

ASWIN BALASUBRAMANIAM

✉ aswinbala1996@gmail.com

🎓 Education

University of Cincinnati
Bachelor of Science

Major: Electrical
Engineering Technology

Minor: Economics
GPA: 3.93/4.0

Master of Science

Major: Electrical Engineering
GPA: 3.97/4.0

⚙️ Skills

📄 C++ C++

📊 MATLAB® & SIMULINK

🐍 PYTHON

📊 VBA

👤 ANDROID STUDIO

📄 R PROGRAM

📊 SQL

📊 LABVIEW

📊 AUTOCAD

📊 PIX4D

📊 QGIS

📊 CONTEXT CAPTURE

📊 GX MITSUBISHI PLC TOOLS

📊 RS RSLOGIX

📊 CADSOFT EAGLE

📊 LEGO NXT-G

📊 NI MULTISIM

📊 V VERILOG

📊 MS OFFICE 365

🌐 /aswinbala96

🌐 /in/aswinbala

📁 Work Experience

06/2020 • Research Assistant

12/2017 • University of Cincinnati Infrastructure Institute | Cincinnati, OH, USA

Part of the research project to investigate the applications of small unmanned aerial systems (sUAS) to monitor structure health and construction progress for Ohio Department of Transportation (ODOT).

Assisted in inspections of bridges, buildings, and road constructions using sUAS as a part of the project.

Conducted research on generating efficient flight plans and utilizing various research and photogrammetry tools to construct high-quality 3D models and orthomosaics to augment the inspection process for inspectors.

Developed an Android application to generate efficient instructions to plan sUAS flight plans as per user requirements.

Aided in developing and constructing Mission Box a remote one-stop solution to store and stream sUAS videos and plan efficient flights for sUAS.

08/2017 • Co-op Project Engineer

05/2017 • Mitsubishi Electric Automotive America | Mason, OH, USA

Worked with the team that manufactures starters for Mitsubishi and other car manufacturers.

Assisted engineers at the manufacturing line of the various parts of a starter.

Aided in troubleshooting machines operated using PLCs and the sensors on the manufacturing line.

Generated CAD drawings for replacement parts on the manufacturing line.

Programmed and installed new PLCs and hardware during manufacturing line upgrades.

12/2016 • Co-op Project Engineer

08/2016 • Intelligrated®, now a part of Honeywell® | Mason, OH, USA

05/2016 & Assisted in designing warehouse automation electrical system schematics, layouts and power line drawings for clients that included Walmart, Amazon, UPS, Target, and Dollar Tree.

01/2016 Hands-on experience with industry-grade software and hardware electrical systems that monitor and assist in building electrical systems.

Assisted in designing power systems for customers like Amazon and UPS in multiple cities.

Installed electrical equipment and conducted on-site commissioning and troubleshooting.

Programmed VFDs and verified connections to all electrical devices on-site.

Worked with software like AutoCAD electrical, WAGO checkout tool and Profitrace tool.

07/2015 • Summer Internship/Trainee

06/2015 • Danway LLC | Dubai, UAE

Compiled sales and purchase orders in Excel.

Read and studied electrical layouts and power distribution drawings of electrical devices.

Assembled electrical devices on panel rails following electrical schematics.

Learned the assembly of LV and MV panels and the functions of the devices residing in them.

05/2015 • Summer Internship/Trainee

05/2015 • Al Ghail Power Plant | Ras Al Khaimah, UAE

Learned the functionality and working of a power plant.

Assisted in the daily inspection of the plant.

Documented and tracked power supply and consumption to and by customers.

Interacted with and monitored the plant's systems using the HMI and ladder logic programming.

12/2017 • Transponics Engineer; Graphics Designer; Electronics Lead

11/2015 • Hyperloop UC (University of Cincinnati) | Cincinnati, OH, USA

Assisted in designing the electrical system of the team's vehicle.

Tested LiPo batteries and industrial grade sensors under vacuum conditions.

Designed PCB shields for Arduino and shields necessary for sensors and device integration.

Assisted in assembling the electronics by soldering and crimping various battery and sensors cables.

Researched and implemented circuit protection methods to prevent circuit failure and suppress fire hazards.

Assisted and oversaw the installation of the electrical system on the vehicle to ensure conformance to design and equipment specification.

12/2015 • Peer Tutor

08/2015 • Learning Assistance Centre (University of Cincinnati) | Cincinnati, OH, USA

08/2015 & Facilitated a learning environment for one-on-one tutoring in 1000 level and above STEM courses.

Assisted students with study techniques that would result in improved academic performances.

08/2017 Participated in additional seminars to increase skills relating to communication, teamwork, professional profile building and leadership.

12/2017 Completed Level 1 CRLA's international tutor training program certification.

🏆 Awards and Recognition

- University of Cincinnati International Outreach Scholarship: 2014-2019
- University of Cincinnati Global Scholarship: 2014-2019
- University Honors Program: 2015-2019
- Alpha Lambda Delta National Honors Society: 2015-2019
- Dean's List College of Engineering and Applied Sciences: 2014-2019
- Graduated Summa Cum Laude and top of the 2019 technology major class.

👥 Clubs and Society

- Hyperloop University of Cincinnati: Electronics Lead (2017) Transponics Engineer (2015-17)
- University of Cincinnati Quiz Club: Treasurer/Co-Founder (2014-16); President (2017-18)
- University of Cincinnati IEEE: Secretary (2017-18)
- University of Cincinnati Engineering Diplomat (2017-18)
- University of Cincinnati Racial Awareness Pilot Program (R.A.P.P.): 2014-15