ಜಿ. ಎಂ. ವಿಶ್ವವಿದ್ಯಾಲಯ
GM UNIVERSITY
P. B. Road, Davanagere – 577 006 KARNATAKA | INDIA

GMU - Faculty & Staff Profile Templet

Contact

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Websites
LinkedIn: https://shorturl.at/3MO0q
Google Scholar: Dr. Yuvaraj Gowda Patil — Google Scholar
Research Gate: https://www.researchgate.net/profile/Yuvarajgouda-Patil
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PUBLONS ID: 0000-0001-8231-6049

Dr. Yuvarajgouda Patil

Assistant Professor in Chemistry

Faculty
Faculty of Basic and Applied Sciences.

School / Program
School of Chemical and Biological Sciences.

Faculty Introduction (Five to Six Lines)

Dr. Yuvarajgouda N. Patil is a chemist specializing in electroanalytical chemistry, nanomaterials, and electrocatalysis. His research focuses on developing advanced electrochemical sensors for pharmaceutical, biomedical, and environmental applications. Trained in nanocomposite synthesis and material characterization, he has demonstrated significant contributions in designing modified electrodes for highly sensitive voltammetric detection of therapeutic compounds. His broader interests span energy storage materials, corrosion inhibition, and water treatment technologies. Dr. Patil currently serves as an Assistant Professor at GM University, Davangere, where he continues to explore nanostructured materials for next-generation sensing and energy applications.

Qualifications

Ph.D. (Electroanalytical Chemistry)
KLE Technological University, Hubballi-580031; 2024

M. Sc (Chemistry)
Karnatak University, Dharwad-580003; 2019

B. Sc (Chemistry, Microbiology, Botany)
Karnatak University, Dharwad-580003; 2016

Experience

Teaching

- 2019-2021- BRET College (Degree)
- 2024-2025- GM University, Davangere

Industry

Research

- 3 years on electroanalytical chemistry, nanomaterials, and electrocatalysis (2021-2024; PhD)

Training Program Attended

- Application software for enhanced course delivery training program.
- Workshop on 'Managing Research Literature using Mendeley' organized by Amity University Madhya Pradesh and Elsevier on 5th Feb, 2022.

Research Interest

- Electrochemical sensors and biosensors
- Electrocatalysis and energy materials
- Energy storage applications
- Nanomaterials synthesis and characterization
- Pharmaceutical and biomedical analysis
- Biomass derived carbon
- Corrosion inhibition studies

Awards & Achievements

- Received the 'Young Scientist Award' from the Indian Chemical Society at their December 2022 event hosted at the Department of Chemistry and Chemical Biology, Indian Institute of Technology, ISM, in Dhanbad, Jharkhand.
- Awarded Best Presentation in Analytical chemistry during the 42nd Annual conference Indian Council of Chemists (ICC) held at University of Kota, Kota (Rajasthan) December, 2023.
- First place in "Greenovate '25" organised by Zero Waste society of India, Bengaluru, Indian Institute of Science Campus. Bengaluru
- Oral presentation on "Hazardous 4-aminoantipyrine with functionalized Eco-friendly Fe3O4 nanoparticles decorated nontoxic Molybdenum disulfide nanosheet sensor" in the 59th International Convention of Chemist 2022 'organized by Indian Chemical Society, Kolkata. At ISM Dhanbhad, India, December 2022.
- Presented a poster entitled "Highly Sensitive Electro-oxidative Voltammetric Determination of Anthelmintic Drug Albendazole Using Porous Graphitic Carbon Nitride Sensor Infused with Cationic Micellar Solution" in an International Conference on Biomedical and Clinical

Research held at SDM University, Dharwad on November 21-22, 2022.

- Oral presentation entitled "Electrochemical Sensing of Phenylbutazone using Multi-Walled Carbon Nanotube Paste Electrode in Pharmaceutical and Biological Fluids" 40th Annual national conference, Indian Council of Chemists (ICC) held at Satavahana University, Karimnagar, on 29- 30th December, 2021.

Publication / Patents

- Yuvarajgouda N Patil, Manjunath M., & Nandibewoor, S. T. "A novel nanozyme doped ZnO/r-GO- based sensor for highly sensitive electrochemical determination of muscle-relaxant drug: cyclobenzaprine HCl". Microchimica Acta, (2024). (Q1) (IF: 5.3).
- Yuvarajgouda N Patil, Manjunath M., Abbar, J. C., & Nandibewoor, S.T. Electrochemical Sensing of Phenylbutazone using Multi-Walled Carbon Nanotube Paste Electrode in Pharmaceutical and Biological Fluids. ECS Advances, (2024).
- Yuvarajgouda N Patil, Manjunath M, S.T.Nandibewoor. "PVA capped Mn doped ZnS encapsulated nontoxic MoS2 Nano- sheet probe for the sensitive detection of cardiovascular β-Blocking Agent in biomedical and environmental samples", Journal of Electrochemical Society. (2023), (Q1) (IF: 3.1)
- Yuvarajgouda N Patil, Manjunath M, S.T.Nandibewoor. Highly sensitive electro-oxidative voltammetric determination of anthelmintic drug albendazole using porous graphitic carbon nitride sensor infused with cationic micellar solution. Journal of Pharmaceutical and Biomedical Analysis, (2022), (Q2) (IF: 3.1)
- Yuvarajgouda N Patil, Manjunath M, S.T. Nandibewoor. "Graphitic carbon nitride infused with PVA-Mn: ZnS modified carbon sensor for electrochemical investigation of Metoclopramide hydrochloride". Diamond and Related Materials, (2023), (Q1) (IF: 4.3)
- Yuvarajgouda N Patil, Manjunath M, JC Abbar, ST Nandibewoor. Hazardous 4-aminoantipyrine with functionalized Eco-friendly Fe3O4 nanoparticles decorated nontoxic Molybdenum disulfide nanosheet sensor. Results in Chemistry, (2023), (Q3) (IF: 2.5)
- Yuvarajgouda N Patil, Manjunath M, Santosh Nandi, Sharanappa T. Nandibewoor, Vinayak Adimule, Shashanka Rajendrachari. "Electrochemical Determination of Cyclobenzaprine Hydrochloride Muscle Relaxant Using Novel S-GCN\TiO2 Based Carbon Electrode", ACS Omega,(2024), (Q2) (IF:3.7).

- Yuvarajgouda N Patil; Manjunath M; Ayush Gowda A; Sharanappa Nandibewoor, Shivashankar Hiremath. “Pioneer electrochemical approach for the determination of Metaxalone in biomedical and environmental samples using W: TiO2/S-GCN@CPE sensor”. Microchemical Journal, (2024), (Q1) (IF: 4.9).
- Yuvarajgouda N Patil., & Nandibewoor, S. T. Development of novel Ce doped ZnO/graphene-based sensor for electrochemical investigation of potassium-competitive acid blocker: Vonoprazan. Materials Science in Semiconductor Processing, (2024), (Q1) (IF: 4.2).
- Manjunath M., Yuvarajgouda N Patil, Chavan, C., & Nandibewoor, S. T. “A novel ceramic modified carbon-based sensor for ultrasensitive electro-sensing of fast green FCF analysis: An advancement in toxic dye detection”. Inorganic Chemistry Communications. (2024). (Q1) (IF: 4.4)
- Manjunath M, Yuvarajgouda N Patil, S.T.Nandibewoor. “Electrochemical sensing of carcinogenic p-Dimethylamino Antipyrine using sensor comprised of eco-friendly MoS2 nanosheets encapsulated by PVA capped Mn doped ZnS nanoparticle”. Inorganic Chemistry Communications, (2023), (Q1) (IF: 4.4).
- Manjunath M, Yuvarajgouda N Patil, S.T. Nandibewoor.”YSZ/MoS2 Modified Carbon Based Sensor for the determination of Muscle Relaxant Agent Chlorzoxazone: A Novel Electroanalytical Strategy”. Inorganic Chemistry Communications. (2023). (Q1) (IF: 4.4)
- Manjunath M, Yuvarajgouda N Patil, S.T. Nandibewoor. “A Novel CTN-Fe3O4/g-C3N4 Modified Green Synthetic Sensor for Electro-Sensing of Phenylbutazone”. Materials Science in Semiconductor Processing, (2023), (Q1) (IF: 4.2).
- Manjunath M, Yuvarajgouda N Patil, S.T.Nandibewoor. “Low-Cost N-Rich Graphitic Carbon Nitride Infused with Anionic Micellar Solution Sensor for Highly Sensitive Voltammetric Determination of Vasodilator Drug Hydralazine hydrochloride”. Journal of the Electrochemical Society, (2022). (Q1) (IF: 3.1).
- Manjunath M, Yuvarajgouda N Patil, Abbar, J. C, S.T.Nandibewoor. “An Electrochemical Strategy for the Highly Sensitive Voltammetric Determination of a Cardiovascular β-Blocking Agent in Biological Fluids”. Analytical and Bioanalytical Electrochemistry, (2022). (Q4) (IF: 1.2).
- Suma J.G. Yuvarajgouda N Patil, Manjunath M, S.T. Nandibewoor, Rajappa S.K. “Sensitive electrochemical analysis of uricosuric drug sulfinpyrazone using a graphene-based sensor: A first voltammetric approach”. Next Materials, (2024) (Q1).

- Kurundawade, S. R.,. Yuvarajgouda N Patil., Manjunath M., & Nandibewoor, S. T.“A novel highly sensitive clay-based sensor for the detection of Ketoconazole: An Electrochemical approach”. Ionics, (2024), (Q2) (IF: 2.4).
- Kurundawade, S. R.,. Manjunath M., Yuvarajgouda N Patil., & Nandibewoor, S. T. “A Novel Electrochemical Strategy for the Highly Sensitive Investigation of Tinidazole Using Newly Designed Halloysite Nano Clay and TiO2 Based Sensor”. Journal of The Electrochemical Society. (2023). (Q1) (IF: 3.1).
- Biradar, S., Bennal, A. S., Patil, S., Sayyed, M. I., Patil, Y. N., Megalamani, M. B., & Hegde, B. G. (2025). Experimental investigation on the role of Bi^{3+} composition in structural, elastic, and radiation shielding properties of multifunctional cobalt-nickel nanoferrites. Journal of Alloys and Compounds, 181255. (Q1) (IF: 6.3).
- Suma, J. G., Patil, Y. N., Megalamani, M. B., Kotabagi, S. D., Rajappa, S. K., & Nandibewoor, S. T. (2025). Development of m-zirconium/halloysite nanoclay composite modified glassy carbon electrode for electrochemical detection of metaxalone in biological and environmental samples. Materials Science and Engineering: B, 320, 118447. (Q1) (IF: 4.6).
- Manami, R. B., Megalamani, M. B., Patil, Y. N., Kalkhambkar, R. G., Nandibewoor, S. T., Adarakatti, P. S., ... & Alsuhaibani, A. M. (2025). Electrochemical Investigation of a ZnO/RGO-Modified Electrode for Trace Pb (II) Detection in Water and Soil Samples. Topics in Catalysis, 1-17. (Q1) (IF: 4).
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- Etc..

Professional Membership

- INDIAN CHEMICAL SOCIETY 500 KB) 92, Acharya Prafulla Chandra Road, Kolkata-700 009

Awards & Recognitions

- Received the 'Young Scientist Award' from the Indian Chemical Society at their December 2022 event hosted at the Department of Chemistry and Chemical Biology, Indian Institute of Technology, ISM, in Dhanbad, Jharkhand.

Administrative Responsibilities

- BOS member
- IQAC co-ordinator.

Workshops / FDPs / Seminars Attended

- FDP on Digital competency and skill development.

- FDP on Research proposal writing.
- FDP on intellectual property rights.
- Attended national level seminar on recent developments in chemical sciences (RDCS-2023).
- National level seminar on advanced approaches in chemical and pharmaceutical sciences(AACPS-2023).

Workshops / FDPs / Seminars Organized

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Projects Guided

- UG Projects: 3
- PG Projects: 4

Funded Projects / Grants Received

- Seed Money for research – R & I, G M University – Davanagere.

Any Other Contributions