M. HARITH ARSYAD

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EDUCATION

Iowa State University **Ames, IA**
Bachelor of Science, Major in Electrical Engineering *Jan 2020 — December 2022*
- **GPA** 3.67
- Focused in Digital Electronics, Semiconductor Devices, and Power Systems

Taylors University **Subang Jaya, Malaysia**
American Degree Transfer Program, Engineering *August 2017 — May 2019*
- **GPA** 3.31
- Achieved a score of 1410 on SAT (750 math, 660 EBRW)
- **Pearson Outstanding Learner Awards:** Highest mark in Asia for Information Communication Technology GCSE

TECHNICAL SKILL

- **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

Fast, Compact, High Strength Magnetic Pulse Generator **Ames, IA**
Circuit Designing, Simulations, and Testing *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 **Ames, IA**
HDL Programming and IC Synthesis *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 **Ames, IA**
MATLAB Coding and System Modeling *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

ADP Student Union **Subang Jaya, Malaysia**
Head of IT *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) **Subang Jaya, Malaysia**
Committee *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

Relevant Coursework: Embedded Systems, Digital VLSI Design, Automatic Control Systems, Electronic Systems Design
Languages: English (Fluent) and Malay (Fluent).