

Dr. Shahab Ahmad Niazi

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Career Objective:

To secure a dynamic role in academia or academic administration, contributing to teaching excellence, curriculum development, and strategic academic planning while leveraging over 23 years of experience in research, academic leadership, and program evaluation.

Profile Summary:

- Associate Professor and Chairman of the Electronic Engineering Department at The Islamia University of Bahawalpur, Pakistan.
- Extensive research expertise in optical signal processing, photonics, fiber-optic communication, and microwave technologies.
- Proven track record in curriculum development, program accreditation, and outcome-based education (OBE) implementation.
- Strong administrative acumen in departmental budgeting, faculty management, and compliance with academic regulations.
- Hands-on experience in telecommunication sector projects, network planning, and deployment.

Education:

- **Ph.D. in Optical Engineering** – State Key Laboratory of Information Photonics and Optical Communication, Beijing University of Posts and Telecommunications, China
- **M.S. in Electrical (Telecom) Engineering** – University of Engineering and Technology, Peshawar
- **Postgraduate Diploma in Human Resource Management** – Bahauddin Zakariya University, Multan
- **B.E. in Electrical (Electronics) Engineering** – NED University of Engineering and Technology, Karachi

Key Skills & Competencies:

Academic Leadership & Administration

- Departmental management including budget allocation, faculty evaluation, and performance monitoring.
- Curriculum design, revision, and alignment with Program Learning Outcomes (PLOs) and Program Educational Objectives (PEOs).
- Accreditation compliance with Pakistan Engineering Council (PEC) and Higher Education Commission (HEC) requirements.
- Student support, faculty development, and conflict resolution.

Outcome-Based Education (OBE) Implementation

- Conducted program evaluations ensuring adherence to PEC standards under the Washington Accord.
- Assessment of student learning outcomes and continuous quality improvement.

- Developed comprehensive assessment reports for curriculum improvement.

Teaching & Research Expertise

- Research in photonics, fiber-optic communication, microwave systems, and AI-based modeling.
- Published in high-impact journals such as *Scientific Reports* and *IEEE Transactions*.
- Supervised multiple Ph.D. and M.S. theses in advanced research topics.
- Delivered complex course content for undergraduate and graduate programs.

Technical & Project Management Skills

- Optical network design, testing, and performance analysis.
- Expertise in photonic components: PICs, lasers, modulators, and amplifiers.
- Software proficiency: MATLAB, Optisys, VPI Photonics, K-layout.
- Telecommunication project planning using PERT/CPM tools.

Professional Experience:

Online Instructor

Tesla University Aruba (October 2023 – Present)

- Developed and delivered online courses via Bongo (D2L Virtual Classroom).
- Created interactive assessments and provided student feedback.
- Supported students with virtual office hours and organized course materials using Brightspace.

Chairman & Associate Professor

Department of Electronic Engineering, Islamia University Bahawalpur (October 2015 – Present)

- Led departmental operations including curriculum development and accreditation processes.
- Managed faculty assignments, class schedules, and fiscal operations.
- Evaluated faculty performance and participated in the appointment process.
- Monitored and assessed student learning outcomes.
- Conducted research and supervised final year design projects, M.S., and Ph.D. theses.

Assistant Professor

COMSATS Institute of Information Technology, Attock (August 2013 – September 2015)

- Designed and delivered innovative course materials.
- Supervised student research activities and contributed to curriculum development.

Senior Engineer (Telecommunication Projects)

Pakistan Telecommunication Company Ltd (2004 – 2010)

- Planned and deployed optical fiber and wireless communication projects.
- Coordinated with vendors for conflict resolution and conducted risk assessments.

Junior Engineer (Network Operations)

DANCOM (Private) Limited (2001 – 2004)

- Monitored network performance and ensured reliable ISP services.
- Implemented troubleshooting strategies and configuration changes.

Selected Publications:

1. Fayyaz, U., Niazi, S.A., et al., "Generation of Dual Band OAM Wave Using Single Patch Antenna for WLAN/WiMAX Applications," *EuCAP*, 2024.
2. Majeed, K., Niazi, S.A., et al., "Polarization-Insensitive Ultra-wideband Metamaterial Absorber," *Plasmonics*, 2024.
3. Fayyaz, U., Niazi, S.A., et al., "Circular Polarized Multi-mode OAM Antenna for IoT Applications," *Scientific Reports*, 2024.

Research Projects:

- Principal Investigator for NRPU Project No. 17107: "Design of Architecture and Devices for Short Reach Ultra-Dense Wavelength Division Multiplexing Passive Optical Network for 5G and Beyond Wireless Communications."
- Contributor to the "Real-time ultra-dense WDM-PON (REAL PON)" project at Instituto de Telecomunicações, Lisbon, Portugal.

Professional Trainings:

- PEC Workshop for PEVs (UET Lahore)
- NTC Training Seminar for PEVs (ISP Multan)
- International Workshop on Outcome-Based Education (PEC)
- CCNA (Routing & Switching) at CISCO Networking Academy

Ph.D. Supervision:

- Dr. Umar Fayyaz | "Development of Orbital Angular Momentum Antenna Subsystem for 5G Applications" (2024)
- Khalid Majeed | "Development of Polarization Insensitive Metamaterial Absorber" (In Progress)