Dion Remo Dias

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OBJECTIVE

To kickstart my career as an Electrical and Electronics Engineer with a strong passion for designing and building innovative solutions through hands-on projects and research. Based in Bengaluru for the past two decades, I'm particularly interested in embedded systems and VLSI design,Eager to apply control systems and simulation knowledge in high-precision domains such as CAED and robotics . I'm driven by the desire to invent, experiment, and contribute to real-world problem-solving through technology.

EDUCATION

REVA University, Electrical and Electronics Engineering   2022 to 2026
GPA: 7.5/10.0 (upto 5th semester)   Bengaluru

St Josephs Indian Composite Pre-University College, PCME   2022
First Class   Bengaluru

Vidyaniketan Public School , CBSE   2020
First Class   Bengaluru

PATENTS

MONITORING OF INTRAVENOUS INFUSION SET AND USERS USING NODE MCU
Published on 13/12/2024, Co-authors Dion Remo Dias ,Harshith P J , Burri Ankaiah , Sujo Oommen

PROJECTS

Nitinol-Based Self-Wrapping Vital Monitoring Glove   Feb 2025 - Present

Designed a self-wrapping glove that continuously tracks vitals and stores data in the cloud. Real-time alerts notify staff of irregularities, reducing nurses' workload.

Robotic Steering Wheel Adjustment System   Oct 2024 - Dec 2024

Developed a 2-axis robotic steering wheel with biometric authentication and health tracking. A Raspberry Pi-based GUI allows real-time user adjustments for accessibility. Designed for drivers with physical limitations to enhance safety and comfort.

Patients Response and Infusion Monitoring Assistant   May 2024 - Mar 2025

Built a mobile app and infusion pump enabling instant access to medical history and tracking of saline levels emergency alerts, and patient records. Integrated AI for patient prioritization and allergy detection in medicines.

Automated Chalk Production Unit   July 2023 - Nov 2023

Designed a system to capture chalk dust from the duster itself, filter harmful particles, and recycle residue into reusable chalk. Uses mechanical filtration, dust compression, and automation techniques for sustainability.

INTERNSHIP

DRONA Automations Pvt ltd July 2024 - Aug 2024

Worked on a payload adjusting system for automated trailer attachment in defense applications. Focused on sensor integration, system calibration, and 3D modeling in CATIA.

SKILLS

Programming languages: C,python,ALP,SQL ,C++,VHDL,Java ,MATLAB , RUST .

Technical skills: PID Tuning & Motion Control, Embedded systems, Matlab Simulink , Code debugging ,Circuit debugging,GUI developer ,robotics , Automation, 3D design , I2C Communication ,Product development , PCB Design ,DFX ,Power Electronics & Energy Management,Real-Time Data Logging & Analysis ,Reverse Engineering .

Softwares: Visual Studio, Microsoft office,Matlab,Blender ,Fusion 360, designspark , Keilu ,Arduino IDE, Solidworks , Espressif IDF , Square line GUI , Flutter Flow,Xilinx ,PSIM .

Languages : English,German,Japanese,Kannada,Hindi,Konkani,Tamil.

CERTIFICATIONS

NPTEL Programing in Java : Earned certification in Programming in Java, covering object -oriented concepts, data structures, exception handling, multithreading, and file I/O. | Mar 2025

C++ certification : Completed a certification course on testdome by solving real world sample questions in the given amount of time . | Feb 2025

Advanced IoT using Raspberry Pi : Designed a Master-Slave IoT system using JSON protocols and VNC Viewer, showcasing expertise in scalable IoT solutions. | Nov 2024

MATLAB Certifications : Certified in MATLAB and Simulink, demonstrating proficiency in modeling, simulation, data analysis, and algorithm development. | Oct 2024

NPTEL Analog Circuits and Systems : Earned certification covering diode circuits, small-signal analysis, amplifiers, and feedback systems, with industry-relevant applications. | Sep 2024

Data Structures using C : Developed expertise in arrays, linked lists, stacks, queues, trees, and graphs, applying advanced algorithms for efficient software solutions. | May 2024

NPTEL Python for Data Science : Certified in Python for data handling, visualization, statistical analysis, and machine learning for data-driven problem-solving. | Jan 2024

Embedded C using ESP32 : Gained hands-on experience in microcontroller programming, developing a fire-fighting robot with Bluetooth, Wi-Fi, and Firebase integration. | Nov 2023

Mastering of PCB : Attended a hands-on session on PCB design, from schematics to fabrication and soldering,. | July 2023

3D Printing : Received hands-on training in 3D modeling & printing using Fusion360. | Dec 2022

ACHIEVEMENT'S

BizEE Bee winner (2024): Best project winner in an event conducted at REVA university.

Intra college ideathon winners : Recognized by ISRO for advanced robotics & healthcare.

NASCOMS COHORT Thinqubator 2024-25 winners : Received a funding of 5 lacks.

U21 Football youth league R16: Represented Blue stars F.C in all India tournament.