Syed Nisheta Andrabi

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Academic Profile

Silver Medalist in B.Tech Electrical Engineering from NIT Srinagar with proven academic excellence and ranked among department toppers. Passionate educator and researcher, currently serving as a teaching apprentice in the Department of Electrical Engineering, University of Kashmir. Strong expertise in power systems, machines, and control, with ongoing research on voltage instability and its mitigation through MATLAB Simulink simulations and hardware experimentation.

Education

Bachelor of Technology (B.Tech), Electrical Engineering
National Institute of Technology (NIT) Srinagar | 2025

- **CGPA:** 8.947 / 10 (Rank 2 – Department Topper)

Senior Secondary (12th), JKBOSE

- Percentage: 93%

Secondary (10th), JKBOSE

- Percentage: 97.6%

Academic Experience

Teaching Apprentice
Department of Electrical Engineering, University of Kashmir | Sep 2025 – Present

- Taught Power Systems and Electrical Machines to undergraduate students
- Delivering lectures, preparing academic content, and mentoring students
- Involved in academic discussions and curriculum support activities.

Faculty In-Charge – Engineering Multi-skill Training Program
Feb 2026 – Mar 2026

- Led an **engineering multi-skill training initiative** for students
- Conducted sessions on **fundamental and applied electrical engineering concepts**

- Guided hands-on practical work and technical activities
- Mentored students to develop **industry-relevant technical skills**
- Coordinated training sessions and ensured effective program execution

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Research Work & Publication

Voltage Instability Phenomenon and Its Mitigation in Power Systems

- Research paper under submission based on simulation and hardware validation
- Includes **PV curve analysis, stability margins, and mitigation strategies**
- Combines MATLAB Simulink modelling with Arduino-based experimentation
- Awarded **A+ evaluation** and academic distinction

Academic Project

Voltage Instability Phenomenon and Its Mitigation
NIT Srinagar | Oct 2024 – July 2025

- Performed **PV curve analysis and load flow studies** using MATLAB Simulink
- Developed Arduino-based hardware prototype to demonstrate **voltage collapse and maximum power transfer theorem**
- Investigated mitigation using **On-Load Tap Changers (OLTCs)** and **Static VAR Compensators (SVCs)**
- Awarded **A+ Grade** and recognized among top projects

Academic Training

Institute of Technology, University of Kashmir | Jan 2025 – Feb 2025
Internship

- Conducted power system simulation and optimization using MATLAB/Simulink
- Performed modelling and stability assessment studies

J&K Power Transmission Corporation Limited (JKPTCL), Srinagar | Dec 2023 – Feb 2024
Technical Intern

- Studied grid station operations and load management
- Gained exposure to SCADA systems and transformer maintenance

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Research Interests

- Voltage Stability analysis in power systems
- Power System Load Flow Analysis
- Reactive Power Compensation (SVC, OLTC)
- MATLAB/Simulink-Based Power System Studies
- Hardware-Based Validation of Power System Concepts

Technical Skills

- MATLAB / Simulink (Power System Analysis & Simulation)
- Arduino (Embedded Systems & Hardware Prototyping)
- AutoCAD Electrical
- SCADA (Basic)
- Microsoft Office (Word, Excel, PowerPoint)
- Python, C (Programming languages)

Core Academic Competencies

- Power Systems
- Electrical Machines
- Control Systems
- Power Electronics

Academic Activities

- Delivered seminars on power systems and voltage stability
- Presented final-year research with strong analytical depth
- Active participation in academic discussions and technical learning

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Certifications

- AutoCAD Electrical
- Embedded Systems
- Intellectual, Social, and Personal Development (ISPD)

Positions of Responsibility

- Member of Departmental Undergraduate Committee (DUGC)
- Event Manager, Techvaganza (grand Tech-fest) 2024 – NIT Srinagar
- Event Manager, SPARK 2021, NIT Srinagar
- Event Manager, Range Chinar (Cultural fest), NIT Srinagar

Languages

English | Hindi | Urdu | Kashmiri