mr. K. Jegan**<br>Student (II Year-IT)<br>Department of Information Technology | Student Member |

| | | |
|---|---|---|
| | Hindusthan College of Engineering and Technology,<br>Coimbatore-641032 | |
| 17 | **Mr. Jayachandran. V**<br>Parent Member<br>Associate Consultant(C3B),<br>Tata Consultancy Services,<br>Branch: Chennai One,<br>Thorraipakkam, Chennai. | Parent Member |

- Dr. M. Sabrigiriraj, Chairman, Board of Studies, welcomed the University nominee, Subject experts, Special Invitees and all the internal members for the twelfth Board of Studies meeting.

- Followed by, Chairman presented the suggestions given by the experts and the action taken report during the Previous BoS meeting, which was held during **14.06.2023** and was approved.

- The feedback received on the curriculum by the stakeholders was presented.

- Chairman also gave an outline of the changes to be made in the curriculum given by the Curriculum Development Cell (CDC) & Pre- Board of Studies (Pre- BoS)/ Department Advisory Committee (DAC) and emphasized the importance of including the Skill Development related courses in the curriculum to be in line with the industry needs.

- The Chairman also mentioned the R2019 Curriculum and Syllabus for the batch 2020, 2021 batches and R2022 Curriculum and Syllabus for 2022, 2023 batches, which meets on higher order thinking levels, based on the recommendations from Stakeholders and emphasized the following points.
  - Scheme of Regulation 2022 for the academic 2023-2024
  - Syllabus passed in the S&H board was presented for the consent.
  - Curriculum and Syllabus for courses in R2022.
  - Syllabus for the courses of the Third semester.
  - Syllabus for the courses of Sixth semester Honours and Minor courses.
  - Regulation 2019 Curriculum of the Eighth semester.

- Syllabus for minor degree courses passed by CSE, Civil and MBA ie Fundamentals of Investment, Banking, Financial Services and Insurance, Introduction to Business Venture.

- Value added course using Infosys Spring Board, Consensus is introduced in every semester, which includes various courses for the students to enhance their technical skills.

- *For **2021-2022** batch students, the following courses has been introduced or revised*

1. 21IT6181 - Software Project Management course is revised 20% in the semester VI with 3 credits
2. 21IT6201 - Internet of Things course is revised 20% in the semester VI with 3 credits.
3. 21IT6303 - Software Design course is revised 60% in the semester VI with 3 credits
4. 21IT6302 - Information Security course is revised 20% in the semester VI with 3 credits
5. 21IT6251 - Cryptography and Network Security course is revised 40% in the semester VI with 4 credits
6. 21IT6306 - Predictive Modeling course (IBM course) is revised 50% in the semester VI with 3 credits
7. 21IT6252 - Data Sciences course (IBM course) is a theory with lab component course and it is introduced as new course in semester VI with credit 4.
8. 21IT6203 - Knowledge Engineering course is introduced as new Honours degree course in the semester VI with 3 credits.
9. 21IT6204 - Deep Learning course is introduced as new Honours degree course in the semester VI with 3 credits.
10. 21IT6601 - Fundamentals of Data Science course is introduced as new Minor degree course in the semester VI with 3 credits
11. 21IT6602 - Artificial Intelligence and Expert Systems course is introduced as new Minor degree course in the semester VI with 3 credits

- *For **2023-2024** batch students, the following courses has been introduced or revised*

1. 22IT4203 - Object Oriented Software Engineering course is a theory course and it is introduced as new course in semester IV with credit 3.

2. 22IT4251 - Web Framework course is a theory with lab component course and it is introduced as new course in semester IV with credit 4.
3. 22IT4001 - Case Tools Laboratory is introduced as new course in semester IV with credit 1.5.
4. 22IT4002 - Network Laboratory is introduced as new course in semester IV with credit 1.5.
5. 22IT4204 - Design Thinking for Information Technologist course is a theory course and it is revised 40% in the semester IV with 3 credits.
6. 22IT4003 - Design Thinking Laboratory is revised 40% in the semester IV with credit 1.5.

- *For **2024-2025** batch students, the following courses has been introduced*
  1. 22HE2071 - Design Thinking course is introduced as new course in the semester-II as Employability course with two credits.
  2. 22HE2072 - Soft Skills and Aptitude 1 course is introduced as new course in the semester I as Employability course with one credit
  3. 22MC2094 - தமிழரும் தொழில்நுட்பமும் course is introduced as new course in the semester I as mandatory course with one credit
  4. 22MC2095 - Tamils And Technology course is introduced as new course in the semester I as mandatory course with one credit

**The following are the recommendations put forth by the BoS members,**

1. Dr. D. Veera Vanitha, Subject Expert suggested to update all the text books and reference books with latest edition and said to verify whether the syllabus is covered in the respective books.

2. Dr. S. Geetha, Board of Studies member requested to have courses like Recommended systems, Data visualization, Power BI, Tableau in the curriculum so as to train students and they would be updated in latest industrial courses.
3. Dr. D. Veera Vanitha, Subject Expert suggested to include NPTEL courses in curriculum so that students can learn more through videos and it would be very beneficial for the students placements.

4. All member of Board of studies insisted to concentrate more on programming language's and recommended to have few value added courses on programming

language to update the students and make students to have good knowledge on programming languages.

5. Industry Expert Mr. R. V. Vinay, recommended to insist the importance of cyber security to the students and also insisted to explain the exposure of cyber security area to students.

6. Dr. D. Veera Vanitha, Subject Expert suggested to have industrial internship or mini project in the fourth or sixth semester curriculum so that the students may explore new technologies and it bridge the gap between industry and educational institutions.

7. Employability courses introduced for member's approval.
    - 22HE2071 – Design thinking
    - 22HE2072 - Soft skills and Aptitude I
    - 22MC2094 - தமிழரும் தொழில்நுட்பமும்
    - 22MC2095 – Tamils and Technology

**General Recommendations:**

1. BOS subject experts Dr. Geetha insisted about placement oriented courses and Industry Expert Mr.R.V.Vinay, recommended to insist the importance of cyber security to the students and also insisted to explain the exposure of cyber security area to students.

2. Dr. D. Veera Vanitha, Subject Expert suggested to update all the text books and reference books with latest edition and said to verify whether the syllabus is covered in the respective books.

**The following resolutions were made in the Board of Studies meeting,**

- The curriculum and syllabus for the VIII semester was passed by the Information Technology board and permitted to move on Academic Council by the BoS members of Information Engineering for the students admitted during the academic year 2020 - 2024 and onwards.
- The curriculum and syllabi of 2019 with revision and updation for the VI semester Courses of B. Tech Information Technology program for the students admitted during the academic year 2021 - 2025 and onwards was suggested to move on to Academic Council.

- The syllabus for Semester – IV and if any revision and updation under regulation 2022 passed by the Board of Science and Humanities, Mechanical Engineering and Electrical and Electronics Engineering were permitted to move on Academic Council by the members of BoS members of Information technology
- Online certificate courses and value added courses undergone by the students are recommended for the additional credit and were suggested to move on to Academic Council.
- As discussed about the importance of online courses in the last Pre - BoS/ DAC meeting, students have completed online certificate course during the month of July 2023. BOS Members recommended the same and was suggested to move on to Academic Council.

The meeting ended with thanks to the Chair at 1.00 PM.

M. Sabarinathan 9/12/23

**Chairman**

**(Board of studies)**

**Chairman - BoS**
**IT - HiCET**

**Enclosure:**

1. Previous BoS Minutes- ATR
2. Regulation 2019 & 2022
3. Curriculum and Syllabi

**Copy:**

1. The Principal
2. Dean Academics
3. Controller of Examinations
4. All the members of BoS
5. File

# *Hindusthan College of Engineering And Technology*

Approved by AICTE, New Delhi, Accredited with 'A' Grade by NAAC
**(An Autonomous Institution, Affiliated to Anna University, Chennai)**
Coimbatore – 641 032

Date: 13. 12. 2023

## ACTION TAKEN REPORT ON BoS

Name of the Department: INFORMATION TECHNOLOGY

The meeting of Thirteenth board of studies of Regulation 2019 & Regulation 2022 for the Department of Information Technology B.Tech Programme was conducted on 09.12.2023 at 11.00 am, in Hybrid Mode, Hindusthan College of Engineering and Technology.

**(I) Syllabus Revision for the Regulations 2019**

| S.No | Courses in which revision has been done | Action taken | Percentage Syllabus Revised |
|---|---|---|---|
| 1 | 21IT6181 - Software Project Management | Modified | 20% |
| 2 | 21IT6201 - Internet of Things | Modified | 20% |
| 3 | 21IT6303 - Software Design | Modified | 60% |
| 4 | 21IT6302 - Information Security | Modified | 20% |
| 5 | 21IT6251 - Cryptography and Network Security | Modified | 40% |
| 6 | 21IT6306 - Predictive Modeling (IBM) | Modified | 50% |
| 7 | 22IT4204 - Design Thinking for Information Technologist (IBM) | Modified | 40% |
| 8 | 22IT4003 - Design Thinking Laboratory (IBM) | Modified | 40% |

**Overall Percentage of revision made in the BoS: 40%**

**(II) New Course Introduced:**

| S. No | Regulation | Course Code with Name | Credits |
|---|---|---|---|
| 1 | 2019 | 21IT6252 - Data Sciences (IBM course) | 3 |
| 2 | 2019 | 21IT6203 - Knowledge Engineering | 3 |
| 3 | 2019 | 21IT6204 - Deep Learning | 3 |
| 4 | 2019 | 21IT6601 - Fundamentals of Data Science | 3 |
| 5 | 2019 | 21IT6602 - Artificial Intelligence and Expert Systems | 3 |
| 6 | 2022 | 22IT4203 - Object Oriented Software Engineering | 3 |
| 7 | 2022 | 22IT4251 - Web Framework | 4 |
| 8 | 2022 | 22IT4001 - Case Tools Laboratory | 1.5 |
| 9 | 2022 | 22IT4002 - Network Laboratory | 1.5 |
| 10 | 2022 | 22MC2094 - தமிழரும் தொழில்நுட்பமும் | 1 |

| | | | |
|---|---|---|---|
| 11 | 2022 | 22MC2095 - Tamils And Technology | 1 |

**(III) Mandatory Courses**

| S.No. | Course Code with Name |
|---|---|
| 1. | 22MC2094 - தமிழரும் தொழில்நுட்பமும் |
| 2. | 22MC2095 - Tamils And Technology |
| 3. | 22MC2093 - NCC */NSS / YRC / Sports / Clubs / Society Service - Enrollment (Common) |
| 4. | 21IT6701 - Internship/Industrial Training |
| 5. | 21HE6071 - Soft Skill-II |
| 6. | 21HE6072 - Intellectual Property Rights(IPR) |

**(IV) Non-credit Mandatory Courses**

| S.No. | Course Code with Name |
|---|---|
| 1. | 22MC2093 - NCC */NSS / YRC / Sports / Clubs / Society Service - Enrollment (Common) |

**(V) Additional Credit Courses Introduced:**

| S.No. | Course Code with Name |
|---|---|
| 1. | 21IT6701 - Internship/Industrial Training |
| 2. | 21HE6071 - Soft Skill-II |
| 3. | 21HE6072 - Intellectual Property Rights(IPR) |

**(VI) The following recommendations given by stakeholders are considered and incorporated.**

- Dr. D. Veera Vanitha, Subject Expert suggested to update all the textbooks and reference books with latest edition and said to verify whether the syllabus is covered in the respective books.
- Dr. S. Geetha, Board of Studies member requested to have courses like Recommended systems, Data visualization, Power BI, Tableau in the curriculum so as to train students and they would be updated in latest industrial courses.
- Dr. D. Veera Vanitha, Subject Expert suggested to include NPTEL courses in curriculum so that students can learn more through videos and it would be very beneficial for the students placements.

- Member of Board of studies insisted to concentrate more on programming language's and recommended to have few value added courses on programming language to update the students and make students to have good knowledge on programming languages.
- Industry Expert Mr.R.V.Vinay, recommended to insist the importance of cyber security to the students and also insisted to explain the exposure of cyber security area to students.
- Dr. D. Veera Vanitha, Subject Expert suggested to have industrial internship or mini project in the fourth or sixth semester curriculum so that the students may explore new technologies and it bridge the gap between industry and educational institutions

**(VII). General Recommendations:**

| S. No | Suggestion Given by the BoS Experts | Action Taken |
|---|---|---|
| 1. | BOS subject experts Dr. Geetha insisted about placement oriented courses and Industry Expert Mr.R.V.Vinay, recommended to insist the importance of cyber security to the students and also insisted to explain the exposure of cyber security area to students. | Considered |
| 2. | Dr. D. Veera Vanitha, Subject Expert suggested to update all the textbooks and reference books with latest edition and said to verify whether the syllabus is covered in the respective books. | Considered |

**Chairman**
**(Board of Studies)**
**Chairman - BoS**
**IT - HiCET**

**Dean Academics**

HINDUSTHAN EDUCATIONAL AND CHARITABLE TRUST
HICET

**Hindusthan College of Engineering and Technology**
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Accredited by NBA (AERO, AUTO, CIVIL, CSE, ECE, EEE, IT, MECH, MECHATRONICS)
Accredited by NAAC with 'A++' Grade, An ISO Certified Institution
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## MINUTES OF BOARD OF STUDIES MEETING

Name of the Department: BIOMEDICAL ENGINEERING Date: 14.12.2023

The TENTH Board of Studies meeting of Regulation 2022 for the Academic Year 2023-2024,Even Semester was conducted on 14.12.2023at 11:30 A.M. in Library Board Room in hybrid mode, Hindusthan College of Engineering and Technology and the Google Meet Link https://meet.google.com/tyy-kpyh-ofr.

The following members were present

| S.No. | Name of the Member | Department | Position |
|---|---|---|---|
| 1. | Dr.S.Saravana Sundaram, Professor and Head, Department of Biomedical Engineering,HICET | Department of Biomedical Engineering | Chairman |
| 2. | Dr. .J.Thiruvengadam, Professor Thiyagarajar College of Engineering , Madurai-625015 sjtece@tce.edu | Department of Electronics and Communication Engineering | University Nominee |

| | | | |
|---|---|---|---|
| 3. | Dr. Vidhya Priya,Prof & Head<br>Department of Biomedical Engineering,<br>PSG College of Technology, Coimbatore.<br>rvp.bme@psgtech.ac.in | Department of Biomedical Engineering | Academic Expert |
| 4. | Dr.P. Manimegalai,M.E., Ph.D.Associate Professor<br>Department of Biomedical Engineering,Karunya Institute of Technology and Science, Coimbatore.<br>manimegalaip@karunya.edu | Department of Biomedical Engineering | Academic Expert |
| 5. | A. Thirugnanam, Associate Professor and Head,<br>NIT Rourkela, Odisha,<br>Department of Biotechnology and Medical Engineering,<br>thirugnanam.a@nitrkl.ac.in | Department of Biotechnology and Medical Engineering, | Member from QS rated institution |
| 6. | Dr .N.Nandakumar, Industry Expert, Prime Medical systems | Prime Medical systems | Industry Expert |
| 7. | Ms.Mano Ranjitham<br>Batch<br>(2018-22 batch) | IIT Madras | Alumni Member |
| 8. | Dr.T.Murugeswari,<br>Assoc Professor/BME | Department of Biomedical Engineering | Internal Member |
| 9. | Dr.M.Ganga,<br>Assoc Professor/BME | Department of Biomedical Engineering | Internal Member |
| 10. | Mrs.S. Shobha Christila,AP/BME | Department of Biomedical Engineering | Internal Member |

| | | | |
|---|---|---|---|
| 11. | Mrs M Deeparani, AP/BME | Department of Biomedical Engineering | Internal Member |
| 12. | Mrs.M.Kirthika,AP/BME | Department of Biomedical Engineering | Internal Member |
| 13. | Ms.Sella Dharshini C,AP/BME | Department of Biomedical Engineering | Internal Member |
| 14. | Ms.Nivedha D.R,AP/BME | Department of Biomedical Engineering | Internal Member |
| 15. | Ms.Patricia Nancy S,AP/BME | Department of Biomedical Engineering | Internal Member |
| 16. | Mayura Gurubaran S | Department of Biomedical Engineering | Student-II BME |
| 17. | Mr.B.Sonaimuthi | Department of Biomedical Engineering | Student-III BME |
| 18. | Ms.M.Bavithra | Department of Biomedical Engineering | Student-IV BME |
| 19. | M/0 ,Ms.Shonofer,(IV BME) | Department of Biomedical Engineering | Parent Member |

- Due to his/ her preoccupied schedule Dr. Thirugnanam, Associate Professor and Head, NIT Rourkela not attend the meeting.
- The chairman of the BoS, **Dr. S. Saravanasundaram** welcomed all the dignitaries for the meeting. **Chairman / Chairperson** introduced the BoS members.
- The feedback received on the curriculum by the stakeholders was presented.
- Chairman also gave an outline of the changes to be made in the curriculum given by the Curriculum Development Cell (CDC) & Pre-Board of studies (Pre-BoS)/ Department Advisory Committee (DAC).
- The **Chairman / Chairperson** presented the suggestions given by the experts and the action taken report during the Previous BoS meeting which was held during 19.05.2023 was approved.
- **Chairman / Chairperson** also gave an outline of the changes to be made in the curriculum given by the Curriculum Development Cell (CDC) & Department Advisory Committee (DAC) and emphasized the importance of including the employability enhancement courses, life skill, soft skill, design thinking and IPR related courses in the curriculum to be in line with the industry needs.

- Chairman presentation of revision/updation.
- Any other approval from the members
- Completed and current semester value-added courses.
- The curriculum and syllabus for the new courses

Also,

**The following are the recommendations put forth by the BoS members,**

- Honor and Minor for regulation 2021 are put forwarded by HoD.
- **Regulation 2022**

- Academic Expert (**Dr.P.Manimegalai**) suggested that suggested that In Biomedical Instrumentation syllabus, instead of 'analysis' topic, the 'acquisition' topic can be included.
- University Nominee (Dr. S.J. Thiruvengadam) suggested that In Experiment no.6 using PPG can be included. Furthermore, signal conditioning units may be incorporated in the fifth unit in place of the assistive device.
- Academic Expert (**Dr.P.Manimegalai**) suggested that The topics such as Bio-amplifier, Amplifier, Filters and Isolated oscillators are suggested for include in signal conditioning unit. The subject expert recommends updating the most recent edition of the textbook on biomedical instrumentation.
- University Nominee **(Dr. S.J. Thiruvengadam)** suggested that instead of linear integrated circuit syllabus, the signal conditioning circuits syllabus can be included.
- Academic Expert (**Dr.Vidhya priya**) suggested that that in 'Microprocessor and Microcontroller in Medical Application' Subject, the course objectives will be updated based on blooms taxonomy level. In CO2, the word 'Recall' can be changed as 'Remember'.
- University Nominee **(Dr. S.J. Thiruvengadam)** suggested that Goyanger's book is an excellent resource for learning about Microprocessors and Microcontrollers in Medical Applications.
- Academic Expert (**Dr.P.Manimegalai**) suggested that the syllabus of "Sensors and Measurements" can be replaced by the syllabus of "Biosensors and Transducers".
- Academic Expert (**Dr.Vidhya priya** ) suggested that in HAP Lab Exp No.8 can be replaced by some other experiment.
- Academic Expert (**Dr.P.Manimegalai**) suggested that in Integrated Circuits Lab some more experiments may be included.
- University Nominee **(Dr. S.J. Thiruvengadam)** suggested that in Honour course:

Brain Computer Interface Member suggested that some inter relevant required for machine learning concept in this syllabus.

- Academic Expert **(Dr.P.Manimegalai)** suggested that Machine Learning and Artificial Intelligence Avoid overlapping with previous subject Text book
- Industry Expert **(Dr.N.Nandakumar),** suggested that Medical Health Technology the total no of hours will be changed to 9 hours per unit in addition to that Suggested that add Big data, Cloud computing in the syllabus and In reference books: R1 need to be updated.

**The following resolutions are made in the Board of Studies meeting:**

- In almost all the courses, changes have been done as per the current needs.
- The Curriculum and Syllabus of Regulation 2022 for the IV Semester Subjects- 22HE4101-IPR and startups and 21HE6072-IPR were introduced and passed by Mechanical board and permitted to move on Academic Council by the BoS members of Biomedical Engineering for the students admitted during the academic year 2022-2023 onwards and 2021-2022 onwards .
- 22HE2071 Design thinking & 22HE2072 Softskills-2 were introduced and passed by S&H board and Department Of Corporate Relations respectively ,Permitted to move on Academic Council by the BoS members of Biomedical Engineering for the students admitted during the academic year 2022-2023 onwards.
- Chairman conveyed that, the Suggestions given by the Board of Studies members are to be incorporated in Regulation 2022.
- Chairman conveyed that, the Suggestions given by the Previous Board of Studies members are ratified and resolved.

1. **<<if Department specific Board of Studies resolutions/Common**

   **Suggestions: >>**

   - Panel Members Suggested more new courses can be introduces in the new regulation which can be useful for placement and higher studies.

The meeting came to an end at 1 pm with vote of thanks.

**Chairman / Chairperson( B o S )**

Chairman BoS
BME - HiCET

**Enclose:**

1. Previous BoS Minutes-ATR
2. Regulation 2022
3. Curriculum and Syllabi

**Copy:**

1. The Principal
2. Dean Academics
3. Controller of Examinations
4. All the Members of BoS
5. File Copy

# Hindusthan College of Engineering and Technology

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Accredited by NAAC with 'A++' Grade, An ISO Certified Institution
**Valley Campus, Coimbatore – 641 032, Tamilnadu, INDIA**
Tel: +91 422 4242424 www.hicet.ac.in


Date:15. 12. 2023

## ACTION TAKEN REPORT ON BoS

Name of the Department: BIOMEDICAL ENGINEERING

The Tenth Board of Studies meeting of Regulation 2022 for the Academic Year 2023-2024,Even Semester was conducted on 14.12.2023 at 11:00 A.M. in Library Board Room in hybrid mode, Hindusthan College of Engineering and Technology and the Google Meet Link https://meet.google.com/tyy-kpyh-ofr.

**(I) Syllabus Revision for the Regulations 2019**

| S .No | Courses in which revision has been done | Action taken | Percentage Syllabus Revised |
|---|---|---|---|
| 1 | -NA- | | |

**(II) New Course Introduced:**

| S. No | Regulation | Course Code | Course Name | Credits |
|---|---|---|---|---|
| 1. | 2022 | 22BM4251 | Micro Controllers And Its Applications In Medicine | 4 |
| 2. | 2022 | 22BM4252 | Biomedical Instrumentation | 4 |
| 3. | 2019 | 22BM6231 | Biosensor And Medical Instrumentation | 3 |
| 4. | 2019 | 22BM6232 | Radiological Equipment | 3 |
| 5. | 2019 | 22BM6203 | Brain Computer Interface | 3 |
| 6. | 2019 | 22BM6204 | Machine Learning And Artificial Intelligence | 3 |
| 7. | 2019 | 22BM6205 | Medical Health Technologies | 3 |
| 8. | 2019 | 22BM6206 | Robotics In Medicine | 3 |

**Number of Courses Revised: 8**
**Total Number of Courses Passed: 22**
**The Percentage of Course Revised: 36%**

**(III) Mandatory Courses**

| S.No. | Course Code with Name |
|---|---|
| 1. | 21BM6701 Industrial Training* |
| 2. | 21HE6071 Soft Skill-II |
| 3. | 21HE6072 Intellectual PropertyRights |
| 4. | **22MC2091/** தமிழர் மரபு/ Heritage of Tamil **22MC2092** |

**(IV) Non-credit Mandatory Courses**

| S.No. | Course Code with Name |
|---|---|
| 1 | -nil- |

**(V) EEC Courses (SE/AE) Courses**

| S .No. | Course Code with Name |
|---|---|
| 1. | 22HE2071- Design Thinking |
| 2. | 22HE2072- Soft Skills-1 |

**(VI) The following recommendations given by stakeholders are considered and incorporated.**

**(VII). General Recommendations:**

| S. No | Suggestion Given by the BoS Experts | Action Taken |
|---|---|---|
| 1. | Minor degree programme latest text books can be included. | Considered |

**Chairman**
**(Board of Studies)**

**Chairman - BoS**
**BME - HiCET**

**Dean Academics**

HINDUSTHAN EDUCATIONAL AND CHARITABLE TRUST
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# *Hindusthan College of Engineering and Technology*

Approved by AICTE, New Delhi, Accredited with 'A' Grade by NAAC
**(An Autonomous Institution, Affiliated to Anna University, Chennai)**
Coimbatore – 641 032

**Date: 09.12.2023**

## DEPARTMENT OF ARTIFICIAL INTELLIGENCE AND MACHINE LEARNING

## MINUTES OF BOARD OF STUDIES MEETING

Name of the Department: **ARTIFICIAL INTELLIGENCE AND MACHINE LEARNING**

The 8th Board of Studies meeting of regulation R2019 & R2022 for the academic year 2023 -2024 Even Semester was conducted on 09.12.2023 at 11.00 a.m. in Hybrid mode, Hindusthan College of Engineering and Technology. (Google Meet: meet.google.com/vkk-mdwf-yjs).

The following members were present:

| S. No. | Name of the Member | Position |
|---|---|---|
| 1 | **Dr Shankar S**<br>**Professor & HOD**<br>Department of Computer Science and Engineering,<br>Hindusthan College of Engineering and Technology | Chairman |
| 2 | **Dr Thulasimani K**<br>Professor, Department of Computer Science and Engineering, Government College of Engineering, Tirunelveli-627007 | University Nominee |
| 3 | **Dr Karthika Renuka D**<br>Professor, Department of Information Technology,<br>PSG College of Technology,<br>Coimbatore. | Subject Expert |
| 4 | **Dr SIVAGANESAN D**<br>Professor, Department of CSE,<br>PSG Institute of Technology and Applied Research,<br>Coimbatore | Subject Expert |
| 5 | **Dr Surendiran B**<br>Associate Professor<br>Dept of Computer Science and Engineering, National Institute of Technology, Puducherry. | Member from QIS rated Institution |
| 6 | **Dr Prakash P**<br>Associate Professor<br>School of Computer Science and Engineering, VIT Chennai. | Member from QIS rated Institution |
| 7 | **Mr Dinesh Raja**<br>Managing Director,<br>Haqto Technologies, Coimbatore | Industry Expert |

| | | |
|---|---|---|
| 8 | **Mr Balamukesh**<br>Coimbatore | Alumni |
| 9 | **Dr.Kousalya Devi**<br>Associate Professor<br>Department of Computer Science and Engineering,<br>Hindusthan College of Engineering and Technology,<br>Coimbatore-641032 | Member |
| 10 | **Ms Sathya S**<br>Assistant Professor<br>Department of Computer Science and Engineering,<br>Hindusthan College of Engineering and Technology,<br>Coimbatore-641032 | Autonomous Coordinator & BoS Member |
| 11 | **Dr Satheesh Kumar D**<br>Associate Professor<br>Department of Computer Science and Engineering,<br>Hindusthan College of Engineering and Technology,<br>Coimbatore-641032 | Autonomous Coordinator & BoS Member |
| 12 | **Dr Prakash J**<br>Associate Professor<br>Department of Computer Science and Engineering,<br>Hindusthan College of Engineering and Technology,<br>Coimbatore-641032 | Member |
| 13 | **Mr Mahesh D**<br>Assistant Professor<br>Department of Computer Science and Engineering,<br>Hindusthan College of Engineering and Technology,<br>Coimbatore-641032 | Member |
| 14 | **Ms. Ragavi P R**<br>20115040- IV B.TECH AIML,<br>Hindusthan College of Engineering and Technology,<br>Coimbatore-641032 | Student Member |
| 15 | **Mr. A.Ramesh**<br>Parent Member<br>F/o, Ms. Ragavi P R, III B.TECH AIML | Parent Member |

- Dr.S.Shankar, Chairman, Board of Studies, welcomed the University nominee, Subject experts, Special Invitees and all the internal members for the thirteen Board of Studies meeting.

- Followed by, Chairman presented the suggestions given by the experts and the action taken report during the Previous BoS meeting, which was held during **14.06.2023** ,was approved.

- The feedback received on the curriculum by the stakeholders was presented.

- Chairman also gave an outline of the changes to be made in the curriculum given by the Curriculum Development Cell (CDC) & Pre- Board of Studies (Pre- BoS)/ Department

Advisory Committee (DAC) and emphasized the importance of including the Skill Development related courses in the curriculum to be in line with the industry needs.

- The Chairman also mentioned the revision of R2019 Syllabus, which meets on higher order thinking levels, based on the recommendations from Stakeholders and emphasized the following points.
    - Scheme of Regulation 2022-2023
    - Courses for the Programme.
    - Syllabus for the courses of the Fourth semester alone under 2022 regulation
    - 6th semester Minors, Honors subject alone is discussed for 2019 regulation.

Also, the following points were discussed.

- Discussion of inclusion of Minor and Major Degree programmes for Scheme of Curriculum 2022-2023 with Minors, Honors system in new regulation 2022.
- The whole curriculum and syllabi of Fourth semester subject alone is discussed for 2022 regulation.
- The curriculum and syllabi of 6th semester Minors, Honors, Honors with specialization subject alone is discussed for 2019 regulation.
- Syllabus for minor degree courses passed by CSE, Civil and MBA ie Fundamentals of Investment, Banking, Financial Services and Insurance, Introduction to Business Venture.

*For **2021-2022** batch students, the following courses has been introduced or revised*

1. 21AI6601 - Introduction to Databases course is introduced as new Minor degree course in the semester VI with 3 credits.
2. 21AI6602 - Foundation of Artificial Intelligence & Machine Learning course is introduced as new Minor degree course in the semester VI with 3 credits.
3. 21AI6204 - Sensors and Actuators course is introduced as new Honours degree course in the semester VI with 3 credits.
4. 21AI6205 - Robots, bots and communication course is introduced as new Honours degree course in the semester VI with 3 credits.
5. 21AI6206 - Introduction to block chain course is introduced as new Honours degree course in the semester VI with 3 credits.
6. 21AI6207 - Cryptocurrency course is introduced as new Honours degree course in the semester VI with 3 credits.
7. 21AI6208 - Communication for CPS course is introduced as new Honours degree course in the semester VI with 3 credits.

8. 21AI6209 - Security in Cyber Physical Systems course is introduced as new Honours degree course in the semester VI with 3 credits.

- *For **2022-2023** batch students, the following courses has been introduced or revised*

1. 22AI4201 - Database Management Systems course is a theory course and it is introduced as new course in semester IV with credit 3.
2. 22AI4203 - Software Design with UML course is a theory course and it is introduced as new course in semester IV with credit 3.

- *For **2023-2024** batch students, the following courses has been introduced*

1. 22CS2256 – Problem Solving using C Programming course is introduced as new Theory with lab component course in semester II with credit 3.
2. 22HE2071 - Design Thinking course is introduced as new course in the semester-II as Employability course with two credits.
3. 22HE2072 - Soft Skills and Aptitude 1 course is introduced as new course in the semester I as Employability course with one credit
4. 22MC2094 - தமிழரும் தொழில்நுட்பமும் course is introduced as new course in the semester I as mandatory course with one credit
5. 22MC2095 - Tamils And Technology course is introduced as new course in the semester I as mandatory course with one credit

**The following are the recommendations put forth by the BoS members,**

1. The subject expert Dr Prakash P Suggested to change the title from software Analysis & Design to "Software Design with UML" because the syllabus covers more on Unified Modeling Language concepts instead of Design concepts
2. The Industry expert Dinesh Raja "In Robotics Domain – Sensors and Actuators course" ,Suggested to swap UNIT – 4 and UNIT- 5 and asked to include case study in unit -5
3. Dr Thulasimani K , Anna University Nominee Suggested to include scenario based questions in lab component
4. The subject expert Dr. Sivagansan, Suggested to include Advanced Technology Courses Block Chain Technology Domain
5. The subject expert Dr Surendiran B Suggested to introduce courses like Recommender systems, Power BI, cyber security in the curriculum so as they would be updated in latest industrial courses.
6. Value added course Advanced java programming and HTML, CSS is introduced which includes various courses for the students to enhance their technical skills.

**General Recommendations:**

1. Dr Thulasimani K , Anna University Nominee appreciated for including industrial oriented courses and agreed that students would be surely benefitted and suggested to provide sufficient time to students to complete the courses
2. The subject expert Dr Surendiran B Suggested to include recent editions of text and reference books in the syllabus. Also suggested that, if one text book covers all the units then one text book is enough. Otherwise, more than one text books may be included in the syllabus.

The Chairman, BoS and all members accepted to incorporate the above in the curriculum.

**The following resolutions were made in the Board of Studies meeting,**

- The curriculum and syllabi of 2019 Regulation with Amendments for the VIII semester was passed by the AIML board and permitted to move on Academic Council by the BoS members of AIML for the students admitted during the academic year 2020 - 2021 and onwards.
- The curriculum and syllabi of 2019 Regulation with Amendments for the VI semester Courses of AIML Board for the students admitted during the academic year 2021 - 2022 and onwards was suggested to move on to Academic Council.
- The curriculum and syllabi of 2019 Regulation with Amendments for the IV semester Courses of Minors, Honors, Honors with specialization subject were introduced and passed by the AIML board and permitted to move on Academic Council for the students admitted during the academic year 2022 - 2023 onwards.
- The Curriculum and Syllabus of Regulation 2022 for the II Semester Subjects- 22MAXXX, 22PHXXX, 22HEXXX, and 22MCXXX were introduced and passed by Science and Humanities board and permitted to move on Academic Council by the BoS members of AIML for the students admitted during the academic year 2023-2024 onwards.

The meeting ended with thanks to the Chair at 12.00 PM.

**Chairman**

**(Board of studies)**

Chairman - BoS
AIML - HiCET

**Enclosure:**

1. Previous BoS Minutes- ATR
2. Regulation 2019 & 2022
3. Curriculum and Syllabi

**Copy:**

1. The Principal
2. Dean Academics
3. Controller of Examinations
4. All the members of BoS
5. File

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# Hindusthan College of Engineering And Technology

Approved by AICTE, New Delhi, Accredited with 'A' Grade by NAAC
**(An Autonomous Institution, Affiliated to Anna University, Chennai)**
Coimbatore – 641 032

Date: **09.12.2023**

## ACTION TAKEN REPORT ON BoS

Name of the Department: **AIML**

The 8th Board of Studies meeting of regulation R2019 & R2022 for the academic year 2023 -2024 Even Semester was conducted on 09.12.2023 at 10.00 a.m. in Hybrid mode, Hindusthan College of Engineering and Technology.

(Google Meet: meet.google.com/vkk-mdwf-yjs).

### (I) Syllabus Revision for the Regulations 2019 & 2022

| S.No | Courses in which revision has been done | Action taken | Percentage Syllabus Revised |
|---|---|---|---|
| 1 | 21AI6601 - Introduction to Databases | Introduced | 100% |
| 2 | 21AI6602 - Foundation of Artificial Intelligence & Machine Learning | Introduced | 100% |
| 3 | 21AI6204 - Sensors and Actuators | Introduced | 100% |
| 4 | 21AI6205 - Robots, bots and communication | Introduced | 100% |
| 5 | 21AI6206 - Introduction to block chain | Introduced | 100% |
| 6 | 21AI6207 - Cryptocurrency | Introduced | 100% |
| 7 | 21AI6208 - Communication for CPS | Introduced | 100% |
| 8 | 21AI6209 - Security in Cyber Physical Systems | Introduced | 100% |
| 9 | 22AI4201 - Database Management Systems | Introduced | 100% |
| 10 | 22CS2256 – Problem Solving using C Programming | Introduced | 100% |
| 11 | 22AI4203 - Software Design with UML | Introduced | 100% |

**Overall Percentage of revision made in the BoS: 33%**

### (II) New Course Introduced:

| S. No | Regulation | Course Code with Name | Credits |
|---|---|---|---|
| 1 | 2019 | 21AI6601 - Introduction to Databases | 3 |
| 2 | 2019 | 21AI6602 - Foundation of Artificial Intelligence & Machine Learning | 3 |
| 3 | 2019 | 21AI6204 - Sensors and Actuators | 3 |
| 4 | 2019 | 21AI6205 - Robots, bots and communication | 3 |
| 5 | 2019 | 21AI6206 - Introduction to block chain | 3 |
| 6 | 2019 | 21AI6207 - Cryptocurrency | 3 |
| 7 | 2019 | 21AI6208 - Communication for CPS | 3 |

| | | | |
|---|---|---|---|
| 8 | 2019 | 21AI6209 - Security in Cyber Physical Systems | 3 |
| 9 | 2022 | 22AI4201 - Database Management Systems | 3 |
| 10 | 2022 | 22CS2256 – Problem Solving using C Programming | 4 |
| 11 | 2022 | 22AI4203 - Software Design with UML | 3 |
| 12 | 2022 | 22MC2094 - தமிழரும் தொழில்நுட்பமும் | 1 |
| 13 | 2022 | 22MC2095 - Tamils And Technology | 1 |

**(III) Mandatory Courses**

| S.No. | Course Code with Name |
|---|---|
| 1. | 22MC2094 - தமிழரும் தொழில்நுட்பமும் |
| 2. | 22MC2095 - Tamils And Technology |
| 3. | 22MC2093 - NCC */NSS / YRC / Sports / Clubs / Society Service - Enrollment (Common) |
| 4. | 21CS6701 - Internship/Industrial Training |
| 5. | 21HE6071 - Soft Skill-II |
| 6. | 21HE6072 - Intellectual Property Rights(IPR) |

**(IV) Non-credit Mandatory Courses**

| S.No. | Course Code with Name |
|---|---|
| 1. | 22MC2093 - NCC */NSS / YRC / Sports / Clubs / Society Service - Enrollment (Common) |

**(V) Additional Credit Courses Introduced:**

| S.No. | Course Code with Name |
|---|---|
| 1. | 21CS6701 - Internship/Industrial Training |
| 2. | 21HE6071 - Soft Skill-II |
| 3. | 21HE6072 - Intellectual Property Rights(IPR) |

**(VI) The following recommendations given by stakeholders are considered and incorporated.**

1. The subject expert Dr Prakash P Suggested to change the title from software Analysis & Design to "Software Design with UML" because the syllabus covers more on Unified Modeling Language concepts instead of Design concepts
2. The Industry expert Dinesh Raja "In Robotics Domain – Sensors and Actuators course" ,Suggested to swap UNIT – 4 and UNIT- 5 and asked to include case study in unit -5
3. Dr Thulasimani K , Anna University Nominee Suggested to include scenario based questions in lab component
4. The subject expert Dr. Sivagansan, Suggested to include Advanced Technology Courses Block Chain Technology Domain

5. The subject expert Dr Surendiran B Suggested to introduce courses like Recommender systems, Power BI, cyber security in the curriculum so as they would be updated in latest industrial courses.

**(VII). General Recommendations:**

| S. No | Suggestion Given by the BoS Experts | Action Taken |
|---|---|---|
| 1 | Industry Expert Dinesh Raja, recommended to create awareness in the field of cyber security to the students and conduct hands-on workshop, seminars in this field. | Incorporated |
| 2 | The subject expert Dr Surendiran B Suggested to include recent editions of text and reference books in the syllabus. Also suggested that, if one text book covers all the units then one text book is enough. Otherwise, more than one text books may be included in the syllabus. | Incorporated |

**Chairman**
**(Board of Studies)**

Chairman - BoS
AIML - HiCET

**Dean Academics**

Dean (Academics)
HiCET

HINDUSTHAN EDUCATIONAL AND CHARITABLE TRUST
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Valley Campus, Pollachi Highways, Coimbatore, Tamilnadu.

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Academic Year : 2023-2024

Board of Studies Meeting- MINUTES

The meeting of the TWELFTH Board of Studies in Department of SCIENCE&HUMANITIES Undergraduate programme was conducted on 24 NOV 2023 at 12.00 p.m.

Venue : Library - Conference Hall. 1.12.2023

MEMBERS

| S.No | Name of the Person | Department | Position |
|---|---|---|---|
| 1 | Dr. K.P.Uma<br>HoD of Science and Humanities,<br>Hindusthan College of Engineering & Technology<br>Coimbatore-641 032<br>Mobile No.:9442021062 ,E-mail: umamaths95@gmail.com | S&H | Chairman |
| 2 | Dr.C.Porkodi<br>Professor,<br>Department of Mathematics,<br>PSG College of Technology,<br>Mobile: 7550357410,E-mail: cpg.maths@psgtech.ac.in | Mathematics | University Nominee |
| 3 | Dr.N.Muthukumarasamy,<br>Prof. and Head<br>Deparment of Physics,<br>Coimbatore Institute of Technology,<br>Coimbatore – 641 014.<br>Mobile No.9442954202,Vishnukutty2002@yahoo.co.in | Physics | Subject Expert |
| 4 | DrJoseph Ponniah<br>Professor,<br>Department of English<br>National Institute of Technology, Tiruchirappalli.<br>Mobile No :9487368155,E_mail:josephponniahr@gmail.com | English | Subject Expert /Member from QIS rated Institution |
| 5 | Dr. P.A.Periasamy<br>Associate Professor in Chemistry,<br>Dr.Mahalingam College of Engineering and Technology<br>Mobile: 7373227754,E-mail: pap@drmcet.ac.in | Chemistry | Subject Expert |
| 6 | Dr. Lakshmana Gomathi Nayagam. V<br>Professor, Department of Maths<br>National Institute of Technology, Tiruchirappalli<br>Mobile No :9443881718<br>E_mail:velulakshmanan@nit.edu | Mathematics | Subject Expert /Member from QIS rated Institution |
| 9 | Dr.K.Kannan<br>Professor of Mathematics<br>Hindusthan College of Engineering & Technology<br>Coimbatore-641 032<br>Mobile No.: 9842257356,E-mail: Kannan.maths@hicet.ac.in | Mathematics | Member |
| 9 | Dr. K. Sivakumar<br>Professor of Physics<br>Hindusthan College of Engineering & Technology<br>Coimbatore-641 032 | Physics | Member |

HINDUSTHAN ACADEMIC COUNCIL ★ ENGG & TECH ★ Chairman

| | | | |
|---|---|---|---|
| | Mobile No.: 9842048708,E-mail:sivakphy@gmail.com | | |
| 10 | Ms. B. Jeyagowri<br>Associate Professor of Chemistry<br>Hindusthan College of Engineering & Technology<br>Coimbatore-641 032<br>Mobile No.: 9894245562,E-mail:gowrivasu2007@gmail.com | Chemistry | Member |
| 11 | Dr.Justin Diraviam<br>Assistant Professor of English<br>Department of Science and Humanities<br>Hindusthan College of Engineering and Technology<br>Mobile No.: 9994334100,E-mail:<br>marimuthunarmatha@gmail.com | English | Member |
| 12 | Dr.S.Padma<br>Assistant Professor of Mathematics<br>Hindusthan College of Engineering & Technology<br>Coimbatore-641 032<br>Mobile No.: 9940900391,E-mail: Padma.maths@hicet.ac.in | Mathematics | Autonomous Coordinator |
| 13 | Ms.A.Gomathi<br>Assistant Professor of Mathematics<br>Hindusthan College of Engineering & Technology<br>Coimbatore-641 032<br>Mobile No.: 9659471916,E-mail:<br>rojamary.maths@hicet.ac.in | Mathematics | Autonomous Coordinator |
| 14 | Mr.A.Sivaganesh<br>Asso.Analyst, WIPRO,<br>Olympia Tech Park, Guindy, Chennai. | --- | Alumni |

The Chairman of BoS Dr.K.P. UMA greeted all the dignitaries for the meeting and introduced BoS members.

Followed by, Chairman presented the suggestions given by the experts and the action taken report during the Previous BoS meeting which was held on 10.02.2023 and it was approved. Chairman also gave an outline of the scheme of new regulations R2022 and changes to be brought in the curriculum and syllabus discussed in the Department Advisory Committee (DAC) Meeting held on 08.05.2023.

Recommendations by BoS Subject Experts (Subject Related)

**ENGLISH**

22HE2151 - EFFECTIVE TECHNICAL COMMUNICATION:

No changes required in the existing syllabus of semester II.

Grammar to be taught to sharpen their grammatical competence.

Project on testing LSRW skills of students through worksheets which will be helpful for them to improve their employability skills.

**MATHEMATICS**

**FOR SEMESTER II**

22MA2101 - DIFFERENTIAL EQUATIONS AND COMPLEX ANALYSIS

Unit II - $e^{ax} f(x)$ may be included.

Unit V - For cauchy's integral theorem, it is enough to have problems alone. It may be mentioned "without proof".

22MA2102 - DIFFERENTIAL EQUATIONS AND LAPLACE TRANSFORMS

Unit IV- Initial and Final value problems may be included.

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Unit V - Basic problems of Convolution theorem may be included.

22MA2103 - DIFFERENTIAL EQUATIONS AND LINEAR ALGEBRA

Unit V - Inner product space may be included as first topic of the unit. Symmetric and Skew symmetric matrices also may be included.

Book of V.Krishnamurthi, J.L Arora of Linear Algebra may be given as reference book.

**FOR SEMESTER IV**

22MA4103 - PROBABILITY AND OPERATION RESEARCH

Unit III - may be allotted with only 6 hours & Unit IV - Linear Programming problems may be allotted with 12 hours .

22MA4152 - APPLIED STATISTICS WITH R PROGRAMMING & QUEUING THEORY (CSE)

Unit II - Only Correlation & Regression may be given.

22MA4102 - APPLIED STATISTICS WITH R PROGRAMMING & QUEUING THEORY (CSE)

Unit II - Only Correlation & Regression may be given.

**PHYSICS** - No changes required for the following courses of II semester.

22PH2101 - BASICS OF MATERIAL SCIENCE
22PH2151 -PHYSICS FOR CIRCUIT ENGINEERING PROGRAMME

**FOLLOWING COURSES ARE RECOMMENDED FOR Ph.D COURSE WORK by the Physics Board.**

- Synthesis of Nano materials,
- Physico chemical methods for characterization of nano materials,
- Physics and chemistry of materials
- Physical and chemical treatment systems for water and wastewater
- Characterization techniques
- Polymer Nano composites
- Advances in crystal growth and characterization
- Crystal growth techniques
- Crystal Structure Analysis

**CHEMISTRY** - No changes required for the following courses of II semester.

22CY2151 -Chemistry for Engineers
22CY2152 - Applied Chemistry
22CY2101 - Environmental Studies

**FOLLOWING COURSES ARE RECOMMENDED FOR Ph.D COURSE WORK by the Chemistry Board.**

- Synthesis of Nano materials,
- Physico chemical methods for characterization of nano materials,
- Physics and chemistry of materials.a
- Physical and chemical treatment systems fcr water and waste water.
- Characterization techniques.
- Polymer Nano composites and Environmental nano technology.

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## LIFE SKILL COURSES

Syllabus of the following life skill courses of R2019 are ratified and also recommended to move on academic council.

- 21LSZ401 - General Studies for Competitive Examinations.
- 21LSZ402 - Human rights, Women rights and Gender equality.
- 21LSZ403 - Indian Ethos and Human Values.
- 21LSZ404 - Indian Constitution and Political System.
- 21LSZ405 - Yoga for Human Excellence.

## GENERAL SUGGESTIONS

English board insisted on concentrating on language skills to enable students to appreciate the language critically. The board members also highly commended the variety of texts incorporated in the syllabus for General English.

Stake holders suggested that Soft skill courses from the first semester itself is highly valued and suggested that it will be highly beneficial for the career of the students.

It is recommended by the Academic experts that to change the title of Physics for Non circuit Engineering as Engineering Applications of Physics , Physics for Circuit Engineering as Physics for Engineers and Chemistry for circuit Engineering as Engineering Applications of Chemistry in the first and second semester respectively.

**The following resolutions were made in the Board of Studies meeting,**

- The syllabi of R2022 of Science and Humanities subjects with few revisions in II semester , IV semester Mathematics papers for the new Regulation 2022 for the students admitted during the academic year 2022 -2023 & 2023 - 2024 respectively were passed and permitted to move on Academic Council during the BoS conducted on 24.11.2023 .
- The following courses (with few revisions) in the regulation 2022 were ratified in the board of studies held on 24.11.2023.

- **Syllabus from the Board of Science & Humanities** - 22MA2101 - Differential Equations and Complex Analysis, 22MA2102 - Differential Equations And Laplace Transforms. 22MA2103 - Differential Equations and Linear Algebra, 22MA2104 - Fourier Analysis and Laplace Transforms , 22MA2105 - Partial Differential Equations, Fourier Series and Transforms, 22PH2101- Basics of Material Science , 22PH2151 - Physics For Circuit Engineering, 22CY2151 - Chemistry For Engineers, 22CY2152 - Applied Chemistry, 22HE2151 - Effective Technical Communication, 22HE2071- Design Thinking,22HE2073 - Soft Skills and Aptitude - I, 22MC2095 - Tamil and Technology were ratified and permitted to move on Academic Council by the BoS members of Science and Humanities for the students admitted during the academic year 2022-2023 and onwards.
- **Syllabus from the board of service departments** - 22CH2202 – Introduction to Chemical Engineering by Chemical Engineering department, 22AG2201 – Principles and Practices of Crop Production by Agriculture Engineering Department, 22EE2101 – Basics of Electrical and Electronics Engineering & 22EE2201- Basics of Electrical and Communication Engineering by the Electrical and Electronics Engineering department, 22ME2101 – Engineering Mechanics and 22ME2001 – Engineering Practices by Mechanical Engineering Department, 22IT2201 – Web Technology by the department of Information Technology, 22IT2251 – Python Programming and

COUNCIL * TECH & ENGG OF COLLEGE Chairman

Practices, 22MT 2251 – Fundamentals of Mechatronics Engineering, 22PH2102 – Applied Mechanics by the department of Mechatronics Engineering, 22CS2152 – Essentials of C and C++ programming, Programming using C and C++ and by the Computer Science Engineering Department , 22EI2251 – Electronic Devices and Circuits by the department of Electronics and Instrumentation Engineering were ratified by the respective departments and permitted to move on Academic Council by the BoS members of Science and Humanities for the students admitted during the academic year 2022-2023 and onwards.

The meeting winded up with the vote of thanks by 01.00p.m.

Enclosure:

1. Previous BoS meeting Minutes
2. Action Taken Report.
3. Curriculum and Syllabi

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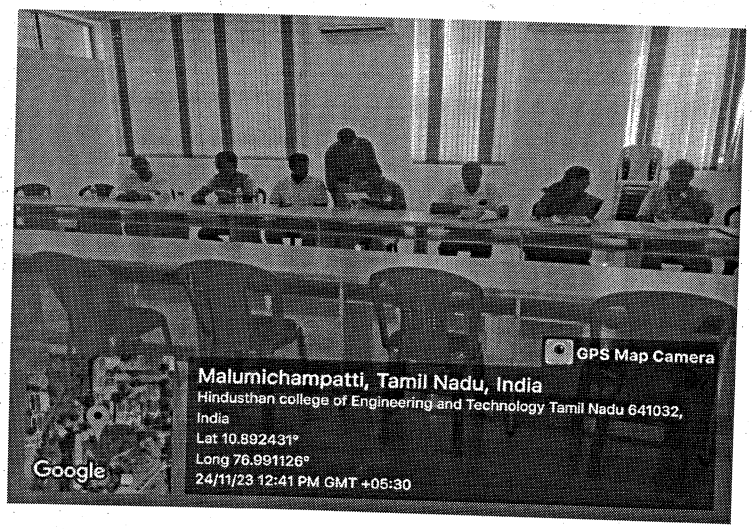
1. The Principal
2. Dean Academics
3. Controller of Examinations
4. All the Members of BoS
5. File

Chairman

(Board of studies)

Chairman - BoS
S&H - HiCET

HINDUSTHAN ACADEMIC COUNCIL OF ENGG. & TECH. Chairman






Chairman

(Board of studies)

**Chairman - BoS**
**S&H - HiCET**

HINDUSTHAN ACADEMIC COUNCIL
Chairman
HINDUSTHAN COLLEGE OF ENGG & TECH

# *Hindusthan College of Engineering And Technology*

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**(An Autonomous Institution, Affiliated to Anna University, Chennai)**
Coimbatore – 641 032

Date : 20.12.2023

## ACTION TAKEN REPORT ON BoS

Name of the Department: SCIENCE & HUMANITIES

The meeting of **TWELFTH** board of studies of Regulation 2022 for the Department of **SCIENCE & HUMANITIES** was conducted on **24.11.2023** at 12.00P.M in Library, Hindusthan College of Engineering and Technology.

### (I) Syllabus Revision for the Regulations 2022

| S.No | Courses in which revision has been done | Action taken | Percentage Syllabus Revised |
|---|---|---|---|
| 1 | 22MA2101 - DIFFERENTIAL EQUATIONS AND COMPLEX ANALYSIS<br>Unit II - $e^{ax}$ f(x) may be included. | Approved & Incorporated | 5% |
| 2 | 22MA2102 – DIFFERENTIAL EQUATIONS AND LAPLACE TRANSFORMS & 22MA2104 – FOURIER ANALYSIS AND LAPLACE TRANSFORMS<br>Unit IV- Initial and Final value problems may be included. | Approved & Incorporated | 5% |
| 3 | 22MA2103 - DIFFERENTIAL EQUATIONS AND LINEAR ALGEBRA<br>Unit V - Inner product space may be included as first topic of the unit. Symmetric and Skew symmetric matrices may be included. | Approved & Incorporated | 5% |

### (II) Syllabus Related Recommendations for I semester – R2022

| S.No | Courses in which revision has been done | Action taken | Percentage Syllabus Revised |
|---|---|---|---|
| 1 | As per Anna University direction, தமிழரும் தொழில்நுட்பமும் / Tamils and Technology to be introduced **with one credit** in the II semester curriculum respectively. | Approved & Incorporated | ---- |
| 2 | Syllabus of Life skill courses for final year students under R 2019 to be ratified by the board of Science and Humanities from this semester onwards. | Approved & Incorporated | ---- |

**Overall Percentage of revision made in the BoS: 3/36 = 8.33 %**

HINDUSTHAN COLLEGE OF ENGG & TECH ★ ACADEMIC COUNCIL ★ Chairman

**(III) New Courses Introduced:**

| S. No | Regulation | Course Code with Name | Credits |
|---|---|---|---|
| 1 | 2022 | 22MA4101- APPLIED PROBABILITY AND STATISTICS FOR AGRICULTURAL ENGINEERING (AGRI) | 4 |
| 2 | 2022 | 22MA4102 - APPLIED STATISTICS & QUEUING THEORY(AIML) | 4 |
| 3 | 2022 | 22MA4103 -PROBABILITY AND OPERATION RESEARCH (FT) | 4 |
| 4 | 2022 | 22MA4151- PROBABILITY AND STATISTICS WITH R PROGRAMMING (AERO ,CHEM) | 4 |
| 5 | 2022 | 22MA4152 - APPLIED STATISTICS WITH R PROGRAMMING & QUEUING THEORY (CSE) | 4 |

**(IV) Mandatory Courses**

| S.No. | Course Code with Name |
|---|---|
| 22MC2094/22MC2095 | தமிழரும்தொழில்நுட்பமும்/ TAMILS AND TECHNOLOGY |

**(V) Non-credit Mandatory Courses**

| S.No. | Course Code with Name |
|---|---|
| 1. | 22 HE 2071 - DESIGN THINKING & 22HE 2072 – SOFT SKILLS AND APTITUDE – I (Common to all branches) |

**(VI) Additional Credit Courses Introduced:**

| S.No. | Course Code with Name |
|---|---|
| | NIL |

**(VII) The following recommendation given by stakeholder(s).**

Soft skill courses from the first semester itself is highly valued and suggested that it will be highly beneficial for the career of the students.

**(VIII). General Recommendations:**

| S. No | Suggestion Given by the BoS Experts | Action Taken |
|---|---|---|
| 1. | English board insisted on concentrating on language skills to enable students to appreciate the language critically. The board members also highly commended the variety of texts incorporated in the syllabus for General English. | Considered |
| 2 | It is recommended by the Academic experts that to change the title of Physics for Non circuit Engineering as Engineering Applications of Physics , Physics for Circuit Engineering as Physics for Engineers and Chemistry for circuit Engineering as Engineering Applications of Chemistry in the first and second semester respectively. | Incorporated. |

**Chairman**
**(Board of Studies)**

ACADEMIC COUNCIL ★ COLLEGE OF ENGG & TECH Chairman

**Dean Academics**

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**Hindusthan College of Engineering and Technology**
(An Autonomous Institution, Affiliated to Anna University, Chennai
Approved by AICTE, New Delhi & Accredited by NAAC with 'A' Grade)
Valley Campus, Pollachi Highways, Coimbatore, Tamilnadu.

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**Academic Year: 2023-2024**

**Minutes of the Board of Studies Meeting**

The Twelfth Board of Studies meeting of the Department of Management Sciences post graduate programme was conducted on 02.12.2023 at Library Video Conferencing Room

The following members were present:

| S.No. | Name of the Person | Department | Position | Signature |
|---|---|---|---|---|
| 1 | Dr.V.Kaarthiekheyan | Professor & Head, Department of Management Sciences | Chairman | |
| 2 | Dr.R.Krishnaveni | Professor, Department of Management Studies, PSG Institute of Management, Coimbatore | University Nominee | |
| 3 | Dr.K.Ramamurthy | Principal, Dr.NGP Arts and Science College, Coimbatore | Subject Expert | 02/12/2023 |
| 4 | Dr.V.R.Nedunchezhian | Professor of Management, Rathinam College of Arts & Sciences, Coimbatore | Subject Expert | |
| 5 | Mr.Gowtham Dhamotharasamy | Founder, Fincliniq, RG Pudur, Coimbatore | Industry Expert | |
| 6 | Mr.Prithivi Ragul | Jai Knit Printers, Tirupur | Alumni | – Absent – |
| 7 | Dr.M.Bhuvaneswari | Professor, Department of Management | Member | – Absent – |

| | | | | |
|---|---|---|---|---|
| | | Sciences | | |
| 8 | Dr.S.Kamalasaravanan | Professor, Department of Management Sciences | Member | |
| 9 | Dr.A.Jayanthi | Associate Professor, Department of Management Sciences | Member | |
| 10 | Dr.V.Kanimozhi | Assistant Professor, Department of Management Sciences | Member | |
| 11 | Lt.R.Manoj | Assistant Professor, Department of Management Sciences | Member | – Absent – |
| 12 | Mr.A.Prasanth | Assistant Professor, Department of Management Sciences | Member | |
| 13 | Ms.Phavithra S | I MBA | Student Member | |
| 14 | Mr. Vishnu S | I MBA | Student Member | |
| 15 | Mr.Senthilkumar C | 6/5. Main Road, Sellakkarichal, Sulur,Coimbatore | Parent Member | |

**Academic Year: 2023-2024**

## Minutes of the Board of Studies Meeting

Board of Studies Chairman Dr.V.Kaarthiekheyan welcomed and introduced the members of the BOS.

The Chairman presented the suggestions given by the experts and the action taken report of the 11th BoS meeting and was approved.

The chairman gave an outline of the views expressed by the members of Department Advisory Committee (DAC) related to the curriculum and syllabus. The Board of Studies member's suggestion has been sought in this regard.

The discussion/ suggestions given by the members are as follows:

| S.No. | Name of the Person | Position | Discussion / Suggestions |
|---|---|---|---|
| 1 | Dr.R.Krishnaveni<br>Professor, Department of Management Studies,<br>PSG Institute of Management, Coimbatore | University Nominee | • Can associate students with companies in order to have better practical knowledge. |
| 2 | Dr.K.Ramamurthy<br>Principal, Dr.NGP Arts and Science College, Coimbatore | Subject Expert | • Suggest students to opt minimum 8-week course in NPTEL for Online certification.<br>• CO-PO Mapping and Bloom's Taxonomy level can be mapped in syllabus.<br>• Learning is more important than teaching and students should be made to learn more and improve practical knowledge.<br>• Practical subjects like Tally can be included. |
| 3 | Dr.V.R Nedunchezhian<br>Professor of Management, | Subject Expert | • Finance for non-finance engineers can be given to engineering students as open elective. |

| S.No. | Name of the Person | Position | Discussion / Suggestions |
|---|---|---|---|
| | Rathinam College of Arts & Sciences, Coimbatore | | • More emphasis shall be given for presentation tools and techniques.<br>• Basics of taxation (Direct and indirect taxes) and Fin Tech courses can be offered to Finance students. |
| 4 | Mr.Gowtham Dhamotharasamy<br>Founder - Fincliniq, RG Pudur, Coimbatore | Industry Expert | • Awareness on opportunities in Corporate finance, investment banking, public and private markets to be carried out during I year of study.<br>• Communication skills to be given more importance along with Excel training.<br>• Students should be trained to analyse and make decisions based on financial statements of the organizations.<br>• NiSM Certifications is must to get Internships in Financial services sectors hence students shall be motivated to take up NiSM Certifications.<br>• Can connect with Industry and have industry partners for finance courses. |

The syllabus of the following courses offered to UG departments were approved by the Board of studies:

1. Team Building & Leadership Management
2. Introduction to new business venture.

The modified syllabus of the following courses were approved by the Board of studies:

1. Behavioural Finance
2. Integrated Marketing Communication

The BoS Meeting came to an end by1:15 p.m.

**Chairman - BoS**

Chairman - BoS
MBA - PiCET

**BoS Members - Signature:**

1. Dr.V.Kaarthiekheyan
2. Dr.R.Krishnaveni

3. Dr.K.Ramamurthy 02/12/2022
4. Dr.V.R Nedunchezhian
5. Mr. Gowtham Dhamotharasamy
6. Mr. Prithivi Ragul Absent
7. Dr.M.Bhuvaneswari Absent
8. Dr.S.Kamalasaravanan
9. Dr.A.Jayanthi
10. Dr.V.Kanimozhi
11. Lt.R.Manoj Absent
12. Mr.A.Prasanth
13. Ms.Phavithra S S. Phavi
14. Mr.Vishnu S S.Vishnu
15. Senthilkumar C C. Senth

**Enclose:**

1. Previous BoS meeting Minutes
2. Action Taken Report
3. Curriculum and Syllabi

**Copy:**

1. The Principal
2. Dean Academics
3. Controller of Examinations
4. All the Members of BoS
5. File

HINDUSTHAN EDUCATIONAL AND CHARITABLE TRUST
HICET

**Hindusthan College of Engineering and Technology**
(An Autonomous Institution, affiliated to Anna University, Chennai)ApprovedbyAICTE,NewDelhiandaccreditedwith'A++'GradebyNAAC
ValleyCampus, Pollachi Highway,Coimbatore,Tamilnadu

TÜVRheinland CERTIFIED

# Department of Management Sciences(MBA)

Date: 08.12.2023

## ActionTakenReporton12thBoS

The Twelfth Board of Studies meeting of Regulation 2020 for the academic year 2023-2024Even Semester was conducted on 02.12.2023 at 11.00 am at Library Video Conference Room.

**1.Syllabus Revision**

| S.No. | Subject in which revision has been done | Percentage Syllabus Revised |
|---|---|---|
| 1. | 20BAX301- Integrated Marketing Communication | 50% |
| 2. | 20BAX313-Behavioural Finance | 60% |

**2.New Courses Introduced for UG Degree (Minor Courses):**

| S.No | Regulation | Course code with name | Credits |
|---|---|---|---|
| 1. | 2022 | 22BA6601-Introduction to new business venture. | 3 |
| 2. | 2022 | 22BA6602 - Team Building & Leadership Management | 3 |

**3. General Recommendations:**

| S.No | Suggestion given in the BoS experts | Action taken |
|---|---|---|
| 1 | Can associate students with companies in order to have better practical knowledge. | Considered |
| 2 | Suggest students to opt minimum 8-week course in NPTEL for Online certification. | Considered |
| 3 | CO-PO Mapping and Bloom's Taxonomy level can be mapped in syllabus. | Considered |
| 4 | Learning is more important than teaching | Considered |

| | | |
|---|---|---|
| | and students should be made to learn more and improve practical knowledge. Practical subjects like Tally can be included. | |
| 5 | Finance for non-finance engineers can be given to engineering students as open elective. | Considered |
| 6 | More emphasis shall be given for presentation tools and techniques. | Considered |
| 7 | Basics of taxation (Direct and indirect taxes) and Fin Tech courses can be offered to Finance students. | Considered |
| 8 | Awareness on opportunities in Corporate finance, investment banking, public and private markets to be carried out during I year of study. | Considered |
| 9 | Communication skills to be given more importance along with Excel training. | Considered |
| 10 | Students should be trained to analyse and make decisions based on financial statements of the organizations. | Considered |
| 11 | NiSM Certifications is must to get Internships in Financial services sectors hence students shall be motivated to take up NiSM Certifications.<br>Can connect with Industry and have industry partners for finance courses. | Considered |

**Chairman**
**Board of Studies**

**Chairman - BoS**
**MBA - HiCET**

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**Valley Campus, Coimbatore – 641 032, Tamilnadu, INDIA**
Tel: +91 422 4242424 www.hicet.ac.in

Date :06.12.2023

## MINUTES OF BOS MEETING

Board of Studies in **Computer Applications**, the twelfth Board of Studies meeting of Regulation 2020 for the Academic year 2023-2024 (Even sem) was conducted on 06.12.2023 at 1.30 pm.in the Hybrid mode.

**The following members were present.**

| S.No | Name of the Person | Department | Position |
|---|---|---|---|
| 1. | Dr.A.R. Jayasudha | Professor/Head,<br>Department of Computer Applications,<br>Hindusthan College of Engineering and Technology. | Chairman |
| 2. | Dr. K. Thulasimani | Professor<br>Department of Computer Science and Engineering<br>Government College of Engineering, Tiruelveli | Anna University Nominee |
| 3. | Mr. C Sundar | Assistant Professor (Sr. Gr.)<br>Department of Computer Applications<br>PSG College of Technology<br>Coimbatore | Subject Expert |
| 4. | Mr. Sankar M | 2012 – 2015 Batch<br>Senior Software Engineer,<br>Exterro R&D Pvt Ltd<br>2nd Floor Tidel Park<br>Coimbtaore. | Alumni |
| 5. | Mrs.M.Nirmala | Assistant Professor,<br>Department of Computer Applications,<br>Hindusthan College of Engineering and Technology. | Member |
| 6. | Mrs.Princess Maria John | Assistant Professor,<br>Department of Computer Applications,<br>Hindusthan College of Engineering and Technology. | Member |

- The chairman of the BoS, Dr. A. R. Jayasudha welcomed all the dignitaries and internal members for the twelfth Board of Studies meeting.
- The chairperson briefed the Salient features of Regulation 2020 to all the BoS members.
- The chairman gave an outline of the changes to be made in the curriculum given by Curriculum Development Cell (CDC) & Department Advisory Committee (DAC).
- The Chairman conveyed to the members, based on Anna University Curriculum, the board introduced Curriculum (Scheme) for II, IV semesters and Bridge courses of Computer Applications Board.

**Recommendations by BoS members (Subject Related)**

- In "21CA2251 – Web Development", 10% syllabus revision has been undertaken.
- In 'Introduction to Machine Learning", 25% syllabus revision made with relevant topics.

**Department specific Board of Studies Discussion / Suggestions:**

Bos members suggested

- To include data analytics in unit V of Python Programming as it is very important.
- To streamline the content of Unit V in the Web Development subject by considering its length for potential removal.
- To rename unit IV of Machine Learning to Dimensionality from unsupervised learning.
- It was suggested to include NSS as a mandatory no credit course for II semester in the curriculum as more student are involved in NSS.
- To conduct End semester exam for unregistered students to take up the '21CA1172 - Research Methodology (MOOC course) through NPTEL For which internal Test 1 and Test 2 will be conducted accordingly.
- To update Machine Learning as core due to its increased opportunities.

**The following resolutions are made in the Board of Studies meeting:**

- In almost all the courses, changes have been done as per the Local, Regional, National and Global needs.

- The curriculum and syllabus of Regulation 2020 for the II semester and IV semester subjects were introduced and passed by the Electronics and Communication Board respectively, and permitted to move on Academic Council by the BoS members of Board of Computer Applications for the students admitted during the academic year 2022 – 2023, and 2023-2024 onwards.
- Chairman conveyed that, the Suggestions given by the Board of Studies members are to be forwarded to Communication Board, and incorporated in Regulation 2020.
- The meeting ended with thanks to the members by Chairman at 03.30 pm

The curriculum and the syllabus of semester 1I and IV, Bridge Course (2nd Semester) and electives for the academic year 2023 – 2024(Even semester) is approved by the above committee.

**Chairman**
**Board Of Studies**

Chairman - BoS
MCA - HiCET

**Enclose:**

1. Previous BoS Minutes –ATR
2. Copy of Regulation 2016
3. Curriculum and Syllabi

**Copy :**

1. The Principal
2. Dean Academics
3. Controller of Examinations
4. All the Members of BoS
5. File

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Date14.12.2023

## ACTION TAKEN REPORT ON BoS

Name of the Department: Department of Computer Applications

The meeting of Computer Applications board of studies of Regulation 2020 for the Department of Computer Applications Post Graduate Programme was conducted on 09.12.2023 at 01.30 pm, in Department of Computer Applications, Hindusthan College of Engineering and Technology.

**(I) Syllabus Revision for the Regulations 2020**

| S.No | Courses in which revision has been done | Action taken | Percentage Syllabus Revised |
|---|---|---|---|
| 1. | 21CA2251 – Web Development | Modified | 10% |
| 2 | Introduction to Machine Learning | Modified | 25% |

**Overall Percentage of revision made in the BoS: 20%**

**(III) New Course Introduced:**

| S. No | Regulation | Course Code with Name | Credits |
|---|---|---|---|
| | | Nil | |

**(IV) Mandatory Courses (if any) – Nil**

**(V) Non-credit Mandatory Courses (if any)**

| S.No. | Course Name |
|---|---|
| 1. | NSS |

**(VI) Additional Credit Courses Introduced: Nil**

(VII) The following recommendations given by stakeholders are considered and incorporated.

- ✓ Value added courses on Internet of Things has been introduced.

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**(VIII). General Recommendations:**

| S. No | Suggestion Given by the BoS Experts | Action Taken |
|---|---|---|
| 1. | It was recommended to include data analytics topic in unit V of Python Programming | Considered |
| 2. | Suggested to reduce MYSQL topic from Unit V of Web Development subject | Considered |
| 3. | Machine Learning suggestion was given to rename unit IV as Dimensionality from unsupervised learning. | Considered |
| 4. | Suggestions to include NSS as a mandatory no credit course for II semester in the curriculum | Considered |
| 5. | Suggested to conduct End semester exam for students who were not able to register and take up the NPTEL exam for Research Methodology (MOOC) course. For which internal Test 1 and Test 2 will be conducted accordingly. | Considered |

**Chairman**
**(Board of Studies)**

**Chairman - BoS**
**MCA - HiCET**

**Dean Academics**

Dean (Academics)
HiCET