GHADAI

TECHNOLOGY PVT. LTD.

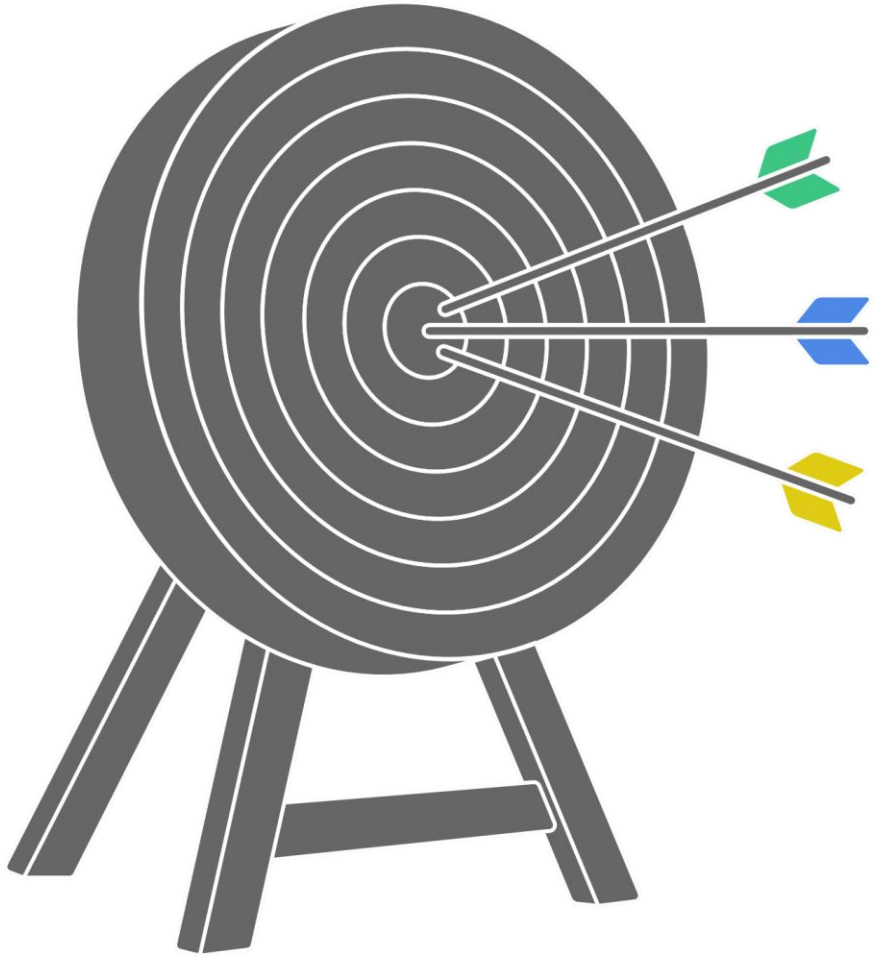
International Internship Program & Process

Go Back to Main Slide

INTERNSHIPS GOING TO BE GIVEN ON THE RESEARCH AREAS OF:

- Semiconductor Manufacturing
- Energy Storage Materials
- Energy Conversion Materials
- AI-based electronics
- VLSI

Student Eligibility for Programs



Master's Students

Advanced learners ready for specialized programs

Fourth-Year Undergraduates

Near completion, seeking career opportunities

Third-Year Undergraduates

Mid-level students exploring options

DEPARTMENTS/STREAMS OF STUDENTS WHO ARE ELIGIBLE:

- Electrical and Electronics Engineering
- Chemical Engineering
- Materials and Metallurgical Engineering
- Mechanical Engineering
- Physics
- Chemistry
- Materials Science
- Computer Science Engineering (Only Expertise in AI)

THE STUDENT SHOULD HAVE A STRONG FOUNDATION IN THE FOLLOWING BASIC COURSES:

1. Semiconductor Manufacturing:

- ***Physics of Semiconductor Devices:*** Understanding the physical principles that govern the behaviour of semiconductor materials.
- ***Materials Science:*** Basics of material properties and processing techniques, with a focus on semiconductors.
- ***Electronics and Circuits:*** Fundamentals of electronic circuits and components.
- ***Chemistry:*** General chemistry, with emphasis on materials and solid-state chemistry.
- ***Introduction to Microfabrication Techniques:*** Overview of processes like lithography, etching, and doping.

2. Energy Storage Materials:

- ***Electrochemistry:*** Study of chemical processes that cause electrons to move, which is fundamental in batteries and capacitors.
- ***Materials Science:*** Focus on materials used in energy storage, such as batteries and super-capacitors.
- ***Solid-State Physics:*** Understanding the physical properties of solid materials, especially as they relate to energy storage.
- ***Thermodynamics:*** Basic principles of energy and matter transformations.
- ***Chemical Engineering:*** Processes involved in the synthesis and characterization of storage materials.

THE STUDENT SHOULD HAVE A STRONG FOUNDATION IN THE FOLLOWING BASIC COURSES:

3. Energy Conversion Materials:

- ***Thermodynamics:*** Essential for understanding energy conversion processes.
- ***Materials Science:*** Study of materials used in devices like solar cells, fuel cells, and thermoelectric converters.
- ***Solid-State Physics:*** For insights into the behaviour of materials used in energy conversion.
- ***Quantum Mechanics:*** Useful for understanding the electronic properties of materials.
- ***Electrochemistry:*** Important for devices like fuel cells and electrolyzers.

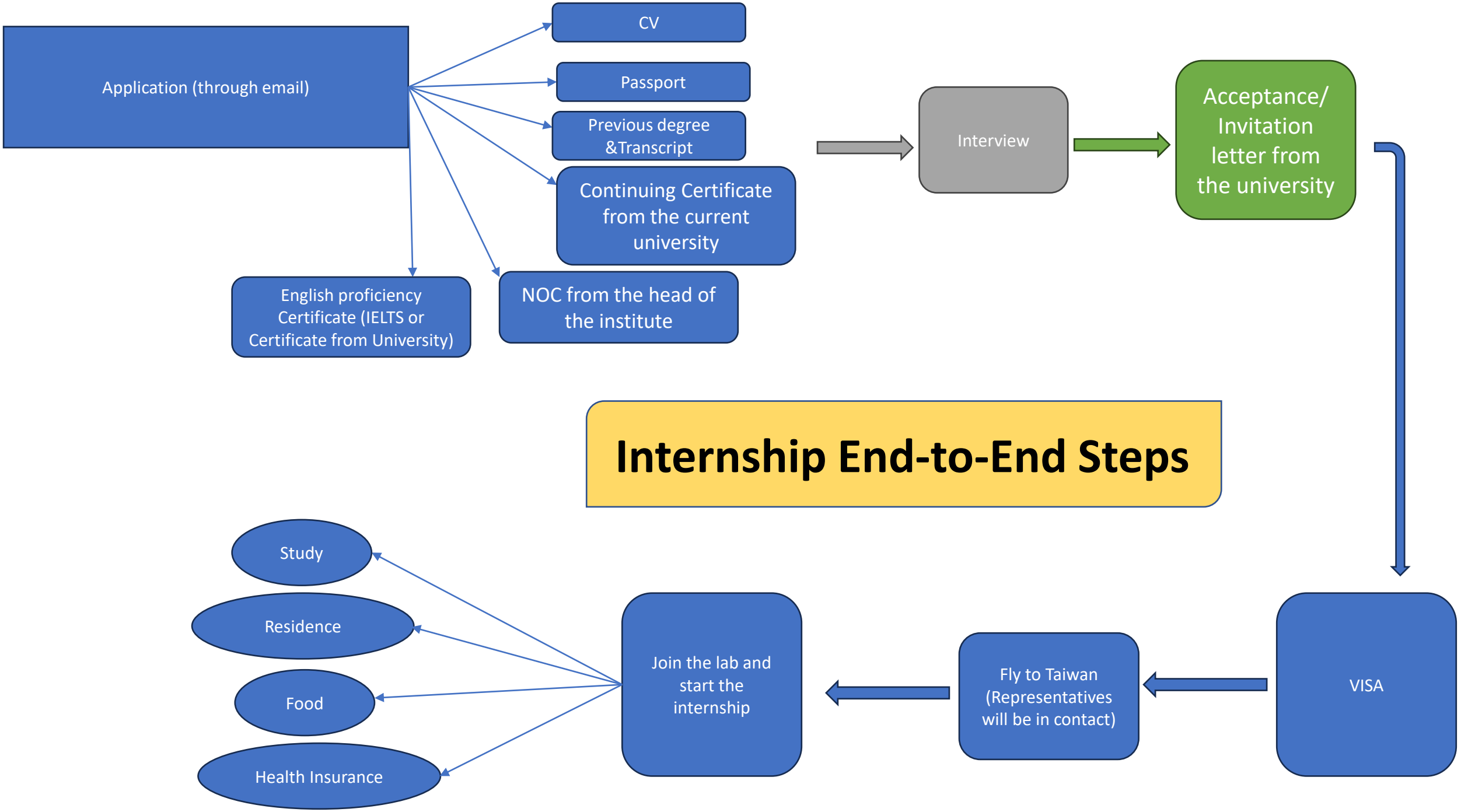
4. AI-based Electronics:

- ***Introduction to AI/Machine Learning:*** Fundamental concepts of AI and machine learning algorithms.
- ***Digital Signal Processing (DSP):*** Understanding how to process and analyze signals, which is crucial in AI hardware.
- ***Computer Science Fundamentals:*** Programming, data structures, and algorithms.
- ***Embedded Systems:*** Knowledge of microcontrollers and their programming.
- ***Electronics and Circuits:*** Understanding basic electronic components and circuits.

5. VLSI (Very-Large-Scale Integration):

- **Digital Logic Design:** Basics of digital circuits, including logic gates and Boolean algebra.
- **Microelectronics:** Study of integrated circuits and semiconductor devices.
- **Circuit Theory:** Fundamental principles governing electrical circuits.
- **Computer Architecture:** Understanding how computer systems are designed and optimized.
- **Introduction to VLSI Design:** Basics of designing integrated circuits with a focus on layout, design rules, and simulation.

Internship End-to-End Steps

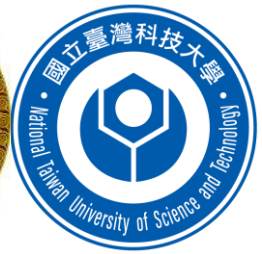


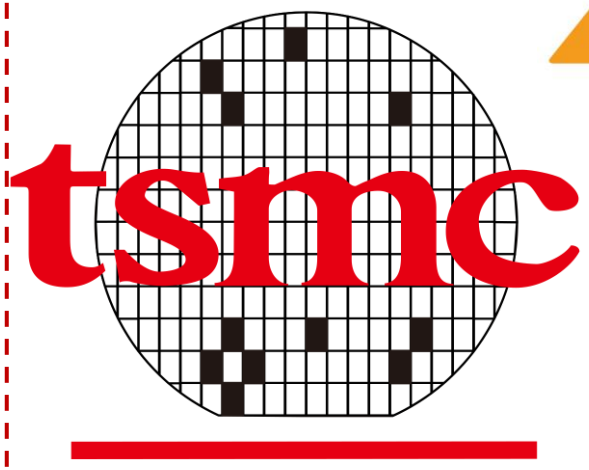
Semiconductor materials fabrication and characterization research

3 to 6 months / 6 to 12 months

Research at Top 15-20 Universities

Industry Internships at Taiwan's prominent semiconductor companies





Funded Internship Perks

Financial Benefits

Includes stipend and allowances

Logistical Benefits

Covers accommodation and travel

Daily Needs

Coverage for everyday living expenses

Travel

Assistance with transportation or travel-related costs

Monthly Stipend

5000-20000 NTD / month

Financial allowance for interns

Student Dormitory

Accommodation provided in student housing

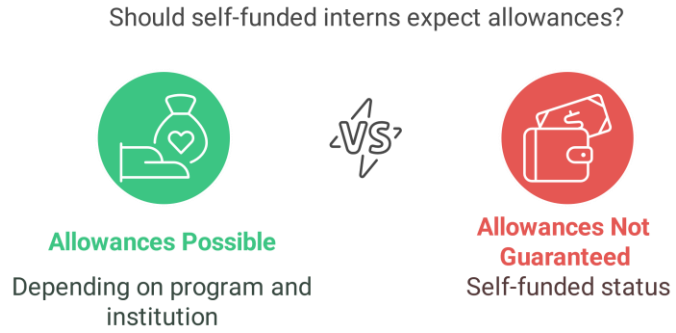
Conference Allowance

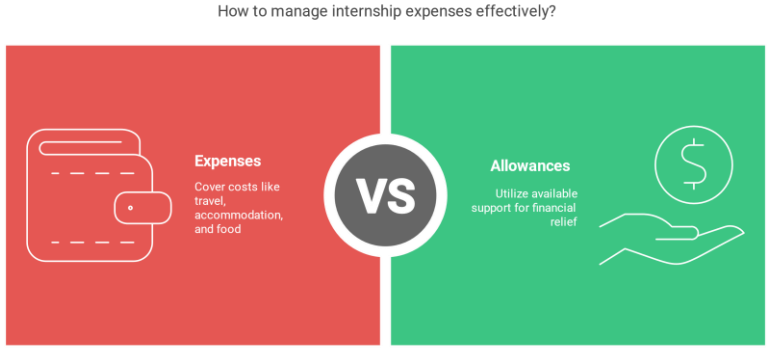
Financial support for attending conferences

Research Allowance

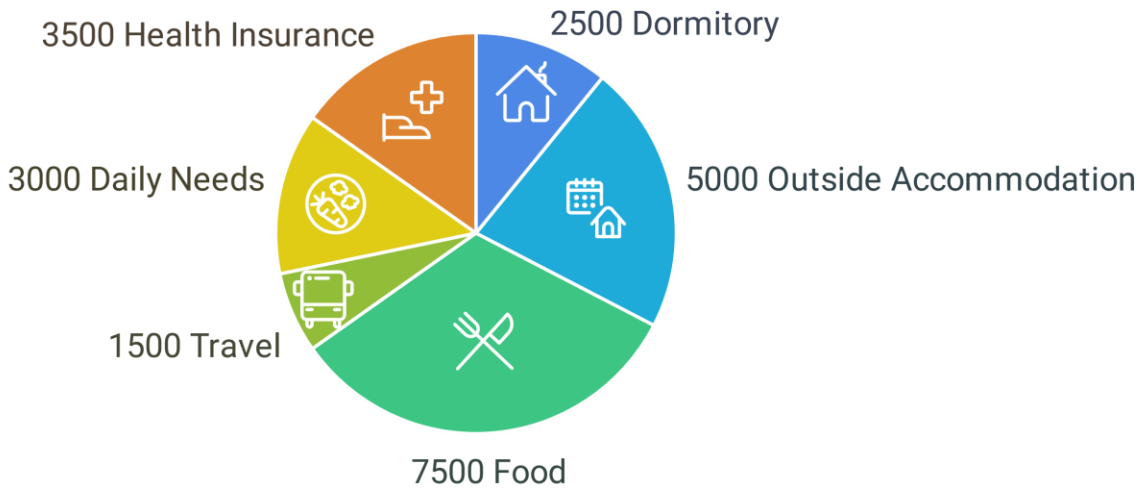
Additional funds for research expenses

Non-funded Internship Expenditure & Perks





Monthly Internship Expenses in NTD (NTD)



Allowances

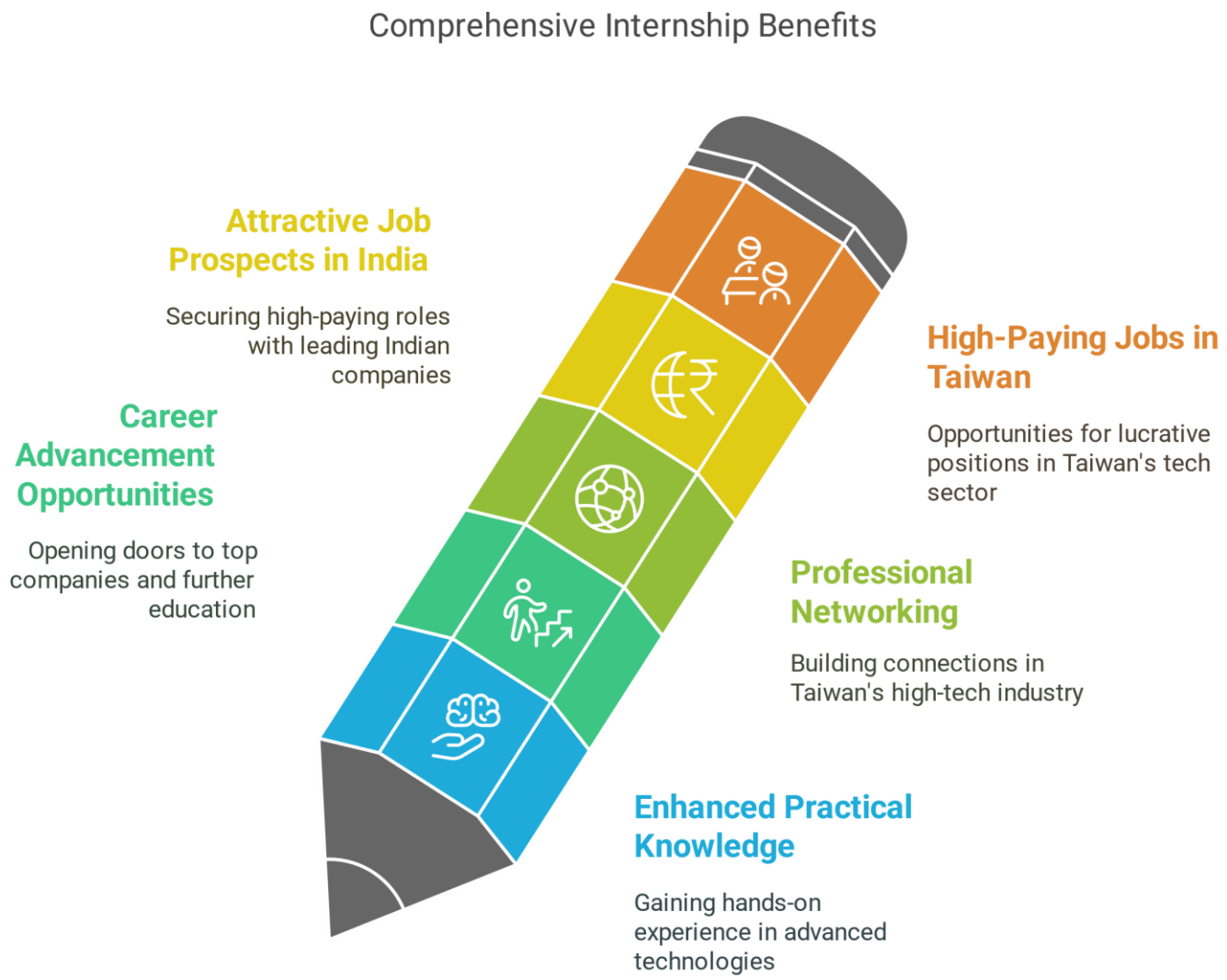
Conference Allowance

Financial support for attending conferences.

Research Allowance

Funding for research-related expenses.

Benefits after the internship



Speaker : Dr. Debabrata Mohanty

Dr. Debabrata Mohanty is currently a Sr. Scientist at Chang Gung University, Taiwan, with expertise in advanced energy materials. He earned his Ph.D. in Energy Materials from Yuan Ze University, Taiwan, in 2023, becoming the youngest individual in the university's history to achieve this milestone. Dr. Mohanty's research focuses on cutting-edge innovations in batteries, supercapacitors, fuel cells, solar cells, and semiconductors. His academic contributions include 32 publications in international SCI journals and 7 book chapters, reflecting his deep commitment to advancing renewable energy technologies. Recipient of the prestigious NSTC Taiwan Fellowship, Dr. Mohanty continues to excel as a leading figure in the energy materials field.

Yuan Ze University, Taiwan

Chang Gung University, Taiwan

Get In Touch

703, JMD PACIFIC SQUARE
32nd Mile Stone, Delhi – Jaipur Highway,
Gurgaon – 122001

info@ghadai.com support@speroedu.com

0124-4111683/4032683 || +91 9811935009

www.ghadai.com, www.speroedu.com

ghadai-technology-pvt-ltd

speroedu