Nutchanon Jariyanurut

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Education

Chulalongkorn University
B.S., Electrical Engineering *GPA: 3.99* Aug 2019 - Present

Mahidol Wittayanusorn School
Degree in Math – Science Program *GPA: 4.00* May 2016 - Feb 2019

Work Experience

Silicon Craft Technology PLC Bangkok, Thailand
Analog Design Trainee May 2022 - July 2022

- Designed two-stage op-amp to meet the required specifications, with Python coding to automate and accelerate the design process. Link.
- Literature review on wireless power transfer technology utilizing NFC frequency.

Skills

Programming and Embedded	MATLAB, Python, VHDL/Verilog, C/C++, Linux, FreeRTOS
Circuit Design	Xilinx Vitis/Vivado, prototyping on Zynq-7000 SoC, IC Layout (Microwind 3)
3D Prototyping	Fusion 360, AutoCAD
Graphical	Adobe Illustrator, LaTeX, Web Design (HTML, CSS, Jekyll & Liquid)

Projects

Senior Project (2022 - Present)

- Designing wireless power transfer system utilizing NFC frequency. Collaborating with Silicon Craft Technology PLC.

Member in EIC (Robotic club in the Faculty of Engineering) (2019 - 2022)

- In the EE team, made the robot for the RoboCup 2023 @Home open platform league, designing the controller of base motors. (2021 - 2022). The robot received the second place in the league. Link.
- Participated in an internal robot competition, making Sumo bot. (2019)

Embedded System Mini-Project (2022)

- Designed system controlling multiple sensors and multiple actuators simultaneously using FreeRTOS.

Participated in Digital Design Thailand 2021 Camp (2021)

- Learned about FPGA and digital design, made TX/RX UART modules, and an interface to receive bitmap file on a computer and display it on an HDMI monitor.

Project in High School (2018-2019)

- Invented wood density measuring instrument by measuring speed of sound in wood by piezoelectric effect. (Received Second Place in National Round, Young Scientist Competition 2018, Thailand.)

Relevant Courseworks

Analog and Digital IC Design, Embedded Systems, Linear & Digital Control Systems, Artificial Intelligence for Engineering, Optimization Techniques, Stochastic Processes, Media Compression Techniques

Extracurricular Activities

1. **Member of Academic Team, Engineering Student Committee, Chulalongkorn University (2021 - 2022)** - gathering study resource for 1st year students, organizing events such as 1st Year Study Advices, Introduction to 10 Departments in the faculty, and 2022 online faculty's job fair in which more than 80 companies and 1600 participants involved.
2. **Head of Academic Team in Larngear Camp 21st (2021 - 2022)**, organizing the academical workshops in 18 departments of Faculty of Engineering for 240 high school students.
3. **Works in Tutoring**: Wrote the 400-page free-to-download book for National Chemistry Olympiad camp in Thailand, now has over 3000 downloads. Tutored 200 high school students each year (2020-2022), preparing them for Thailand engineering entrance exam.

Language

TOEFL: 29/27/20/26 (Reading/Listening/Speaking/Writing)