

# Kevin Benny Mathew

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## EDUCATION

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

## WORK EXPERIENCE

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<b>Summer Intern</b>	May 2025 - Aug 2025
- Worked at the <b>Indian Meteorological Department</b> 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

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<b>Development of Flexible Tactile Sensors</b>	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	

<b>Low Cost Electromechanical Tensile Tester</b>	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.	

<b>Project Vulcan: Humanoid Robot</b>	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.	

<b>Project Kratos: Mars Rover</b>	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

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

## SKILLS & PROFICIENCY

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