

Saransh

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🎓 ResearchGate

Education

May 2025 | **J.C. Bose University of Science and Technology, YMCA, Faridabad** | **Faridabad, India**
Dec 2021 | B.Tech. in Electronics Engineering with specialisation in Internet of Things

Experience

Jul 2025 | **Vivo** | **Noida, India**
Mar 2025 | *Graduate Engineer Trainee*
> Worked on defect, repair and root cause analysis of new flagship smartphones models.
> Performed board- and component-level diagnostics using oscilloscopes, multimeters, regulated power supplies and software tools to identify faults.
> Received a Pre-placement Full-time offer for my contributions.

Mar 2025 | **Ultrasonics Metrology Lab, CSIR-National Physical Laboratory** [🌐] | **New Delhi, India**
Jan 2025 | *Undergraduate Researcher | Advisor: Prof. P. K. Dubey*
> Worked on ideas in applied physics and embedded systems, focusing on ToF-based precision sensing.
> Implemented multi-sample averaging and signal processing techniques.
> Our work was accepted at ICUMSAT'25.

Publications

[2025] | **Development of a Device for Estimation of Ambient Temperature by measuring Ultrasonic Propagation Velocity in Air** [Paper] [🌐]
Saransh, Nitin Dhiman and P.K. Dubey
International Conference on Ultrasonics and Applied Material Science for Advanced Technology | [ICUMSAT]

Select Projects

Smart IoT- Based Ventilator System | Jul'24 - Nov'24
[EEN-753] | Advisor: Prof. Sunil Jadav
> Designed a real-time embedded monitoring system integrating biomedical sensors with cloud connectivity.
> Achieved functional parity with ~\$4,000 commercial systems at a ~\$110 build cost.

Railway Line Fault Detection System | Aug'24 - Oct'24
[EE-IOT-752] | Advisor: Prof. Rohit Tripathi
> Developed a robot that can autonomously detect obstacles and prevent potential hazards.
> Core implementation included programming the logic to stop the motor and trigger an alert via GSM module when objects are detected within threshold.

Honours and Awards

Samsung, HSc and Synopsys Inc., USA Fellowship, ISWDP, 2026 [🌐] | Accepted to attend a 2 months semi-focused program.

CSIR - National Chemical Laboratory, 2025 [🌐] | Selected for a fully funded 18 months research project under *Prof. Muthukumarasamy Karthikeyan* in collaboration with IIT Indore in Pune, India.

Robotics Hackathon, BML University, 2024 [🌐] | Ranked 1st among 60+ teams, winning cash prize worth 10,000 INR.

Technical Skills

Electronics and Design: KiCAD, LTSpice, MATLAB/Simulink, LabVIEW
Programming and Verification: C/C++, Python, VHDL, SystemVerilog, UVM
Microcontrollers and Platforms: ATmega16A, Arduino Uno, ESP 8266, Git
Communication Protocols: UART, SPI, I2C, CAN, USB, RS-232, PCIe, HTTP
Testing and Measurement: Oscilloscope, Multimeter, Logic/ Spectrum Analyzer, Function Generator