

# Ibrahim Nazir Sangi

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## PROFESSIONAL EXPERIENCE

### GRADUATE ASSISTANT, EASTERN ILLINOIS UNIVERSITY, CHARLESTON, IL (AUG 2017 – PRESENT)

- Remodeling and maintaining Automation and Control Laboratory
- Training and instructing students to complete their Laboratory work
- Designed and build a working model of a robot for ATMAE 2017 Robotics Competition at Cincinnati, OH

### GRADUATE ASSISTANT, EASTERN ILLINOIS UNIVERSITY, CHARLESTON, IL (JAN 2017 – MAY 2017)

- Evaluated the methods to maximize the involvement of elder and disabled people in smart home products
- Evaluated smart grid products, based on customer requirements and psychology to ensure greater use of technology
- Maintained CENCERE (Center for Clean Energy Research and Education) facility

### DESIGN ENGINEER, AND-OR LOGIC PVT LDT, ISLAMABAD, PAKISTAN (JUNE 2012 – AUGUST 2016)

- Designed, developed and implemented High-Speed multi-layer PCB design (motherboard for NVidia TEGRA X1 SOC)
- Designed, Power systems and developed firmware for inverters, battery chargers, MPPT charge controllers
- Developed firmware for both low and high-level libraries/APIs for micro-controllers including ARM, PIC, C51
- Successfully accomplished production of units as Junior quality assurance officer
- Enhanced PCB designing process by introducing 3D modeling approach (This significantly reduced projects timeline by up to three months)
- Rapid prototyping to evaluate project time, concept, resources, and requirements
- A leading engineer in designing compact, high density, and energy-efficient products
- Ensured efficiency and quality of work
- Hands-on experience with soldering any device (including through hole and surface mount devices)
- An expert in bringing-up and debugging boards/systems
- BOM generation/optimization and purchasing of components from different vendors worldwide
- Supervised/trained sub-engineers and technicians
- Recruited engineers through technical interviews

## SKILLS & ABILITIES

- |  |  |
|--|--|
| • Embedded Systems Design                          | • Mechanical Concepts                          |
| • Programming Assembly/C/C++                       | • Strong Team player, Teamwork                 |
| • Circuit Designing and Analysis                   | • Independent and Self-Motivated               |
| • Power Electronics design                         | • Time and energy management                   |
| • Digital Signal Processing                        | • Multitasking                                 |
| • Product Design and Development                   | • Flexible and adaptable                       |
| • Schematic and PCB Designer                       | • Vision and challenge oriented                |
| • Production and Troubleshooting Skills            | • Believe in quality and continual improvement |
| • Hardware and Software debugging                  | • Leadership and pressure handling skills      |
| • Surface mount and through-hole devices soldering | • Bringing up boards                           |

## TOOLS

- |  |   |                               |
|--|---|-------------------------------|
| • Altium Designer, Proteus   | • Keil µVision, MPLAB, MATLAB             | • IAR Embedded workbench      |
| • Oscilloscope, Logic Analyzers, Power Supplies, Soldering Iron, DMM | • Microsoft Office, Visual Studio & Visio | • Cadence PCB editor, Capture |

## EDUCATION

### MS-COMPUTER TECHNOLOGY, EASTERN ILLINOIS UNIVERSITY, CHARLESTON, IL (AUG 2016 – PRESENT) CGPA: 3.89/4.00

- An active member of Research Mentorship Meeting (RMM) held every week
- An active member of robotics design team (Also took part in multiple competitions i.e. ATMAE robotics competition)

### BS-ELECTRONICS, COMSATS INSTITUTE OF INFORMATION TECHNOLOGY, ISLAMABAD, PAKISTAN (AUG 2008 – JUNE 2012)

CGPA: 3.31/4.00 (81.06%). WON 3<sup>RD</sup> POSITION (BRONZE MEDAL)

- Designed Quad Copter as a final year Project

## HOBBIES AND INTERESTS

- Reading books, helping people, socializing.
- Playing cricket, badminton, football, and computer games etc.
- Designing and developing interesting circuits to benefit home and society. I also have a blog named. <http://www.ibrahimlabs.com>