

Dr. A. Leema Rose

Associate Professor & Head
PG & Research Department of Chemistry,
Holy Cross College (Autonomous) Tiruchirappalli.
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***Professional Summary***

I am an Associate Professor with a double master's and a doctorate in Chemistry. Inspired by my parents who were teachers themselves, I always had a passion for teaching. My research areas include Nanomaterials, Catalytic air oxidation of dyes and prevention of corrosion of metal surfaces. With the grace of the Almighty, I am currently a professor and an advisor for students in the graduate and doctoral degree programs.

Qualification: M.Sc., M.Phil., B.Ed., Ph.D., D.Litt.

Professional Experience

1999- Orientation Course at academic staff College, Bharathidasan University, Tiruchirappalli

2000- Refresher Course in Chemistry, Bharathidasan University, Tiruchirappalli

2003- Refresher Course in Chemistry, Bharathidasan University, Tiruchirappalli

2006- Refresher Course in Chemistry, Bharathidasan University, Tiruchirappalli

2012- Ph.D. Guideship (Ref.No: 40295/Ph.D.1/Chemistry/R. A/Dated 29.11.2012

Experience

1995- Year of Appointment in Holy Cross College, Tiruchirappalli

29 years of teaching experience for B.Sc. Chemistry and 16 years in M.Sc. Chemistry

Education

1987 – BSc. Chemistry – Fathima College, Madurai

1989- M.Sc. Chemistry- Govt. Arts College, Kumbakonam

1990- M. Phil- Chemistry- St. Joseph's College, Tiruchirappalli

1991- B.Ed.-Chemistry – Annamalai University

2011- Ph.D.- Chemistry- St. Joseph's College, Bharathidasan University.

Subjects of Expertise

Inorganic Chemistry
Physical Chemistry
Analytical Chemistry
Applied Chemistry

Core competencies

Experience in teaching a wide range of subjects including

- Personable nature with students while maintaining professional relationships with coworkers
- Excellent communication skills both oral and written
- Extremely organized in all planning of class material
- Efficient in time management
- Willingness to put extra time to become a successful professor
- Capable of writing and developing curriculum for all levels of courses

Leadership Profile

1996-2000: NSS Coordinator

2000-2005: Cultural Core Committee member

2006-2013: Cultural Coordinator

2013- 2016: Dean of Science

2011-2013: Lay Associate Coordinator

2013-2016: Senate Member, Bharathidasan University, Tiruchirappalli

2014-2017: Syndicate Member, Bharathidasan University, Tiruchirappalli

2016- 2019: Senate Member, Bharathidasan University, Tiruchirappalli

2020 onwards: Head of the Department of Chemistry

Key Achievements

Best Paper Award- National Conference on Recent Advances in Chemistry, Bishop Heber College, Trichy-2, on 18th September 2009

Best Paper Award- National Conference on Evolutionary Trends In Biological And Pharmaceutical Chemistry, Holy Cross College, Trichy-2, on 30 & 31 Jan 2014.

Best Paper Award- International Conference on Chemistry of Biomolecules-Current Trends and Future Perspectives-2016, Holy Cross College, Trichy-2, on 27 & 28 June 2016.

Best Paper Award- International Conference on Materials Science for Sustainable Environment (ICMSSE-2022), Holy Cross College, Trichy-2, on 23 & 24 August 2022.

Memberships in academic bodies (Board of studies, Doctoral Committee Member)

1. Doctoral Committee Member- St. Joseph's College, Jamal Mohammed College, Nehru Memorial College, Seetha Lakshmi Ramasamy College
2. M.Phil. Viva External Examiner- St. Joseph's College, Bishop Heber College, Jamal Mohammed College.
3. Scientific Committee Member-RJSF
4. Academic Audit Process – NMC Puthanampatti
5. Board of Studies – M.Phil.- St. Joseph's College
6. Review Committee Member – Cauvery College, Mother Teresa Arts Science College, Karur Vellalar College.
7. Inspection Committee Convener - Cauvery Medical Centre, High Pressure Centre – BDU, Srinivasan College of Arts and Science and Various Colleges in and around Trichy.
8. Malpractice Enquiry Committee Member- Bharathidasan University
9. Executive Committee Member – - Bharathidasan University Tech Park.
10. Executive Committee Member – - Bharathidasan University Business Development Centre (BDU-BDC)
11. University Representative – Nehru Memorial College, Puthanampatti
12. Chairman – Triennial Inspection Committee.
13. Inspection Committee Convener- Bharathidasan University
14. Inspection Committee Convener- Bharathidasan University Constituent College- Orathanadu
15. Inspection Committee Convener- Bharathidasan University Constituent College- Perambalur
16. Inspection Committee Convener- Swami Dayananda Arts and Science College, Thiruvarur
17. Inspection Committee Convener- Modern Arts and Science College, Jeyakondam
18. Malpractice Enquiry Committee Member- Bharathidasan University
19. CAS Promotion- Sub Committee Member
20. Inspection Committee Convener- MIET Arts and Science College
21. Inspection Committee Convener- Nethaji Subash Chandra Bose Arts and Science College

22. Inspection Committee Convener- Sir Issac Newton Arts and Science College,
Nagapattinam
23. Inspection Committee Convener- New Study Centre- CDE- Vellalar Educational
Trust- Neyveli
24. Senate Resolutions Scrutinizing Committee Member – BDU
25. Inspection Committee Convener- Sengamala Thayar Arts and Science College,
Mannargudi
26. Inspection Committee Convener- Annai Arts and Science College, Kumbakonam
27. College Committee Member- National College, Trichy, NMC, Puthanampatti
28. Inspection Committee Convener- Meenakshi Ramasamy Arts and Science College,
Ariyalur
29. Research Committee Member-Bharathidasan University, Trichy.
30. Member on Standing Committee on Academic Affairs-Bharathidasan University.
Trichy.
31. Board of Studies Member – Bharathidasan University
32. IQAC Member – Bharathidasan University
33. Inspection Committee Member for Govt. College of Arts and Science, Peravurani
34. Subject Expert for Permanent Affiliation- Govt. College, Tiruchirappalli
35. External Examiner for Project Evaluation and Viva Voce – Bishop Heber College,
Trichy.
36. Chairperson for National Conference on Advanced Materials in Chemistry, St.
Joseph's College, Trichy
37. External Expert- Academic Audit Cum Star Department Evaluation, Bishop Heber
College, Dec- 7 to 10,2021
38. Life Member in Institute of Researchers, Wayanad , Kerala
39. Subject expert, Inspection committee, Jairams Arts and Science College,
Karur,26.08.2021
40. Subject Expert, Inspection Commission, Kongu College of Arts and Science,
karur,24.07.2021
41. Subject Expert of the Screening Cum Evaluation Committee for CAS, St.Joseph's
College, 24.09.2021

42. Member of Inspection Commission for affiliation to BSc Chemistry,
Kongu college of Arts and Science, Karur, 07.04.2022.
43. Viva Voce Examiner for PhD, Government Arts College, 21.11.2022.

E-lessons developed:

S.No	Title of e-lessons
1.	Nuclear fission
2.	Applications of radioactive isotopes
3.	Hydrogen Bonding
4.	Principle and applications of gravimetric analysis
5.	Metabolism of Carbohydrates- Glycolysis

Research:

- M.Phil. Guided **3**
- Ph.D. produced **4**
- Ph.D. Guiding **6**

Journal / Articles Published:

1. A. Leema rose, Noreen Antony, Felicia RajammalSelva Rani, A.Peter Pascal Regis, Susai Rajendran, (2009) behaviour of carbon steel in river water in the presence of calcium propionate- Zn^{2+} system, *zaštita materijala*, 50 broj 3.
2. A. Leema rose, Felicia Rajammal Selva Rani, A.Peter Pascal Regis, Susai Rajendran, S.Kanchana and A.Krishnaveni, (2009) Corrosion inhibition by monosodium glutamate- Zn^{2+} system, *zaštita materijala*, 50 broj 4.
3. A. Leema rose, Felicia Rajammal Selva Rani, A.Peter Pascal Regis, Susai Rajendran, S.Kanchana and A.Krishnaveni, (2010) Influence of biocides on corrosion inhibition efficiencies of mono sodium glutamate – Zn^{2+} system, *zaštita materijala*, 51 broj 3
4. A. Leema rose, Felicia Rajammal Selva Rani, A.Peter Pascal Regis, Susai Rajendran and A.Krishnaveni ,(2010) Synergistic effect of Fructose and Zn^{2+} in Controlling corrosion of carbon steel, *zaštita materijala*, 51 (4) 221-226.

5. S. Rajendran, A Leema Rose, T.S. Muthumegala, A. Krishnaveni, B. Shyamaladevi, B. Narayanasamy and N. Hajarabeevi, (2011) Corrosion behaviour of mild steel in concrete pore solution, *zaštita materijala*, 52 broj 1.
- 6.J. Rosaline Vimala, A. Leema Rose, S. Raja, (2011) Cassia auriculata extract as Corrosion inhibitor for Mild Steel in Acid medium, *International Journal of ChemTech Research*, Vol.3(4) 1791-1801.
- 7.A.Leema rose, Felicia Rajammal Selva Rani, A.Peter Pascal Regis and Merlin Rose, (2012) Corrosion behaviour of carbon steel in river water in the presence of Lactic acid- Zn^{2+} system, *International Journal of ChemTech Research* , 4(1) (157-164).
- 8.J. Rosaline Vimala, A. Leema Rose and S. Raja (2012) Study on the phyto chemical analysis and corrosion inhibition on mild steel by Annona Muricata.L leaf extract in 1N HCl, *Der ChemicaSinica*, 3(3582-588)
- 9.J. Rosaline Vimala1, A. Leema Rose and S. Raja, (2012) Milling Tonia Hortensis Lini.F extract as corrosion inhibitor for mild steel in aqueous medium, *Der ChemicaSinica*, 3(3) (602-612).
- 10.A.Leema rose, Felicia Rajammal Selva Rani, A.Peter Pascal Regis and Susai Rajendran, (2012) Mutual influence of sodium dodecyl sulphate and calcium propionate in biocidal activity and corrosion inhibition of carbon steel, *Arabian Journal of science and engineering*,37 ,1313-1325.
- 11.A. Leema Rose, A. Peter Pascal Regis, Susai Rajendran, Felicia Rajammal Selva Rani (2013) synergistic and biocidal effects of sodium saccharin and Zn^{2+} system on the inhibition of corrosion of carbon steel in neutral aqueous medium,*Int. Res J Pharm. App Sci.*, 3(5):135-144
- 12.S. Vidhya, Dr. A. Leema Rose, (2014) Evaluation of Solanum Nigrum Leaf Extract as a Corrosion inhibitor and Reductant for the Green Synthesis of Gold Nanoparticle, *IJRDP*, 3 (3) 1011-1021.
- 13.Dr. A. Leema Rose, S. Vidhya* et.al, Kinetic Study on Green Synthesis of Gold Nanoparticles Using *Bougainvillea Glabra* Leaf Extract, *IJCPS Vol. 3, No. 5, Sep-Oct 2014*
- 14.Leema Rose A, Vidhya S*, *Momordica charantia* as corrosion inhibitor and reductant for the green synthesis of gold nanoparticles, *International Journal of Chemical and Pharmaceutical Sciences* 2014, June., Vol. 5 (2).
- 15.Leema Rose A, Vidhya S, Green Synthesis and Characterization of Gold Nanoparticles using *Terminalia chebula* Leaf Extract, *IJSET - International Journal of Innovative Science, Engineering & Technology*, Vol. 2 Issue 4, April 2015
- 16.Leema Rose A, Vidhya S, Thermodynamic, adsorption and electrochemical studies for corrosion inhibition of carbon steel by *Terminalia chebula* leaf extract in 0.5 m Hcl medium, *International Journal of Modern Trends in Engineering and Research*, Volume 02, Issue 03, [March - 2015]
- 17.Dr. A. Leema Rose, S.Vidhya, Green synthesis of Gold nanoparticles using *Momordica charantia*, *International journal of scientific and Engineering Research*, vol-7, Issue 8, August-2016, P.No -162. ISSN:2229-5518
- 18.Leema Rose A, Vidhya S, Corrosion inhibition study of bark extract of *Terminalia chebula*

on mild steel in 0.5M hydrochloric acid medium, International Journal of Applied and Pure Science and Agriculture, P-59, ISSN:2394-823X, Impact Factor:3.762.

19.Leema Rose A, Vidhya S, Inhibitive effect of fruit extract from *Terminalia chebula* on the corrosive of mild steel in 0.5M hydrochloric acid medium, International Journal of Science, Engineering and Technology Research (IJSETR),V-5, P-1037, I-4, April 2016.

20.A.Leema Rose, F.Janeeta Priya , Phytochemical screening and green synthesis of silver nanoparticles using aqueous extract of *catharanthus roseus* stem bark. International journal of pharma science and research (IJPSR) volume- 8, page-46, may-2017.

21.A. Leema Rose, F. Janeeta Priya, S. Vidhya, Preeja P Thattil, Antifungal and antioxidant activity of microwave assisted green synthesis of silver nanoparticles using aloin derivative. The pharma innovation journal, volume 6(9) 25-28, august -2017.

22.A. Leema Rose, F. Janeeta Priya, S. Vidhya, Preeja P Thattil, Microwave assisted synthesis of Nickel nanoparticle using hydrazine hydrate and its antimicrobial activity. International journal of chemtech research, vol- 10 no.10 pp 377-384. 2017.

23.A. Leema Rose, F. Janeeta Priya, S. Vidhya, Microwave assisted synthesis of zinc oxide nanoparticle using hydrazine hydrate and its antimicrobial activity. International journal of chemtech research, vol-10 no.9 pp 574-580. 2017.

24.A. Leema rose, F.Janeeta Priya, S Vidhya, Comparative study on the synergistic action of differentially synthesized copper nanoparticles with *Escherichia coli* and *Staphylococcus aureus*. International research journal of pharmacy, vol-8 no.9 pp 85-90. Nov-2017.

25.Rekha. G, Leema Rose. A, Proximate Nutritional Analysis of dried Watermelon Seed, International Journal of Engineering Research and General Science, Volume 4, Issue 6, November- December 2016.

26.Rekha. G, Leema Rose. A, Extraction and Characterization of Watermelon seed oil, International Journal of Agriculture and Environmental Research, Volume: 03, Issue:01, ISSN: 2455-6939, 2017.

27.Rekha. G, Leema Rose. A, Vidhya. S, Proximate Nutritional Analysis of dried Moringa Oleifera Seed, International Journal of Agriculture and Environmental Research, Volume: 03, Issue:02, "March-April 2017" ISSN: 2455-6939.

28.Rekha. G and Leema Rose. A, Extraction and characterization of Moringa Oleifera seed oil, International Journal of Current Research, vol. 9, Issue, 01, pp.45629-45631, January 2017.

29. S. Vidhya, Dr. A. Leema Rose, Microwave Assisted Green Synthesis of Gold Nanoparticles using *Bougainvillea glabra* leaf extract, Asian Journal of Chemistry, Vol 29, No. 8(2017), 1757-1760, June 2017. Doi.org/10.14233/ajchem.2017.20610.

30.A. Leema rose, F. Janeeta Priya, S. Vidhya, Cytotoxic effect of peptide functionalized silver nanoparticles synthesized from aloin on breast Cancer cell line, Asian Journal of Pharmaceutical and Clinical Research, Vol 12, Issue 2, Feb 2019, 170-175, E- ISSN: 2455-3891, P-ISSN: 0974-2441, DOI: 10.22159.

31.S. Vidhya, A. Leema Rose, F. Janeeta priya, Potential investigation of Gomphrena serrata leaf extract as a corrosion inhibitor and as a reductant for the synthesis of copper nanoparticles, Asian Journal of Chemistry, Vol. 31, No. 10(2019), 2306-2310.

- 32.A. Leema Rose, Jaini Flora Arokianathan, Non- proteinogenic amino acid based supramolecular hydrogel material for enhanced cell proliferation, *Colloids and Surfaces B: Biointerfaces*,185(2020)110581.
- 33.A. Leema Rose, Preeja P. Thattil, Photodegradation of Congo Red Dye Via Simple and Effective Air Oxidation Using Copper (II) Chloride and Sunlight, *Nature Environment and Pollution Technology*, 18(4) **2019** 1243-1248.
- 34.A. Leema Rose, Preeja P. Thattil, Photocatalytic removal of Xanthene and Diaryl Methane Dyes by air oxidation using TiO₂ Nanospheres under Sunlight, *International Journal of Scientific & Technology Research*, 9(04) **April 2020** 3357 – 3363, *ISSN* 2277-8616.
- 35.A. Leema Rose, Preeja P. Thattil, Enhanced Removal Of Crystal Violet Dye Using Zinc Oxide Nanorods and Air Oxidation Under Sunlight Radiation, *Rasayan Journal of Chemistry*, 13(2) **April - June, 2020** 1166 - 1173, *ISSN*: 0974-149
- 36.A. Leema Rose, F. Janeeta Priya, S. Vidhya, Mosquito Larvicidal Activity Of Cost Effective Bio-Synthesized Silver Nanoparticles Using *Mentha Piperita* Extract Against *Aedes Aegypti*, *Rasayan Journal of Chemistry*, Volume 13, No 3, 1964-1970 **July-September, 2020**, *ISSN*: 0974-1496
- 37.A. Leema Rose, Supramolecular organogel based on di-Fmoc functionalised unnatural amino acid: Attempt to develop a correlation between molecular structure and ambidextrous gelation, *Colloids and Surfaces A; Physicochemical and Engineering Aspects*, 618(June **2021**)126430
38. A. Leema Rose, F. JaneetaPriya, S. Vidhya, Anti-urolithic activity of silver nanoparticles of *Terminalia chelula* bark, *Oriental Journal of Chemistry*, Volume 37 No.(1), p 109 – 115, **February 2021**, *ISSN* : 0970 - 020X, Online *ISSN* : 2231-5039.
- 39.A. Leema Rose, F. Janeeta Priya, S. Vidhya, Sustainable synthesis of gold nanoparticles and its antidiabetic activity of *Anacardium occidentale* Root extract, *Oriental Journal of Chemistry*, Volume 37 No .(2),,pp: 374-379, **April 2021**, *ISSN*: 0970-020.X.
- 40.A. Leema Rose, Janita Priya, S. Vidhya, A New Frontier Drug Development in Nanomedicine and Its Anti-urolithiatic Activity of *Kalanchoe pinnata*, *Oriental Journal of Chemistry*, Volume 37 No.(2), pp: 444-449,**April 2021**, *ISSN*: 0970-020 X.
- 41.A. Leema Rose, Preeja P.Thattil, High Photocatalytic performance of modified Bismuth oxychloride Semiconductor under Sunlight, *Oriental Journal of Chemistry*, Volume 37 No .(4), pp: 770-778, **August 2021**, *ISSN*: 0970-020 X.
42. A. Leema Rose, Janita Priya, S. Vidhya, Sustainable Synthesis of Gold Nanoparticles and its Antidiabetic Activity of *Anacardium occidentale* Root Extract, *Oriental Journal of Chemistry*, Volume 37 No.(2), pp: 374-379,**August, 2021**, *ISSN*: 0970-020 X.
- 43.A. Leema Rose, B. Shabushree1 and Preeja P. Thattil , Structural Characterization, Antimicrobial and Antioxidant Assay of Biogenically Synthesized Maghemite (γ -Fe₂O₃) Nanoparticles, *RASAYAN J.Chem.* 33(43B): 32-41, **2021**.
- 44.A. Leema Rose, and Preeja P. Thattil , Fabrication and Structural Characterization of Sr₂SiO₃/TiO₂ Photocatalyst For The Degradation of Congo Red Dye Under Sunlight , *RASAYAN J.Chem.* Vol. 15 | No. 1 |651-658| January - March | 2022.

45. A.Leema Rose, A. Satish and S. Durgadevi, Anticorrosive Activity Of Phoenix Pusilla Leaves Extract On Mild Steel In Hydrochloric Acid Solution, European Journal of Molecular & Clinical Medicine (EJMCM), Volume 10, Issue 01, 2023.

46.A.Leema Rose, A. Satish and S. Durgadevi , Green Corrosion Inhibitor And Adsorption Characteristics Of Caralluma Indica Stem Extract On Mild Steel In Acid Medium, European Journal of Molecular & Clinical Medicine (EJMCM), 2515-8260 Volume 10, Issue 01, **2023**.

47.S. Vinotha*† and A. Leema Rose, Comparative Advanced Oxidation Decolorization of the Triphenylmethane Dye with Dimethyl Dioxirane and Hydrogen Peroxide, *Nature Environment and Pollution Technology*, Vol. 22, NO.2, pp. 803-815 **2023**.JUNE,IF-0.169,ISSN-2395-3454.

48.A.Leema Rose and S. Durgadevi, Green Corrosion Inhibitory Efficiency of Isolated Flavonoid from Spermaceoce hispida Leaves on Mild Steel in Acid Medium, *Oriental Journal of Chemistry*, **2023**, Vol. 39, No.(2): Pg. 463-469. IF-.2, WOS & UGC,ISSN-0970-020X, JUNE.

49.A.Leema Rose and S. Durgadevi, In vitro antioxidant and antimicrobial activity of isolated flavonoid from the methanolic extract of Andrographis echioides leaves, *Research Journal of Chemistry and Environment*, Vol. 27 (6) June (**2023**),IF-0.141,SCOPUS & UGC, ISSN-0972-0626.

50. F. Janeeta Priya, A. Leema Rose, S. Vidhya, Biogenesis of Metal Nanoparticles and its Potential Targeted Drug Delivery Systems for Urolithiasis, *International Journal of Zoological Investigations* Vol. 8, Spl 1, 23-28, Dec 2022.

51. A. Leema Rose, F. Janeeta Priya, S. Vidhya, Apoptotic effect of reduced Graphene Oxide on MCF-7 Breast cancer cell line using Asparagus Racemosus roots, *Research Journal of Biotechnology*, Vol. 18 (11) November (2023).

BOOK CHAPTER PUBLISHED

- ❖ **Book Name:** Challenges and Advances in Chemical Science, **Title:** *Gomphrena serrata* Leaf Extract as Corrosion Inhibitor and Reductant for the Synthesis of Copper Nanoparticles .Vol.5 (Ms. No.: 2021/BP/4278F), BP International book publisher. Chapter 1, Print ISBN: 978-93-91595-92-0, eBook ISBN: 978-93-91595-93-7, **2021-2022**.
- ❖ **Book Name:** Challenges and Advances in Chemical Science , **Title:** Anti-proliferative Effect on Breast Cancer Cell Line via Novel Biogenic Peptide Functionalized Silver Nanoparticles Synthesized from Aloiin.Vol.8 , BP International book publisher Chapter 3,Print ISBN: 978-93-5547-807-8, eBook ISBN: 978-93-5547-808-5, **2021-2022**.
- ❖ **Book Name:** New Advances in Medicine and Medical Science, **Title:** Recent Advancement of Bio-inspired Nanomaterials and Its Antiurolithiatic Activity. Vol. 7, 151–165. <https://doi.org/10.9734/bpi/namms/v7/9824F>, **2022-2023**.
- ❖ **Book Name:** Current Developments in Biological Science **Title:** Innovative Srsio₃/Tio₂ Photocatalysts For Efficient Solar Degradation Of Congo Red Dye, ISBN Number: 978-93-93622-73-0, October, **2024**.

Conference/Seminar/Workshop/ Training Programme attended - Academic & General:

S. No.	Theme	Place	International / National / State level	Duration	Resource Person / Paper Presentation / Participation
1.	Workshop on Research Methodology for Teachers Scholars	Pondicherry University	National	2009	Participated
2.	Recent Advances in Chemistry	Bishop Heber College, Trichy	National	2009	Presented
3.	Fifteenth national congress on corrosion control	Indian Maritime University, Chennai.	National	2010	Participated
4.	Recent Developments in Chemistry	School of Chemistry, Bharathidasan University, Trichy	National	2011	Presented
5.	Green Chemistry and Sustainable Environment	Holy Cross College, Trichy	International	2010	Presented
6.	Recent Trends in Chemistry	J.A.College, Periyakulam	National	2010	Presented
7.	Industry-Institution-interface-Maithryam	Orchid Chemicals and Pharmaceuticals Chennai	National	2011	Participated
8.	Advanced Analytical Techniques for Materials Characterisation	SRM University and CLRI, Chennai	National	2011	Participated
9.	The Noble Values of Mother Claudine Echernier	Holy Cross College, Trichy	State Level	2011	Presented
10	SPSS Training Programme	Holy Cross College, Trichy	State Level	2013	Participated
11	Green Techniques in Chemistry Laboratory Experiments	Holy Cross College, Trichy	National	2013	Resource Person

12	Microscale Experiments with Green Techniques	Holy Cross College, Trichy	State	2013	Resource Person
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13	Evolutionary Trends in Biological and Pharmaceutical Chemistry	Holy Cross College, Trichy	National	2014	Presented
14	Workshop on Safety and Handling of Chemicals in Chemistry Laboratory	Holy Cross College, Trichy	District	2015	Resource person
15	One day workshop on “Basic Laboratory Skills” for teaching and non-teaching staff	Holy Cross College, Trichy	State	2017	Resource person
16	Recent Trends in Chemistry	Jayaraj Annapackiam College for women, Periakulam	National	2019	Presented
17	Workshop on Research based pedagogical tools on Science Through Inquiry and Research.	Bishop Heber College with United Board for Christian Higher Education in Asia	National	2019	Participated
18	Frontier Areas in Chemical Technologies	Alagappa University, Karaikudi	International	2019	presented
19	New Vistas in Material Science	Seethalakshmi Ramasamy College, Trichy	International	2019	presented
20	International Conference on Frontier Areas in Chemical Technologies – 2019(FACTs – 2019)	Alagappa University Karaikudi.	International	25 th and 26 th July 2019	Paper Presented:
21	International conference on “Expanding Frontiers in Chemistry”, EFC-19,	Arul Anandar College, Karumathur, Madurai	International	13 th September 2019.	Paper Presented:
22	International Conference on “New vistas in material science” (NVMS-2019)	Seethalakshmi Achi College for Women, Sivagangai.	International	12 th September 2019	Paper Presented
23	Research based pedagogical Tools Workshop on ‘Science Through Inquiry & Research’	Bishop Heber College, Trichy	National	17 th & 18 th October 2019	Participated
24	National Seminar on Recent Trends in Chemistry (RTC-10)	JayarajAnnapackiam m College for Women, Periyakulam	National	10 th December 2019	Paper Presented

25	SDAU MOOC workshop on "Teaching from Home with IT Tools"-	Sardarkrushinagar Dantiwada Agricultural University, Sardarkrus	National	23.04.2020 – 01.05.2020	Participated
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		hinagar District, Banaskantha, Gujarat			
26	Principles and Applications of Electronic Spectroscopy	Annai College of Arts and Science	National	7 th May, 2020	Participated
27	Online Course in Chromatography	DIPAM Foundation & Sheth M. N. Science College, Patan.	National	7 th May to 16 th May 2020	Participated
28	A Systematic Approach Towards Molecular Docking and Drug Design	SRM Institute of Science and Technology, Ramapuram Campus, Chennai	National	15 th May 2020	Participated
29	Webinar of Flipped Classroom – the Way Forward	Bishop Heber College, Trichy	National	21 st May 2020	Participated
30	Andragogy of Online Teaching	Holy Cross College, Trichy	National	29 th May 2020	Participated
31	HCCares Webinar Series on the topic "Seed and Weed-Nurturing Relationships"	Holy Cross College (Autonomous), Trichy	National	on 02.06.2020	Participated
32	Care and Enhancement of Self during Pandemic	Holy Cross College (Autonomous), Trichy	National	5 th June 2020	Participated
33	Social Innovation and Change Management	IIC, Holy Cross College, Trichy	National	5 th June 2020	Participated
34	UGC STRIDE Tutorial on Transdisciplinary Research	Holy Cross College, Trichy	National	11 th June, 2020	Participated
35	Online Lecture on "Chemistry for Technological Development	SRM Institute of Science and Technology, Ramapuram Campus, Chennai	National	12 th June 2020	Participated
36	NMR Spectroscopy – Structure Determination	Cardamom Planter's Association College, Bhodinayakanur, Theni,	National	17 th June 2020	Participated

37	Webinar on Electronic Spectroscopy and Pericyclic reactions	Seethalakshmi Ramaswamy College, Trichy	National	17 th & 18 th June, 2020	Participated
38	Webinar on “Combat the Pandemic Stress through Yoga”	Holy Cross College, Trichy - 2	National	21st June 2020	Participated
39	One week online International Faculty Development Program (FDP) on “Artificial Intelligence and IoT-Heuristic Transdisciplinary perspectives	CICRSD, Holy Cross College (Autonomous)	International	4 th July 2020 to 10 th July 2020	Participated
40	FDP Webinar Series on Capacity building of young talent in Trans-Disciplinary Research for a Sustainable Development of Society	UGC-STRIDE Holy Cross College, Trichy - 2	National	13 th July to 18 th July 2020	Participated
41	The Implications of the NEP 2020 for Higher Education and Role of Teachers	Holy Cross College, Trichy,	National	25 th August , 2020	Participated
42	MHRD, Govt. of India - Development of Teacher's e-kit and MOOCs in Four Quadrant Format of e-Content (FDP)	S.G.T.B. Khalsa College, University of Delhi under the PanditMadan Mohan Malaviya National Mission on Teachers and Teaching (PMMMNTT),	National	12 th -20 th September 2020.	Participated
43	MHRD, Govt. of India- Digital tools for 21 st century – word processing and spread sheets. (FDP)	Guru Angad Dev Teaching and learning center, University of Delhi. 27 th January to 2 nd February- 2021	National	27 th January to 2 nd February - 2021	Participated

44	UGC Online FDP on Recent Advances in Chemistry Teaching and Learning	Dwaraka Doss Govardhan Doss Vaishnav College,	National	22-26 February- 2021	Participated
45	Webinar on drug therapy for corona virus disease	H.H. The Rajah's College, Pudukkottai	National	29.05.2020	Participated
46	National FDP on Innovative teaching in science-Exploring the new Horizons	Government of Karnataka, Department of Collegiate and Technical Education, Bengaluru	National	10.06.2021 to 15.06.2021	Participated
47	FDP on Pedagogy and Research methods	HRDC and AMET, Chennai	National	24.05.2021 to 06.06.2021	Participated

48	FDP on Online Chemistry Teaching	SIAS Research Forum, Chennai	National	10.07.2021 to 16.07.2021	Participated
49	International Conference on Materials science for Sustainable Environment	Holy Cross College, Trichirappalli	International	23 rd & 24 th August 2022	3 papers Presented

Projects Undertaken:

S. No.	Category Major/ Minor	Research Area	Funding Agency	Sanctioned Amount (Rs.)	Period
1.	Minor	Corrosion and Nano Science	UGC	4,20,000	2014-2016

Details of membership in professional bodies /journals, editors, consultancy, resource person

1. Resource person in Training Programme for Science Graduate Teachers on "Samacheer Kalvi", Holy Cross College, 27th August 2011
2. Resource person in National Workshop on "Green Techniques in Chemistry Laboratory Experiments, Holy Cross College, 9th January 2013
3. Resource person in Training Programme for PG teachers on "Microscale Experiments with Green Techniques", Holy Cross College, 23rd August 2013
4. Judge for Fine arts competitions in various colleges
5. Examiner for various colleges in Tamil Nadu

6. Chief guest for mugil music academy, WOMENS DAY CELEBRATION at Pudukottai.
7. Resource person in FDP – Development and publication of results – BDU.
8. Resource person in WOMEN STUDY CENTRE - BDU.
9. Resource person in REFRESHER COURSE IN CHEMISTRY.
10. Resource person in ORIENTATION PROGRAMME ON MY COLLEGE AND ITS ACTIVITIES at HCC
11. Resource person in Department of Education Technology – Bharathidasan University.
12. Resource person in Workshop on Safety and Handling of Chemicals in Chemistry Laboratory at HCC, Trichy
13. Judge for **INSPIRE AWARD 2015** – E.R Higher Secondary School, Trichy.
14. Resource person in “95th and 96th Orientation Programmes to the Teachers of Govt. & Govt. Aided Colleges” affiliated to Bharathidasan University.

Other Honors /Awards/Achievements/ Responsibilities:

- **INDRA GANDHI SADBHAVANA GOLD MEDAL AWARD** for outstanding research work on 19/11/2014, Universal achiever’s foundation, New Delhi
- **UNIVERSAL ACHEIVERS GOLD MEDAL AWARD** for achievements and contribution in research work. on 25/07/15 from Universal achiever’s foundation at Bangalore.
- **BHARAT SHIKSHA RATAN AWARD** for in recognition of sterling merit excellent performance and outstanding contribution for the progress of the nation and worldwide on 21/09/2015 by Universal Acheivers Foundation, at New Delhi.
- **BHARAT RATNA MOTHER TERESA GOLD MEDAL AWARD** for her excellence by global economic progress and research association held on 19th November 2016 at Bengaluru.
- **BHARTIYA UDYOG RATAN GOLD MEDAL AWARD** for individual achievement and National economic growth on 27th Oct. 2018 at Chennai.
- **DOCTOR OF LETTERS IN LITERATURE** at Ashcroft University,

London, England, UK.

- **LEADERSHIP EXCELLENCE AWARD 2021** in recognition of her **outstanding Professional & Research achievements** by Institute of Researchers, Wayanad, Kerala on August 20, 2021.

Visit to Foreign Countries: CANADA – University of Alberta, USA- Carnegie Mellon University, University of Pittsburg.

Residential Address: DR. A. LEEMA ROSE

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