

**NAMAKKAL KAVINGAR RAMALINGAM GOVERNMENT ARTS
COLLEGE FOR WOMEN, NAMAKKAL – 637 001**

DEPARTMENT OF CHEMISTRY

Staff Profile



Name : Dr. E. Kavary

Position : Guest Lecturer

Department : Chemistry

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Office Location : N.K.R Govt. Arts College for Women, Namakkal

Education Qualification:

S.No	Degree	University	Year of Graduation:
1	Ph.D	Bharathidasan University, Tiruchirappalli	2021
2	M.Sc Chemistry	National Institute of Technology, Trichy	2011
3	B.S Chemistry	Bharathidasan University, Tiruchirappalli	2009

Professional Experience:

Sno.	Year	Position Held	Institution	Responsibility
1	Sep 2021	Assistant Professor, Department of Chemistry	Padmavani Arts & Science College for Women, opp. Periyar University, Salem – 636 011.	Teaching UG & PG Students
2	Jan 2023	Guest Lecturer	N.K.R Govt. Arts College for Women, Namakkal	Teaching UG & PG Students

Research Interests: PHOTOCATALYSIS AND MATERIAL SCIENCE

Brief description of research areas and interests:

- Dye sensitized solar cells
- Graphene quantum dots/graphene wrapped semiconductors.
- Photocatalytic water splitting, solar fuels and environmental applications.
- Solar selective absorber coatings.
- Electrocatalysts for energy conversion and storage applications.

Workshops/Training programs attended:

S. No.	Type	Theme	Institution/ University	Duration
1.	Workshop	DST-SERB workshop on mentoring PhD students and young faculty	School of Chemistry Bharathidasan University, Trichy	February 17 & 18, 2017.
2.	National Workshop	Resources and Technologies for Scholarly Information	Department of Library and Information Science, Bharathidasan University, Trichy	August 12, 2014
3.	Workshop	Electro analytical methods in Practical Chemistry and Industrial Applications of Electrochemistry	Department of Chemistry, National Institute of Technology (NIT), Trichy,	March 10-12, 2014
4.	Workshop	Recent Advances in Material Chemistry	Department of Chemistry, Anna University, Trichy	March 7 and 8, 2014
5.	Workshop	Advances in Nanotechnology: Fabrication, Processing and Applications	School of Physics, Bharathidasan University, Trichy	February 28 and March 1, 2014
6.	Science Academies Workshop	Recent advances in materials chemistry	Department of Chemistry, Anna University, BIT-Campus, Tiruchirappalli	7 & 8 March 2014
7.	Workshop	Photocatalysis for sustainability: fundamentals and applications	Department of Chemistry, Anna University, BIT-Campus, Trichy	9 October 2013
8.	Short course	Photo-electrochemistry and photo-catalysis	National Centre for Catalysis Research (NCCR), Indian Institute of Technology Madras, Chennai	15 – 19 December 2012

Publications

List of key publications, including books, journal articles, and conference papers.

LIST OF PUBLICATIONS

S. No.	Title and Author of Article	Journal Name	Volume, Year & Page No.
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1.	Synthesis, characterization and binding interactions of amino acids coupled perylene diimides with colloidal doped and undoped TiO ₂ , E. Kavery , N. Nagarajan, G. Paramaguru, R. Renganatha	Spectrochimica Acta Part A: Molecular Spectroscopy	146 (2015) 13–23
2.	Mono- and bi-cyanoacrylic acid substituted phenothiazine based sensitizers for dye sensitized solar cells, E. Kavery , S. Muruganantham, S. Prabhu, R. Renganathan, Chin Sim Yee and Md. Maksudur Rahman Khan	Optik	208, 2020, 164046
3.	Anticorrosion activity of 1,3-bis-[phenyl-(pyridin-2-ylamino)- methyl]-urea (PABU) for mild steel in hydrochloric acid medium, E. Kavery and R. Renganathan,	J Adv Sci Res,	2019, 10 (3): 76-82
4.	A combined experimental and theoretical investigation of perylene based dyes as sensitizer for DSSC, E. Kavery , G. Vinodha, S. Prabhu, R. Renganathan, Chin Sim Yee and Md. Maksudur Rahman Khan	Russian Journal of Physical Chemistry B	15, 2021, S92–S101
5.	Simple phenothiazine-based sensitizers for dye-sensitized solar cells: Impact of different electron-donors on their photovoltaic performances, Kavery Elangovan , Prabhu Saravanan, Subramanian Muruganantham, Cristian H. Campos, Siva Chidambaram, Ramalinga Viswanathan Mangalaraja & Renganathan Rajalingam	Journal of Materials Science: Materials in Electronics	14 June 2024 Volume 35, article number 1150, (2024)
6.	Outline of microbial fuel cells technology and their significant developments, challenges, and prospects of oxygen reduction electrocatalysts, Kavery Elangovan , Prabhu Saravanan, Cristian H. Campos, Felipe Sanhueza-GmezFelipe Sanhueza-Gómez, Md. Maksudur Rahman Khan, Sim Yee Chin, Santhana Krishnan, Ramalinga Viswanathan Mangalaraja	Front. Chem. Eng., Sec. Sustainable Process Engineering (REVIEW article)	07 September 2023, Volume 5 - 2023 https://doi.org/10.3389/fceng.2023.1228510
7	Aerogels and carbon-based materials for photoelectrocatalytic CO ₂ reduction into solar fuels, Prabhu Saravana, Kavery Elangovan , Cristian H Campos, Felipe Sanhueza-Gómez, Padmanaban Annamalai, Kiruthiga Ramakrishnan and R V Mangalaraja	Materials Technology for the Energy and Environmental Nexus,	https://doi.org/10.1088/978-0-7503-5729-6ch4 , Volume 2, Pages 4-1 to 4-24, November 2023

Papers Presented in Seminars/Conferences:

S. No.	Title and Author of Article	Journal Name	Volume, Year & Page No.
1.	Synthesis, characterization and binding interactions of amino acids coupled perylene diimides with colloidal doped and undoped TiO ₂ , E. Kavery , N. Nagarajan, G. Paramaguru, R. Renganatha	Spectrochimica Acta Part A: Molecular Spectroscopy	146 (2015) 13–23
2.	Mono- and bi-cyanoacrylic acid substituted phenothiazine based sensitizers for dye sensitized solar cells, E. Kavery , S. Muruganantham, S. Prabhu, R. Renganathan, Chin Sim Yee and Md. Maksudur Rahman Khan	Optik	208, 2020, 164046
3.	A combined experimental and theoretical investigation of perylene based dyes as sensitizer for DSSC, E. Kavery , G. Vinodha, S. Prabhu, R. Renganathan, Chin Sim Yee and Md. Maksudur Rahman Khan	Russian Journal of Physical Chemistry B	15, 2021, S92–S101
	Anticorrosion activity of 1,3-bis-[phenyl-(pyridin-2-ylamino)- methyl]-urea (PABU) for	J Adv Sci Res,	2019, 10 (3): 76-82

4.	mild steel in hydrochloric acid medium, E. Kavery and R. Renganathan,		
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Seminars/Conferences Attended:

1. Participated in National Seminar on Electrochemical Sensor and Green Energy Generation organized by PG and Research Department of Chemistry, Padmavani Arts and Science College for Women Salem, held on **May 11, 2022.**
2. Participated in Online Faculty Development Programme on Emerging Trends in Nano Technology (ETNT - 2021) organized by Department of Basic Science, Vishnu Institute of Technology Gujarat, held on **November 9-13, 2021.**
3. Participated in National Conference on Bharathi Parvaiyil Penniyam organized by Sanga Ilakiya Aivu Naduvam Perambalur, held on **December 10-12, 2021.**
4. Participated in Online Faculty Development Programme on Sustainable Energy and Green Chemistry organized by PG and Research Department of Chemistry, Sri Sarada college for Women, salem held on **November 20, 2021.**
5. Completed E- Quiz on General Chemistry organised by PG and Research Department of Chemistry Government arts college Trichy, held on **July 9, 2020.**
6. Completed E- Quiz on Chemistry Human welfare organised by Department of Chemistry Sourashtra college, Madurai, held on **July 9, 2020.**
7. Completed National Level E- Quiz 2020 on Basic Chemistry organised by PG and Research Department of Chemistry Arignar Anna Govt Arts College Attur Salem, held on **June 29 - July 3, 2020.** Completed National Level E- Quiz 2020 on Food Chemistry organised by PG and Research Department of Chemistry Arignar Anna Govt Arts College Musiri, Trichy, held on **June 26, 2020.**
8. Completed E- Quiz on Solid State Chemistry organised by PG and Research Department of Chemistry Rajah Serfoji Government college Thanjavur, held on **June 26, 2020.**
9. Completed E- Quiz on Environmental Chemistry organised by PG and Research Department of Chemistry Seethalakshmi Ramaswamy college, Trichy, held on **June 24, 2020.**
10. Completed E- Quiz on Covid – 19 awareness Quiz organised by PG and Research Department of Chemistry Seethalakshmi Ramaswamy college Trichy, held on **May 23, 2020.**
11. Participated in National RSC- NIT Symposium on Heterogeneous Catalysis and Sustainable Chemistry, held on **November 5, 2016.**
12. Participated in National library week seminar on “Research data and scholarly information” organized by Bharathidasan University, Trichy on **November 13, 2013.**
13. Attended two days seminar on “Latest developments in solar photovoltaic technology” organized by PSG institute of advanced studies, Coimbatore **on August 7 & 8, 2013.**
14. Participated in National Level Student Symposium (HORIZON-2010) on Nanomaterials and its applications organized by Department of Chemistry, NIT Trichy held on **October 23, 2010.**

15. Participated in National Level Student Symposium (HORIZON-2009) on Nanotechnology for energy and environmental applications organized by Department of Chemistry, NIT Trichy held on **October 24, 2009**.
16. Participated in National Level Student Symposium (HORIZON-2008) on Recent trend in Analytical Chemistry organized by Department of Chemistry, NIT Trichy held on **October 3 and 4, 2008**.
17. Participated in One Day Workshop on Environment and Development organized by Bharathidasan University, Trichy held on **September 25, 2008**.

Awards and Honors

List of awards and honors received.

1. Cleared **CSIR – NET (Lectureship)** on December-2011 with **16th** rank all over India.
2. Cleared **CSIR – NET (Lectureship)** on June-2012 with **38th** rank all over India.
3. Cleared **GATE 2012 with score 318 and GATE 2013 with score 263**.
4. Cleared **State Eligibility Test for Lectureship (SET-2012)** conducted by **Bharathiar University**
5. Cleared **State Level Proficiency Test** in Chemistry – 2012 with **9th rank (97.81%)** in Tamilnadu conducted by **Prof. Ramasubbu Jeyaraman Science Foundation**.
6. Cleared **CSIR FIRST paper** on June-2010 during M.Sc. first year.
7. Got College **Third rank** in chemistry during B.Sc. in 2009.
8. Got College **Second rank** in Physics (allied) during B.Sc. in 2006.
9. Secured **First place in Quiz competition** organized by Department of Chemistry, Seethalakshmi Ramaswamy college Trichy in 2008-2009

Courses Taught

List of courses taught, including course codes and titles.

Professional Memberships: NIL

List of professional organizations the staff member is a part of.

Projects and Grants

List of significant projects and grants received, including project titles and funding sources.

1. **2012 – 2014** - Junior Research Fellow in DST-SERB Project entitled “Investigations on photoinduced reactions of certain perylene derivatives with colloidal undoped and doped TiO₂”
2. **2014 – 2015** - Senior Research Fellow in DST-SERB Project entitled “Investigations on photoinduced reactions of certain perylene derivatives with colloidal undoped and doped TiO₂”
3. **2015-2017** - Junior Research Fellow in DST-NM Project entitled “Investigations on photoinduced reactions of certain porphyrins with metal nanoclusters modified TiO₂”
4. **2017-2018** - Senior Research Fellow in DST-NM Project entitled “Investigations on photoinduced reactions of certain porphyrins with metal nanoclusters modified TiO₂”

Contact Information

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