DAYANANDA SAGAR ACADEMY OF TECHNOLOGY AND MANAGEMENT

(Affilated to Visvesvaraya Technological University, Belagavi & Approved by AICTE, New Delhi)
Opp. Art of Living, Udayapura, Kanakapura Road, Bangalore- 560082

DEPARTMENT OF CHEMISTRY

Accredited by NAAC with A+ GRADE, New Delhi

Faculty Name	**Dr. NANDINI A PATTANASHETTI**
Academic Designation	**Assistant Professor**
Educational Qualification	**B.Sc., M.Sc, Ph.D**
Experience in Years	**6 (Research) + 7 (Teaching)**
Area of Interest	**Materials Chemistry, Polymer Chemistry, Tissue Engineering**
Date of Birth	**22-08-1989**
Email ID	nandini-chem@dsatm.edu.in nandinipattanshetti@gmail.com

Educational Details

- Ph.D - in Polymer Chemistry (Development & Evaluation of Polymeric Scaffolds for Bone Tissue Engineering) from Karnatak University Dharwad (KUD) 2020.
- M. Sc. - in Physical Chemistry from Karnatak University Dharwad (KUD) 2012.
- B. Sc. (PCM) – R L Science College, Belagavi, (KUD), 2010.

Personal Details

- Date of Birth: 22-08-1989
- Hobbies: Listening to music, Diary Writing, Reading books
- Languages Known : Kannada, Hindi, English

Professional Experience

- Worked as a Lecturer in Department of Chemistry, at R. L. Science PU College from 2012 to 2014.
- Worked as Assistant Professor, Dept. of chemistry, Annasaheb Dange College of Engineering and Technology, Ashta, Sangli, Maharashtra from February 2020 to July, 2021.
- Worked as Assistant Professor, Dept. of chemistry, Alvas Institute of Engineering and Technology, Moodbidri, from August, 2021 to June, 2022.
- Currently working as Assistant Professor, Dept. of Chemistry, Dayananda Sagar Academy ofTechnology & Management, Bangalore from July 2022 till date.

Publications

International Journals:

1. **Nandini A. Pattanashetti**, Amruta Savadi, Maruti Pali, Siddharth Sonavane, Sunita, Mahadevappa Y. Kariduraganavar, Effect of Solvent on the PEOX Electrsopun Scaffolds for Tissue Engineering, ***Heliyon*****, (Elsevier)** 11 (2025) e41259. **(Q1, Impact Factor = 3.4)**
2. Basavaraj S. Sannakashappanavar**, Nandini A. Pattanashetti**, and Aniruddh Bahadur Yadav, Effect of deposition temperature on growth of Zinc oxide Nanorods on Zinc oxide thin film for Optoelectronics and Sensing Applications, ***Interactions Journal***, (Springer) 245 (2024) 1-12. **(Q4)**
3. **Nandini A. Pattanashetti**, Chinmay Hiremath, Satishkumar R. Naik, Geetha B. Heggannavar and Mahadevappa Y. Kariduraganavar, Development and Evaluation of Nanofibrous Scaffolds by Varying the TiO_2 Content in Crosslinked PVA for Bone Tissue Engineering, ***New Journal of Chemistry*** **(RSC) 44** (2020) 2111-2121.
4. **Nandini A. Pattanashetti**, Tania Viana, Nuno Alves, Geoffrey R. Mitchell and Mahadevappa Y. Kariduraganavar, Development of novel 3D scaffolds using BioExtruder by varying the content of hydroxyapatite and silica in PCL matrix for bone tissue engineering, ***Journal of Polymer Research*** **(Springer**) 27 (2020) 87.
5. **Nandini A. Pattanashetti**, Divya D. Achari, Radha V. Doddamani and Mahadevappa Y. Kariduraganavar, Development of Multilayered Nanofibrous Scaffolds with PCL and PVA:NaAlg Using Electrospinning Technique for Bone Regeneration, ***Materialia*** **(Elsevier)** 12 (2020) 100826.
6. **Nandini A. Pattanashetti**, Sara Biscaia, Carla Moura, Geoffrey R. Mitchell and Mahadevappa Y. Kariduraganavar, Development of novel 3D scaffolds using BioExtruder by the incorporation of silica into polycaprolactone matrix for bone tissue engineering, ***Materials Today Communications*** **(Elsevier) 21** (2019) 100651.
7. Divya D Achari, Sachin N Hegde, **Nandini A Pattanashetti**, Ravindra R Kamble, Mahadevappa Y Kariduraganavar, Development of zeolite-A incorporated PVA/CS nanofibrous composite membranes using the electrospinning technique for pervaporation dehydration of water/tert-butanol, ***New Journal of Chemistry*** **(RSC)** 45 (8) (2021) 3981-3996.
8. Radha V. Doddamani, Padmeshwary S. Rachipudi, **Nandini A. Pattanashetti** and Mahadevappa Y. Kariduraganavar, Synthesis, structural characterization and computational study of NLO-responsive chromophores and second-order coefficients of thermally crosslinked polymers, ***New Journal of Chemistry*** **(RSC) 43 (**2019) 15723-15735.
9. Basavaraj S Sannakashappanavar, CR Byrareddy, Sanjit Varma, **Nandini A Pattanashetti,** Aniruddh Bahadur Yadav, Deposition of ZnO Thin Film at Different Substrate Temperature Using RF Sputtering for Growth of ZnO Nanorods Using Hydrothermal Method for UV Detection, Control Instrumentation Systems (2020) 91-98.
10. Sannakashappannavar B. S, **Pattanashetti N. A**, Singh K, Yadav A. B., Growth of ZnO nanorods on different seed layer thickness using the hydrothermal method for UV detection, ***Journal of Nanoelectronics and Optoelectronics***, 14 (2019) 964-971.
11. B. Sannakashappanavar, **N. Pattanashetti**, Byrareddy, A. B. Yadav, Study of annealing effects on the growth of ZnO nanorods on ZnO seed layers, Advances in mechanical design, materials and manufacture, ***AIP Conference Proceedings***, 1943 (2018) 020077**.**
12. J. I. Gowda, R. Hanabaratti, **N. A. Pattanashetti**, Oxidation of glycine by diperiodatocuprate (III) in aqueous alkaline medium, ***Indian Journal of Chemistry-A*** 52(A) (2013) 200-206.

Dr. Nandini A Pattanashetti, Google Scholar: Citations: 373, H-index: 8.

Book Chapters:

1. D. D. Achari, **N. A. Pattanashetti**, M. Y. Kariduraganavar, Antifouling Nano Filtration Membranes" In: "Nanostructured Hard Materials Industrial Applications", Wiley-Scrivener, 2025 (In press).
2. **N. A. Pattanashetti**, R. Sandhya, S. M. Kariduraganavar, M. Y. Kariduraganavar, "Carbon Nanotubes as an effective electrocatalytic material", In: "Electrocatalytic Materials" Springer Nature, 2024.
3. **N. A Pattanashetti,** G. R. Mitchell, M. Y. Kariduraganavar, Polyurethane for scaffolds, In: **Polyurethanes: Preparation, Properties, and Applications, ACS, 2023.**
4. Mahadevappa Y. Kariduraganavar, Geetha B. Heggannavar, **Nandini A. Pattanashetti**, Neeta U. Donnimath, Geoffrey R. Mitchell, Nanospun Membranes Developed by Electrospinning Techniques for Drug Delivery Applications, in: Ali Kargari, Takeshi Matsuura, Mohammad Shirazi, Electrospun and Nanofibrous Membranes, Elsevier Science, 2022.
5. **N. A. Pattanashetti**, A. I. Torvi, A. K. Shettar, M. Y. Kariduraganavar, P. B. Gai, Polysaccharides as Novel Materials for Tissue Engineering Applications, in: Inamuddin (Ed.), **Polysaccharides: Properties and Applications**, **John Wiley & Sons, Inc.** 2021.
6. **N. A. Pattanashetti**, C. G. Hiremath, N. Alues and M. Y. Kariduraganavar, Advances in polymers and tissue engineering scaffolds, in: Inamuddin (Ed.), **Green Polymer Composites Technology: Properties and Applications,** CRC Press, **Taylor & Francis, USA, 2015.**
7. G. B. Heggannavar, **N. A. Pattanashetti**, A. Mateus and M. Y. Kariduraganavar, Advances of polymeric implants in biomedical applications in: Inamuddin (Ed.), **Green Polymer Composites Technology: Properties and Applications,** CRC Press, **Taylor & Francis, USA, 2015.**

Review Articles

1. V. Mahendra, M. Y. Kariduraganavar, **N. A. Pattanashetti**. G. R. Mitchell, The coconut tree - A source of sustainable polymeric materials, ***United Journal of Biochemistry and Biotechnology***, 1 (2018) 1-6.
2. **Nandini A. Pattanashetti**, Geetha B. Heggannavar, Mahadevappa Y. Kariduraganavar, Smart Biopolymers and Their Biomedical Applications, ***Procedia Manufacturing*** 12 (2017) 263 – 279.

Patents Published

1. Flipper heels (202441093448), 2024, India
2. Hybrid Phone Charger Integrating Solar and Kinetic Energies (202441093431), 2024, India.
3. Customized 3D printed Choke Lever (202541072600), 2025, India

Conferences Attended

1. **Nandini A. Pattanashetti**, Amruta Savadi, Maruti Pali, Siddharth Sonavane, Sunita, Mahadevappa Y. Kariduraganavar, Effect of Solvent on the PEOX Electrsopun Scaffolds for Bone Tissue Engineering, ChemFerence-2023, organized by BITS Pilani, Goa Campus, Goa, during 30rd September to 2nd October 2023
2. **Nandini A. Pattanashetti**, Amruta Savadi, Maruti Pali, Siddharth Sonavane, Sunita, Mahadevappa Y. Kariduraganavar, Effect of Solvent on the PEOX Electrsopun Scaffolds for Tissue Engineering, International Conference on Recent Advances in Engineering Materials-2022, organized by Alvas Institute of Engineering and Technology (AIET), Mijar, Moodbidri, during 3rd-5th March, 2022.
3. **N. A. Pattanashetti**, A. Tojeira, T. Viana, M. Y. Kariduraganavar, Fabrication of Novel 3-Dimensional Scaffolds for Bone Tissue Engineering, International Conference on Direct Digital Manufacturing and Polymers, ICDDMAP 2019, Karnatak University, Dharwad, during 20th-23rd February, 2019.
4. **Nandini A. Pattanashetti**, Tania Vaina, Nuno Alves and Mahadevappa Y. Kariduraganavar, Fabrication of novel 3-dimensional scaffolds for bone tissue engineering by incorporating SiO_2 into PCL matrix, 35th Annual Conference Indian Council of Chemists, Haribhai V. Desai College, Pune, during 22nd- 24th December, 2016.
5. **N. A. Pattanshetti,** S. I. Biscaia, G. R. Mitchell and M. Y. Karidurganavar, Development of 3-dimensional scaffold with FDM technique for regeneration of bone using PCL\HAP\SiO_2 composite, International Conference on Direct Digital Manufacturing and Polymers 2015 (ICDDMAP-2015), Department of Chemistry, Karnatak University, Dharwad, during 28th -31st October, 2015.
6. **N. A. Pattanshetti**, S. I. Biscaia, N. Alves, G. R. Mitchell, Fabrication of Novel 3-Dimensional Scaffolds for Bone Tissue Engineering by incorporating SiO_2 into PCL matrix at National Seminar on **"Recent Trends in Chemistry"** (2018) organized by Department of Chemistry, Karnatak University Dharwad.

Awards and Recognition

1. **Best Research Paper Award**, for the paper presented at the **International Conference on Recent Advances in Engineering Materials-2022**, organized by Alvas Institute of Engineering and Technology (AIET), Mijar, Moodbidri.
2. **Best Oral presentation award** with a Memento, Certificate and a cash prize of Rs.12000 at the 3rd **International conference on Direct Digital Manufacturing and Polymers (ICDDMAP-2019)** organized by Karnatak University, Dharwad in collaboration with Centre for Rapid and Sustainable Product Development, Polytechnic Institute of Leiria, Portugal.
3. **Best Poster presentation award** with a Memento, certificate, and a cash prize of Rs.1000, at National Seminar on **"Recent Trends in Chemistry" (2018)** organized by Department of Chemistry, Karnatk University Dharwad.
4. **Prof. G. Gopal Rao Centenary Commemorative Young Scientist Award** for the best oral presentation at **35th Annual National Conference** organized by Indian Council of Chemists, Haribhai V. Desai College, Pune.
5. **Prof. E. S. Jayadevappa Gold Medal** for securing **1st Rank in M.Sc. (Chemistry)** in the year 2013.

Academic Activity

- Convenor of One Week Online Faculty Development Program on Recent Trends in Materials Science and Engineering (RTMSE-2022).
- Coordinator for Institute Research and Development Cell (IRDC) Dayananda Sagar Academy of Technology and Management.
- Academic Council Member
- Innovation and Design Thinking- Coordinator
- Engineering Exploration Course- Coordinator
- Reviewer of many International Journals.

Faculty Development Activity/Workshops

1. Organized One Week Online Faculty Development Programme on "**Recent Trends in Materials Science and Engineering" (RTMSE-2022**), DSATM from 12th September to 16th September 2022.
2. Attended AICTE recognized one week FDP on **"Smart Materials Processing and Applications"** organized by Applied Science Department, NITTTR, Chandigarh during 25/07/2022 to 29/07/2022.
3. Attended AICTE recognized one week FDP on **"3D and 4D Printing Applications"** organized by Mechanical Engineering Department, NITTTR, Chandigarh during 17/01/2022 to 21/01/2022.
4. Attended AICTE recognized one week FDP on "**Green Energy Materials and Technology"** organized by Applied Science Department, NITTTR, Chandigarh during 29/11/2021 to 3/12/2021.
5. Attended One Week Online Faculty Development Programme (FDP) on "**Research Methodology, Research Publication and Patent Filing**" organized by Sharad Institute of Technology College of Engineering, Yadrav (Ichalkaranji) during 20th Sept – 24th Sept 2021.
6. Attended Two Days State Level Webinar Series, on **"Rasadhara"** organized by Department of Chemistry, M. M. Arts and Science College, Sirsi (U. K.) during 29th June and 1st July 2021.
7. Organized One week STTP program on **"Innovations in Physics & Chemistry"** organized by Department of Basic Sciences, Annasaheb Dange College of Engineering & Technology, Ashta, during 18th to 23rd May, 2021.

Contact Details

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