ABU SAYED

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EDUCATION

Bachelor of Science, Electrical Engineering **June 2018**
University at Buffalo, The State University of New York

Associates in Science, Electrical Engineering **December 2015**
La-Guardia Community College, Long Island City, New York

Relevant Coursework
Signal and System, Embedded System, Microelectronics Circuit, Communication Systems, Digital Principles, Integrated Power Electronics, HDL Based Digital Design with Programming Language, RF/Microwave Signal-I, RF/Microwave Signal-II, Analog Circuits.

WORK HISTORY

RF Application Engineering Intern, Bird Technologies (TX RX System Inc.) Angola, NY, December 2017-May 2018

- Develop an environment of continual improvement through the use of Lean tools.
- Assisted with RF Combiner and Multicoupler system designs applying Bird filter products.
- Created drawings of system designs for customer quote packages.
- Developed the documentation required to build systems, drawings, BOMs, etc.
- Assisted with applications for products, especially with key customers.
- Performed functional tests on electronic products for engineering design verifications.
- Assisted with development of specialized RF filters, circuits, engineering design verifications and product validations.

Engineering Internship, Bird Technologies (TX RX Systems Inc.), Angola, NY, June-August 2017

- Wired, Assembled, and Tested Battery Backup Test Fixture According to Schematic (DIN RAIL)
- Documentation (Photos and Drawing) after the project completion (DIN RAIL)
- Developed Bill of Materials (BOM) and order components relevant to projects.
- Designed and assembled prototype SMS-Module.
- Calibrated Spectrum Analyzer and The Vector Network Analyzer (VNA) for Power Testing.
- Measuring S-Parameters (Insertion Loss (S21 or S12) and Return Loss (S11 or S22)) with Vector Network Analyzer (VNA)
- RF Characterizations: Isolators (Circulators), Samplers, etc.
- Power Testing and Fabrication of Ceramic Cavity Filter, tuning into resonance using VNA
- Hand soldering (Through Hole and SMDs) operation done for Alarm Monitor (PCB) as per Process Standard with temperature controlled soldering iron and Troubleshooting.

ENGINEERING PROJECTS

Capstone Design, Microwave Traffic Sensor, January-May 2018

- Proposed to build a system that would replace the traditional traffic light variation with real-time traffic volume is crucial to ensure the minimization of motor vehicle aggravation.
- The fundamental goal was to transmit RF signal from VCO (by using a Directional TX/RX array antenna) and control the traffic lights by using the reflected power.
- Used frequencies 2.22 GHz and 2.56 GHz due to the capacity of the antenna
- Assisted designing the whole system especially RF matching network, PCB layout, Antenna Characterization, Troubleshooting, Design Verifications, Soldering, Testing Results, Research, Understanding Datasheet.
- Configured and used how to transmit and receive RF signal concurrently (RF circulator)
- Analyzed and measured reflected power (voltage after converted by RF detector), free-space loss.
- optimized angles (where highest reflection occurred) of the received power

Designing and Testing an Amplifier, January-May 2017

- Proposed Optimal Finite Element Method and Computer analysis to get high voltage and current gain.
- Designed Common Emitter Amplifier due to its High Voltage and Current Gain with a group of two
- Ran various test and calculations both on Multisim and Oscilloscope to get precise results
- Designed for both single stage and two-stage as well as Multi-Stage Amplifiers

TECHNICAL SKILLS

Computer Skills: Windows OS, Microsoft Word, Excel, PowerPoint, Robotium, LaTex Texmaker, Team Viewer
Programming Languages: MATLAB, Knowledge of C and C+, Psim, Xilinx ISE Design and Spartan 6, TI Multisim, Arduino, Micro-controller (ARM M4), ADS Design and Layout, Microsoft VISIO.
Drafting Programs: Knowledge of Autodesk Fusion 360, AutoCAD Electrical, Psim, and Cadence Layout Design, KiCAD.
Languages: Bangla, Urdu, Hindi.

LEADERSHIP EXPERIENCE AND ACTIVITIES

Technical Officer La-Guardia Community College Engineering Club.
Member: IEEE, UB Engineering Club, Association for Computing Machinery(ACM)