BONNY BABU

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Skills and Accomplishments

Skills

- **Robotics & Automation:** ROS 2 | Python | Control Systems | Automation
- **Simulation & Design:** Gazebo | SolidWorks
- **Embedded Systems & Hardware:** Raspberry Pi 4 | Raspberry Pi Pico 2W | MG996R Servos

Accomplishments

- Automated SmartDose assembly line, reducing cycle time by 75%.
- Developed ROS 2-based AMR (Sime-World), improving navigation efficiency.
- Optimized patient monitoring system (VitalCAM), reducing latency by 40%.
- Designed robotic workflows using RoboDK, increasing operational efficiency.
- Integrated real-time data communication via MQTT and Modbus, enhancing system reliability.
- Implemented PLC and HMI systems for synchronized multi-cell automation.
- Created an automated testing solution, improving software validation speed.

Professional Experience

Robotics Engineer
May 2021 - Present

Simelabs - Digital, AI, Metaverse, Robotics, VLSI • Ernakulam, Kerala, India

Focused on results and impact:

- Automated SmartDose assembly line for West Pharma using advanced robotics digital twins, and real-time monitoring.
- Developed an AMR project (Sime-World) with ROS 2 and a Django backend for real-time navigation and visualization.
- Contributed to the development of VitalCAM, reducing latency by 40% for real-time patient data streaming.
- Built an automated testing solution for Isave, integrating an intuitive GUI and comprehensive reporting protocols.

MEP Design Engineer (Electrical)
January 2020 - April 2021

Path BEE Engineers and Contractors • Ernakulam, Kerala, India

Focused on results and impact:

- Designed and maintained electrical single-line diagrams (SLDs) and layouts using AutoCAD software.
- Conducted site supervision ensuring design implementation and compliance with safety regulations.
- Managed procurement activities and supervised daily operations for government projects.

Education

Bachelor of Technology in Electrical and Electronics Engineering

College of Engineering, Aranmula

APJ Abdul Kalam Technological University

Graduation Year: 2020

Diploma of Education in MEP

MTTC International LLC

STED Council

Graduation Year: 2019