

# 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(gbr), 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

May, 2022 - Present	<b>Sr. Software Engineer</b> Byonyks- A Medical Devices Company
June, 2021 - May, 2022	<b>Team Lead</b> Al-Khawarizmi Institute of Computer Science(KICS), UET Lahore
Sep, 2018 - June, 2021	<b>Sr. Research Officer</b> Al-Khawarizmi Institute of Computer Science(KICS), UET Lahore
Sep, 2017 - Sep, 2018	<b>Research Officer</b> Al-Khawarizmi Institute of Computer Science(KICS), UET Lahore

## EDUCATION

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

## SKILLS

<ul style="list-style-type: none"><li>R &amp; D</li><li>Teaching</li></ul>	<ul style="list-style-type: none"><li>Project Management</li><li>Innovational/ Entrepreneurial</li></ul>	<ul style="list-style-type: none"><li>Proposal/Grants</li></ul>
--	--	---

## COMPUTER AID ENGINEERING TOOLS

<ul style="list-style-type: none"><li>SolidWorks, MATLAB (Signal Processing &amp; HIL, Data Analysis &amp; ML)</li><li>Proteus ISIS 8, EAGLE, Altium, Cadence Virtuoso.</li><li>CX-One V4, iQWorks 2.43, TIA Portal 13, Automation Studio 6, Tecnomatix 14</li></ul>
--

## LANGUAGES

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

## PERSONAL DETAILS

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

## REFERENCES

<ul style="list-style-type: none"><li>Prof. Dr. Ghalib Asadullah Shah at University of Engineering &amp; Technology Lahore, Pakistan.</li><li>Associate Prof. Dr. Yasir Saleem at University of Engineering &amp; Technology Lahore, Pakistan.</li><li>Prof. Dr. Ali Hammad at University of Engineering &amp; Technology Lahore, Pakistan.</li><li>Associate Prof. Dr. Ubaid at University of Engineering &amp; Technology Lahore, Pakistan.</li><li>Associate Prof. Dr. Abdul Razzaq Farooqi at Islamia University of Bahawalpur, Pakistan.</li><li>Asst. Prof. Dr. Abbas Abbasi at Islamia University of Bahawalpur, Pakistan.</li><li>Prof. Dr. Tauseef Tauqeer at Information Technology University, UAE.</li><li>Associate Prof. Dr. Faisal Hayat at University of Engineering &amp; technology Lahore, Pakistan</li></ul>
--

**Appendix**  
*QU Work Specimens*

Project Code`	Details
	Smart TubeWell Mangement System