

Faculty Profile



Dr. N. Umairambika, M.Tech., Ph.D
Assistant Professor, Department of Chemical Engineering

HIGHLIGHTS:

- Number of Journal Publications: 9
- H-Index: 3
- Patents Published: 2

PROFESSIONAL LINKS:

- Scopus ID: 57890793000
- Scopus Link: <https://www.scopus.com/authid/detail.uri?authorId=57890793000>
- Google Scholar ID: <https://scholar.google.com/citations?user=c9PAG9cAAAAJ&hl=en>
- Anna University Faculty ID: 260007
- AICTE Faculty ID: 1-10746236161

PROFESSIONAL BACKGROUND:

- Teaching Experience till date: 10 years

AREA OF SPECIALIZATION:

- Biofuels
- Water treatment
- Advanced separation processes
- Aspen Plus

PATENTS PUBLISHED/GRANTED:

- Ultrasonic Milk Analyser Design No 390401-001 issued date on 10-12-2023
- Enhanced optical characteristics of Bismuth/ferrite thin films through thermal Analysing issued date 13-12-2024

COURSES CERTIFIED:

- Top 5 % in NPTEL certification course on Waste to energy conversion
- NPTEL ELITE + SILVER grade in ASPEN PLUS
- NPTEL ELITE +SILVER grade in Waste to energy conversion course
- NPTEL ELITE in Energy conversion Technologies (Biomass and Coal)

ACHIEVEMENTS AND AWARDS:

- Best PG Project award (CIT Coimbatore)
- Best Paper award in international conference in Arunai College of Engineering

SPECIAL SESSIONS DELIVERED:

- Green Technology and Sustainability 2023 at FDP organized by JCT college of Engineering

CONFERENCES/SEMINARS/WORKSHOPS ATTENDED:

CONFERENCE PUBLICATIONS

- Ion removal from industrial effluent using natural adsorbent in “CHEMINSIGHT ‘08”, IIT KHARAGPUR.
- Wastewater treatment using tea waste as adsorbent” in “ALCHEMY’ 08”, NIT TRICHY.
- Metal ion removal using adsorption” in “ELYZIA’08”, GCT COIMBATORE.
- Development of hybrid membrane reactor for wastewater treatment presented in “TECHNOVATION 11”, CIT COIMBATORE
- Textile wastewater treatment by membrane separation coupled with activated carbon, COGNIZANCE 11, IIT ROORKEE
- Development of hybrid membrane bioreactor for treatment of wastewater”, SSN College of Engineering
- Production of biodiesel from micro algae – A Review”, Vel Tech High Tech College of Engineering
- Textile wastewater treatment by membrane separation coupled with activated carbon and electro coagulation, SSN College of Engineering

- Novel cyclic voltametric study of n-hydroxypiperidin – 4- one semicarbazone and their anti-bacterial studies, HAPTEN 2016, Arunai Engineering College
- Comparitive analysis of N – hydroxy 2,6-bis phenol using CBG”, HAPTEN 2016, Arunai Engineering College
- Rigorous Mathematical Approaches To Piperdone Derivatives Based On Conceptual Analysis Of Complete Tripartite Graph $K_{1,2,MU \{E\}}$ Accepts Continuous Monotonic Decomposition ,SRM University, 2016
- Presented two papers namely Biodiesel from Micro algae –A review and Wastewater treatment by HMBR in KAFISMA 2016, JCT college of Engineering and technology.
- Enhancing stability of edible oil utilizing natural antioxidants, BEST 2017, Arunai Engineering College.
- Extraction of organic compounds in RTBCE 2022 at Vel Tech High Tech College of Engineering
- Extraction of bio-oil from *Peltophorum pterocarpum* biomass at ICAMDS 2022 at Saveetha School of Engineering
- Comparative methods for the extraction of bio-oil from Kigelia Africana biomass at Embiosis 2023 in Rajalakshmi Engineering College

FDPs and Workshop

- Participated in one day international workshop on “Writing Scientific Research Paper” at SSN College of Engineering
- Took Part in seven days Training Programme on Process Control at A.C.Tech Campus, Anna University
- Participated in National Workshop on “Carbon Capture Sequestration and Utilization”, St.Joseph College of Engineering
- Participated in National Seminar on “Challenges in Sustainable Solid Waste Management”, Sathyabama University
- Participated in 3-day training program on “MATLAB and MS Excel for Chemical Engineering Applications”, SSN College of Engineering
- Took part in National Seminar on “Sustainable Water Resources Management”, SSN College of Engineering
- Participated in seven days Training Programme on Heat and Mass Transfer at Velammal Engineering College
- Participated in Workshop on “Nanotechnology”, SSN College of Engineering

BOOK CHAPTERS

- **Umaiyambika, N**, Arunodhaya, N and Renganathan, S, 2022, Challenges and Opportunities in Large Scale Production of Biodiesel- Biofuels and Bioenergy Vol 1, Elsevier publications
- **Umaiyambika, N**, Arunodhaya, N and Renganathan, S, 2022, Lipid Derived Biofuel: Production Methodologies- Biofuels and Bioenergy Vol 1, Elsevier publications
- Arunodhaya, N, **Umaiyambika, N**, Vijayalakshmi R and Renganathan, S, 2025, Algal biorefinery: an approach towards effective and profitable utilization of freshwater microalgae - Biofuels and Bioenergy Vol 2, Elsevier publications