

## “CHEMERSATZ”

Official Newsletter of Department of Chemical Engineering

### STUDENT ASSOCIATION OF CHEMICAL ENGINEERING

Student Editors:

Mr Karthick L (II Year)

Mr John Bernic J (II Year)

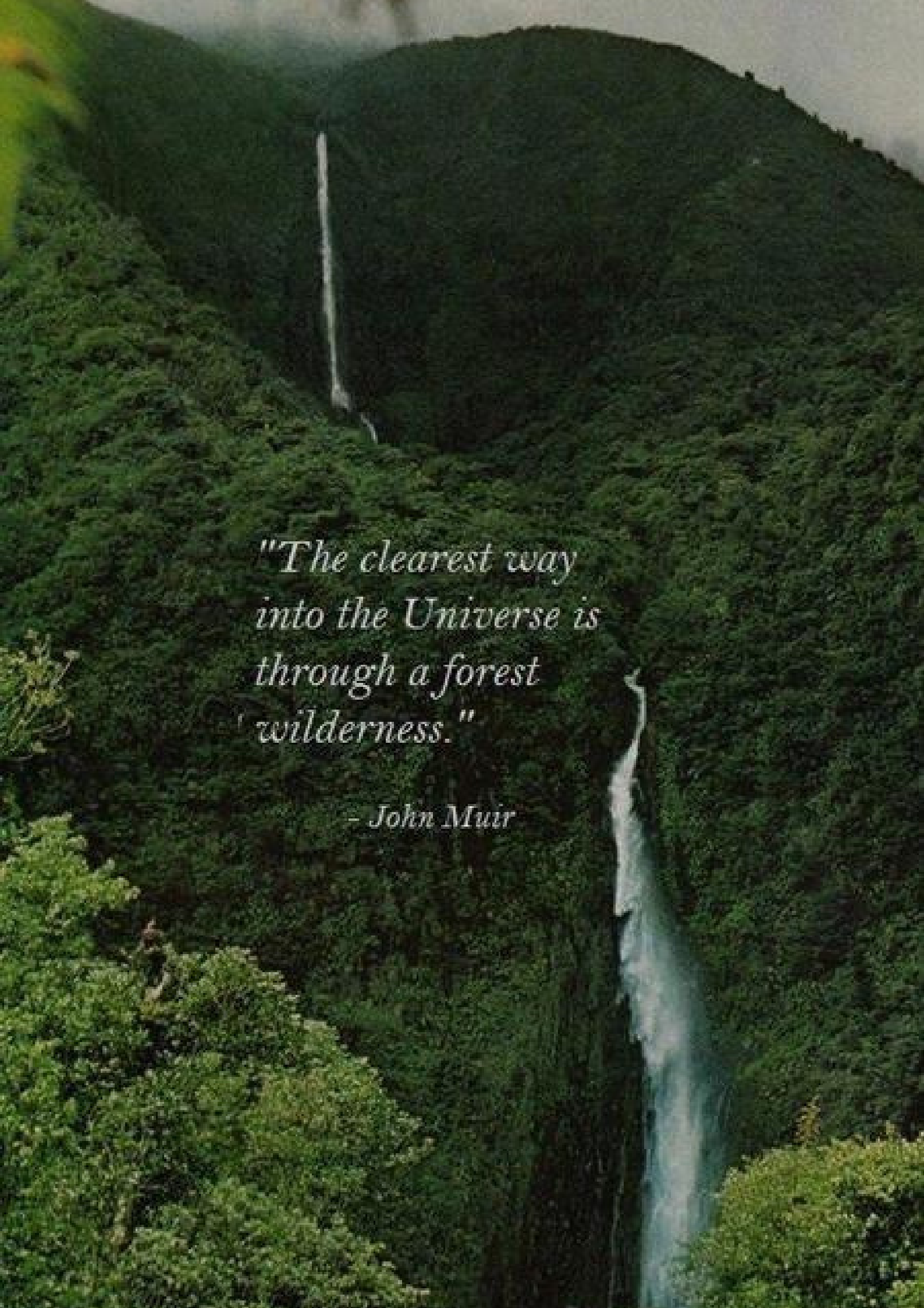
Coordinator:

Ms Induja P, AP

Convenor:

Dr Seenuvasan M, HoD



A photograph of a dense, vibrant green forest. A waterfall is visible, cascading down a rocky ledge on the right side of the frame. The water is white and frothy as it falls. The forest is thick with various shades of green, suggesting a rich, diverse ecosystem. The lighting is soft, highlighting the textures of the trees and the flow of the water.

*"The clearest way  
into the Universe is  
through a forest  
wilderness."*

*- John Muir*

# LOOK FORWARD TO A UNIVERSAL ENGINEER

## ***Excel in***

- Design
- Manufacture
- Purification
- Environment
- Economic Evaluation
- Safety Study

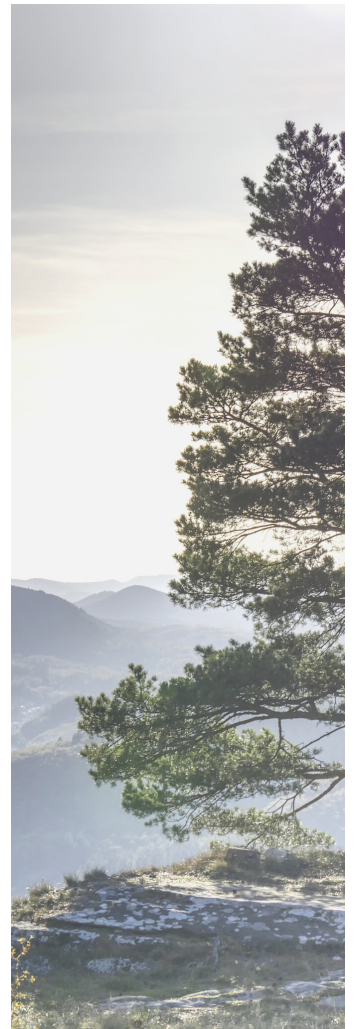
## **4-YEAR B.TECH CHEMICAL ENGINEERING**

### **Vision of the Department**

To produce dynamic Engineers with excellence in process operations and problem-solving skills to meet the challenges and drive for the growth of the nation.

### **Mission of the Department**

- To foster engineers with quality engineering education to meet the challenging and developing technology in the chemical sectors.
- To prepare students for leadership in diverse careers, create knowledge and provide multidisciplinary solutions to broad societal problems.
- To emphasize on the practical aspects of research, innovation and ensuring the realities of sustainable development.



***Dr Seenuvasan M, M.E, Ph.D***  
Professor & Head of Chemical  
Engineering

## **PROGRAMME EDUCATIONAL OBJECTIVES (PEOs)**

Graduates of Chemical Engineering will be able to:

- Participate as leaders in their fields of expertise and in activities that support service and economic development nationally and throughout the world.
- Pursue continued life-long learning through professional practice, research and training programs in the field of chemical engineering and science.
- Solve real-life problems in a broad perspective to fulfill ethical, economic, environmental and social responsibilities.

## **PROGRAMME SPECIFIC OUTCOMES (PSOs)**

Graduates of Chemical Engineering will be able to:

- Apply the knowledge of unit processes and operations for the design of Chemical plant.
- Acquire working knowledge of process safety and environment issues in Chemical Processes.
- Innovate and integrate the new ideas of Chemical Engineering processes as a team for the complex problems and development of chemical industries.

# **“CHEMERSATZ”**

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# AWARDS & ACHIEVEMENTS



**Dr Seenuvasan M**, Prof & Head appointed as Session Chair on International E-Level Conference on Recent Developments in Engineering and Technology organized by Dhaanish Ahmed Institute of Technology, Tamilnadu on 03.04.2021.

**Mr Rajkumar A**, AP Received best paper presentation award on " Bio-synthesized silver nanoparticle for effective photocatalytic degradation of congo red dye in aqueous solution: optimization using surface methodology" in the National conference (NFEES 2021) held on 27 - 28th February 2021.



 **DHAANISH AHMED**  
INSTITUTE OF TECHNOLOGY

**Department of Food Technology**

*Cordially invites you for the*  
Guest Lecture on

**UNIT OPERATIONS FOR FOOD ENGINEERS**

**DATE: 2021 MARCH 23**

Guest Speaker

**Dr. M. Seenuvasan**  
Professor and Head, Department of Chemical Engineering and Food Technology  
Hindusthan College of Engineering and Technology, Coimbatore.

**Alhaj K Moosa**  
Founder & Chairman  
Dhaanish Ahmed Group of Institutions

**Mr. K.A. Akbar Basha**  
Director

**Mr. A. Thameez Ahmed**  
Chief Executive Officer


**Dr. K.G. Parthiban**  
Principal

**Dr. C. Selvamurugan**  
HOD/FT

**Dr Seenuvasan M**, Prof & Head delivered a guest lecture on Unit Operations for Food Engineers a organized by Department of Food Technology, Dhaanish Ahmed Institute of Technology, Tamilnadu on 23.04.2021.

# DEPARTMENT ACTIVITIES

## VALUE ADDED COURSE CONDUCTED



VALUE ADDED COURSE ON  
**“BULK SOLID HANDLING FOR CHEMICAL ENGINEERS”**  
26<sup>TH</sup> MAY TO 09<sup>TH</sup> JUNE 2021  
COURSE COORDINATOR  
**Ms. INDUJA P, AP/CHEM ENGG**

DEPARTMENT OF CHEMICAL ENGINEERING

PROPOSAL FOR VALUE ADDED COURSE  
SUBMITTED TO THE PRINCIPAL THROUGH DEAN ACADEMICS



**Value Added Course**  
Expert Session  
03.06.2021

**Mr Mohan Raj V**  
Assistant Manager,  
Shift Incharge-Ammonia Plant, SPIC



**Value Added Course**  
Expert Session  
02.06.2021

**Dr Sathish Kumar K**  
Associate Professor,  
SSN College of Engineering



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



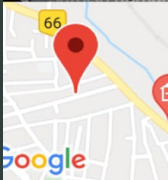
**Value Added Course**  
Expert Session  
04.06.2021

**Mr Jibu B Thomas**  
Commissioning Engineer  
Hyundai Engineering Company Limited,  
South Korea.

REC

Application

- In Pharmacology - polymer blends, pharmaceutical powders, and composite fillers.
- In Food and beverage processing industries - infant food, flavorings, seasonings, dried food products, breakfast cereals, cake mixes, dietary supplements, instant drink blends etc.
- Cosmetics
- Abrasives
- Pesticides and herbicides
- Plastic powders
- Laundry detergents
- Fertilizers
- Plastic powders
- Fire retardants
- Gypsum



Nagercoil, Tamil Nadu, India  
51/108, Pattariyar Middle St, Eathancadu, Edalakudi, Nagercoil,  
Tamil Nadu 629002, India  
Lat N 8° 9' 59.4792"  
Long E 77° 26' 42.6408"  
07/06/21 10:29 AM

**Ms Induja P**, AP/Chem Engg., Conducted 30 hrs Value Added Course on “Bulk Solid Handling for Chemical Engineers” during 26.05.2021 to 09.06.2021.

# EXPERT LECTURES



**Department of Agricultural Engineering ,Biomedical Engineering, Chemical Engineering and Food Technology**  
**In Association with Entrepreneurship Development cell**  
**IIC Self Driven Activity**  
 Webinar on  
**“Entrepreneurship and Business Opportunities in Agribusiness and Food Industry”**

**Mr Sagar Athithiyan**  
 Zonal Head South India at FarmX- ICAR  
 Territory Manager - Koppert Biological Systems  
 Tamil Nadu & Kerala

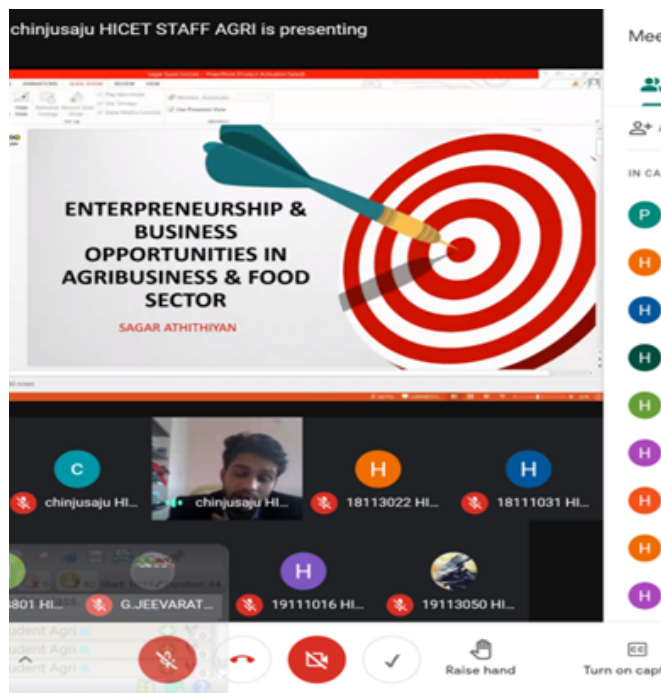
Date: 6.2.2021 Time: 10.30am to 11.30am

**Co-ordinators** Ms Induja P, AP/Chem  
 Mrs Chinju Saju, AP/Agri  
 Dr Jeevarathinam G, AP/FT

**Convenor** Dr Seenuvasan M, HoD/Chem  
 Dr Sridhar N, HoD/Agri  
 Dr Saravana Sundaram S  
 Hod/BME

**Dr Karunakaran K**  
 CEO & Principal

**Google Meet Link**  
<https://meet.google.com/jnm-oczo-uae>



**Ms Induja P**, AP/Chem Engg., Organized a Webinar (IIC Self Driven Activity) in Association with Entrepreneurship Development Cell on “Entrepreneurship and Business Opportunities in Agribusiness and Food Industry” on 06th February 2021.



**Department of Chemical Engineering & IPR Club**

**IIC Self Driven Activity**  
 Webinar on  
**Intellectual Property Rights (IPRs) and Trademark Registration in India**

**Ms.P.K.Gayathri**  
 Patent analyst and IPR consultant  
 DST-SERB Sponsored Women Scientist

Date: 5th Feb,2021 | 11.00am

**Patron** Dr. K. Karunakaran  
 CEO & Principal

**Convenor** Dr.M. Seenuvasan  
 Chemical/ HoD

**Coordinators** Mr.A. Rajkumar, AP/Chemical  
 Ms.P.Induja, AP/Chemical

Join us live on Google Meet



**Department of Chemical Engineering & IPR Club**

**IIC Self Driven Activity**  
 Webinar on  
**Intellectual Property Rights (IPRs) and Trademark Registration in India**

**FACULTY'S**

Date: 5th Feb,2021 | 11.00am

**Patron** Dr. K. Karunakaran  
 CEO & Principal

**Convenor** Dr.M. Seenuvasan  
 Chemical/ HoD

**Coordinators** Mr.A. Rajkumar, AP/Chemical  
 Ms.P.Induja, AP/Chemical

Join us live on Google Meet

**Ms Rajkumar A**, AP/Chem Engg., Organized a Webinar (IIC Driven Activity) on “Intellectual Property Rights (IPRs) and Trademark Registration in India” on 05th February 2021.

# CONTINUOUS LEARNING



- 7.12.2020 to 12.12.2020, **Dr Seenuvasan M** attended Six days AICTE sponsored Short Term Training Program on Augmentation of SMART Materials and Technologies for Commercial Energy Harvestation - Phase - III organized by Kongu Engineering College, Erode.
- 07.12.2020 to 11.12.2020, **Ms Induja P** attended AICTE Training and Learning (ATAL) Academy Sponsored five day's Online FDP at B.M.S. College of Engineering, Karnataka.
- 14.12.2020 to 18.12.2020, **Ms Induja P** attended AICTE Training and Learning (ATAL) Academy Sponsored five day's Online FDP at Graduate School of Management Studies, GTU, Gujarat.
- 4.01.2021 to 09.01.2021, **Dr Seenuvasan M** attended AICTE-ISTE Sponosred One-Week Virtual Inducation / Refresher Programme (Phase-I) on Demystifying Research Metrics (DRM,21)' organized by Department of Mechatronics, Bannari Amman Institute of Technology, Erode.

# CONTINUOUS LEARNING



- 07.12.2020 to 12.12.2020 - **Dr Seenuvasan M** attended AICTE Sponsored -STTP on "Augmentation of SMART Materials and Technologies for Commercial Energy Harvestation" organized by Department of Chemical Engineering, Kongu Engineering College, Perundurai.
- 12.12.2020 - **Mr Rajkumar A** attended AICTE sponsored one week online STTP on "Hybrid and Electric Vehicles" Organized by Department of Automobile Engineering, Poojya Doddappa Appa College of Engineering, Kalaburagi and completed test with a score of 80% on 7th to 12th, December, 2020.
- 22.01.2021, **Mr Rajkumar A** attended AICTE Training and Learning (ATAL) Academy Sponsored five day's Online FDP on "Green Technology & Sustainability Engineering" at Coimbatore Institute of Technology, Coimbatore.
- 22.02.2021 to 26.02.2021, **Mr Rajkumar A** attended AICTE Training and Learning (ATAL) Academy Sponsored five day's Online FDP on "Energy Storage" at KPR Institute of Engineering and Technology, Coimbatore.

# RESEARCH



Bioresource Technology Reports

Volume 13, February 2021, 100610



## Production of a biopolymer film from biological wastes and its statistical analysis

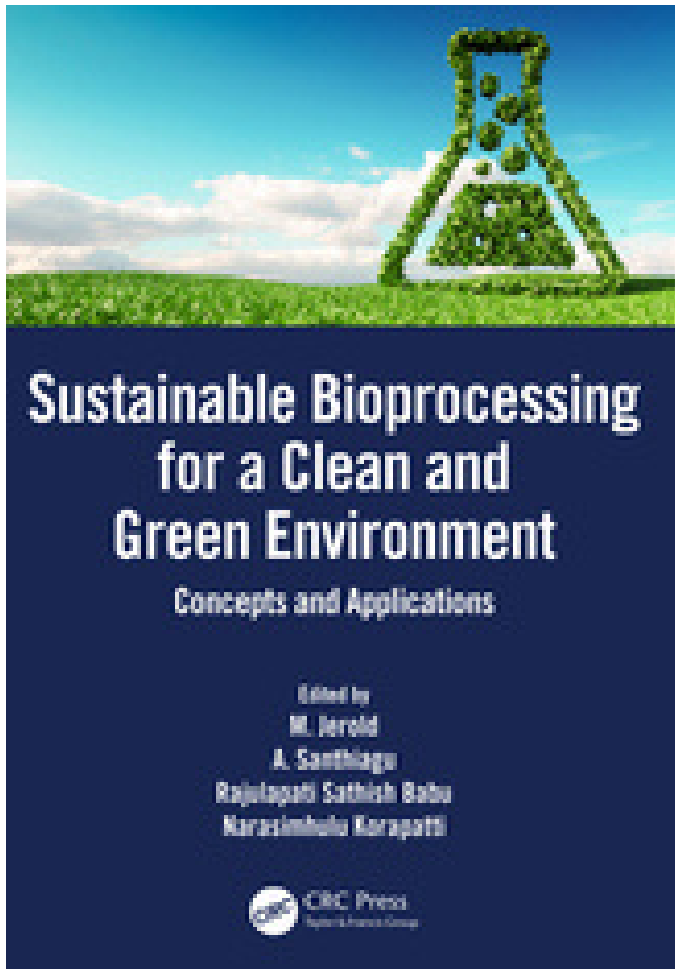
Muthulingam Seenuvasan <sup>a,✉</sup>, Carlin Geor Malar <sup>b</sup>, Lali Growther <sup>c</sup>

<sup>a</sup> Department of Chemical Engineering, Hindusthan College of Engineering and Technology, Coimbatore, India

<sup>b</sup> Department of Biotechnology, Rajalakshmi Engineering College, Thandalam, India

<sup>c</sup> Department of Microbiology, Hindusthan College of Arts and Science, Coimbatore, India

Received 27 September 2020, Revised 17 November 2020, Accepted 18 November 2020, Available online 25 November 2020.



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*Mansi Kikani, Chanchpara Amit, Doddabhimappa Ramappa Gangapur, Muthulingam Seenuvasan, and Madhava Anil Kumar*

### Chapter 9 Phycoremediation of Heavy Metals in Wastewater: Strategy and Developments ..... 163

*Velusamy Priya, Sivakumar Vivek, Muthulingam Seenuvasan, and Carlin Geor Malar*

## 6 Bio-based Coagulants for the Remediation of Environmental Pollutants

*Mansi Kikani and Chanchpara Amit*

CSIR-Central Salt & Marine Chemicals Research Institute, India

*Doddabhimappa Ramappa Gangapur and Madhava Anil Kumar*

CSIR-Central Salt & Marine Chemicals Research Institute, India; Academy of Scientific and Innovative Research, India

*Muthulingam Seenuvasan*

Hindusthan College of Engineering and Technology, India

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## 9 Phycoremediation of Heavy Metals in Wastewater Strategy and Developments

*Velusamy Priya*

SNS College of Engineering, India

*Sivakumar Vivek and Muthulingam Seenuvasan*

Hindusthan College of Engineering and Technology, India

*Carlin Geor Malar*

Rajalakshmi Engineering College, India

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# STUDENTS CORNER

## CONTINUOUS LEARNING

### Mission to Mars Student Challenge

CERTIFICATE OF PARTICIPATION

THIS CERTIFIES THAT

**Kirubashini.E**

participated in NASA's Mission to Mars Student Challenge.

Working alongside NASA scientists, engineers, and education staff, participants learned about Mars while planning and designing their own mission to the Red Planet leading up to the Perseverance Mars rover landing on February 18, 2021.

*Thomas Zurbuchen*

DR. THOMAS ZURBUCHEN

NASA Associate Administrator



**Ms Kirubashini E** of II Year Chemical Engineering has participated in Mission To Mars Students Challenge Program conducted by NASA on 18th February 2021

**Mr Abel T Varghese** of II Year Chemical Engineering has participated in Mission To Mars Students Challenge Program conducted by NASA on 18th February 2021

### Mission to Mars Student Challenge

CERTIFICATE OF PARTICIPATION

THIS CERTIFIES THAT

**Abel.T.Varghese**

participated in NASA's Mission to Mars Student Challenge.

Working alongside NASA scientists, engineers, and education staff, participants learned about Mars while planning and designing their own mission to the Red Planet leading up to the Perseverance Mars rover landing on February 18, 2021.

*Thomas Zurbuchen*

DR. THOMAS ZURBUCHEN

NASA Associate Administrator



### CERTIFICATE OF PARTICIPATION

We present this to

**Abel.T.Varghese**

for participating as **Attendee**

in the **1<sup>st</sup> International Conference of MEDICAL GOES PUBLIC (ICON-MEGOPIC2021)**  
on **27 February 2021**

Malaysian Medical Association CPD/CME Point: 8  
(event code CPDE22548)

*Professor Dr Rusli bin Nordin*

Professor Dr Rusli bin Nordin  
Head of School of Medicine  
Faculty of Health and Medical Sciences  
Taylor's University Malaysia

 **TAYLOR'S UNIVERSITY**  
Wisdom • Integrity • Excellence

*Brig. Gen. Professor Datuk (Dr) Adnan Bin Abdullah*

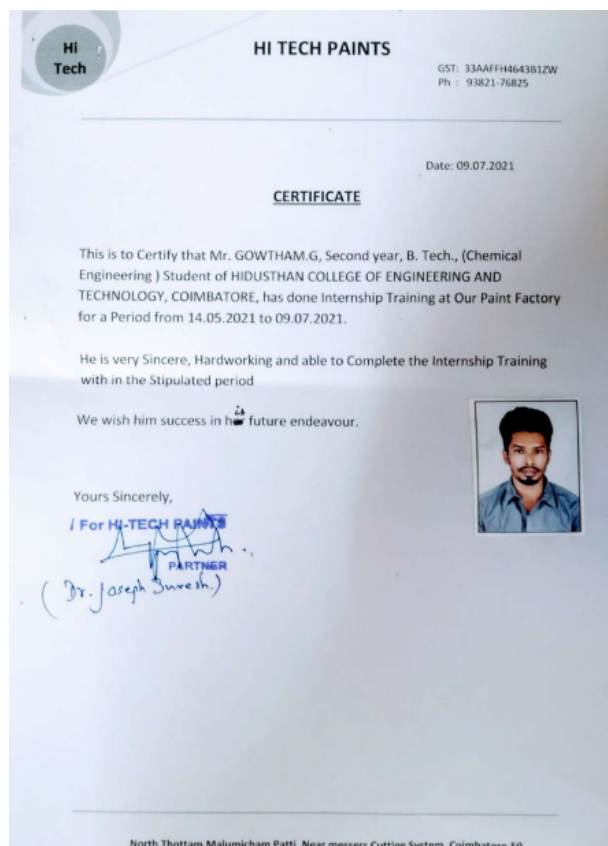
Brig. Gen. Professor Datuk (Dr) Adnan Bin Abdullah  
Dean  
Faculty of Medicine and Defence Health  
National Defence University of Malaysia

 **UPNM**  
Universiti Pertahanan Nasional  
National Defence University of Malaysia

**Mr. Abel T Varghese** of II Year Chemical Engineering participated in ICON-MEGOPIC 2021 conducted by Taylor's University, Malaysia on 27th February 2021

# STUDENTS CORNER

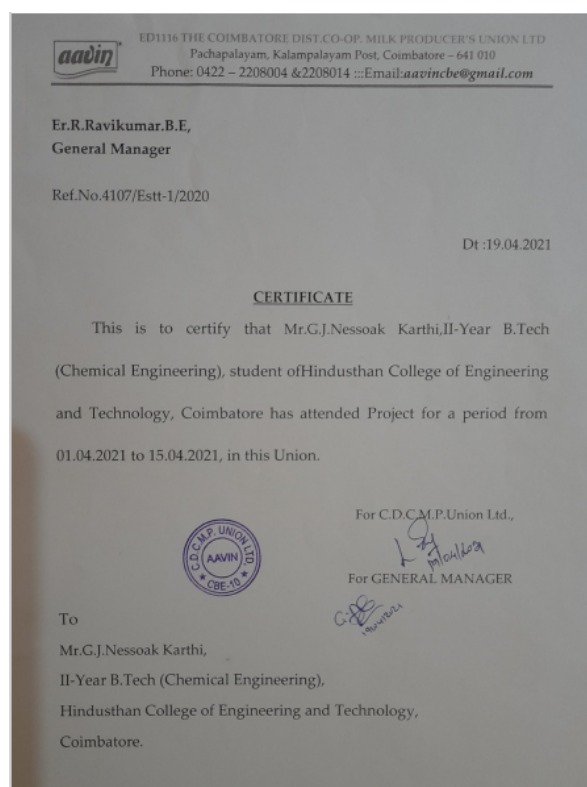
## CONTINUOUS LEARNING



**Mr Gowtham G**, II year Chemical Engineering done **Internship Training at Hi Tech Paints, Coimbatore** from 14.05.2021 to 09.07.2021 (55 Days).



**Ms Sugashini K**, II year Chemical Engineering done **Internship Training at Dharani Sugars and Chemicals Limited, Tenkasi** from 01.04.2021 to 15.04.2021 (15 Days).



**Mr Nessoak karthik G J**, II year Chemical Engineering done **Internship Training at Aavin, Coimbatore** from 01.04.2021 to 15.04.2021 (15 Days).



"The poetry of e

—John Keats. "On the



Earth is never dead."

Grasshopper and Cricket"

# STUDENTS CORNER

## CONTINUOUS LEARNING

**Congratulations!**

Abel Varghese



Completed

**Shopping ads Certification**

on April 6, 2021

Completion ID: 76336080 Expires: April 6, 2022

...

Google recognizes your mastery of the fundamentals of creating and customizing effective Shopping campaigns.

Google

**Mr Abel T Varghese** of II Year Chemical Engineering has completed and got certification of Google ads video for **Mastery of the Fundamentals of Creating and Customizing Effective Shopping Campaigns** from Google on 6th April 2021

**Congratulations!**

Abel Varghese



Completed

**Google Ads Video Certification**

on April 6, 2021

Completion ID: 76376726 Expires: April 6, 2022

...

Google recognizes your mastery of the fundamentals of reaching audiences using YouTube and Google Video ad solutions.

Google

**Mr Abel T Varghese** of II Year Chemical Engineering has completed and got certification of Google ads video for **Mastery of the Fundamentals of Reaching Audiences using YouTube and Google Video as Solutions** from Google on 6th April 2021

# STUDENTS CORNER

## CONTINUOUS LEARNING



Students of II B.Tech Chemical Engineering actively participated and completed in the Online Courses in **Coursera.**

### Overall Certificate Drive Link

[https://drive.google.com/drive/u/0/folders/13E1\\_fNaQmMV-u8kibRpkHJdCY7-KRPCr](https://drive.google.com/drive/u/0/folders/13E1_fNaQmMV-u8kibRpkHJdCY7-KRPCr)

S. No	Name of the Student	No. of Courses Completed	Pdf Link of the Certificate
1	Abel T Varghese	14	<a href="https://drive.google.com/file/d/1fdfqMpMTX-7wzjSZC7N0z3jHK_Uzbfcg/view?usp=sharing">https://drive.google.com/file/d/1fdfqMpMTX-7wzjSZC7N0z3jHK_Uzbfcg/view?usp=sharing</a>
2	Agileshwar J	3	<a href="https://drive.google.com/file/d/1hHBsU4NXbRagLzY7gmEPlfsh_t7DYM56/view?usp=drivesdk">https://drive.google.com/file/d/1hHBsU4NXbRagLzY7gmEPlfsh_t7DYM56/view?usp=drivesdk</a>
3	Antony Abrahaam A	4	<a href="https://in.docworkspace.com/d/sAP9goCT-yb9BwunQzaenFA">https://in.docworkspace.com/d/sAP9goCT-yb9BwunQzaenFA</a>
4	Ariharan C	3	<a href="https://drive.google.com/file/d/1hv2z1Xgv48aAY1rit3cRIe4cZLGsHyU/view?usp=drivesdk">https://drive.google.com/file/d/1hv2z1Xgv48aAY1rit3cRIe4cZLGsHyU/view?usp=drivesdk</a>
5	Arun Kumar R	3	<a href="https://drive.google.com/file/d/1gXLNaSdaVvbFe4YBu_xBZBukwRDX95FX/view?usp=drivesdk">https://drive.google.com/file/d/1gXLNaSdaVvbFe4YBu_xBZBukwRDX95FX/view?usp=drivesdk</a>
6	Balaji S	4	<a href="https://in.docworkspace.com/d/sAM_LLuv-yb9B_OeNy6enFA">https://in.docworkspace.com/d/sAM_LLuv-yb9B_OeNy6enFA</a>
7	Easwari A B	5	<a href="https://in.docworkspace.com/d/sIKOz9sVb_aKVgwY">https://in.docworkspace.com/d/sIKOz9sVb_aKVgwY</a>
8	Gokul Jothi R	4	<a href="https://drive.google.com/file/d/1hQfWypG2f_ZsDnZzezOw4MhtcUCkK13O/view?usp=drivesdk">https://drive.google.com/file/d/1hQfWypG2f_ZsDnZzezOw4MhtcUCkK13O/view?usp=drivesdk</a>
9	Gokula Aravind B	2	<a href="https://drive.google.com/file/d/1hgYvXdFk_xPWoi_nOyD9aaDg3Y8OJ_rGS/view?usp=drivesdk">https://drive.google.com/file/d/1hgYvXdFk_xPWoi_nOyD9aaDg3Y8OJ_rGS/view?usp=drivesdk</a>
10	Gowtham G	1	<a href="https://drive.google.com/file/d/1hWs3l2tA6OKMClVr2uxbHoYYAnwe_Aav/view?usp=drivesdk">https://drive.google.com/file/d/1hWs3l2tA6OKMClVr2uxbHoYYAnwe_Aav/view?usp=drivesdk</a>
11	Jayapradha V	17	<a href="https://in.docworkspace.com/d/sAJNvUqCeitJO3_ivzKenFA">https://in.docworkspace.com/d/sAJNvUqCeitJO3_ivzKenFA</a>
12	Jinu Varghese	5	<a href="https://drive.google.com/file/d/1InXN3nkJ3sf7CnqRMQUoUnQ1_GvajNy_/view?usp=sharing">https://drive.google.com/file/d/1InXN3nkJ3sf7CnqRMQUoUnQ1_GvajNy_/view?usp=sharing</a>

# STUDENTS CORNER

## CONTINUOUS LEARNING



S. No	Name of the Student	No. of Courses Completed	Pdf Link of the Certificate
13	John Bernic J	3	<a href="https://drive.google.com/file/d/1h1Pp6XevNest-S5VUpuv1Z5_PeQernz5/view?usp=drivesdk">https://drive.google.com/file/d/1h1Pp6XevNest-S5VUpuv1Z5_PeQernz5/view?usp=drivesdk</a>
14	Kabin Kumar R	2	<a href="https://drive.google.com/file/d/1iJabnxhjkTSWhK-xf-h2Sc4OUMYWZy9g/view?usp=drivesdk">https://drive.google.com/file/d/1iJabnxhjkTSWhK-xf-h2Sc4OUMYWZy9g/view?usp=drivesdk</a>
15	Karthick L	4	<a href="https://drive.google.com/file/d/12c28T62Ifg4nu8hXJ0L-wSzbhyIzL0Dc/view?usp=drivesdk">https://drive.google.com/file/d/12c28T62Ifg4nu8hXJ0L-wSzbhyIzL0Dc/view?usp=drivesdk</a>
16	Kavirangith T	2	<a href="https://in.docworkspace.com/d/sAFa3wD2so9VWMDTzqenFA">https://in.docworkspace.com/d/sAFa3wD2so9VWMDTzqenFA</a>
17	Kirubashini E	20	<a href="https://in.docworkspace.com/d/sAMwGzOjnmPRFiPWfyqenFA">https://in.docworkspace.com/d/sAMwGzOjnmPRFiPWfyqenFA</a>
18	Krishna Nandana P N	6	<a href="https://drive.google.com/file/d/16pCG3NKf45zh0MI48iRhefflNxYWO3MU/view?usp=drivesdk">https://drive.google.com/file/d/16pCG3NKf45zh0MI48iRhefflNxYWO3MU/view?usp=drivesdk</a>
19	Laxman P	3	<a href="https://drive.google.com/file/d/1TbiDaQPDZ_b_ypob2ci5OGrqvO9iBesa/view?usp=drivesdk">https://drive.google.com/file/d/1TbiDaQPDZ_b_ypob2ci5OGrqvO9iBesa/view?usp=drivesdk</a>
20	Masanam Mano Durai	24	<a href="https://drive.google.com/file/d/1qMN7A6CS7lzxbo mk2h6ub9oZ1MR66yuU/view?usp=drivesdk">https://drive.google.com/file/d/1qMN7A6CS7lzxbo mk2h6ub9oZ1MR66yuU/view?usp=drivesdk</a>

# coursera

# STUDENTS CORNER

## CONTINUOUS LEARNING

S. No	Name of the Student	No. of Courses Completed	Pdf Link of the Certificate
21	Miruthula T	4	<a href="https://drive.google.com/file/d/1MgXZDj4zFPh-IZI9tFjxfodobEJ22OI/view?usp=drivesdk">https://drive.google.com/file/d/1MgXZDj4zFPh-IZI9tFjxfodobEJ22OI/view?usp=drivesdk</a>
22	Nandhana G	3	<a href="https://www.coursera.org/account/accomplishments/verify/AGW76X7MKVXJ?">https://www.coursera.org/account/accomplishments/verify/AGW76X7MKVXJ?</a>
23	Nayana Merin M	16	<a href="https://drive.google.com/file/d/1-5XS2yfK8kUAo-uS3ee81G4e63bMFsA4/view?usp=drivesdk">https://drive.google.com/file/d/1-5XS2yfK8kUAo-uS3ee81G4e63bMFsA4/view?usp=drivesdk</a>
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27	Rajadhayalan M	2	<a href="https://in.docworkspace.com/d/sALlml13nmPRFrstuWy6enFA">https://in.docworkspace.com/d/sALlml13nmPRFrstuWy6enFA</a>
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36	Vikram R	2	<a href="https://in.docworkspace.com/d/sAM0MTrLnmPRF-SWy6enFA">https://in.docworkspace.com/d/sAM0MTrLnmPRF-SWy6enFA</a>

# STUDENTS CORNER

## CONTINUOUS LEARNING

**Verified Certificate**



This is to certify that

**Miruthula T**


successfully completed and received a passing grade in

**DS0105EN: Data Science Tools**

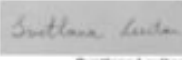
a course of study offered by IBM, an online learning initiative of IBM.


Romeo Kienzler  
Chief Data Scientist  
IBM



Maureen McElaney  
Developer Advocate  
IBM



Svetlana Levitan  
Senior Developer Advocate with IBM Center for Open Data and AI Technologies  
IBM



Verified Certificate  
Issued May 21, 2021

Valid Certificate ID  
[5a6b5a76174745et9eb1f52dfe200c44](#)



### Verified Certificate ColumbiaX

This is to certify that

**Nessoak Karthi G J**

successfully completed and received a passing grade in

**DS102X: Machine Learning for Data Science and Analytics**

a course of study offered by ColumbiaX, an online learning initiative of Columbia University.



**Kathy McKeown**  
Director of the Data Science Institute  
Henry and Gertrude Rothchild Professor of Computer Science  
Columbia University



**Patricia Culligan**  
Associate Director of the Data Science Institute  
Professor of Civil Engineering  
Columbia University



**Garud Iyengar**  
Professor of Industrial Engineering and Operations Research, Chair of the Department  
Columbia University

Students of II B.Tech Chemical Engineering actively participated and completed in the Online Courses in **EDX**.

**Overall Certificate Drive Link:**

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Verified Certificate  
Issued March 20, 2021  
Valid Certificate ID  
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# STUDENTS CORNER

CONTINUOUS LEARNING



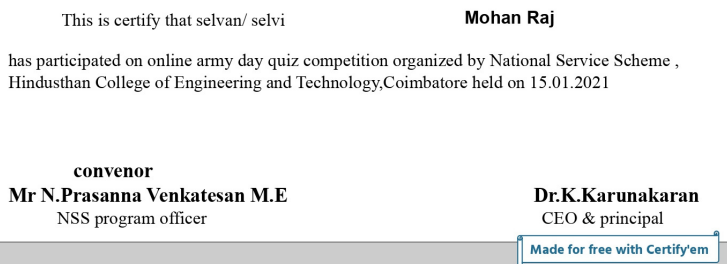
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3.	Sharon Christina A	<a href="https://drive.google.com/file/d/15cob_SQZfeVKNL3PKSMPJ bOnf7g_NdOX/view?usp=drivesdk">https://drive.google.com/file/d/15cob_SQZfeVKNL3PKSMPJ bOnf7g_NdOX/view?usp=drivesdk</a>
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5.	Krishna Nandana P N	<a href="https://drive.google.com/file/d/1C4BsSluBE6KCND3lhqA3Yt V18cW7hsnr/view?usp=drivesdk">https://drive.google.com/file/d/1C4BsSluBE6KCND3lhqA3Yt V18cW7hsnr/view?usp=drivesdk</a>
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9.	Easwari A B	<a href="https://drive.google.com/file/d/1KTsraLZutkr-7Tmlt_3hn2LkHOHpUrj-/view?usp=drivesdk">https://drive.google.com/file/d/1KTsraLZutkr-7Tmlt_3hn2LkHOHpUrj-/view?usp=drivesdk</a>
10.	Praveen Kumar M	<a href="https://drive.google.com/file/d/1loL2lgwxgVD0JmS-mFwIBANE-ICj97pv/view?usp=drivesdk">https://drive.google.com/file/d/1loL2lgwxgVD0JmS-mFwIBANE-ICj97pv/view?usp=drivesdk</a>
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17.	Gowtham G	<a href="https://drive.google.com/file/d/1xy0A3ch4SDEjNhWYmZedz UBdvOansq3R/view?usp=drivesdk">https://drive.google.com/file/d/1xy0A3ch4SDEjNhWYmZedz UBdvOansq3R/view?usp=drivesdk</a>
18.	Miruthula T	<a href="https://drive.google.com/file/d/1YLojqcswdXtu9sRlM4qGcLJ -xh-kaBgQ/view?usp=drivesdk">https://drive.google.com/file/d/1YLojqcswdXtu9sRlM4qGcLJ -xh-kaBgQ/view?usp=drivesdk</a>
19.	Jayapradha V	<a href="https://drive.google.com/folderview?id=1ByvxqKg4ksZWYyc lXlazrNBTzrA-7ueq">https://drive.google.com/folderview?id=1ByvxqKg4ksZWYyc lXlazrNBTzrA-7ueq</a>

# EXTENSION ACTIVITIES

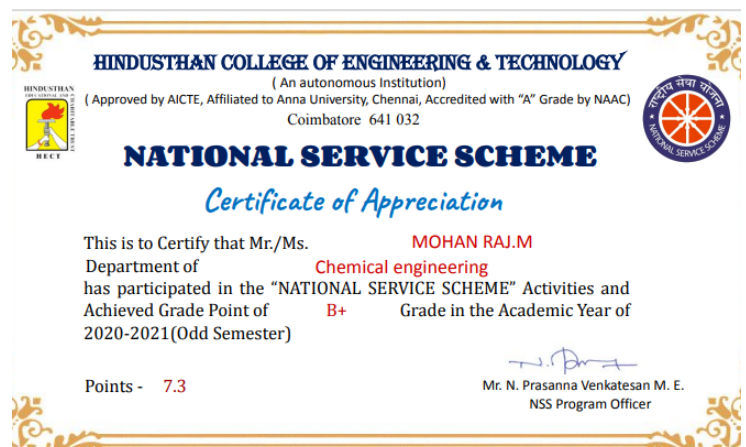
On 24.01.2021 - Mr Mohan Raj M participated in the awareness programme of "Impact on Trekking to the Environment and Society" organized by National Service Scheme, Hindusthan College of Engineering and Technology, Coimbatore.



On 15.01.2021 - Mr Mohan Raj M participated in the Online Army Day Quiz Competition organized by National Service Scheme, Hindusthan College of Engineering and Technology, Coimbatore.



Mr Mohan Raj M participated in the National Service Scheme Activities and achieved a **Grade point of B+** in the academic year of 2020-21, Hindusthan College of Engineering and Technology, Coimbatore.

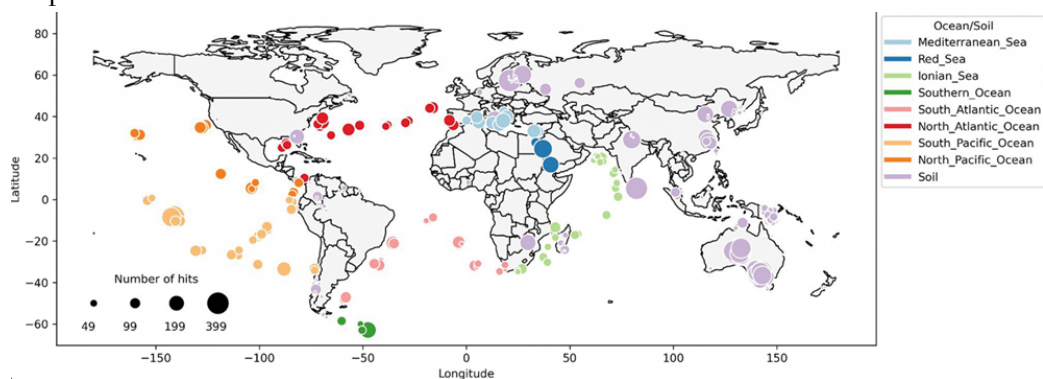


# OCEAN POLLUTION IS CAUSING A RISE IN PLASTIC-EATING MICROBES

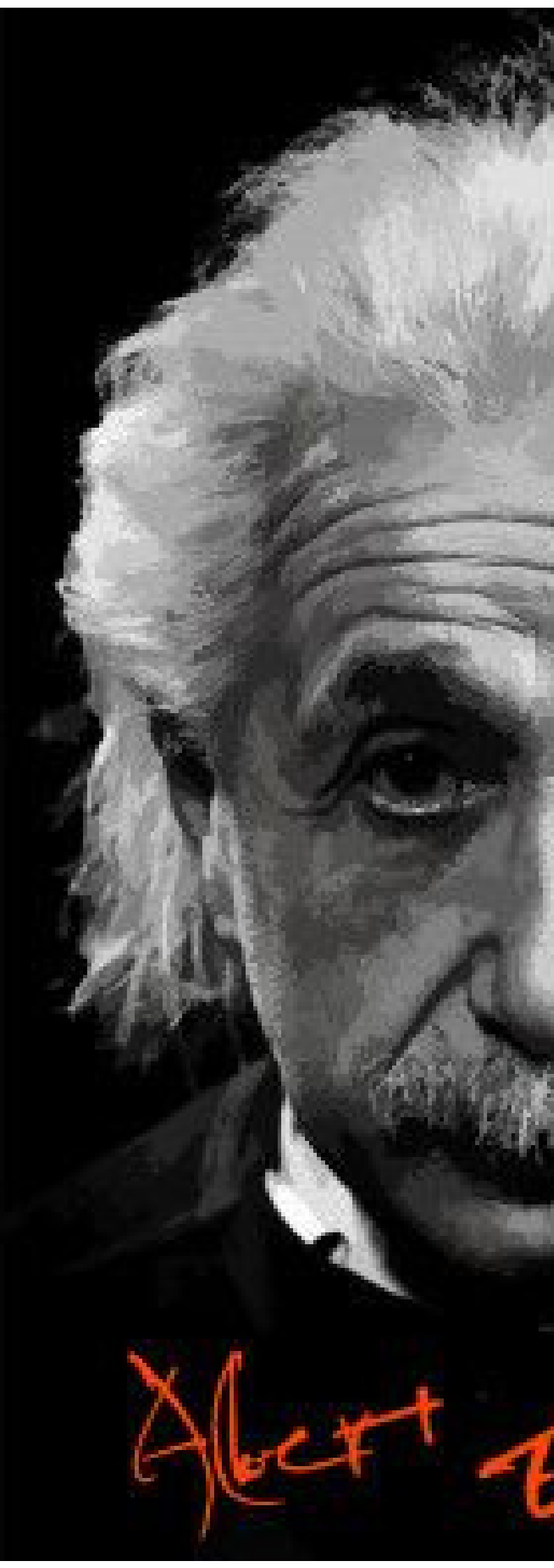


The world's oceans have become synonymous with devastating plastic pollution. Just ask Aquaman. But scientists and engineers continue to come up with inventive solutions. Now, Earth's own response to plastic pollution may serve as inspiration for a solution: microbes that can break down the stuff. And the microbes are already in hefty supply. Their population appears to be rising as plastic pollution in the ocean does.

In a new study published in the journal *mBIO*, which comes via Gizmodo, a team of scientists at Chalmers University in Sweden describes how it came to the conclusion that plastic-eating microbes are growing in population size alongside marine plastic pollution. The team describes how it looked at existing databases of DNA samples from soils and ocean regions around the world. They used computer modeling to look for protein sequences that would likely have the ability to break down plastic.



The scientists say that one in every four organisms in the microbiomes they studied carries a protein sequence for degrading plastic. These protein sequences are enzyme homologues. That means they are similar in function and structure to enzymes. An enzyme is a substance that acts as a catalyst in living organisms and is key for digestion of food.

A black and white close-up portrait of Albert Einstein, showing his characteristic wild hair and thoughtful expression. The image is split vertically, with the text overlaid on the right side.

WHAT  
IS RIGHT  
IS NOT  
ALWAYS  
POPULAR.  
AND WHAT  
IS POPULAR  
IS NOT  
ALWAYS  
RIGHT.

*Albert Einstein*

# A LITTLE HISTORY



## *Thomas Savery*

He tried to replace horses with the energy of fire, but his engine couldn't lift high enough.

-Inventor of steam-powered device, a steam pump which is often referred to as an "engine", although it is not technically an engine-



4 YEAR B.TECH IN CHEMICAL ENGINEERING

@

# *HINDUSTHAN*

COLLEGE OF ENGINEERING AND TECHNOLOGY