Abhishek Kumar

Date of Birth: 28-Feb-1992 (32 years)

Technical Officer

Department of Electronics and Communication Engineering

B-303, Basic Electronics Lab, 3rd Floor, Lecture Hall Complex

Government R&D University, India

Okhla Phase 3, New Delhi - 110020

Email: abhikrbhardwaj@gmail.com

Lab Website: https://abhisheknsec.github.io/protoedge-portfolio/

# **Professional Qualification**

B.Tech in Electronics and Communication Engineering (2009 – 2013)

Maulana Abul Kalam Azad University of Technology, West Bengal

# **Work Experience**

Technical Officer (January 2019 – Present) Government R&D University, India

- Responsible for managing core electronics laboratories including equipment, infrastructure, and procurement.
- Conduct and support undergraduate lab courses and project evaluations.
- Maintain and upgrade sophisticated test and measurement instruments.
- Organize seminars, workshops, and conferences.
- Develop internal hardware products and automation systems for lab use.
- Facilitate student internships and prototype development.

Service Engineer (January 2017 – November 2018) Aplab Limited, New Delhi

- Involved in troubleshooting, testing, and design of Test and Measurement Instruments (TMI).
- Conducted technical webinars and workshops for institutional clients.

Worked with the following instruments:

- Cathode Ray Oscilloscopes (10 MHz to 100 MHz)
- Digital Storage Oscilloscopes
- Function/Arbitrary Waveform Generators

- Time Division Reflectometers
- Digital LCR Meters
- Transmission Line Testers (SLG/SLM)
- Noise Meters
- DC and Variable AC Power Supplies (SCR-based, Programmable, High Voltage Series)

Hardware Testing Engineer (May 2016 – January 2017) Countronics India Pvt. Ltd., New Delhi

## Worked on the following products:

- Programmable/Standard Counters and Timers
- Temperature/Humidity Controllers
- pH Controllers (4-20 mA loop output)
- Temperature Loggers (PT100, J/K-type thermocouples)
- Digital Tachometers with EM sensors
- Programmable Peak Stress Detectors

# **Technologies and Product Development**

**Light Automation Module** 

- Motion-sensing light automation using microcontroller and sensors.
- Developed for continuous 24×7 operation at low cost.

## Automatic Hand Sanitizer Machine

- Wall/tabletop model with precise flow and timing control.
- Operates with 12V DC adapter, includes noise filtering and LED indicators.

## Smart Device to Log Resource Access

- Desktop-integrated device with GUI to log lab equipment usage and user information.
- Enables controlled access and 24×7 lab automation.

# **Courses Handled in Laboratory Instruction**

Government R&D University, India (2019–2025)
Integrated Electronics
Circuit Theory and Devices
Digital Circuits
Basic Electronics

## **Academic and Technical Skills**

**Core Subject Areas:** 

- Analog and Digital Electronics
- Circuit Theory and Devices
- Digital Circuits

- Basic Electronics
- Integrated Electronics
- Solid State Devices
- System Performance & Control Theory
- Signals and Systems
- Analog CMOS Design

#### Professional Skills:

- Electronics Circuit Debugging and Troubleshooting
- Microcontrollers and IoT Systems
- MATLAB and LabVIEW
- Circuit Simulation: LTSpice, Proteus
- VLSI Design using Cadence
- Isolators and Circuit Breakers
- Programming: C, C++, Python
- Embedded Systems Development
- Automation and Control Systems

# **Technical Talks, Workshops, and Posters**

#### Poster Presentation:

- ANROLA: Autonomous Navigation with ROS and Laser Odometry, COMSNETS Conference

# Workshops Conducted:

- Electrivire (2023, 2021), ECE Labs, Government R&D University
- Webinars on Test and Measurement Instruments (2022, 2023)

## **Other Achievements**

- 98.3 Percentile in GATE (Graduate Aptitude Test in Engineering)

## **Hobbies**

- Metaphysics
- Reading Books

# **Personal Details**

Father's Name: Sanjay Thakur Mother's Name: Suganti Devi

Nationality: Indian Marital Status: Married

Languages Known: English, Hindi, Bhojpuri, Bengali