PERSONAL INFORMATION **Navaid Hasan Khan**

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Sex Male | Date of birth 28 Oct 1992 | Nationality Pakistani

WORK EXPERIENCE

Jun 2019 – Present

Research and Development Engineer
Elektrotechnik, Fachhochschule Sudwestfalen, 59494 Soest – Germany
- Developing automatic Wireless Bus System
- Working on DIGILENT ZYBO Z7 FPGA kit

Jul 2018 – Jun 2019

Embedded Hardware Developer
MBS GmbH, Römerstraße 15, 47809 Krefeld – Germany
- Designed & Developed a CAN board on Altium Designer
- Master Thesis (Enabling Narrowband IoT in Building Automation)

Mar 2018–Jun 2018

Tutor – Java Programming
Fachhochschule Sudwestfalen , 59494 Soest – Germany
- Department of Business Administration and Informatics

Jan 2018– Jun 2018

Research Assistant
Energy Supply Lab, Fachhochschule Sudwestfalen, 59494 Soest - Germany
- Designed and tested secondary PI controller of smart grid cluster
- Working on extracting data from arango and influx database

Sep 2015–Apr 2017

Lecturer
Dadabhoy Institute of Higher Education, Karachi - Pakistan
- Department of Electronics &Computer Science

Apr 2013–Jun 2013

Internee
Marmonyx (PVT.) LTD. Karachi - Pakistan
- Integration of PLC with sensors, relay and switches
- Familiarize with relay logic circuits

EDUCATION AND TRAINING

Apr 2017– Jun 2019

M. Sc. Systems Engineering & Engineering Management
South Westphalia University of Applied Sciences, 59494 Soest - Germany
Major Courses: Advanced Control Technology, Systems Engineering, Micro-processor based systems

Jan 2011–Dec 2014

Bachelor of Electronics Engineering
Sir Syed University of Engineering & Technology, Karachi - Pakistan

Sep 2018

Workshop on NB-IoT/LTE-M and positioning based on u-blox modules
SODAQ office, Hilversum, Netherlands

Jun 2014–Jul 2014

Certified PIC 16 – 18f Application Developer
Geekooz Labs, Karachi - Pakistan

Jun 2013–Jul 2013

Certified professional course on PLC with HMI & Analog Module
Pak Swiss Training Centre, Karachi – Pakistan

Languages

Urdu (Mother Tongue)
English (Fluent)
German (Basic)

Software's

- Embedded Linux, Matlab, AVR Studio, Proteus, Xilinx, Simatic Step 7, Octave, Node Red, Eclipse Java Oxygen, Mikro C, Arduino IDE, Proton IDE, Sublime Text, Anaconda.

Programming Languages

- C, Assembly, Java, Python, Basic IDE programming.

Projects

Masters in System Engineering & Engineering Management

Semester Projects

- Predicting the remaining useful life of bearing system using SVM and Naïve Bayes classification
- Built a non-linear control system by designing a controller for Apollo 11 mission.
- Designed a Data Logger on Atmega 328

Master Thesis on Enabling Narrowband IoT in complex Building automation network

- Because of the limitation of short range protocols i.e. ZigBee, Bluetooth, WLAN etc. in the automation sector, a new gateway with long range Narrowband IoT protocol was developed by using u-blox SARA N211 chip. This emerging and latest gateway protocol technology provides the secure wireless communication with the Vodafone cellular service along with 2500 data points. The gateway was capable of converting any protocol data to the Narrowband IoT protocol so this project can also be implemented in already established building automation networks. The data was monitored on the cloud service. The hardware was designed on Altium software by using Wurth Electronics components and the driver was developed on Linux Embedded C programming.

Bachelors of Science in Electronic Engineering

Semester Projects

- PIC and Arduino controller based home automation system.
- PLC based water bottle filling system.
- PLC based car parking system

Bachelor Thesis on Self-stabilizing un-manned aerial vehicle

- A control system was made through the use of an onboard microprocessor and inertial measurement system. The main task of project is to stabilize the aerial vehicle at a certain height and location which can also detect obstacles and made decisions according to the flight plan.

Publications

- Implementation of Water Distribution Monitoring Framework Using PLC, Journal of Information Communication Technologies and Robotic Applications, Volume 9, issue 2016.

- Stability, Modelling and Controlling of Autonomous Self-Ruling Quad Copter, [Accepted in 2017 International Conference on Innovations in Electrical Engineering and Computational Technologies (ICIEECT)]

- "Wireless robotic search & rescue operation for calamities." Journal of Information Communication Technologies and Robotics Applications (JICTRA 2017); ISSN#2226-3683, [S.I.], v. 8, p. 59-67, Dec. 2017

Honors and Awards

Why-Phy Project Competition
1st Position
Project Name: Un-manned Aerial Vehicle
University: College of Engineering and Sciences

Memberships

Pakistan Engineering Council
Membership No. Electro/22102

International Association of Engineers
Membership No. 165217