Dr. Shalini Bahel
Professor,
Department of Electronics Technology
Guru Nanak Dev University, Amritsar

Professional Information

- **Current Position**:
  - Dean, Faculty of Engineering & Technology
  - Professor In-charge (Examinations), Guru Nanak Dev University
  - Chairperson, Internal Complaints Committee
- **Email**: shalini.elec@gndu.ac.in
- **Mobile**: +91 9417276049, +91 9463659840

Academic Qualifications

- **Ph.D.** (2011), Guru Nanak Dev University, Amritsar
  Thesis: Synthesis and Characterization of Sm/Bi Co-substituted $Ba_4La_{9.33}Ti_{18}O_{54}$ Microwave Dielectrics
- **M.Tech.** (1995), Maulana Azad National Institute of Technology, Bhopal
  Specialization: Digital Communication
- **B.E.** (1992), Rajiv Gandhi Proudyogiki Vishwavidyalaya, Bhopal
  Specialization: Electronics

Professional Experience

- Over **23 years** of teaching and research experience in electronics, communication, and microwave materials (dielectrics and ferrites).
- **Professor**, Department of Electronics Technology, GNDU (2020 – Present)
- **Associate Professor**, GNDU (2017 – 2020)
- **Assistant Professor**, GNDU (2004 – 2017)

Key Roles:

- **Dean**, Faculty of Engineering & Technology since July 1, 2024.
- **Professor In-charge (Examinations)** since April 1, 2024.
- **Chairperson**, Internal Complaints Committee since July 1, 2024.
- **Dean,** College Development Council from Jan 1, 2023 to Dec 7, 2023.
- **Dean,** Faculty of Engineering & Technology from March 13, 2023 to Sept 12, 2023.
- **Head**, Department of Electronics Technology from Jan 1, 2020 to Dec 31, 2022.
- **Head**, Department of Mechanical Engineering from Jan 1, 2020 to Dec 31, 2022.
- **Head**, University Science Instrumentation Centre from Jun 1, 2020 to Dec 31, 2022.
- **Chairperson**, Board of Control & Board of Studies (UG & PG), Dept. of **Electronics Technology** from Jan 1, 2020 to Dec 31, 2022.
- **Chairperson**, Board of Control & Board of Studies, Dept. of **Mechanical Engineering** from Jan 1, 2020 to Dec 31, 2022.
- **Warden**, Girls Hostel No. 1 from April 1, 2018 to March 31, 2021.

Research Interests

- Microwave Materials for wireless communication.
- Low-loss, temperature-stable dielectric ceramics and microwave absorbing ferrites.
- Effects of non-ionizing Electromagnetic radiation on various plants.

Research Guidance

- **Ph.D. Thesis Supervised**: 07
  - Mandeep Kaur (2025): "Processing and Characterization of Co substituted ZnFe2O4 Ferrites for Applications at Microwave Frequencies"
  - Surbhi Sharma (2024): "Evaluation of Genotoxic Effects of Electromagnetic Radiations using *Trigonella foenum-graecum* test system"
  - Komal Sharma (2024): "Investigations of Magnesium Titanate Based Dielectric Ceramics for Electronic Applications"
  - Jasdeep Singh (2022): "Synthesis and Characterization of Magnesium Titanate Based Dielectric Ceramics for Wireless Communication"
  - Ranjeet Singh (2021): "Processing and Characterization of Substituted M-phase $Li_{1+x-\gamma}Nb_{1-x-3\gamma}Ti_{x+4\gamma}O_3$ Solid Solutions for Microwave Applications"
  - Pawandeep Kaur (2019): "Synthesis and Characterization of Substituted Strontium Hexa-ferrites for Microwave Applications"
  - Maalti Puri (2017): "Effects of Substitution on Dielectric Properties of Iron Niobate Based Solid Solutions for Electromagnetic Devices"
- **Current Ph.D. Scholar**: 01
- **M. Tech. Thesis Guided**: 38

Research Projects

- **MHRD** funded project on **Cytotoxic and Genotoxic Effects of Electromagnetic Radiations Using *Trigonella foenum-graecum* Test System** (2019–2022)

Publications

- Authored **75+ research papers** in high impacted international journals and presented **40+ research papers** various reputed International / national conferences, primarily focusing on advanced electronic materials and effects of non-ionizing electromagnetic radiation (EMR). These contributions include work on dielectric ceramics, microwave-absorbing materials, ferrites and cytotoxic / genotoxic effects of radiation on plants.

- Contributed to **4 book chapters** in the field of microwave materials and environmental pollution due to EMR.

Honors & Awards

- **Best Women Scientist Award** by Pearl Foundation for Educational Excellence (2019)
- **GATE** (1993) with 92.62 percentile
- Qualified **Joint CSIR-UGC National Eligibility Test (NET)** for JRF (1993)
- **University Merit Holder** in B.E. (Electronics), 1992

Professional Memberships

- **Member, IEEE since 2012**
- **Life Member Punjab Science Congress**

Academic & Administrative Contributions

- Member key **university committees** including the Academic Council, Research Degree Committee, Equivalence Committee etc.
- Supervised development of curricula for undergraduate and postgraduate programs in Electronics and Communication Engineering.
- Coordinated various **refresher courses** and **short-term training programs** conducted by **UGC-HRDC**.

Invited Talks & Conference Presentations

- Delivered several **invited talks** on microwave dielectric materials and their applications in wireless communication systems at various national and international platforms.
- **Chaired sessions** and presented research papers at prestigious national and international conferences
- Active participant in **International Microwave Symposiums.**

Date: April 23, 2025 (Dr Shalini Bahel)