



Muhammad Umar Farooq

Location	Near Karachi Airport	Mobile Phone	+92 333 3004198
Date of Birth	22 nd June 1993	Email	mufarooqq@gmail.com
Nationality	Pakistani	Website	mufarooqq.github.io

Education

2016-date **PAF-Karachi Institute of Economics and Technology, Pakistan** *(In Progress)*
MS, Electronics Engineering

2012-2016 **PAF-Karachi Institute of Economics and Technology, Pakistan**
BE, Electronics Engineering
Major - Electronics, **CGPA** - 3.35/4.00

Elective Courses:

- | | |
|-------------------------------|----------------------------------|
| -Data Communication | -Industrial Control Electronics |
| -Power Electronics and Drives | -FPGA Based Systems |
| -Embedded Systems Design | -Navigation Guidance and Control |

Final Year Project:

"Automatic Tomato Sorting through Image Processing"

Advisor: Dr. S.M. Ghazanfar Monir

Grade: A (88/100)

Work Experience

Sep 2016 - date **Lambda Theta**
Design Engineer

- Hardware designing and Programming of Vision-based solutions for a variety of security, quality control and process control systems.
- Using Computer-aided design tools to generate electrical drawing schematic diagrams and PCB design layouts.
- Development of technical specifications and documentations of projects.

Dec 2015 - Jan 2016 **Pakistan Aeronautical Complex (PAC)**
Internee

- Received basic knowledge about navigational instruments being used in fighter planes.
- Got introduced to different elements of the aircraft production lifecycle - evaluating design and performing tests.
- Had a one day field experience with the manufacture of sub-assemblies for the JF-17 and its composite structure repair and maintenance.

Aug 2015 - Sep 2015 **Precision Engineering Complex (PEC) - PIA**
Internee

-Received basic knowledge about different defense related equipment, the test sets of the aircraft, PCB manufacturing process and different CNC machines being used in Machine Shop and Optics department for mass productions.
-Had a field experience with the manufacture of parts for Aircrafts and Tanks at Investment Casting Plant (ICP) and Machine Shop departments for two days.

Jun 2014 - Jul 2014 **Pakistan Telecommunication Company Limited (PTCL)**
Internee

-Received training at different telephone exchanges of PTCL and got acquainted with the soft switches and different kinds of switching networks like Packet switched and Circuit switched networks.
-Got introduced to the basic elements of the whole wireless system like BSC, MSC, BTS etc. and different multiplexing schemes like TDM, FDM and others.

Skills and Expertise

- *Programming Languages* - C/C++ , Python, MATLAB, Octave, VHDL, Ladder logic
- *Libraries* - OpenCV
- *Hardwares* - Microcontrollers, Arduino, RaspberryPI, Delta DVP-SS2 & DVP-SS Series, FPGA Board Spartan 3E
- *Operating Systems* - Linux, Windows
- *Miscellaneous* - ~~W~~EX, Visual Studio, Xilinx, Siemens LOGO!Soft Comfort, WPLSoft, ModelSim, ISIS Proteus, LabVIEW, Multisim, PIC C, OrCAD, SolidWorks, Packet Tracer, Web Scrapping
- *Language Skills* - English (Fluent), Urdu (Native)

Publications

1. **M.U. Farooq**, M. Waseem, M.T. Qadri and M. Waqar, "*Understanding 5G Wireless Cellular Network: Challenges, Emerging Research Directions and Enabling Technologies*", Wireless Personal Communications, 2016. doi: 10.1007/s11277-016-3891-7
Presented this paper at the *Global Conference on Wireless and Optical Communications (GC-WOC'16)*, which was held during 5-7th September 2016 at Malaga (Spain).
2. **M.U. Farooq**, M. Waseem, A. Khairi and S. Mazhar, "*A Critical Analysis on the Security Concerns of Internet of Things (IoT)*", International Journal of Computer Applications, vol. 111, no. 7, pp. 1-6, 2015. doi: 10.5120/19547-1280
3. **M.U. Farooq**, M. Waseem, S. Mazhar, A. Khairi and T. Kamal, "*A Review on Internet of Things (IoT)*", International Journal of Computer Applications, vol. 113, no. 1, pp. 1-7, 2015. doi: 10.5120/19787-1571
4. A.R. Riaz, **M.U. Farooq** and A.M. Syed, "*Tablet Inspection and Sorting Machine*", International Journal of Computer Applications, vol. 126, no. 9, pp. 1-7, 2015. doi: 10.5120/ijca2015906191

Honors and Awards

- 2016 Received a research reward of Rs. 50000 from PAF-KIET for an ISI-Indexed publication
- 2016 Received a scholarship for two semesters of Master's degree at PAF-KIET
- 2016 Peer Reviewed a Research paper for Telecommunication Systems, Springer
- 2016 Received a merit scholarship for Master's degree at PAF-KIET
- 2016 Named in College's Honor List for good academic record at PAF-KIET
- 2015 Selection in the list of top 40 students for internship at PAC-Kamra
- 2015 Participation in SUPARCO Space Week "University Project Competition"
- 2014 First Runner-up award in university level competition held at PAF-KIET
- 2012 Named in Director's Honor List for good academic record at PAF-KIET