



*You Choose, We Do It*  
**St. JOSEPH'S COLLEGE OF ENGINEERING**  
(An Autonomous Institution)

**St. Joseph's Group of Institutions**

OMR, CHENNAI - 119



**BIO**



**VOICE**



# DEPARTMENT OF BIOTECHNOLOGY

# NEWSLETTER

## About Us

**May 2025**

The Biotechnology Department was incepted in the year 2002 and Accredited by NBA.

Having a state-of-art laboratory, the department offers both Bachelors and Ph.D courses which are affiliated with Anna University, Chennai

## Vision

To provide a world-class department to facilitate learning, training and research in Biotechnology by providing infrastructural facilities and competent faculty leading to technological innovations to serve the global society

## Mission

The Mission of the Department is to provide quality education to students and to produce competent Biotechnologists to meet the challenges faced by industry and mankind.

To inculcate high moral and professional standards among our students.

To develop the overall personality of the students.

# STUDENT ACHIEVEMENTS

## Placement



Our final year student **Soniya K** as been placed in **HCL Technologies Ltd** as **Contract Retainer**

### HCL TECHNOLOGIES LTD.

Corporate Identity Number: L74140DL1991PLC046369  
Technology Hub, Special Economic Zone  
Plot No : 3A, Sector 126, NOIDA 201 304, UP, India.  
T +91 120 6125000 F +91 120 4-683030  
Registered Office: 800 Siddhant, 96, Nehru Place, New Delhi-110019, India.  
[www.hcltech.com](http://www.hcltech.com)  
[www.hcl.com](http://www.hcl.com)

May 12, 2025

Soniya K  
No 20/1 Bharathi street Pooncheri Mamallapuram  
No 20/1 Bharathi street Pooncheri Mamallapuram  
Tamil Nadu  
India

Sub: Offer of Employment

Dear Soniya K,

With reference to our discussion, we are pleased to inform you that you have been selected for employment with HCL Technologies Ltd. as Contract Retainer. The following terms and conditions will apply to you:

1. Your appointment of Employment as Analyst at HCL Technologies, marking the beginning of a professional journey in the IT services and consulting industry. You will be entitled to statutory benefits as per the respective Acts and as per rules/policies of the company.
2. You shall be paid a consolidated amount of Rs.35000 per month towards consideration fee, subject to Income tax deduction at source.
3. You will be required to undertake the necessary joining formalities with the company at the time of starting of your engagement.
4. The company will undertake the background verification / validation process in terms of education, previous employment(s), criminal verification, database and web searches, address verification, claims made against achievements in the resumes/CVs etc. with the help of a third party as and when required.
5. You are being engaged for this assignment based on your particulars and information made available by you and in case the said particulars/information is found false or incorrect, your engagement will be deemed cancelled *ab-initio*.
6. Generally, we would advise you not to take any leave during your contract engagement. In case of exigencies of work/sickness, you may take one leave per month. Any leave over and above this, will be treated as Leave without payment.
7. The company shall have the discretion to re designate you according to the company's requirement.

1

Signature of Employee:

**HCLTech**









# STUDENT ACHIEVEMENTS

## Final year Toppers

Our final year students have demonstrated outstanding academic performance in their final semester examinations.

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**DEPARTMENT OF BIOTECHNOLOGY**  
Student Toppers Secured 8.5 CGPA and Above (Up to VIII- Sem)  
Batch: 2021-2025

 Sheeba Smartina M 312321214048 9.58	 Kaviya S 312321214030 9.56	 Keerthna Shri A 312321214031 9.47	 Divyadharshini M 312321214015 9.39	 Bharathi V 312321214008 9.35
 Priyadarshini M 312321214040 9.33	 Arunannamalai SB 312321214006 9.17	 Divyabharathi K 312321214014 9.15	 Divya M 312321214013 9.06	 Harnish A K 312321214021 9.04
 Amirtha Varshini R 312321214002 8.97	 Ashwin M 312321214007 8.96	 Jhanavi Shivkumar 312321214027 8.92	 Dharani K 312321214011 8.92	 Hemavarshini R 312321214024 8.85
 Rohith Manikandan A 312321214044 8.74	 Monie Christy Felsiah G 312321214033 8.67	 Monika V R 312321214034 8.65	 Pavithra M 312321214037 8.63	 Hedwin J 312321214022 8.57
 Hemalatha S 312321214023 8.55	 Shivani R 312321214049 8.55	 Thrisha K 312321214055 8.53	 Jashmeena S 312321214026 8.51	

 **St. JOSEPH'S**  
GROUP OF INSTITUTIONS  
OMR, CHENNAI - 119

*The Choice of*  
**Disciplined Toppers**

# STUDENT ACHIEVEMENTS

## Internship



Our 3<sup>rd</sup> Year student **Kamushree T** has been selected for the summer internship at **Council of Scientific and Industrial Research–Central Leather Research Institute (CSIR-CLRI)** for the duration of 1 month.



Our 3<sup>rd</sup> Year student **Rashmitha V** has secured the summer internship at **Anna University** for the duration of 1 month.

# STAFF ACHIEVEMENTS

## Paper Accepted

**Dr. G. Baskar** has received reviewer certification for his contribution in **BMC Biotechnology** and **Urolithiasis**



Springer nature portfolio BMC Discover palgrave macmillan Birkhäuser Adis

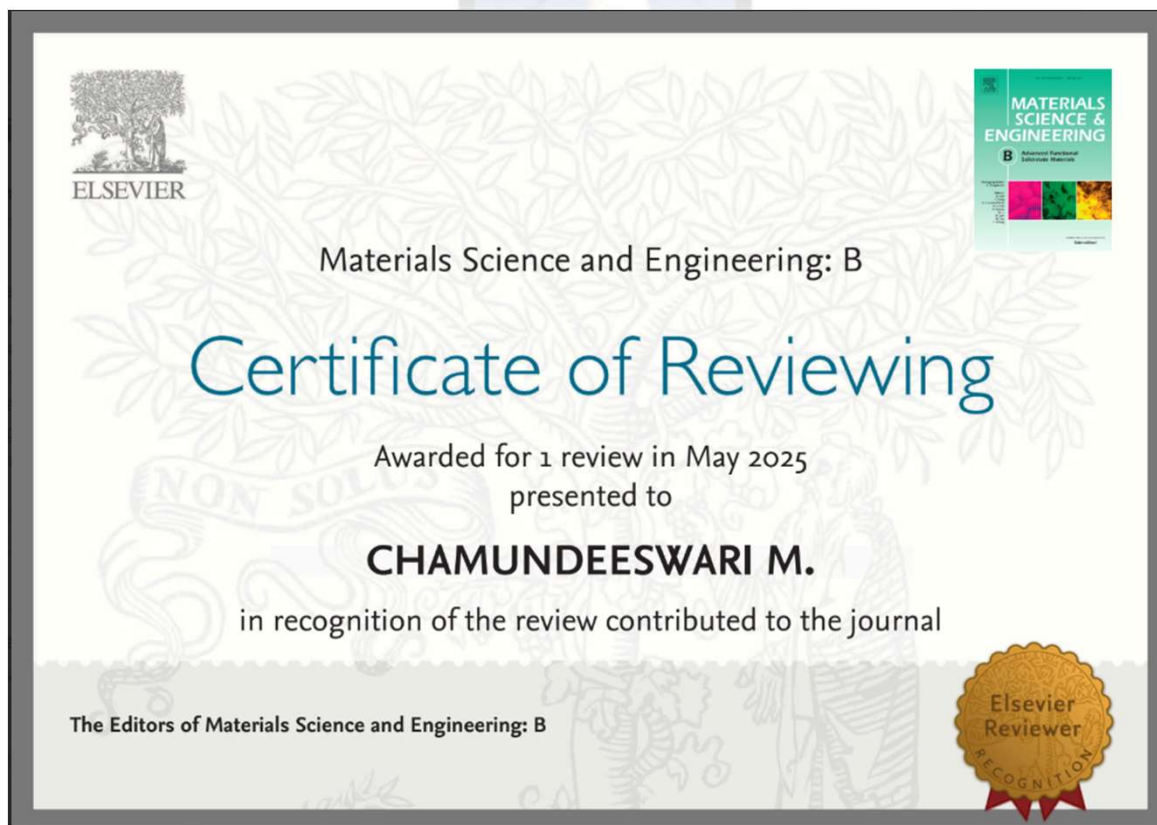


Springer nature portfolio BMC Discover palgrave macmillan Birkhäuser Adis

# STAFF ACHIEVEMENTS

## Reviewer Certificate

**Dr. M. Chamundeeswari** has received reviewer certification for her contribution to **Journal of Material Sciences and Engineering**



# STAFF ACHIEVEMENTS

## Patent Publication

**Dr. Chamundeeswari has published a patent entitled “Smart Milk Analyzer: A Compact, Paper-Based Device for Rapid and Cost effective Milk Quality Testing and Retail Integration”**

(12) PATENT APPLICATION PUBLICATION

(21) Application No.202541044828 A

(19) INDIA

(22) Date of filing of Application :09/05/2025

(43) Publication Date : 30/05/2025

(54) Title of the invention : Smart Milk Analyzer: A Compact, Paper-Based Device for Rapid and CostEffective Milk Quality Testing and Retail Integration

(51) International classification :G01N0033543000, G02B0030560000, C12Q0001689700, A23C0009120000, G01N0033020000

(86) International Application No :NA  
Filing Date :NA

(87) International Publication No :NA

(61) Patent of Addition to Application Number :NA  
Filing Date :NA

(62) Divisional to Application Number :NA  
Filing Date :NA

(71)Name of Applicant :

**1)Dr. M. CHAMUNDEESWARI**

Address of Applicant :DEPARTMENT OF BIOTECHNOLOGY, St. JOSEPH'S COLLEGE OF ENGINEERING, OMR, CHENNAI - 119 Chennai -----

Name of Applicant : NA

Address of Applicant : NA

(72)Name of Inventor :

**1)Dr. M. CHAMUNDEESWARI**

Address of Applicant :DEPARTMENT OF BIOTECHNOLOGY, St. JOSEPH'S COLLEGE OF ENGINEERING, OMR, CHENNAI - 119 Chennai -----

**2)ARJUN SATHISH R**

Address of Applicant :DEPARTMENT OF BIOTECHNOLOGY, St. JOSEPH'S COLLEGE OF ENGINEERING, OMR, CHENNAI - 119 Chennai -----

**3)HEMAVARSHINI R**

Address of Applicant :DEPARTMENT OF BIOTECHNOLOGY, St. JOSEPH'S COLLEGE OF ENGINEERING, OMR, CHENNAI - 119 Chennai -----

**4)SUCHARITA NAGESH**

Address of Applicant :DEPARTMENT OF BIOTECHNOLOGY, St. JOSEPH'S COLLEGE OF ENGINEERING, OMR, CHENNAI - 119 Chennai -----

(57) Abstract :

Abstract In the evolving landscape of food technology and quality assurance, the need for an efficient and accessible dairy testing has become increasingly important. This project addresses the challenge of creating a single, compact device capable of testing essential milk parametersincluding fat content, solids-not-fat (SNF), protein levels, and common adulterants—while also doubling as a modular and appealing unit for the sale of milk and dairy products. The proposed solution revolves around a paper-based biosensor strip integrated with a digital detection system. Each strip is chemically coated to detect specific milk quality indicators, supported by a chitosan-selenium nanoparticle coating for stability. The results are interpreted through a color sensor connected to an Arduino Uno or ESP32 system, which can relay data via Bluetooth or Wi-Fi to an optional mobile application or LCD display.This innovative device delivers rapid, reliable, and low-cost testing with high scalability. A single test strip costs approximately ₹7, and the overall device ranges between ₹5,000 and ₹15,000, making it accessible for rural vendors, dairy farmers, and households. With a turnaround time of just minutes and the ability to detect multiple parameters simultaneously, the device addresses critical needs in food safety, public health, and industrial quality control. The project aligns with key Sustainable Development Goals (SDGs), including Zero Hunger, Good Health and Well-being, and Industry, Innovation, and Infrastructure. Currently at TRL 4, the system has been validated in laboratory settings and is ready for further development and field testing to enable broader adoption.

No. of Pages : 14 No. of Claims : 8

# STAFF ACHIEVEMENTS

## NPTEL Certification

**Dr. G. Baskar, Ms. A. Anli Dino and Dr. M. Shree Rama** have successfully completed their NPTEL/Swayam Online Certification.



**Elite**  
**NPTEL ONLINE CERTIFICATION**  
(Funded by the MoE, Govt. of India)

This certificate is awarded to  
**DR G BASKAR**  
for successfully completing the course  
**Energy Resources, Economics, and Sustainability**  
with a consolidated score of **92 %**

Online Assignments	22.96/25	Proctored Exam	69/75
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Total number of candidates certified in this course: 718

Feb-Apr 2025  
(8 week course)

Indian Institute of Technology Roorkee

Roll No: NPTEL29H586S1043205331 To verify the certificate No. of credits recommended: 2 or 3



**INI**  
**SWAYAM ONLINE COURSE CERTIFICATION**  
(Funded by the MoE, Govt. of India)

This certificate is awarded to  
**ANLI DINO A**  
for successfully completing the course  
**Animal Waste Management**  
with a consolidated score of **70 %**

Online Assignments	24.17/25	Proctored Exam	45.92/75
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Total number of candidates certified in this course: 192

Feb-Mar 2025  
(4 week course)

BANARAS HINDU UNIVERSITY

Roll No: INI25BT01S143206363 To verify the certificate No. of credits recommended: 1 or 2



**INI**  
**SWAYAM ONLINE COURSE CERTIFICATION**  
(Funded by the MoE, Govt. of India)

This certificate is awarded to  
**SHREE RAMA M**  
for successfully completing the course  
**Animal Waste Management**  
with a consolidated score of **81 %**

Online Assignments	23.33/25	Proctored Exam	58.16/75
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Total number of candidates certified in this course: 192

Feb-Mar 2025  
(4 week course)

BANARAS HINDU UNIVERSITY

Roll No: INI25BT01S143206417 To verify the certificate No. of credits recommended: 1 or 2

# STAFF ACHIEVEMENTS

## Industrial Internship

**Ms. A. Anli Dino** has successfully completed industrial training program in the Cornerstone Additive Manufacturing Solutions (P) Ltd from 10/05/2025 to 24/05/2025



**CORNERSTONE**  
ADDITIVE MANUFACTURING SOLUTIONS (P) LTD

+919043990789  
cornerstoneadditive@gmail.com  
Plot no 98, 1st Street Viduthalai  
Nagar, S.Kolathur, Chennai 600117  
GSTIN: 33AALCC0882A1Z2

28<sup>th</sup> May 2025

### CERTIFICATE



This is to certify that Ms. ANLI DINO A from St. Joseph's College of Engineering has successfully completed an industrial training program at Cornerstone Additive Manufacturing Solutions (P) Ltd from 10/05/2025 to 24/05/2025. During this period, she has gained hands-on experience in Bio 3D Printing for Healthcare Applications.

We appreciate her dedication, enthusiasm, and commitment to learning. The training program has been beneficial for both Faculty Member's and Industry. We wish all the best in their future endeavors.

For, Cornerstone Additive Manufacturing Solutions (P) Ltd

Authorized Signature



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# DEPARTMENT OF BIOTECHNOLOGY

**May 2025**

## Chief Patron

**Dr. B. Babu Manoharan, M.A., M.B.A., Ph.D.**  
 Chairman,  
 St. Joseph's Group of Institutions

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 Managing Director,  
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**Mrs. S. Jessie Priya, M.Com.**  
 Executive Director,  
 St. Joseph's Group of Institutions

**Dr. Vaddi Seshagiri Rao, M.E, M.B.A., Ph.D.**  
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 M.Sc., M.Phil, Ph.D.

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**Dr. N. Arunkumar,**  
 M.E., Ph.D.

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 M.E., Ph.D.

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 M.Sc., M.Tech, Ph.D.

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