

Terms of Reference

About Andhra Pradesh Medtech Zone (AMTZ)

Andhra Pradesh MedTech Zone (AMTZ) is India's premier medical technology manufacturing cluster and one of the world's largest MedTech ecosystems, housing **180+ companies** engaged in the research, development, and manufacturing of life-saving medical devices. Built in a record **342 days**, AMTZ offers world-class common manufacturing and scientific facilities, including advanced testing laboratories, 3D printing, laser, biomaterial, and irradiation centers. During the COVID-19 pandemic, AMTZ played a critical national role by producing **100+ ventilators, 500 oxygen concentrators, and 1 million RT-PCR kits per day**, while also deploying innovative solutions such as mobile hospitals, RT-PCR vehicles, and oxygen plants to strengthen healthcare delivery across India

Company Website:

<https://www.amtz.in/>

<https://kiht.in/>

<http://biovalley-amtz.in/>

<https://medivalley-aic.in/>

Job Title

Scientist -Embedded Developer - TechPod

Key Responsibilities:

1. Design and develop software code according to the design specifications, adhering to coding standards, and best practices. Use programming languages suitable for embedded systems, such as Embedded C, (STM 32, ARM Cortex), Micro-python for the majority of the microcontrollers and FPGAs.
2. User Interface (UI): If the device includes a user interface, define and design the UI requirements, specifying how users will interact with the device, such as through buttons, touchscreens, or displays.
3. System Architecture: Design the overall architecture of the embedded software, including the organization of software modules, data flow, and the control flow. Decide whether to use an RTOS (Real-Time Operating System) or a bare-metal approach, depending on the device's requirements.
4. Algorithm Design: Develop algorithms for data processing, control logic, and decision-making. Ensure that these algorithms are efficient, considering the device's resource constraints.
5. Implement unit testing to verify the correctness of individual functions or modules within the software.
6. Ensure code efficiency, as resource-constrained devices require optimized code to minimize power consumption and maximize performance.
7. Implement unit testing to verify the correctness of individual functions or modules within the software.
8. Ensure that the embedded software development process adheres to regulatory requirements, including design controls, risk management, and documentation standards relevant to medical device development.

Qualification & Experience

1. Qualification: B Tech/M Tech in Embedded and Electronic Engineering from a recognized institution.
2. Experience: Minimum 01 to 03 years of experience in the relevant field.
3. Technical Skill Set Design and develop software code according to the design specifications, adhering to coding standards, and best practices. Use programming languages suitable for embedded systems, such as Embedded C, C++, Micro-python for the majority of the microcontrollers and FPGAs.
4. Must have domain expertise Design the overall architecture of the embedded software, including the organization of software modules, data flow, and the control flow.
5. Computer literacy including advanced proficiency with Microsoft Office (Excel, Word & PPT).
6. Excellent communication and presentation skills, analytical, problem-solving skills and interpersonal abilities, Decision-making, excellent oral and written communication skills in English.
7. Must have Team Spirit, Agility, Leadership, Initiative, time management, prioritizing and the ability to handle a complex and varied workload.
8. Must maintain confidentiality and discretion in all aspects and be comfortable with a flexible working schedule to meet the needs of the Company.
9. Ability to handle urgent matters, multiple tasks, simultaneously and quickly complete the assigned tasks.
10. Willingness to Travel.
11. Age up to 30 years.

