



9th Thailand-Taiwan Higher Education Forum

# Introduction to Internship, Bachelor, and Master Programs at National Chung Cheng University (CCU)

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Mechanical Engineering
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#### **Outline**





#### Introduction to CCU



**International Internship Program** 



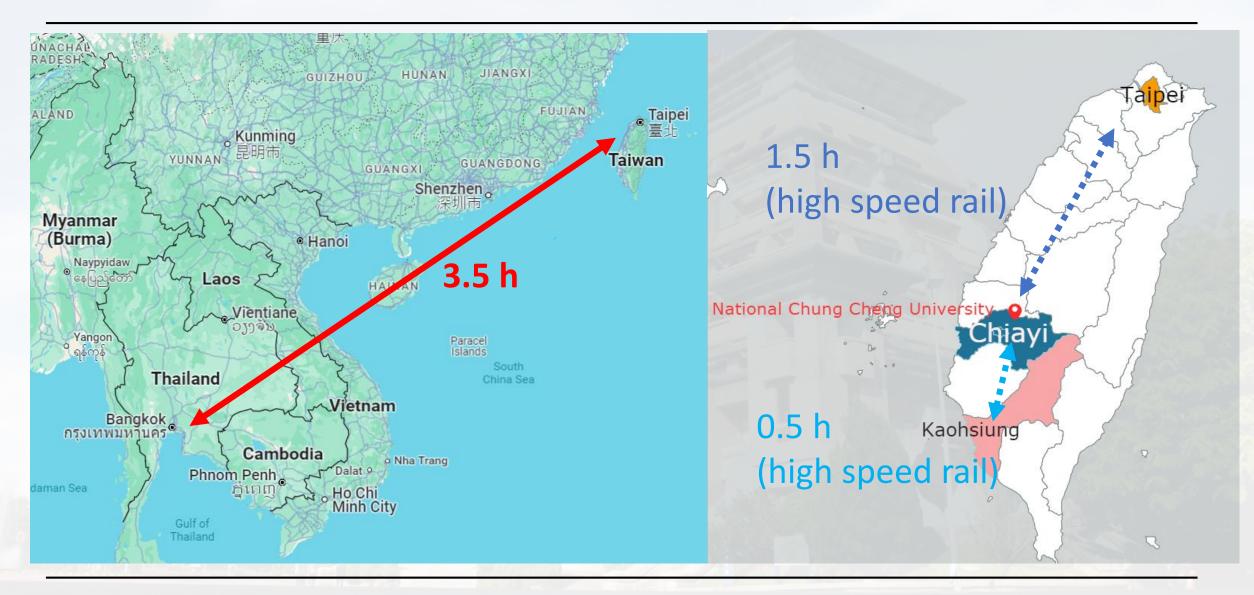
International Bachelor Degree Program in Mechanical Engineering



**International Industrial Talents Education Special Program** 

#### Introduction to CCU





#### Introduction to CCU



Founded in 1989

A research-oriented comprehensive university

7 Colleges

29 Departments

45 Graduate Institutes

Around 11,500 students

- ✓ One of the largest national universities in Taiwan
- ✓ Top-10 university in Taiwan in the field of Engineering
- ✓ QS Ranking in Engineering Electrical and Electronic #401-450
- ✓ Voted as the most beautiful campus by Yahoo Taiwan



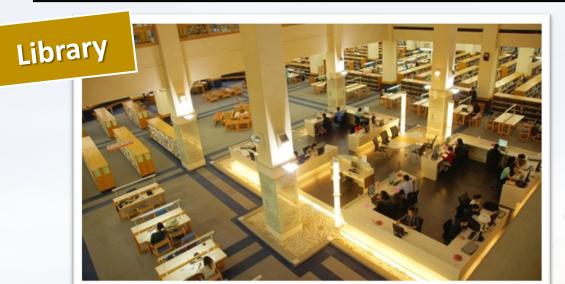






#### **Students Life in CCU**















# International Internship Programs Taiwan Experience Education Program (TEEP)

College of Engineering





#### 2025 Internship Programs (Coming Soon)



#### Applicants

Junior, senior, master, PhD students
(~150 intern students in 2024)

#### Duration

• 2 – 6 months

#### Scholarship

• TWD 12,000 – 15,000 / month

#### To cover

- ☐ Airfare TWD 10,000 / round trip
- ☐ On-campus dormitory TWD 360 / week
- ☐ Living expense TWD 6000 / month



**□** 1 TWD = 1.1 THB

#### **Industrial Visit**















### **Internship Life in CCU**















#### Research Topics in 2024



- P1: Trustable Artificial Intelligence for Critical Applications and 6G Security
- P2: A Study of Grid-Forming and Grid-Following Inverter-based Resources for Low-Inertia Microgrid/Grid with Virtual Inertia and Grid Voltage Support Functions
- P3: Lidar and Camera fusion for autonomous driving
- P4: Simulation and Reconstruction of Pencil Beam Scanning of Particle Therapy
- P5: Computer vision applications based on deep learning techniques
- P6: Impulse Radar Imaging System, mmWave/RF Integrated Circuit design and **Energy Harvesting**
- P7: **Renewable Energy** Integration: Power System Analyses, Power Conversion or Intelligent Control
- P8: Silicon photonics and optical biosesnors

#### Research Topics in 2024



- P9: Optical monitoring system for metal additive manufacturing
- P10: Effect of operating conditions on the performance of an all-vanadium redox flow battery
- P11: Measurements of densities of liquid-phase reactive species generated by atmospheric pressure plasma jets
- P12: Numerical modeling and Experiments of an atmospheric pressure plasma jet operated in air with shielding gas
- P13: Application of Novel Snap-shot based **hyperspectral imaging** combined with AI to detect Lesions
- P14: Stirling engines and their applications
- P15: Study of lithium ion **battery**, lithium sulfur battery, metal-air battery, fuel cell and supercapacitor
- P16: Next generation **Wireless communication**, B5G/6G, Reconfigurable Intelligent Surface, System level simulation, Artificial Intelligence-enhanced wireless research

#### Website







https://sites.google.com/view/ccu-coe-internship/home

# International Bachelor Degree Program in Mechanical Engineering (IBP\_ME)

by
Mechanical Engineering,
College of Engineering





#### IBP\_ME



- This new IBP\_ME will start in 2025 September
- All English-taught courses
- Total credits required for graduation: 128 credits
  - (1) General education courses: 28 credits
  - (2) Professional compulsory courses: 67 credits
  - (3) Professional elective courses: 21 credits
  - (4) Free elective courses: 12 credits
- Quota for international students: 20 35 students
- Fees: Tuition (TWD 55,290/semester); Dormitory (TWD 360/week)
- Scholarships

CCU scholarships are available but limited with admission. Students with a high GPA ranking are eligible for a scholarship every semester.

#### **Capstone Courses in the Final Year**



 The "Opto-Mechatronic Design Practice" enables students to have a complete experience in project implementation.



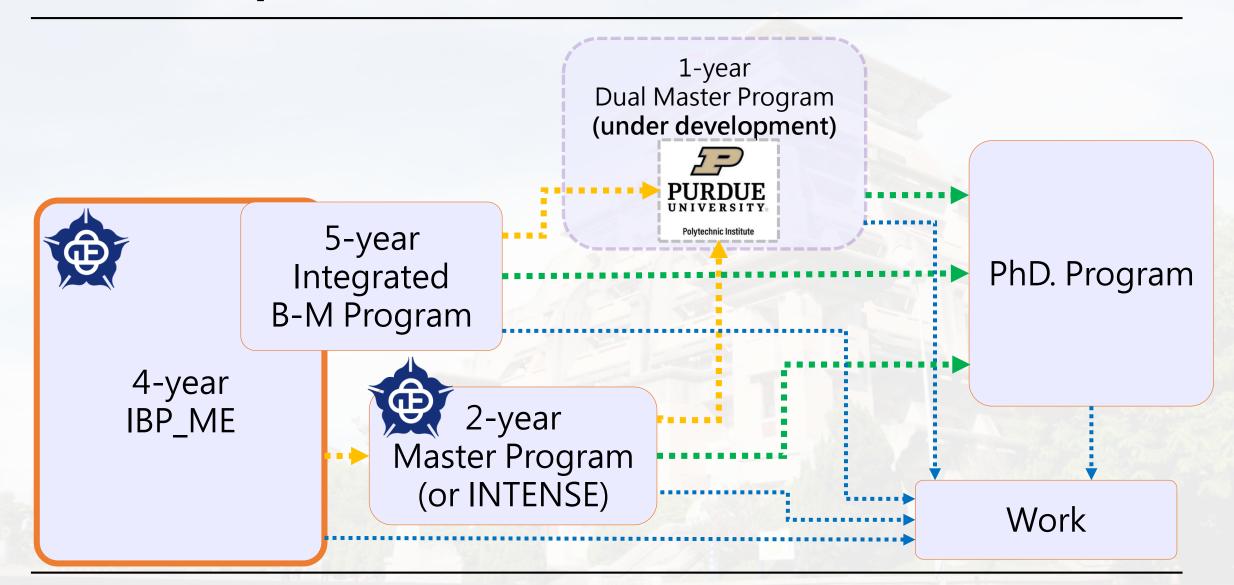






#### Roadmap





#### Website



#### More Information

Visit the website of IBM\_ME of Mechanical Engineering at National Chung Cheng University



#### Application System

Submit all required documents to the Admission Online Application

System on the website of the Office of International Affairs, CCU.

(https://oia.ccu.edu.tw/p/412-1008-1536.php?Lang=en)

#### Application Period

February 1st ~ March 15th



## International Industrial Talents Education Special Program (INTENSE)

International Master Program in Smart Manufacturing

by

Advanced Institute of Manufacturing with High-tech Innovations (AIM-HI)

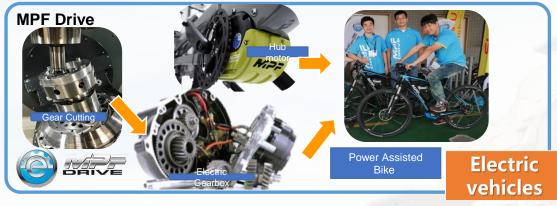


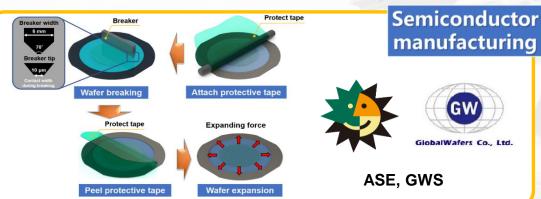
#### Introduction to AIM-HI



- AIM-HI is a university-level research center
- 40 professors from College of Engineering
- Focuses on smart manufacturing and machine tools

manufacturing









#### Introduction to the INTENSE Program

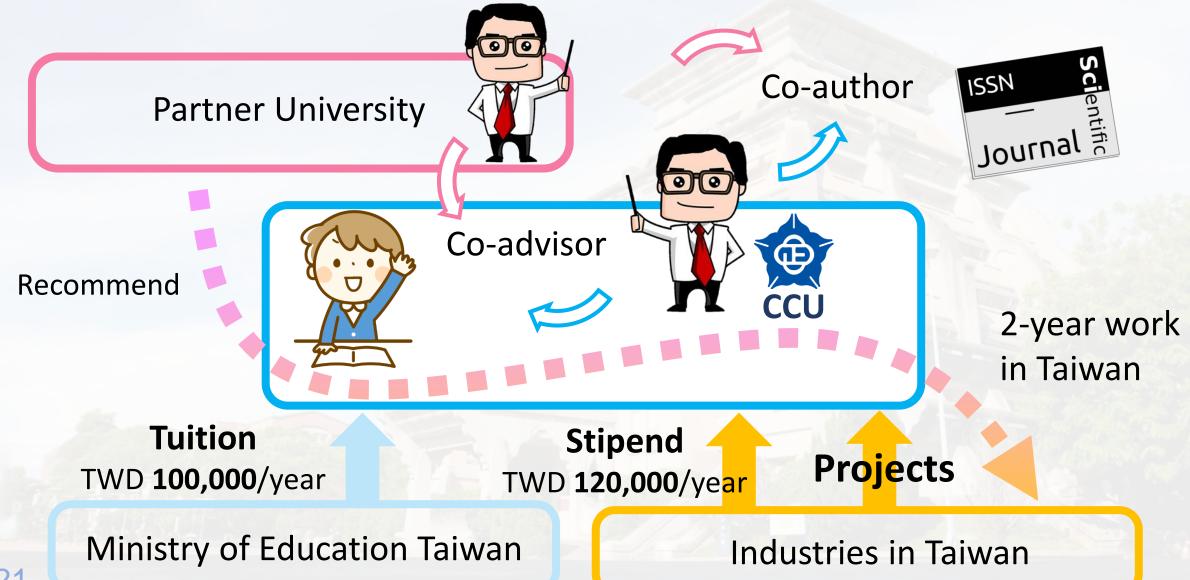


- ✓ Government and enterprises jointly cultivate talent within a period of up to 2 years
- ✓ Scholarships from both the government and enterprises for attracting excellent international students to stay and work in Taiwan
- ✓ The obligation is to stay in Taiwan at least 2 years after graduation
- ✓ Up to a maximum of 30 students per class.
- ✓ Student Nationality: Southeast Asian countries (such as Vietnam, Indonesia, the Philippines, Thailand, Malaysia, and India, etc.)
- ✓ Language of Instruction: English
- ✓ Current Collaborating Enterprises of the Program:
  - -LINCO Technology Co., Ltd.
  - -QUASER MACHINE TOOLS, INC.
  - -CHENBRO MICOM CO., LTD.
  - -Syntec Technology Co., Ltd.
  - -United Orthopedic Corporantio



#### **Collaboration Mode**





#### **Scholarship Funding**





#### National Development Fund of the Taiwan Government

- Tuition fee <u>TWD 100,000 / per year</u>
- Airfare for one-way economy class



# Research/Teaching Assistantships

- Positions provided by advisors
- TWD 2,000 ~ 10,000 / month



## Collaborating Companies

TWD 120,000 / month for 2 years



# **CCU International Student Scholarships**

 Tuition and dormitory fee (partial) waivers



#### **Program Requirements**



#### Required (7 credits)

- Seminar (2 credits)
- ➤ Basic Chinese (2 credits)
- **► Internship in Industries (3 credits)**

Elective courses (18 credits)

Chinese proficiency at A2 before the sencond year

Master thesis





#### **2024 Admissions**



- ✓ 6 students from Thailand
  - King Mongkut's Institute of Technology LadKrabang
  - Kasetsart University
  - Chiang Mai University
  - Rajamangala University of Technology Lanna
- ✓ 3 students from India
  - Indian Institute of Technology Jammu
  - Chitkara University, Punjab
- ✓ 2 students from Vietnam
  - Thai Nguyen University of Technology
  - Hanoi University of Science and Technology
- ✓ 1 student from **Philippine** 
  - King Mongkut's Institute of Technology LadKrabang





# 2025 Fall Semester (coming soon) INTENSE Program

International Master Program in (Topic to be determined)



Website



### Thanks for Your Listening







