

# Wu, Hsuan-Yu

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## EDUCATION & QUALIFICATIONS

### National Yunlin University of Science and Technology (YunTech)

Bachelor of Science in Electrical Engineering

GPA: 3.38/4.0

Yunlin County, Taiwan

Sep. 2020 – Jul. 2024

- Relevant Coursework: Integrated Circuit Physical Design Lab, Integrated Circuit Layout Lab, Hardware Description Language and Simulation (Digital Signal Processing), Introduction to VLSI Design

## PROFESSIONAL & LEADERSHIP EXPERIENCES

### Hsu Sheng Electric Enterprise Co., Ltd.

Assistant Electronics Engineer, R&D Department

Tainan City, Taiwan

Jul. 2025 – Present

- Designed and built testing fixtures to verify product functionality and ensure compliance with specifications.
- Created PCB layouts using Altium Designer for internal testing and production tools.
- Optimized fixture design processes, significantly improving testing efficiency and reducing inspection errors.

### An Integrated Stretchable Micro-Supercapacitor with Wireless Charging Project

Individual Researcher, under Prof. Chia-Hung Chang

Yunlin County, Taiwan

Jun. 2023 – Oct. 2024

- Simulated a microstrip square spiral antenna using Ansys HFSS and optimized return loss.
- Conducted impedance measurements using a VNA and analyzed S11 data via Smith chart.
- Tested wireless charging performance and evaluated the efficiency and storage capacity of the integrated micro-supercapacitor.

### VCO & Chirp Signal Project, "Senior Design I" & "Special Practicing Project II"

Research Assistant and Team Leader under Prof. Chia-Hung Chang

Yunlin County, Taiwan

Sep. 2023 – May 2024

- Awarded research grant by Taiwan's National Science and Technology Council (NSTC).
- Designed a wide-tuning range 2–5 GHz LC VCO using UMC 0.18μm CMOS technology.
- Implemented chirp signal modulation using a DC sweep-controlled active inductor.
- Completed chip layout in Cadence Virtuoso and successfully completed tape-out and PCB fabrication.
- Verified frequency tuning (3–3.5 GHz) and power output stability (-40 to -50 dBm) using ramp signal input.

### IC Design Contest – Sponsored by Synopsys

Team Leader

Yunlin County, Taiwan

Mar. 2023 – Apr. 2023

- Designed analog building blocks using Cadence and Synopsys EDA tools.
- Optimized circuit performance under area and power constraints in a team-based setting.
- Led the team to complete functional prototypes under strict time constraints.

## EXTRACURRICULAR ACTIVITIES & VOLUNTEER EXPERIENCES

### Chinese Taipei Go Association

Certified 4-Dan Go Player

Yunlin County, Taiwan

Apr. 2015 – Present

- Achieved 4-dan rank through official tournaments and point-based promotion system in Taiwan. (*Ranking system: 30 Kyu → 1 Kyu → 1 Dan → 7 Dan (highest); 4 Dan represents an advanced national-level amateur rank*)
- Demonstrated advanced strategic thinking, pattern recognition, and sustained performance. (*Equivalent to an intermediate-advanced amateur level under East Asian Go Association rankings*)

### Community Service Program, YunTech

Volunteer Tutor for Underprivileged Children

Yunlin County, Taiwan

Mar. 2023 – Mar. 2024

- Provided academic tutoring and emotional support to elementary school students from low-income families.
- Led small group sessions, maintained consistent schedules, and ensured a well-organized learning environment.

### Sunrise Cultural and Educational Institute

Math Instructor

Yunlin County, Taiwan

Aug. 2022 – Jul. 2023

- Taught high school mathematics for university entrance exam preparation.
- Developed customized lesson plans for students struggling with specific math concepts.

### Machine Operation Fundamentals Course, TSMC

Participant

Taichung City, Taiwan

Apr. 2023 – May 2023

- Gained hands-on training in semiconductor equipment operation through TSMC's Newcomer Training Center.
- Covered key fab process flows, safety protocols, and equipment control fundamentals.

## ADDITIONAL INFORMATION

- Certificates: HVAC Installation Technician Certification – Class C and Class B (Taiwan Ministry of Labor)
- Skills: Cadence Virtuoso (Schematic/Layout), Calibre (DRC/LVS), Ansys HFSS, FPGA, RFIC, Vector Network Analyzer (VNA), C, LTspice, MATLAB, Altium Designer, MPLAB
- Language: Mandarin (Native); English (Fluent – TOEFL: 90)