

Dr. SAI DEEPAK P

Assistant Professor in Chemistry, Department of Science and Humanities

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PERSONAL PROFILE

Enthusiastic and technically adept academic with over six years of experience in synthetic organic chemistry, materials science, catalysis, and laboratory analytical techniques. Dedicated to fostering a stimulating learning environment and inspiring students through engaging and clear instruction. Proven track record in leading research teams and effectively collaborating within multidisciplinary groups, complemented by strong interpersonal and communication skills.

EDUCATIONAL QUALIFICATION

Doctor of Philosophy

Department of Chemistry,
School of Advanced Sciences,
Vellore Institute of Technology,
Vellore-632014, Tamil Nadu, India

July 2025

Ph. D. Thesis: *Exploring Imidazolium-Based Ionic Liquids as a Catalyst for the Cascade Synthesis of N- and O-Containing Heterocycles and Their Applications* under the supervision of **Dr. Barnali Maiti**, Associate Professor, Department of Chemistry, School of Advanced Sciences, Vellore Institute of Technology, Vellore-632014, Tamil Nadu, India.

Master of Science (Organic Chemistry)

Department of Chemistry, School of Advanced Sciences,
Vellore Institute of Technology,
Vellore-632014, Tamil Nadu, India

Graduated, **June 2020**
CGPA 9.85

M. Sc. Dissertation: *Study on the Catalytic Activity of Mn, Co, and Ni Oxides* under the guidance of **Dr. G Buvaneswari**, Professor HAG, Department of Chemistry, School of Advanced Sciences, Vellore Institute of Technology, Vellore-632014, Tamil Nadu, India.

Bachelor of Science (M.P.C.)

Andhra Loyola College (AUTONOMOUS), Vijayawada-
520008, Andhra Pradesh, India.

Graduated, **May 2018**
CGPA 9.50

University: Krishna University, Machilipatnam, Andhra Pradesh, India.

B. Sc. Dissertation: *Synthesis of Nano Particles from Leaf Extracts and Their Antimicrobial Activity* under the guidance of **Dr. B Venkateswara Rao**, Reader in Chemistry, Department of Chemistry, Andhra Loyola College (AUTONOMOUS), Vijayawada-520008, Andhra Pradesh, India.

Intermediate

Sri Chaitanya Junior College, Gudavalli-520104, Vijayawada
Rural, Andhra Pradesh, India.

Board: AP Board of Intermediate Education

Passed, **April 2015**

Score 96.30%

10th Standard

Emmaus Swiss Referral Hospital School,
Palamaner-517408, Andhra Pradesh, India.

Board: Indian Certificate of Secondary Examination

Passed, **April 2013**

Score 79.33%

RESEARCH INTERESTS

- Ionic Liquids
- Homogeneous and Heterogeneous Catalysis
- Design and Synthesis of Small Molecule Heterocycles
- Sustainable and Green Chemistry Techniques
- Theoretical and Experimental Biomolecular Interactions
- Molecular Modelling Studies (DFT/TD-DFT Calculations) using Gaussian 16

RESEARCH EXPERIENCE

- **Organic Synthesis:** Hands-on experience in the designing and synthesis of ionic liquids, organic compounds, catalysis, and their applications
- **Characterization techniques:** NMR (1D), FT-IR, UV-visible, Fluorescence, Mass Spectrometry (GCMS and HRMS), Single Crystal X-ray Diffraction, SEM, HR-TEM, EDAX, and powder XRD analysis.
- **Purification techniques:** Column chromatography, Crystallization, and Distillation
- Molecular modelling studies (DFT/TD-DFT Calculations) using Gaussian 16
- Theoretical and Experimental Biomolecular Interaction Studies

SKILLS

- Good command over MS Office Suite and research-related softwares like Origin, ChemDraw, Bruker Topspin, Gaussian 16, Crystal Explorer, Mendeley, MestRoNova, Auto dock tools, Discover Studio, Pymol, Ligplot, ImageJ, and SASfit
- Rational ability to perform a literature survey
- Possess adequate basic laboratory skills
- Legitimate communication skills. [IELTS (Credential ID: 380952) Overall band score of 7.5]

ACADEMIC DELIVERABLES

- Feedback on teaching Faculty/Points obtained for “Chemistry for CSE Stream” for 1st year second semester CSE section (2024-25) – 89.43%.
- Feedback on teaching Faculty/Points obtained for “Scientific Foundation for Health” 1st year second semester CSE (IoT) section (2024-25) – 92.23%.
- Feedback on teaching Faculty/Points obtained for “Applied Chemistry for Emerging Electronics and Futuristic Devices” for 1st year first semester ECE section (2025-26) – 93.56 %.

- VTU Results for “Applied Chemistry for Emerging Electronics and Futuristic Devices” for 1st year first semester ECE section (2025-26) – 89.00%.
- VTU Results for “Chemistry for CSE Stream” for 1st year second semester CSE section (2024-25) – 95.00%.
- VTU Results for “Scientific Foundation for Health” for 1st year second semester CSE (IoT) section (2024-25) – 100.00%.

PUBLICATIONS

Total number of publications (till date): 9

1. Kali, V., **Deepak Pasuparthi, S.** and Maiti, B.* Brønsted Acid Ionic Liquid-Catalyzed C(sp²)-H Functionalization of Indoles via MCR: Synthesis, Photophysical Properties, and Molecular Docking Studies’, *New Journal of Chemistry* (Accepted).
2. Kali, V., **Deepak Pasuparthi, S.** and Maiti, B.* ‘[CMMIM][BF₄] Ionic Liquid Catalyzed Efficient Synthesis of Henna Based Xanthene Derivatives and Their Photophysical, Theoretical and Molecular Docking Studies’, *Tetrahedron* 2025, 184, 134774.
3. Kumar, S., Dey, A., Maiti, B.,* Das, S., **Deepak Pasuparthi, S.** and Padala, K.* ‘A Comprehensive Exploration of the Synergistic Relationship between DMSO and Peroxide in Organic Synthesis’, *Topics in Current Chemistry* 2024, 382, 36.
4. **Deepak Pasuparthi, S.**, Somkuwar, P., Kali, V., Somanahalli Kalleshappa, A. K. and Maiti, B. ‘Synthesis of Dimeric Indoles from Friedel–Crafts Reaction of Indoles with Ketones Catalysed by a Bronsted Acid Ionic Liquid and Their Interactions with BSA and DNA’, *New Journal of Chemistry* 2024, 48, 14904–14923.
5. **Deepak Pasuparthi, S.** and Maiti, B. ‘Facile synthesis of bis(indol-3-yl)methane derivatives catalyzed by carboxylic acid functionalized ionic liquid at room temperature: Investigation of photophysical properties, DFT calculations and molecular docking with bovine serum albumin’, *Tetrahedron* 2024, 153, 133845.
6. Mohurle, S.[†], Devi C. V.[†], **Deepak Pasuparthi, S.**, Talamarla, D., Kali, V. and Maiti, B. ‘[BCMIM][Cl] Ionic Liquid Catalyzed Diastereoselective Synthesis of β-Amino Ketones via Facile, One-pot, Multicomponent Mannich Reaction under Solvent-Free Condition’, *Journal of Heterocyclic Chemistry* 2023, 60, 1545.
7. **Deepak Pasuparthi, S.**, Joseph, S., Somkuwar, P., Somanahalli Kalleshappa, A. K. and Maiti, B. ‘Facile synthesis of bis-coumarins using [BCMIM][Cl] zwitter ionic liquid and their binding with bovine serum albumin’, *Asian Journal of Organic Chemistry* 2023, 12, e202300313.
8. **Deepak Pasuparthi, S.** and Maiti, B. ‘[CMMIM][BF₄⁻] Ionic liquid-catalyzed Facile, one-pot synthesis of chromeno [4,3-d]pyrido[1,2-a]pyrimidin-6-ones: Evaluation of their photophysical properties and theoretical calculations’, *ACS omega* 2022, 7, 39147–39158.
9. **Deepak Pasuparthi, S.** and Maiti, B. ‘Enantioselective organocatalytic Michael addition reactions catalyzed by Proline/Prolinol/Supported Proline based organocatalysts: An overview’, *ChemistrySelect* 2022, 7, e202104261.

[Top 10% downloaded article among work published in an issue of *ChemistrySelect* between 1st January 2022-31st December 2022, up to 12 months after publication].

WORKSHOPS, CONFERENCES, FDPs and INTERNSHIP (SELECTIVE)

1. Participated in the 6-day Online FDP on '**Research Methodology for Experimental and Theoretical Sciences**' organized by the Departments of Science, Sree Siddaganga College of Arts, Science and Commerce for Women held from 09th to 14th March 2026. (FDP)
2. Participated in the 5-day Online FDP on '**VTU 's Revised Chemistry syllabus**' organized by the department of Chemistry under the aegis of Department of Basic Sciences, Cambridge Institute of Technology, Bengaluru from 24th to 28th November 2025. (FDP)
3. Participated in the International Online Seminar on '**High Energy Materials, Energy Storage & Biofuels**' organized by the Department of Applied Chemistry, Amity University, Madhya Pradesh aligned with UN Sustainable Development Goals 7 & 13 on May 16th 2025. (Seminar)
4. Participated in the National Seminar on '**Intellectual Property Rights and Their Significance in Scientific Research**' organized by the Department of Applied Chemistry, Amity University, Madhya Pradesh on April 22th 2025. (Seminar)
5. Participated in the 3-day FDP '**START-INITIATIVE 2025**' organized by the Sri Sairam College of Engineering, Anekal held during 13.03.2025 to 15.03.2025. (FDP)
6. Participated in the one-day FDP '**Next-Gen Placement Training: A Faculty-Centric Approach**' organized by the Sri Sairam College of Engineering, Anekal held on 14.06.2025. (FDP)
7. Participated and completed 5 days FDP on '**ROBO Fusion for Future Engineers**' organized by Department of Mechanical Engineering in association with Corporate Academia Relationship Cell at Sri Sairam College of Engineering, Anekal held during 21.07.2025 to 25.07.2025. (FDP)
8. '**Indo-French Seminar on Catalysis for Sustainability (IFSC-2023)**', organized by the Department of Chemistry, IISER, Thiruvananthapuram, 10 – 13th December 2023. (Poster presentation)
9. '**International Conference on Organic & Medicinal Chemistry (ICOMC-2023)**', organized by the Department of Chemistry, NIT, Warangal, 28 – 30th June, 2023. (Participation)
10. '**National Conference on Advanced Metal-Organic Solids and their Applications (NCAMOSA-2023)**', organized by Department of Chemistry, Thiruvalluvar University, Serkkadu, 22nd February, 2023. (Oral presentation)
11. '**CHEMSCI2023: LEADERS IN THE FIELD SYMPOSIUM**', organized by Chemical Science journals and JNCASR Bangalore, 23rd – 25th January 2023. (Poster presentation)
12. '**Density Functional Theory (DFT) & its applications using Gaussian 16**' held at VIT, Vellore, 07 – 11th November 2022. (Workshop)
13. '**X-ray Crystallography and Determining Molecular Structures using APEX4 Software**' conducted by the Department of Chemistry, SAS, VIT, Vellore, 11th May 2022. (Workshop)
14. '**International conference on Emerging trends in Catalysis (ETC-2020)**', conducted by the Department of Chemistry, SAS, VIT, Vellore, 06 – 08th January 2020. (Participation)
15. '**17th, 18th and 19th International Conference on Science, Engineering and Technology**', conducted by VIT, Vellore. (Oral presentation) 2018-2020
16. '**Introduction to Gaussian: Theory and Practice**' conducted by SCUBE Scientific Software Solutions workshop held at New Delhi, 08 – 12th January 2018. (Workshop)
17. '**8th Asia Pacific Conference on Theoretical and Computational Chemistry**', held at Indian Institute of Technology Bombay, Mumbai from December 15 – 17th 2017. (Poster presentation)

18. National Seminar on '*Advances in the Synthesis of Nanomaterials and their Multi-Dimensional Applications in Chemical & Bio-Sciences*' held at Andhra Loyola College, Vijayawada. (Poster presentation)

MEMBERSHIP IN PROFESSIONAL BODIES

1. Life Time Member of Chemical Research Society of India (CRSI)
2. Life Time Member of Indian Chemical Society
3. Life Time Member of Indian Society of Technical Education
4. IEEE Associate Member (EBMS & Young Professional) 2025-26

MEMBERSHIP IN COMMITTEES

1. Member of the Board of Studies, Andhra Loyola College, Krishna University, Vijayawada, Andhra Pradesh

CERTIFICATE COURSES

1. Successfully completed NPTEL-AICTE **Energy and Environment** Domain Course.
2. Successfully completed NITTTR Modules 1, 2, 3, 5 and 7.

ACADEMIC ACCOMPLISHMENTS and AWARDS

1. Received 5 **Raman Research Awards** for publications in Scopus-indexed journals by Vellore Institute of Technology, Vellore, India. 2022-2024
2. Awarded a **Gold medal** for securing the highest marks in M. Sc Chemistry. 2020
3. Awarded **2 Gold medals** for proficiency in group subjects (B. Sc I–V semesters) at the Annual College Day Celebrations of 2017–2018 held at Andhra Loyola College, Vijayawada. 2018
4. Awarded **15 memorial prizes** for proficiency in various subjects under different categories at the Annual College Day Celebrations of 2017–2018 held at Andhra Loyola College, Vijayawada. 2018
5. Presented with **Dr. A.P.J. Abdul Kalam Prathibha Award** for excellence in B. Sc-M Degree Examinations by the Government of Andhra Pradesh, India. 2018

PERSONAL DATA

Date of birth	:	29.10.1997
Languages known	:	Telugu, English, Hindi, Tamil (speak)
Marital Status	:	Married
Nationality	:	Indian
Pastime	:	Music, Movies, Novels

CITATIONS– Courtesy Google scholar (till 30.06.2026)

Citations	126
h-index	7
i10-index	5