Ibrar Ahmad

Embedded Engineer

CONTACT

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EDUCATION

BSc Electrical Engineering
COMSATS University
2019 – 2024
Islamabad, PK

SKILLS

Embedded Systems Programming
& Debugging (ESP32, STM32, AVR)
Advnace PCB Design & Layout
(Altium Designer, Proteus)
Firmware Development (C, C++)
IoT System Development (LoRa,
WIFI, BLE, WebSocket)
Ultrasonic Atomization & Coating
Systems
Medical Device R&D (Dermoscope,
Hydrophilic Coating)
UV Curing Technology
Research & Development

CERTIFICATIONS

PEC Registered Electrical
Engineer (ELECT/107509)
Learn **Altium** Essentials First
Edition
Learn **Altium** Essentials Second
Edition
**Arduino: Electronics Circuit,
PCB Design & IoT Programming
Advanced PCB Design &
Fabrication** (Certification in
High-Speed and Multi-layer PCB
Design)
**Signal Integrity and Power
Integrity for PCB Designers**
(Advanced PCB Course by
Sintecs)

CAREER OBJECTIVE

A dedicated Embedded Engineer skilled in PCB design, firmware development, and R&D. I aim to apply my expertise in embedded systems and hardware-software integration to contribute to innovative technology solutions in a forward-thinking organization.

WORKING EXPERIENCE

Embedded Engineer & PCB Team lead

Revive Medical Technologies Inc.

2024 – current   / Islamabad, PK

Embedded systems programming and debugging for **ESP32**, STM32, and AVR microcontrollers.

Circuit design and schematic capture for various embedded systems and PCB layouts.

Developed complex PCB layouts for medical devices and IoT projects, ensuring design efficiency.

Led PCB fabrication processes, overseeing production and quality control.

Conducted research and development on innovative medical devices, such as stent coating machines and dermoscopes.

Troubleshot and debugged hardware and firmware issues, ensuring system reliability and performance.

Professional Projects

Revive Medical Technologies Inc.

2018 - 2019   / Islamabad, PK

Stent Drug Coating Machine: Developed ultrasonic atomization system for defect-free stent coating.

Hydrophilic Coating Machine: Engineered coating device for PTCA catheters to enhance performance.

UV Curing Chamber: Designed UV system for precise curing of coated catheters.

Dermoscope: Built a durable, high-precision dermoscope for medical-grade skin examination.

ACADEMIC PROJECTS

COMSATS University

2019 - 2024   / Islamabad, PK

Line Following Robot: Built using C and ESP32, enhanced obstacle responsiveness by 30%.

LoRa Irrigation: Developed a long-range, automated water management system.

Home Automation: Designed ESP32-based remote control for home devices.

Adjustable Power Supply: Created a variable voltage power supply 3V,5v & 12v.

Obstacle Avoidance Robot: Programmed in AVR C to avoid obstacles and reroute efficiently.