

NIRMALA COLLEGE FOR WOMEN (AUTONOMOUS)

COIMBATORE

STAFF PROFILE

NAME : Mrs. A. Yuvarani
DESIGNATION : Assistant Professor
DEPARTMENT : **Physics**
QUALIFICATION : **M.Sc., M.Phil.,**
EXPERIENCE : **Teaching: 5 year 6 Months**
AREAS OF SPECIALIZATION : **Nano Science and Technology**
E-MAIL : **yuvarani@nirmalacollegeonline.ac.in**
ACADEMIC QUALIFICATIONS :

DEGREE	YEAR OF COMPLETION	NAME OF THE INSTITUTION	CLASS
P.hD	Pursuing	Government Arts College (Autonomous), Coimbatore	-
M.Phil	2018	Government Arts College (Autonomous), Coimbatore	Completed with Highly Commented
M.Sc	2015	Government Arts College (Autonomous), Coimbatore	First
B.Sc	2013	PSG College of Arts and Science (Autonomous), Coimbatore	First Class with Distinction
HSC	2010	PSG Sarvajana Higher Secondary School, Coimbatore.	First Class with Distinction
SSLC	2008	St. Philomena's High School, Coimbatore.	First Class with Distinction

RESEARCH PUBLICATIONS:

INTERNATIONAL:

- [1] “Hydrothermal Assisted Green Synthesis of Zinc Oxide Nanostructures using Azadirachta Indica Flower Extract and their Antibacterial Activity”, Journal of Environmental Nanotechnology, June 2025, **A. Yuvarani**, R. Vaideeswaran, I. Sophia Rani and I. Reeta Mary.
- [2] Physical characterization and antibacterial activity of zinc oxide nanostructures synthesized via facile hydrothermal method, Materials Today: Proceedings, 2022. **A. Yuvarani**, R. Vaideeswaran, I. Sophia Rani, I. Reeta Mary.
- [3] The Effect of Hydrothermal Reaction Time on the Antibacterial Activity of Synthesized Manganese Oxide Nanoparticles, Journal of Environmental. Nanotechnology.2023. R. Vaideeswaran, **A. Yuvarani**, I. Sophia Rani, I. Reeta Mary.
- [4] The Effect of Hydrothermal Reaction Time on the Antibacterial Activity of Synthesized Manganese Oxide Nanoparticles, Journal of Environmental. Nanotechnology.2023. R. Vaideeswaran, **A. Yuvarani**, I. Sophia Rani, I. Reeta Mary.

NATIONAL:

- [1] Structural and Morphological Characterization of Magnesium Oxide Nanoparticles derived using Fennel and Cumin seed extracts”, International Journal of Scientific Development and Research, 10(6), 2025. R. Vaideeswaran, **A. Yuvarani**, I. Sophia Rani and I. Reeta Mary.

PRESENTATIONS IN CONFERENCE:

INTERNATIONAL:

- [1] Presented a paper entitled “Hydrothermal assisted Green Synthesis of Zinc Oxide Nanostructures using Azadirachta Indica Flower Extract and their Antibacterial Activity”, International Conference on Advanced Materials for Energy and Environment Sustainability, Karpagam Academy of Higher Education, Coimbatore, 06.03.2025 – 07.03.2025.
- [2] Presented a poster entitled "Physical Characterization and Antibacterial Activity of Zinc Oxide Nanostructures synthesized via Facile Hydrothermal Method" International Conference on Advanced Materials 2022, St. Joseph’s College, Tiruchirappalli, 11 and 12 February 2022.

- [3] Presented a paper entitled "Investigation of Antibacterial Activity against Escherichia coli by Zinc Oxide Nanostructures " International Virtual Conference on Novel Nanomaterials for Innovative Research 2021, Rathinam College of Arts and Science, Coimbatore, 29 and 30 April 2021. **(Best Paper Award)**
- [4] "Photodegradation of Methylene Blue Dye by Hydrothermally Synthesized Zinc Oxide Nanorods", ICMP&C – 2020 (e-conference), Chaitanya Bharathi Institute of Technology, Hyderabad, 18 and 19 September 2020. **(Best Paper Award)**
- [5] Presented a paper entitled "Morphology-dependent Antibacterial Activity of Zinc Oxide Nanostructures against Gram-positive Bacteria" ICANEE-2020 (e-conference), Alagappa University, Karaikudi, 16 to 18 September 2020.
- [6] Presented a paper entitled "Synthesis and Characterization of Hydroxyapatite Nanoparticles by Facile Hydrothermal Method for Antibacterial Activity" 6th International Conference on Bioscience: Towards a Sustainable Future, KSG College of Arts and Science, Coimbatore, 12 February 2020.

NATIONAL:

- [1] Presented a paper entitled "Influence of reaction parameters on ZnO nanostructures for antibacterial activity against Grampositive bacteria", Chikkanna Government Arts College, Tirupur, 05 March 2020 **(Best Paper Award)**.
- [2] Presented a paper entitled "Morphological variation in Zinc Oxide nanostructures and its antibacterial activity" NCEB-2016, Periyar University, Salem, 01 and 02 March 2018.
- [3] Presented a paper entitled "Structural, Surface and Optical Properties of Nanostructured Zinc Oxide for Antibacterial Activity against Escherichia Coli", Sri Ramakrishna Engineering College, Coimbatore, 18 to 20 July 2018.
- [4] Presented a paper entitled "Size Controlled Synthesis of Zinc Oxide Nanoparticles for Photo degradation of Cationic Dye", NCESDMT-2017, Chikkanna Government Arts College, Tirupur, 19 and 20 January 2017.
- [5] Presented a paper entitled "Green Synthesis of Hydroxyapatite Nano-Corals", Sri. G.V.G. Visalakshi College for Women, Udumalpet, 18 and 19 February 2015.
- [6] Presented a paper entitled "Zinc Oxide Nanorods: An efficient Nano-Adsorbent for the Degradation of Methylene Blue Dye", National Seminar on Advanced Materials and Applications, Karpagam University, Coimbatore, 12 and 13 February 2015.

- [7] Presented a paper entitled “Surfactant free synthesis of Hydroxyapatite nano-rods by hydro/solvo process: Degradation of methylene blue” NCAM-2015, St. Joseph’s College, Tiruchirappalli, 06 February 2015.
- [8] Presented a poster entitled “Size Controlled Synthesis of Polygonal Mg(OH)₂ Nanoplates by Hydrothermal Method” NCAM-2015, St. Joseph’s College, Tiruchirappalli, 06 February 2015.
- [9] Presented a paper entitled “Growth of Hydroxyapatite Nano-rods in Aqueous/Ethanol Solvent System: Growth Kinetics”, National Seminar on Physics of Modern Materials, P.K.R Arts College for Women, Gopichettipalayam, 06 January 2015 (**Best Paper Award**).

PARTICIPATION IN WORKSHOPS:

- [1] Workshop on Exploring Ethical Hacking Tools on 27.01.2025, Nirmala College for Women, Coimbatore.
- [2] Online Workshop on Artificial Intelligence Tools for Educators on 27.10. 2023, Sacred Heart College (Autonomous), Kochi.
- [3] Online Workshop on Characterization Technique of Material and Devices on 14.03.2022 – 15.03.2022, CSIR-National Physical Laboratory, New Delhi.
- [4] National e-Workshop on MLM Style of Referencing: 9th Edition Updates on 18.6.2021, Aadishakti Dhandai Mata Shikshan Prasarak Sanstha's Late Annasaheb, R. D. Deore Arts and Science College, Mhasadi, Maharashtra.
- [5] Workshop on Fundamentals of Publishing in Top Journals on 16.6.2021, Maharaja Agrasen Institute of Management Studies, Delhi.
- [6] Workshop on Designing Multiple Choice Questions on 18.5.2021 & 19.5.2021, Tuljaram Chaturch and College, Pune.
- [7] Virtual Workshop on Academic Publications and Bibliometrics on 19.5.2021, Nirmala College for Women, Coimbatore.

PARTICIPATION IN FACULTY DEVELOPMENT PROGRAMMES:

- [1] Faculty Development Programme on “Generative AI in Higher Education: Emerging Tools and Future Directions” on 06.02.2026, Nirmala College for Women (Autonomous), Coimbatore.
- [2] Five-Day International Online Faculty Development Programme (FDP) on “Sustainable Materials and Advanced Research Technologies (SMART-2025)” on

- 18.09.2025 to 23.09.2025, Sacred Heart College (Autonomous), Tirupattur and Scott Christian College (Autonomous), Nagercoil.
- [3] “5 Day National Level Online FDP on Outcome Based Education, Binary Accreditation & Usage of AI” on 02.06.2025 – 06.06.2025, St. Mary’s Centenary Degree College, Secunderabad, Telangana.
- [4] A Ten Days Virtual International Faculty Development Program on Frontiers in Material Science on 17.03.2025 - 17.03.2025, SRM Institute of Science and Technology, Ramapuram, Chennai.
- [5] Faculty Development Programme on NEP 2020 Orientation & Sensitization Programme on 04.11.2024 – 12.11.2024, Central University of Kerala.
- [6] Five-Day National Level Online Faculty Development Program on Beyond Boundaries: Driving Innovation in Research on 26.12.2024 to 30.12.2024, Auxilium College (Autonomous), Vellore.
- [7] Faculty Development Programme on “Internet of Things”, on 30.11.2025, Nirmala College for Women (Autonomous), Coimbatore.
- [8] One Day Online Faculty Development Program on AI Tools For Teaching on 22.06.2024, Star International Foundation for Research and Education, Namakkal.
- [9] National Online Faculty Development Programme on Enhancing Teaching and Learning Competencies of HEI Teachers on 03.05.2024 – 09.05.2024, St. Ann’s Degree College for Women and St. Ann’s P.G. Degree College for Women, Hyderabad.
- [10] Faculty Development Programme on “Recent Developments in Materials Science - 21”, on 16.6.2021 – 22.6.2021, Sree Saraswathi Thyagaraja College, Pollachi, Coimbatore.
- [11] Faculty Development Programme on Recent Research Advances Materials: Water and Waste Water Treatment , 2.8.2021 – 7.8.2021, Bharat Institute of Engineering and Technology, and Indian Ceramic Society, Hyderabad.

BOOK PUBLICATIONS:

- [1] Principles of Physics MCQs : A Study Guide, ISBN number : 97893341915.
- [2] Principles of Physics: Concepts for Non-Majors, ISBN number : 9788198202345.
- [3] Fundamentals of Allied Physics Part 1: 9788199379589.