

 CURRICULUM VITAE

Suparna k

Assistant Professor

NMKRV College for Women (Autonomous)

Bangalore

Karnataka, India

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**Objective:**

I am looking to build a highest level of professional excellence in the field of Research & Teaching, making use of my deep knowledge in Entomology combined with the intense research exposure that I have gained over the last several years.

**Academic Record:**

PhD Chemistry (Pursuing)
M.Sc., B.Ed- Applied Chemistry- Calicut University, Kerala, India.

**CSIR-UGC NET qualified-**24th Rank, University grants commission, New Delhi

**Teaching Experience:**

8 years of experience in teaching class of B. Sc Chemistry in NMKRV College Autonomous college at Bangalore

**Research Experience:** My current research is focused on green synthesis of nanomaterials and their application in the electrochemical detection of antibiotic and pesticide residue. Green synthesis of nanomaterials is an environmentally friendly approach that utilizes natural resources such as plants, microorganisms, and biodegradable compounds to produce nanoparticles. This method avoids the use of toxic chemicals, reducing environmental pollution and promoting sustainability. Green-synthesized nanomaterials have found significant applications in the electrochemical detection of pesticide and antibiotic residues due to their unique properties, such as high surface area, stability, and ease of functionalization. These nanomaterials, including metallic nanoparticles (like gold, silver, and copper), carbon-based materials (like graphene and carbon nanotubes), and metal oxide nanoparticles, can enhance the sensitivity and selectivity of electrochemical sensors. These sensors are highly effective in detecting low concentrations of pesticides and antibiotics in environmental and food samples, playing a crucial role in public health and food safety by enabling rapid, accurate, and cost-effective monitoring. Green nanotechnology offers a promising avenue for creating more sustainable and efficient detection systems.

**MSc. PROJECT WORK**

Institution : Indira Gandhi Centre for Atomic Research(IGCAR),Kalpakkam.

Project Title : separation of radioactive isotopes (Lanthanide and Actinide) using some glycolamic acid derivatives

Position : Project Trainee

Principal Investigator : Dr. K A Venkatesh

**Number of Papers Published in International journals:**

1. Kallakkattil, Suparna, Santhosh Arehalli Shivamurthy, and Yarradoddappa Venkataramanappa. MWCNT anchored green synthesized ZnO nanorods for the electrochemical detection of chloramphenicol in food samples. *Ionics* **30**, 4823–4836 (2024). <https://doi.org/10.1007/s11581-024-05638-7> (Springer Publication)
2. Kallakkattil, Suparna, and Yarradoddappa Venkataramanappa. "Fabrication of sulphur-doped graphitic carbon nitride anchored Ag@ AgCl electrocatalyst for the sensing of chloramphenicol." *Analytical Sciences* (2024)  <https://doi.org/10.1007/s44211-024-00658-9> (Springer Publication).
3. Suparna K1 , Soumya K2\* , Y Venkataramanappa1 “Current status of nanotechnology in insect pest management strategies: A review”, International Journal of Entomology Research, Volume 7, Issue 8, 2022, Page No. 48-53.
4. Kallakkattil, Suparna, and Yarradoddappa Venkataramanappa. “Zinc Oxide-Encapsulated Graphene Carbon Nitride on Halloysite Nanotubes: A Superior Electrochemical Sensor for Detecting Methyl Paraoxon, an Organophosphate Pesticide”. (communicated).
5. Kallakkattil, Suparna, and Yarradoddappa Venkataramanappa. “Ag/AgCl nanoparticle modified glassy carbon electrode for the electrochemical detection of organophosphate residue”. (communicated).

**Book chapter**

1. Biofuels: a sustainable path towards energy independence, IIP Series, Volume 3, Book 16, Part 1, Chapter 2

**International Conference-Papers presented-Oral:2, Poster:2**

1. Suparna K done an oral presentation of paper titled “Rhoeo discolor mediated green synthesis of Ag/AgCl nanoparticle for the detection of chloramphenicol” at two-day international conference on recent research in applied science, organised by Srinivas Institute of technology, Mangalore.
2. Presented a poster on the topic titled “Electrochemical detection of an antibiotic drug chloramphenicol by green synthesized zinc oxide nanoparticle decorated MWCNT” at international symposium on emerging materials for sustainable energy and environment” held at SJCE,JSS Science and Technology University, Mysuru.
3. Oral presentation on the topic titled “Green synthesis of ZnO nanoparticle using Rhoeo discolor plant extract and its characterization” at two-day international conference on recent trends in chemical sciences and sustainable energy, organised by Department of Chemistry, Ansar college, Kerala.
4. Presented a poster on the topic titled “Fabrication of Sulphur doped graphitic carbon nitride anchored Ag@AgCl electrocatalyst for the sensing of antibiotic residue” at the international conference on transformative chemistry for a sustainable future, organised by St.Aloysius College, Mangalore.

**WORKSHOP /COURSES /SEMINARS ATTENDED**

❖ Selected as a “NPTEL Translator” and received certificate of appreciation for translating Stereochemistry course into regional language.

Diploma in entrepreneurial skill development (Add-on course) by Calicut university.

❖ UGC sponsored seminar on “Blue revolution” organised by Dept. Of Chemistry, Little Flower College.

❖ Workshop on “Advances in nanomaterial” organised by Department of nanoscience and technology, University of Calicut.

❖ Lecture series on “Mendeleev’s groups &periods”-Nature to nurture ,organised by MLA college, Malleshwaram

* Workshop on “search-research” organised by IQAC and Center for Co-ordination of Research ,NMKRV College for Women.
* Attended KSTA Conference at NMKRV College for Women,Jayanagar.

**COURSES ATTENDED**

* **Two-Week Online Refresher Course on "Materials for Energy and Sustainability,"** held from **November 4–18, 2024**, organized by **MM-TTC, CS2** IISER**Bhopal.**
* UGC Approved Short Term Professional Development Program Under Pandit Madan Mohan Malaviya National Mission on Teachers and Teaching on ‘Implementation of NEP2020 for University and College Teachers’ *held from 21-29 September, 2022 and obtained 'A+' Grade*
* participated & completed successfully AICTE Training and Learning (ATAL) Academy Online Elementary FDP on "Precision Agriculture and Nanotechnology: Making Agriculture Future Ready" from 20/01/2022 to 24/01/2022 at Noida Institute of Engineering and Technology.
* Completed and passed a 12-week Online course in “Transition metal Organometallics in Catalysis and Biology” conducted by NPTEL-SWAYAM,July 2022
* Successfully completed an online workshop entitled “Evidence based teaching and learning strategies in higher education” from July 13th -15th ,2020 organised by CREATES, IISER Bhopal ,under PMMMNMTT scheme of MHRD.
* attended a FACULTY DEVELOPMENT PROGRAMME (FDP) on “Applications of Nanotechnology in Bio-medicine & Energy” on 13 to 14 July-2020 Organized by Department of Chemistry RGM College of Engineering and Technology-(Autonomous), Nandyal.
* Completed an online certificate course on “Nanotechnology and Nano-sensors” from COURSERA (Technion-Israel Institute of Technology) in September 2020.

**Declaration:** I hereby declare that all statements made here are true, complete and correct to the best of my knowledge and belief.

(Suparna.K)

**PLACE**: BANGALORE