

Dr. N. PUNITHA, M.Sc., ADCP., M.Phil., Ph.D.,

Assistant Professor of Chemistry,
Rajah Serfoji Government College (Autonomous),
Thanjavur – 613 005.



Personal Details

Date of Birth : 23.05.1977

Gender : Female

Residential Address : MIG-144, Tamil University Campus,
Chinthamani, M.C.Road, Thanjavur – 613 010.

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Thanjavur –(D.T), Pin : 614 803.

Google scholar link : https://scholar.google.com/citations?user=0Uhh3_wAAAAJ&hl=en

Education

- **Ph.D., Chemistry (2018 – 2023, Awarded on November 2023)**
Rajah Serfoji Government College (Autonomous), Thanjavur - 05. Affiliated to Bharathidasan University, Tiruchirappalli. India.
- **M.Phil., Chemistry (2002 – 2003, First Class)**
Seethalakshmi Ramaswami College (Autonomous), Affiliated to Bharathidasan University, Tiruchirappalli. India.
- **M.Sc., Chemistry (2000 – 2002, First Class)**
Queen Mary's College (Autonomous), Affiliated to Madras University, Chennai, India.
- **B.Sc., Chemistry (1997 – 2000, First Class)**
Bharathi Womens' College, Affiliated to Madras University, Chennai, India.
- **ADCP- Advanced Diploma in Computer Programming, (1999-2000, A+ Grade)**
A Scientific Society, Under Ministry of Information Tech., Govt. of India, Chennai.
- Cleared **Departmental Examination** - (EO) in the year of 2010.

Professional Experience – 20 years

- 09/07/2009 – Present **Assistant Professor** of Chemistry,
Rajah Serfoji Govt. College (Autonomous),
Thanjavur-613 005. Tamilnadu, India.
- 13/10/2008 – 08/07/2009 **Assistant Professor** of Chemistry,
Government Arts College,
Ooty, Tamilnadu, India.
- 18/07/2004 – 12/10/2008 **Lecturer** in Chemistry,
Sri Venkateswara Arts And Science College,
Peravurani, Thanjavur, Tamilnadu, India.

Research Guidance

DEGREE	GUIDED	ONGOING
M.Sc	36	2
M.Phil.	4	-
Ph.D	-	-

Research Interests

- Organic synthesis
- Corrosion Chemistry
- Nano-chemistry
- Adsorption science

Orientation course

1. Completed the Orientation Course from 13/10/2008 to 08/11/2008, organized by Tamilnadu State council for higher education and UGC – Academic Staff College, University of Madras, Chennai.

Refresher course

1. U.G.C. sponsored **Refresher Course in Chemistry** during 06/10/2010 to 26/10/2010 at Bharathidasan university, Tiruchirappalli and obtained Grade “A”
2. U.G.C. sponsored **Refresher Course in interdisciplinary** during 02/03/2018 to 22/03/2018 at Bharathidasan University, Tiruchirappalli, and obtained Grade “A”

3. U.G.C. sponsored **Refresher Course in interdisciplinary** during 15/09/2021 to 28/09/2021 at Ranchi University, Ranchi and obtained Grade “A”
4. Teaching learning centre sponsored **Refresher Course in Research Methodology** during 21/06/2022 to 05/07/2022 at UGC-HRDC, University of Delhi and obtained Grade “A”

Paper publications

1. **Corrosion mitigation performance of pyrazole derivative on mild steel in acidic media: Electrochemical and theoretical approach.** *Chemical data collections*. 41 (2022) 100936. (Elsevier Publication) <https://doi.org/10.1016/j.cdc.2022.100936>
2. **Interactions and corrosion mitigation prospective of pyrazole derivative on mild steel in HCl environment.** *Journal of the Indian Chemical Society*. 99 (2022) 100667. <https://doi.org/10.1016/j.jics.2022.100667>
3. **Bis-1,2,3-triazole derivative as an efficient corrosion inhibitor for mild steel in hydrochloric acid environment: Insights from experimental and computational analysis.** *Inorganic Chemistry Communications*. 153 (2023) 110732. (Elsevier Publication) <https://doi.org/10.1016/j.inoche.2023.110732>
4. **A novel route to 1, 4-disubstituted-1, 2, 3-triazoles through metal-free decarboxylative azide-alkene cycloaddition.** *Tetrahedron Letters*. 84 (2021) 153440. (Elsevier Publication) <https://doi.org/10.1016/j.tetlet.2021.153440>
5. **Tunable Synthesis of 1, 2, 3-Triazoles and Enamines through Deacylative Azide-Alkene Cycloaddition.** *European Journal of Organic Chemistry*. (16) (2022) e202101470. (Wiley-VCH Publication) <https://doi.org/10.1002/ejoc.202101470>
6. **Effect of 1, 2, 3-triazole derivative on the dissolution performance of mild steel in 1M HCl medium.** *Indian Journal of Chemical Technology*. 28 (4) (2022) 421-428. (Elsevier Publication)
7. **Microwave Promoted Synthesis of Schiff Base Ligand Using Natural Acid Catalyst and its Nickel (II) and Copper (II) Complexes.** *Int J Nano Corr Sci and Engg.* 2 (6) (2015) 78-84.
8. **Synthesis Characterization and Antimicrobial Studies on Metal Complexes Derived from the Biologically Active Mannich Base Ligand, 7-Dicyclohexylaminobenzyl-8-Hydroxy quinoline.** *Int J Nano Corr Sci and Engg.* 2 (6) (2015) 11-17.
9. **Solubility and Dissolution Enhancement of Simvastatin by the Preparation of Nano Particles Solid Dispersion Using Natural Polymer.** *Int J Nano Corr Sci and Engg.* 5(6)

(2015) 139-148.

Reviewer in peer reviewed journals

1. **Progress in color, colorants and coatings – the scopus indexed journal.** Print ISSN 2008-2134 Online ISSN 2383-1790 from August, 2023. <https://pccc.icrc.ac.ir/>.
2. **American Journal of Chemical Engineering (AJCHE)** ISSN Print: 2330-8605; ISSN Online: 2330-8613 <https://www.sciencepg.com/j/ajche> from August 30, 2023.
3. **Journal of Advanced Research in Applied Sciences and Engineering Technology - the scopus indexed journal.** (ISSN: 2462-1943); from Sep- 2023.
https://semarakilmu.com.my/journals/index.php/applied_sciences_eng_tech

Invited speaker/Resource Person

1. Act as **Invited speaker** in the “Application of Science and Technology in Rural Areas – Organic farming Techniques/Environmental pollution” Catalyzed and organized by Department of Mathematics, Government Arts and Science College, Peravurani-614 804 held on 25th September 2017.
2. Act as **Invited speaker** in the “Application of Science and Technology in Rural Areas - Identification of food adulteration” Catalyzed and organized by Department of Mathematics, Government Arts and Science College, Peravurani-614 804 held on 5th October 2017.
3. Act as a **Resource person** for the Webinar entitled “Need for Green Chemistry” organized by Department of Chemistry, Government Arts College for Women (A), Pudukottai-01 on 10.07.2021.

Paper presentations in Seminars, Conferences and Workshops

1. “Bioavailability Enhancement of Atorvastatin Calcium by Microwave Assisted Sulphonation” in the **National level Seminar** on “New Opportunities and Challenges in Chemical Research” at A. Veeriyar Vandayar Memorial Sri Pishpam College, Poondi on 29th and 30th December 2014.
2. “Microwave Promoted Synthesis of Schiff Base Ligand Using Natural Acid Catalyst and its Nickel(II) and Copper(II) Complexes” in the **International Conference** on “ Chemical and Environmental Research” (ICCER 2015) organized by PG and Research Dept. of Chemistry, Jamal Mohamed College(A), Tiruchirappalli on 17th December 2015.

3. "Preparation and Characterization of Atorvastatin Calcium nanoparticle with *Moringa Oleifera* Gum" in **National Conference** on "Thin Film Science and Nano Technology" at PG and Research Department of Physics, Rajah Serfoji Govt. College, Thanjavur on 2nd and 3rd March 2015.
4. "Effect of Natural Polymer on Solubility of Atorvastatin Calcium Inclusion Complex by Nano Precipitation Method" in **National Conference** on "Thin Film Science and Nano Technology" at PG and Research Department of Physics, Rajah Serfoji Govt. College, Thanjavur on 2nd and 3rd March 2015.
5. "Experimental and computational analysis of anticorrosion performance of nitrogen heterocycles on mild steel in 1.0 M HCl medium", in the **International Conference** on Features of Material Chemistry in Agricultural, Biomedicine, Pharmaceutical and Nanotechnology, organized by PG & Department of Chemistry and Physics, Swami Dayananda College of Arts & Science, Manjakkudi, Tiruvarur, on 13th October 2021.
6. "Corrosion inhibition effect of pyrazole derivative on mild steel in hydrochloric acid medium" in the **International conference** on Advanced nanomaterials, organized by PG and Research Department of chemistry, Theivanai Ammal College for Women (Autonomous), Villupuram, on 4th January 2022.
7. "Corrosion inhibition effect of triazole derivative on mild steel in hydrochloric acid medium" in the **International conference** on Materials and biological researches, organized by Department of chemistry with IQAC, Dr. R. K. Shanmugam College of Arts and Science, Kallakurichi on 27th & 28th April 2022.

Faculty Development Programs attended

1. **Faculty Development Programme** on "Pedagogical tools for effective online teaching" organized by IQAC, Islamia Womens Arts and Science college, Vaniyampadi, from 29.06.2020 to 30.06.2020.
2. Seven day Online **International Faculty Development Programme** titled "Leadership Excellence" organised by the Department of Corporate Secretaryship and Information Systems Management, Justice Basheer Ahmed Sayeed College for Women (Autonomous), Chennai-600018 from 17th June to 23 June 2020.
3. **Faculty Development Programme** on "Awareness Programme about Academic Services at MHRD - INFLIBNET" jointly organised by the IQAC, Government Arts College

(Autonomous), Salem - 7 and INFLIBNET Centre, Gandhinagar, Gujarat on 25.06.2020.

4. **Faculty Development Programme** on “Funding schemes and patenting scientific innovations” at Govt. Arts college, Trichy- 22. On 13/06/2020.
5. Three Day Virtual **Faculty Development Programme** on "Emerging Trends in Chemistry”organised by the Department of Chemistry,Kongu Engineering College, Perundurai, Erode from 13.12.2021 to 15.12.2021.
6. **Faculty Development Programme** on “Biostatistics in Life Science Research” on 8th and 9th November 2021 organized by Department of Microbiology, Thassim Beevi Abdul Kader College for Women, Kilakarai, Ramanathapuram.
7. One Week National **Faculty Development Programme** on "Innovation and Intellectual Property Rights" held from 04/10/2021 to 10/10/2021 organized by Chevalier T. Thomas Elizabeth College for Women (IQAC) in association with CSIR – Institute of Minerals and Materials Technology. Chennai.
8. **Faculty Development Programme** on “Cultivation of Research Excellence to Enhance Innovations and Professional Development” Organised by the Department of Physics, Panimalar Engineering College, Chennai, Tamil Nadu 600123 during 01-02 November 2021
9. **Faculty Development Programme** on “Evolution of Smart Materials and their Contemporary Advances” organised by Department of Chemistry, S.T.Hindu College held on October 25th to 30th, 2021.
10. Seven days virtual **Faculty Development Programme** on “Best Practices for Next Gen Teachers” from 30-05-2022 to 07-06-2022 organized by SRM institute of Science and Technology, Ramapuram Chennai.
11. One week **Faculty Development Programme** on “Carbon capture and storage” organized by the Department of Chemistry, Central University of Tamil Nadu, Thiruvavur from 21 st to 25 th Feb 2022.

Conference/Seminar/Workshop attended

1. **State level seminar** on “NMR Applications and Energy Materials” at Rajah Serfoji Govt. College, Thanjavur on 21.2.2011

2. **Inter Collegiate Seminar** on “Recent Research Perspectives in Chemistry and Bio-Chemistry” at A.Veeriya Vandayar Memorial Sri Pishpam College, Poondi on 16.12.2011.
3. **National Seminar** on “Recent Trends in polymer and Green Chemistry” at Rajah Serfoji Govt. College, Thanjavur on 2nd and 3rd February 2012.
4. **National level Seminar** on “New Opportunities and Challenges in Chemical Research” on 29th and 30th December 2014. And presented a paper entitled “Bioavailability Enhancement of Atorvastatin Calcium by Microwave Assisted Sulphonation” at A. Veeriya Vandayar Memorial Sri Pishpam College, Poondi on 29-30th December, 2014.
5. **National Seminar** on “Chemistry and Efficacy of Natural Products-A Demand in Greater use of Plant Base Drugs” at Bon Secours College for Women on 20th and 21st Feb. 2015.
6. **Workshop** on “Microscale Experiments in Chemistry” at A. Veeriya Vandayar Memorial Sri Pishpam College, Poondi on 14.12.2011.
7. **National level Workshop** on “Intellectual Property and Innovation Management in Knowledge Era” at Gandhigram Rural Institute-Deemed University, Dindigul on 17th October, 2012.
8. **Workshop** on “Manufacturing Techniques in House Cleaning and Refreshing Materials” at Rajah Serfoji Govt. College, Thanjavur on 4.3.2014.
9. **National level Workshop** on “Modern Trends in Chemistry” Kunthavai Naacchiyaar Govt. Arts College for Women on 19.12.2014.
10. **National Conference** on “Thin Film Science and Nano Technology” at PG and Research Department of Physics, Rajah Serfoji Govt. College, Thanjavur on 2nd and 3rd March 2015.
11. **National conference** on “Current perspectives and Challenges in Biodiversity and its Conservation” at Rajah Serfoji Govt. College, Thanjavur on 6th and 7th March 2015.
12. **International Conference** on “ Chemical and Environmental Research” (ICCER 2015) organized by PG and Research Dept. of Chemistry, Jamal Mohamed College(A), Tiruchirappalli on 17th December 2015.
13. **International webinar** on “MALDI-ToF Mass Spectrometry – A novel technique to analyse latent fingerprints” at Quaid-E-Millath Government College For Women (Autonomous), Chennai-600002, Tamil Nadu. on 11th July 2020.

14. **National webinar** on “Recent advances on applied chemistry” at St. Xavier’s college (Auto), Palayamkottai, Tamil Nadu. on 11th July 2020.
15. **International Webinar** on “Open & Flexible Cloud Computing Platform -Microsoft Azure” jointly organised by the Department of Computer Science and Internal Quality Assurance Cell, Government Arts College for Women (Autonomous), Pudukkottai on 3/07/2020
16. **Webinar** on “ Biomarker in Biomedical Research” Organized by PG and Research Department of Biochemistry, Dharmapuram Gnanambigai Government Arts College for Women, Mayiladuthurai during July 4th, 2020
17. **National Webinar** on “Women empowerment: What does it actually stand for?” organized by the PG and Research Department of Physics, Government Arts College for Women (Autonomous), Pudukkottai, Tamil Nadu, on 04.07. 2020.
18. **Webinar** on “Methods and mechanism of CO₂ and H₂ adsorption in metal-organic frameworks” at Chennai Institute of Technology. On 01/07/2020.
19. **Webinar** on “Oxygen Electrocatalysis: The Holy Grail of Energy Conversion and storage” at Chennai Institute of Technology. On 29/06/2020.
20. **Webinar** on “Elemental carbon for new generation devices” at Dept. of Science and humanities, SRM TRP Eng., College, trichy. On 29/06/2020
21. **International Webinar** on “Biomedical Approaches of Green Synthesized Bio- Nanoparticles towards Cancer Therapy” conducted by Department of Chemistry, Government Arts College (Autonomous), Salem-636007 on 26. 06. 2020
22. **International webinar** on “FOODS: FABULOUS MEDICINES” held on 26.06.2020 at Govt. Arts college for Women, Selam-08.
23. **Webinar** on “Corona induced lockdown and Indian agriculture” at Govt. Arts College for Women (auto), Pudukkottai, on 22/06/2020.
24. **Webinar** on “Lab-on-a-chip based sensor” at Govt. Arts college (A), Selam, on 21/06/2020.
25. **International webinar** on The Recent strategy in chemistry world on 19/6/2020 at Govt. Arts college(A), Selam-7.
26. **Webinar** titled "Internal Quality Assurance Mechanism" held on 25/05/2020 organized by IQAC

Cell with Chennai Softech - Technical Partner at Sengamala Thayar Educational trust women's college.

27. **Seminar** on “Curriculum Development and Design” on 16th December 2020 at Rajah Serfoji Govt. College, Thanjavur.
28. **International Webinar** on “Challenges and Opportunities In Advanced Materials” organized by the PG & Research Department of Chemistry and IQAC, Government Arts College, Trichy - 620 022 on 14th July, 2021.
29. **International Webinar** on “Innovative Research In Chemical Sciences” Organized by PG & Research Department of Chemistry of Government Arts College, Trichy-22, Tamil Nadu on July 10th ,2021
30. **International Webinar** on “Innovations in Materials Processing: Importance of Ceramic Shell Moulds for Investment Casting of Gas Turbines Components” conducted by Bharat Institute of Engineering and Technology, Centre for Research in Education and Social Integration Human Resources Development and Indian Ceramic Society, Hyderabad Chapter on 20.08.2022.
31. **International Webinar** on “Educator’s Role in Promoting Mental Health and Wellness jointly organized by centre for Research and Development in Education and Social Integration, Bharat Institute of Engineering and Technology, Indian Ceramic Society, Hyderabad Chapter on 17.09.2022.
32. **Webinar** on “World piece day” organized by Shanmuga Industries Arts And Science College, Thiruvannamalai on 25.02.2022.
33. **International conference** on “Recent Trends in Scientific Research (ICRTSR-23)” organized by PG & Research Department of Chemistry in association with Tamil Nadu State Council for Science and Technology and Science City Chennai held on 30th and 31st August 2023.

Membership in Academic Bodies

1. Member in **Board of studies**, PG and Research Department of Chemistry, Rajah Serfoji Government College, Thanjavur.
2. Member in **Sports committee**, Rajah Serfoji Government college, Thanjavur.
3. Member in **Discipline Committee**, Rajah Serfoji Government College, Thanjavur.
4. Member in “**Fine-Arts Club**”, Rajah Serfoji Government College, Thanjavur.

5. Member in **Anti-ragging Committee**, Rajah Serfoji Government College, Thanjavur.
6. **Store In-charge** for PG and Research Department of Chemistry, Rajah Serfoji Government College, Thanjavur from 2023 onwards.

Others

- Act as a **Panel Member** in the National **Seminar** on “Chemistry and Efficacy of Natural Products Demand in Greater use of Plant Base Drugs” held on 20 & 21st Feb-2015, organized by Dept. of Chemistry, Bon Secours College for Women, Thanjavur-06.
- Act as **Organizing secretary** for three days National Level E-quiz on “Solid State Chemistry” organized by PG and Research Department of chemistry, Rajah Serfoji Government College (A), Thanjavur-05 between 26.06.2020 - 28.06.2020.
- Act as a **Convener for National Level Seminar** on “Recent Trends in Chemical Sciences” organized by PG and Research Department of chemistry, Rajah Serfoji Government College (A), Thanjavur-05 on 17-Mar-2020.
- Appointed as a **Judge** in the inter school Art and Silks competition conducted by YMCA, Thanjavur held on August 2022.
- Act as **Organising Secretary** for the National Science Day – Elocution Competition organized by PG and Research Department of chemistry, Rajah Serfoji Government College (A), Thanjavur-05 on 28.02.2023.
- Appointed as a **Judge** in the inter school Art and Silks competition conducted by YMCA, Thanjavur held on 26th August 2023.