

Yasir Shahzad

Industrial IoT / Integration /
Automation

Contact



Lahore, PB, 54810

+92-310-6256-643



Yasirshahzad918@gmail.com

<https://linkedin.com/in/yasirshahzad18/>

Work History

Scope of Work and Responsibilities/Roles:

- 2020 - Present **Cloud-based IIoT/Automation Solutions Design, Integration and Implementation**
- **AWS IoT:** AWS Management Console, Device SDKs, PaaS Tools (IoT Core, Lambda, Stream, Cognito, DynamoDB, QuickSight, Credentials (Keys, Rules, Policies, Certificates)).
 - **Azure IoT:** IoT Edge, IoT Hub (Stream Analytics, CosmosDB, Power BI), APIs and Device SDKs.
 - **Integrated Simulation:** (GNS3 – VMWare/VirtualBox – WireShark) & Packet Tracer IoT Core.
 - **Infra-Monitoring Tools:** Prometheus, SolarWinds (AppOptics/NPM), Nagios Core, and SpiceWorks
- 2019 - Present **IoT Project Management/Agile Practices**
- **Remote Team/Project Management** (Asana, Jira, MS Project).
 - **Agile Practices** (FDD, Scrum, Kanban).
- 2019 - Present **IoT System Integration and Development on SBCs (RPI 3, BPI R1, BB-Bone, O-Pi2)**
- **IoT Edge Servers** (ThingSpeak, SiteWhere and DeviceHub in Progress).
 - **Web of Things** (FRED/NodeRED, Flask, LAMP & XAMPP Server) Programming & Application.
 - **Web Dashboards** (HighCharts, ChartsJs, Plotly and Matplotlib) Programming & Application.
 - **IoM Brokers** (MQTT (1883/8883), AMQP (5672/5671), CoAP (5683/4) and XMPP(5222/69)).
 - **IoT Protocols** (MQTT, AMQP, CoAP, XMPP, protoBuf, ZMQ, gRPC).
 - **CGI & Shell Scripting** for Remote/Host Applications on Raspberry Pi.
 - **Wireless Gateway & Multi-Sensor Node Meshing** (WiFi, BLE 4.0, RF24, LoRA).
 - **Wired Gateway & Multi-Sensor Node Meshing** (CANopen, ModBus, RS485, RS422, SPI, I2C, UART, Ethernet).
 - **Embedded RTOS** (Only Installation & Configuration of FreeRTOS, RIOT-OS, Mongoose-OS).
- 2015 - Present **Facility Management & Multi-Domain Inspection Tools (Acceptance Tests using):**
- **LIMS & ELN:** LabAgenda and Quartz with LabArchives.
 - **Oscilloscopes:** TDS2014, DSO Tektronix 1052B, MSO Yokogawa DL9000, Fluke 190-102/AM2, and NI PXI-5122.
 - **Multi-meters:** Fluke 115, Kyoritsu KEW1052, Fluke 8808A, UNI-T UT612 and UT33A.
- PC/Edge-based Automation, Instrumentation and Data Analysis using C/C++.**
- 2018 - Present **VLSI (Chip) Design Tools: ModelSim 6, Xilinx 9 and Cadence:**
- **VLSI Layout:** Micrograph (Fabric), Stick Diagrams, Floor Plans.
- 2016- Present **EDA & SDA Tools (Schematics & PCB): Proteus 7/8, Altium 20, EAGLE**
- **IPC/EIA:** 600A, 610A, WHMA-A-620C, 630A, 7711/7721C and 274, 370-B.
 - **Fabrication Files:** Gerbers(ger), NC Drill(drl), IPC-D-356 Netlists (net), BOM(csv), Assembly(pos), CAM(nc, step).
- 2016- 2018 **Embedded Test Benches, Training and Development Panels: (Keil UV4, CCS3, CodeSys3)**
- **FPGA & PSoC:** Spartan-3 and PSoC5. (Verilog & Embedded C).
 - **Microcontrollers:** ESP8266, ESP32, STM32 Cortex M3, MSP430 (C only) and usage of custom bootloaders.
- 2019 - Present **IoT Product Deliverables Design, Fabrication/IP68 Packaging (3D Printing/CNC) using SolidWorks**
- **Snap-fit Enclosures** using Filaments (PLA & ABS).
 - **Boxed Enclosures** using Acrylic and Polycarbonate.
 - **Molded/Casted Enclosures** using PC, ABS, PVC and HDPE.
 - **CNC Support** (Laser Cutting, Milling, Turning, Plasma Cutting).
- 2016 - 2017 **Industrial Instrumentation & Automation Project Implementation**
- **SCADA/HMI/PLC:** Programming, Configuration, Wiring, Commission and Turn Key Execution.
 - **FEED & DEED:** Instrumentation & Marshalling Panels, Control Room Racks & Field Installation & Commissioning.
 - **PCS/MES/BPS:** Applications and Solutions Design, Costing, Implementation and Testing.

WORK EXPERIENCE

June, 2021 - Present	Team Lead Al-Khawarizmi Institute of Computer Science(KICS), UET Lahore
Sep, 2018 - June, 2021	Sr. Research Officer Al-Khawarizmi Institute of Computer Science(KICS), UET Lahore
Sep, 2017 - Sep, 2018	Research Officer Al-Khawarizmi Institute of Computer Science(KICS), UET Lahore

EDUCATION

Master, Computer Engineering University of Engineering & Technology Lahore, Paksitan	1st Division Specialization (Network Security, IoT)
Bachelor, Electronics Engineering University College of Engineering & Technology Islamia University of Bahawalpur, Paksitan	1st Division Specialization (Hardware Design, Embedded Systems)

SKILLS

<ul style="list-style-type: none">• R & D• Teaching	<ul style="list-style-type: none">• Project Management• Innovational/ Entrepreneurial	<ul style="list-style-type: none">• Proposal/Grants
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COMPUTER AID ENGINEERING TOOLS

- **SolidWorks, MATLAB (Signal Processing & HIL, Data Analysis & ML)**
- **Proteus ISIS 8, EAGLE, Altium, Cadence Virtuoso.**
- **CX-One V4, iQWorks 2.43, TIA Portal 13, Automation Studio 6, Tecnomatix 14**

LANGUAGES

<ul style="list-style-type: none">• English	<ul style="list-style-type: none">• Urdu
<ul style="list-style-type: none">• Punjabi	<ul style="list-style-type: none">• Saraiki

PERSONAL DETAILS

Father's Name: Gulzar Ahmed	Gender: Male
Marital Status: Married	Nationality: Pakistani
CNIC No: 31202-19155417-7	Passport No: GX5155411
Permanent Address: P/O Khanpur Nauranga Tehsil and Distt. Bahawalpur, Pakistan	

REFERENCES

- Prof. Dr. Ghalib Asadullah Shah at University of Engineering & Technology Lahore, Pakistan.
- Associate Prof. Dr. Yasir Saleem at University of Engineering & Technology Lahore, Pakistan.
- Prof. Dr. Ali Hammad at University of Engineering & Technology Lahore, Pakistan.
- Associate Prof. Dr. Ubaid at University of Engineering & Technology Lahore, Pakistan.
- Associate Prof. Dr. Abdul Razzaq Farooqi at Islamia University of Bahawalpur, Pakistan.
- Asst. Prof. Dr. Abbas Abbasi at Islamia University of Bahawalpur, Pakistan.
- Prof. Dr. Tauseef Tauqeer at Information Technology University, UAE.
- Associate Prof. Dr. Faisal Hayat at University of Engineering & technology Lahore, Pakistan

Appendix
QU Work Specimens

<i>Project Code`</i>	<i>Details</i>
	<i>Smart TubeWell Mangement System</i>