

Kevin Benny Mathew

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EDUCATION

2023 - 2027	B.E. (Hons.) Electronics and Communication Engineering - BITS Pilani, Goa Campus	8.13/10 (Upto Semester 4)
May 2023	ISC (Class XII) - The Bishop's School, Camp	97.6%
May 2021	ICSE (Class X) - St. Mary's School, Pune	99.0%

WORK EXPERIENCE

Summer Intern May 2025 - Aug 2025

- Worked at the **Indian Meteorological Department** on sensor fusion and algorithm development.
- Implemented custom fuzzy logic and Kalman filters for high-accuracy temperature sensing.
- Developed embedded code for ESP8266 hardware using C++ and PlatformIO.
- Conducted data analysis using Python and documented results for research publication.

PROJECTS

Development of Flexible Tactile Sensors Dec 2025 - Present

- Currently in process of developing tactile sensors for robotic perception under Dr. Tushar Sakorikar.
- Project is currently in literature review and ideation phase with plans to start fabrication by February 2026

Low Cost Electromechanical Tensile Tester May 2025 - Dec 2025

- Developed a horizontal tensile tester for the characterization of soft materials under Dr. Tushar Sakorikar.
- Executed end-to-end development including mechanical design, 3D modeling, and electronics architecture.
- Integrated motion control using Teensy microcontrollers, stepper motors, and a custom UI.

Project Vulcan: Humanoid Robot Feb 2024 - Present

- Led the bionic arm subsystem, developing a 7-DOF biomimetic robotic arm emulating human movement.
- Improved internal mechanical systems for facial movements, specifically eyes and mouth.
- Implemented amplifiers for microphones located in the robot's ears.

Project Kratos: Mars Rover Aug 2024 - Present

- Core member of the electronics subsystem; migrated the code stack from ROS Noetic to ROS2 Humble.
- Redesigned the electronics box for modularity, easier assembly, and improved debugging.
- Designed custom mounts for cameras and sensors using Fusion 360.

LEADERSHIP & VOLUNTEERING

Research Head - Electronics and Robotics Club (ERC), BITS Goa	Apr 2025 - Present
Managing project progress and integrating electronics, mechanical, and automation verticals.	
Committee Member - Sandbox Innovation Lab, BITS Goa	Feb 2024 - Present
Maintaining lab equipment (3D printers, laser cutters) and managing tech club purchases.	
Volunteer - Abhigyaan, BITS Goa	Oct 2023 - Present
Provided evening tuition classes for K-12 children of campus non-teaching staff.	

SKILLS & PROFICIENCY

Languages	C++, C, Python, Java, Verilog
Technologies	ROS/ROS2, Git, Linux, Microcontrollers (ESP32, Arduino, Teensy, ESP8266)
Tools	KiCAD, Fusion 360, Solidworks, Onshape, MATLAB, PlatformIO, Android Studio
Key Courses	Control Systems, Microprocessors & Interfacing, Digital Design, VLSI Design, Communication Systems, Digital Signal Processing