

# M. HARITH ARSYAD

Ames, IA (Open to Relocation & Remote Work)  
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## EDUCATION

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### Iowa State University

Bachelor of Science, Major in Electrical Engineering

Ames, IA

Jan 2020 — December 2022

- **GPA 3.67**
- Focused in Digital VLSI Design, Semiconductor Devices, and Power Systems

### Taylor's University

American Degree Transfer Program, Engineering

Subang Jaya, Malaysia

August 2017 — May 2019

- **GPA 3.31**
- Achieved a score of 1410/1600 on SAT (750 math, 660 EBRW)
- **Pearson Outstanding Learner Awards:** Highest mark in Asia for Information Communication Technology GCSE

## TECHNICAL SKILL

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- **Integrated Circuits Design:** Virtuoso, Genus Synthesis, Innovus, Synopsys
- **Programming:** Verilog, C, C++, Java, Python, MATLAB
- **Circuit Design:** LTSpice, NI Multisim, Advanced Design System
- **3D Modeling:** AutoCAD
- **PCB Design:** KiCAD, Altium
- **Operating Systems:** Linux, Windows, Mac OS

## PROJECT

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### Fast, Compact, High Strength Magnetic Pulse Generator

*Circuit Designing, Simulations, and Testing*

Ames, IA

August 2021 — May 2022

- Final circuit produces 500 Gauss in 27 nanoseconds with programmable magnetic field generation, powered by 15 Volts, and less than 3.5" by 2" in physical size
- Researched and worked closely with silicon and gallium nitride transistors learning a lot about its characteristics
- Worked with SPICE software such as Advanced Design System to get an accurate simulation of the circuit behavior
- Used Altium to design a PCB for the final prototype

### Moving Average And Standard Deviation For Temperature Sensor

*HDL Programming and IC Synthesis*

Ames, IA

Aug 2022 — Dec 2022

- Wrote the Verilog code for a circuit to calculate moving average and standard deviation from a temperature sensor
- Developed a testbench with Verilog to test our design on
- Used Cadence softwares such as Genus for optimizations and reports on the circuit timing, area, and power and Innovus to implement and optimize the final layout of the circuit

### Second Order Dynamic Response of a Steam Turbine

*MATLAB Coding and System Modeling*

Ames, IA

Jan 2022 — May 2022

- Used MATLAB to model a steam turbine system to analyze how the system reacts under different scenarios such as introducing faults

## LEADERSHIP AND VOLUNTEER EXPERIENCE

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### ADP Student Union

*Head of IT*

Subang Jaya, Malaysia

Jan 2018 — May 2019

- Ran the official student union social media pages promoting engagement within students
- Led a team to create videos, posters, and various media for various events such as social nights, recruitment drives, and orientations

### ADP Community Service Club (ADPCSC)

*Committee*

Subang Jaya, Malaysia

Aug 2017 — April 2019

- Coordinated fundraisers for charity events such as a talent show called Starlight
- Campaigned with community service organizations such as Taylor's CSR and Klinik Kesihatan Taman Medan (a local clinic)

## ADDITIONAL

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**Relevant Coursework:** Embedded Systems, Digital VLSI Design, Automatic Control Systems, Electronic Systems Design

**Languages:** English (Fluent) and Malay (Fluent).