Curriculum Vitae

Mr. Rajendraprasad M
Research Fellow,
Department of Chemistry,
SSN College of Engineering,
Kalavakkam, Chennai,
Tamil Nadu, India,
Pin Code- 603 110.

+91 8248599487

rajendraprasadm@ssn.edu.in

Career objective

To engage in impactful research endeavors aimed at addressing critical societal and environmental challenges, with a focus on sustainable health solutions. Aspiring to contribute to the advancement of knowledge and innovative practices that positively impact both society and the environment, fostering a healthier and more sustainable future.

Academic qualification

Course	Name of the institution	University / Board	Year	Marks (%)
Ph. D (Research Fellow)	**SSN College of Engineering**	ANNA UNIVERSITY	2023	77.5
M.Sc. Chemistry	Govt. Arts and Science College for Men's Krishnagiri	Periyar University, Salem	2021	77.69
B.Sc. Chemistry	Govt. Arts and Science College for Men's Krishnagiri.	Periyar University, Salem	2019	78.16
HSC	Govt. Boys Higher Secondary School, Denkanikottai.	State board	2016	75.16
SSLC	Govt. High School, D Kothanur	State board	2014	90.80

Research Experience

S. No	Designation	College / Organization	Work Period	Type	Total (months)
1	Junior Research Assistant	SSN College of Engineering, Chennai	28-06-2022 to 27-06-2023	Research	12
2	Research Assistant	SSN College of Engineering, Chennai	28-06-2023 to 27-12-2023	Research	6
3	Senior research Assistant	SSN College of Engineering, Chennai	28-12-2023 to 27-02-2024	Research	2
4	TEEP Internship	National Dong Hwa University	May-June, 2024	Research	2
5	NSTC-IIPP Internship	National Cheng Kung University	June-August 2025	Research	3

Research Interest

- ✓ Biochar production for wastewater remediation and supercapacitor applications
- ✓ Nanomaterials, Biomaterials, Metal organic framework for Energy and Environmental (N2, CO2 reduction) Applications.
- ✓ Environmental Modelling, Simulation or Theoretical.
- ✓ Synthesis of High-Performance Polymers
- ✓ Recycling plastic waste
- ✓ Degradable polymers

- ✓ Organic Synthesis and purification methods

Research Publications details

Google Scholar- Rajendraprasad M - Google Scholar
ResearchGate- **M. Rajendraprasad | Stats**

H-index- 4
i10- index- 1
Citations- 47

List of Publications

1. MoS_2 modified g-C_3N_4 composite: a potential candidate for photocatalytic applications. S Senthilnathan, KG Kumar, S Sugunraj, MA Dhanalakshmi, ...Journal of Saudi Chemical Society 27 (5), 101717

2. Studies on Effective Photo-catalytic Degradation of Rhodamine-B Using Metal-Doped Oxidized-Activated Carbon: Kinetics, Isotherm Models and Degradation Mechanism. R Munireddy, L Murugesan, M Arukkani, SK Ponnusamy, R Gayathri, **Korean Journal of Chemical Engineering**, 1-18

3. Sustainable recovery of monomers from PET and PC waste via Thermocatalytic depolymerization for synthesis of polycarbonates and co-polycarbonates. M Loganathan, M Rajendraprasad, A Murugesan, JY Lee, KB Manjappa. **European Polymer Journal** 221, 113516

4. Recovery of Bis (2-hydroxyethyl) terephthalate and terephthalic acid from waste PET bottles for synthesis of cerium-based metal-organic frameworks: A study towards … M Loganathan, M Rajendraprasad, A Murugesan, T Arun. **Reactive and Functional Polymers** 205, 106101

5. Chemically Modified Activated Carbon using Arachis hypogaea Shells via Hydrothermal and Thermochemical Methods for Cationic Dyes Removal: Evaluation of ANN Modelling. **(submitted under in review)**

6. AI-Driven Discovery of Novel Multi-Fragment Polymer Architectures for Enhanced CO_2 and NO_2 Adsorption: An Integrated Molecular Modeling and Simulation Study **(Under review)**

7. A Hybrid Generative Descriptor Machine Learning Framework for Large-Scale Alloy Stability Screening **(Submitted)**

8. Effective Biochar Precursor to Carbon-Nanorods Formation on the Surface: Studies on Dye Removal and Comprehensive Formula Developed for Cost-Effective Analysis (**Submitted**)

International/ National conference/Symposium

1. International Conference on Functional Materials for Next-Gen Application-2023, held at SSNCE, Tamil Nadu, "**Fabrication and Characterization of Hydroxyapatite Composite for Biomedical Application**", during 9th and 10th January 2023.

2. National Symposium on advanced in polymer science and technology (APST-2023), held at Madras University and CLRI Chennai, "**Melt Depolymerization of Polyethylene Terephthalate into BHET using Bismuth Oxide Catalyst**", during 4th October 2023.

3. 2nd International Conference on Advanced Functional Materials for Next-Gen Applications 2024 (CEMNA'24) organized by Department of Chemistry, Sri Sivasubramaniya Nadar College of Engineering, Chennai, on 23rd $ 24th January 2024.

4. 2nd International Conference on Multifunctional Materials and Radiation Measurements (ICMMRM-2024)" on 14th & 15th March 2024 entitled on "**Investigation on efficient photocatalytic degradation of Rhodamine-B using Cobalt-doped oxidized-activated carbon**. Mini Reshika J1, Rithika Vinod1, **Rajendraprasad M**, A. Murugesan*"

5. DST-SERB Sponsored Third International Conference on Functional Materials for Next-Gen Applications (ICFMNA 2025) organized by Department of Chemistry Sri Sivasubramaniya Nadar College of Engineering

(An Autonomous Institution Affiliated to Anna University, Chennai) Kalavakkam-603110, Tamil Nadu, India in association with The Society for Polymer Science India Chennai Chapter, presented title on "**DFT and Molecular Docking Studies of DMPC lipid bilayer with Aspirin**. **Ms. H DHILSHATH RAIHANA, Rajendraprasad M**, A. Murugesan*"

6. Mr. Rajendraprasad M has presented his research work (Poster) entitled on "DFT and Molecular Docking Studies of DMPC lipid bilayer with Aspirin" in the DST-SERB Sponsored 3 rd International Conference on Functional Materials for Next-Gen Applications (ICFMNA 2025) organized by the Department of Chemistry, Sri Sivasubramaniya Nadar College of Engineering, Kalavakkam-603110, Tamil Nadu, India during 3rd and 4th February 2025.

7. International Conference on Nanotechnology and Materials Sciences (NANO-25) & TNSCST-Sponsored National Seminar on Designing the future with Chemistry (NSDFC-25) on 05-07 February 2025 entitled on "**Development of acid modified and carbonized biochar for efficient malachite green removal: Optimization & Prediction using BBD-RSM-ANN Modelling.** (**Best ORAL Presentation AWARD**). **Rajendraprasad M**, A. Murugesan*"

Attended Workshops:

1. One-Week Training Program on R&D Equipment on the theme "Advanced Characterization Techniques for Chemical Scaffold (STUTI-ACTCS-2022)" organized by National Institute of Technology Warangal (HUB) & Gur: Nanak Dev University (SPOKE) during 21" September- 27th September 2022 GNDU, Amritsar, 200002.

2. SERB sponsored One Day Research Facility Training Program on "ADVANCES IN LUMINESCENT MATERIALS" under SERB Scientific Social Responsibility (SSR) Policy at Chettinad Academy of Research and Education Kelambakkam - 603 103. Chennai. Tamil Nadu, India on 6th May 2023.

3. SERB Sponsored High - End Workshop (Karyashala) On "Preparation Of Polymer Composites By Melt Mixing Method & Its Characterization Techniques" (From 20"" July to 26"* July 2023) Organized by CIPET: INSTITUTE OF PETROCHEMICALS TECHNOLOGY (IPT) Patia, Bhubaneswar-751024.

4. Hands-on Training on Electrochemical Analysis and Photocatalysis for Nanomaterials during 18-20 March 2024 Organized by Centre for Nanoscience and Nanotechnology, Centre of Excellence for Energy Research, Sathyabama Institute of Science and Technology, Chennai - 600 119.

5. Successfully completed One Week (6-Days) International FDP on "Advanced Materials & Characterization Techniques" held during 06 February - 12 February 2025.

Hands-on experience

- ✓ Synthesis of Nanomaterials, Biochar, MOF, Porous carbons, Biomaterials for catalysis, hydrogen production.
- ✓ Modelling and simulation using Matlab, ORCA, Gaussian, Material Studio.
- ✓ Thermo-Chemical Conversion, Hydro char, Biomass Conversion, Waste to Wealth.
- ✓ Pore Formation and Graphitization Upon Chemical Activation of Carbon Surface:
- ✓ Cationic Dyes Removal, Mechanism, BBD-RSM Modelling and ANN Modelling,
- ✓ Thermo-catalytic depolymerization of Plastic waste.
- ✓ Synthesis of Polycarbonates via polycondensation method

Characterization techniques & Instrument Handling with Analysis

- ✓ UV, UV-DRS Spectroscopy
- ✓ FTIR spectrometer

- ✓ SEM- Scanning Electronic Microscopy
- ✓ Thermo gravimetric/Differential Thermal Analysis
- ✓ X-ray diffraction
- ✓ CV Instrument Handling

Software skills

- ✓ Chem-draw, Design Expert, Origin, Microsoft office, Material Studio (basics), Gaussian (basics), ORCA (basics) simulation, BBD-RSM, Artificial Neural Network Modelling, Matlab 2026a (pre-release)

Hobbies

- ✓ Learning a new language
- ✓ Sports.
- ✓ Creative thinking – Science & philosophy

Languages known

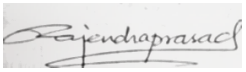
- ✓ Telugu, Tamil, Kannada, English, Hindi, Malayalam

Personal Details

Name	:	Rajendraprasad M
Father Name	:	Munireddy M
Mother Name	:	Rathinamma M
Date of Birth	:	04/06/1999
Gender	:	Male
Religion & Community	:	Hindu & BC
Nationality	:	Indian
Blood Group	:	B+
Marital status	:	Single
Communicate Address	:	Mr. Rajendraprasad M, S/o Munireddy (late). Research Scholar, Department of Chemistry, SSN College of Engineering, Kalavakkam, Chennai, Tamil Nadu, India, - 603 110
Permanent Address	:	Mr. Rajendraprasad M, S/o Munireddy. D Kothanur village, Arasakuppam post, Denkanikottai Taluka, Krishnagiri Tamil Nadu, India, - 635 107 Email: rathnarajsince1999@gmail.com

Declaration

I hereby declare that the details are given by me in the Curriculum Vitae. All are true and best of my knowledge.



Place: Chennai, India

Yours Faithfully
(Rajendraprasad M)