

CENTRE FOR INTERNATIONAL RELATIONS

ANNA UNIVERSITY, CHENNAI - 600 025, INDIA



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CIRCULAR

Swinburne University of Technology, Australia with whom we have Memorandum of Understanding (MoU) is offering 2021 Swinburne Sarawak International Mobility Program (Final year project). Interested final year students of Anna University, Chennai (CEG, ACT, SAP and MIT campuses) can apply for this programme.

Students from the following departments can participate in the above programme:

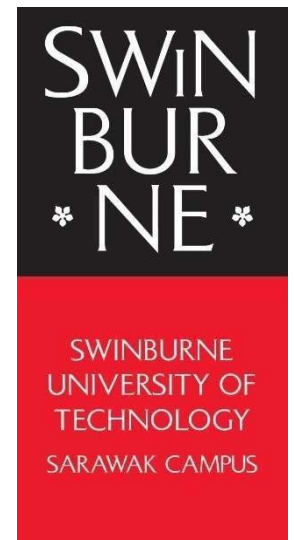
- Civil Engineering
- Chemical Engineering
- Electrical & Electronics Engineering
- Mechanical Engineering
- Computer Science Engineering

Interested students of Anna University campus can send their detailed application with their Bio-Data forwarded through their Head of the Department to the Director, Centre for International Relations, Anna University, Chennai 600 025. Selected students should get prior permission from the respective departments and the Centre for Academic Courses. The details pertaining to this programme are given on the next page.


DIRECTOR

To
All Deans of campuses
All Directors and HODs (With a request to display on notice board)
PS to Vice Chancellor
PA to Registrar

Swinburne University of Technology
Sarawak Campus
Malaysia



2021 Swinburne Sarawak International Mobility Program

International Engineering Research Experiences



Part A: Unit Summary

Unit Title	International Engineering Research Experiences		
Duration	6 months in Swinburne Sarawak OR 3 months in your college and the last 3 months in Swinburne Sarawak		
Total Contact Hours	48 hours		
Requisites:			
Pre-requisites	Minimum 300 Credit Points OR Completion of three year of full time undergraduate engineering study or equivalent.		
Co-requisites	none		
Concurrent pre-requisites	none		
Anti-requisites	none		
Assumed knowledge	none		
Credit Points	25		
Campus/Location	Sarawak		
Mode of Delivery	Blended		
Assessment Summary	Assessment	Individual or Group	Weighting
	Research Plan	Individual	10%
	Poster Presentation	Individual	10%
	Oral Presentation	Individual	10%
	Research Paper	Individual	10%
	Final Report	Individual	40%
	Workbook	Individual	20%

Aims

This unit of study aims to introduce you to engineering research through planning and managing an innovative engineering research project, using research methods and reflecting on broader professional issues related to the project.

Unit Learning Outcomes

Students who successfully complete this Unit should be able to:

1. Plan and manage an innovative engineering research project, within given constraints, using knowledge and skills developed during the course (K1, K2, K3, K4, S1, S2, S3, S4, A2, A3, A4, A6) (EAC PO11)
2. Research a complex problem by formulating a research question, appraising current literature and developments, and applying research principles and methods (K3, K4, S1, S2, S3, A2, A3, A4) (EAC PO4)
3. Demonstrate effective professional written and oral communication to a variety of audiences through proposals, reports, documentation and presentations (A2, A4) (EAC PO10)
4. Apply problem-solving methodologies to generate, evaluate and justify innovative solutions (K1, K2, K3, K4, S1, S2, S3, A3) (EAC PO4)

5. Use project management processes and tools, and self-management skills, to plan and manage project work (K5, K6, S4, A2, A4, A5, A6) (EAC PO11)
6. Reflect on professional engineering practice and its impact on the project, including safety, ethical, legal, social, cultural and sustainability considerations, along with standards and codes of practice (K5, K6, S4, A1, A2, A4) (EAC PO12)
7. Demonstrate professionalism, integrity, ethical conduct and professional accountability in all aspects of project work, including teamwork, dealing with stakeholders and demonstrating a professional image (K5, K6, S4, A1, A2, A5, A6) (EAC PO8)

Graduate Attributes

This unit may contribute to the development of the following Swinburne Graduate Attributes:

- Communication skills
- Teamwork skills
- Digital literacies

Content

Research

- The principles of engineering research
- Defining the research problem
- Reviewing the literature
- Research methods and methodologies
- Ethics and plagiarism
- Planning a research project
- Communicating research
- The roles of students and supervisors

The Engineering Profession

- The Profession of Engineering
- Issues associated with professional engineering practice, including safety, ethical, legal, social, cultural and sustainability considerations
- Reflection and self-review practices

Engineering Design

- Engineering design life-cycle
- Effective communication skills (oral and written)
- Discipline related literature search

Key Program Outcomes (Swinburne Engineering Competencies) for this Unit of Study

This unit will contribute to your attaining the following Program Outcomes (Swinburne Engineering competencies):

- K1 Basic Science:** Proficiently applies concepts, theories and techniques of the relevant natural and physical sciences.
- K2 Maths and IT as Tools:** Proficiently uses relevant mathematics and computer and information science concepts as tools.
- K3 Discipline Specific:** Proficiently applies advanced technical knowledge of the specific discipline within the context

- K4 Emerging Disciplinary Trends:** Interprets and applies current or emerging knowledge from inside and outside the specific discipline.
- K5 Practice Context:** Discerns and appreciates the contextual factors affecting professional engineering practice.
- K6 Professional Practice:** Appreciates the principles of professional engineering practice in a sustainable context.
- S1 Engineering Methods:** Applies engineering methods in practical applications.
- S2 Problem Solving:** Systematically uses current or emerging knowledge and research methods to undertake independent research in solving complex engineering problems and as preparation for research higher degrees.
- S3 Design:** Systematically uses engineering methods in design.
- S4 Project Management:** Systematically uses engineering methods in conducting and managing project work including finance.
- A1 Ethics:** Values the need for, and demonstrates, ethical conduct and professional accountability.
- A2 Communication:** Demonstrates effective communication to professional and wider audiences.
- A3 Entrepreneurial:** Appreciates entrepreneurial approaches to engineering practice.
- A4 Information Management:** Demonstrates seeking, using, assessing and managing information.
- A5 Professional Self:** Demonstrates professionalism.
- A6 Management of Self:** Demonstrates self-management processes.
- A7 Teamwork:** Demonstrates effective team membership and team leadership.

Key Engineering Accreditation Council (EAC) Program Outcomes for this Unit of Study

- PO4 Investigation:** Conduct investigation into complex problems using research based knowledge (WK8) and research methods including design of experiments, analysis and interpretation of data, and synthesis of information to provide valid conclusions.
- PO8 Ethics:** Apply ethical principles and commit to professional ethics and responsibilities and norms of engineering practice. (WK7)
- PO10 Communication:** Communicate effectively on complex engineering activities with the engineering community and with society at large, such as being able to comprehend and write effective reports and design documentation, make effective presentations, and give and receive clear instructions.
- PO11 Project Management and Finance:** Demonstrate knowledge and understanding of engineering and management principles and economic decision-making and apply these to one's own work, as a member and leader in a team, to manage projects and in multidisciplinary environments.
- PO12 Life Long Learning:** Recognise the need for, and have the preparation and ability to engage in independent and lifelong learning in the broadest context of technological change.

Part B: Unit Details

Learning and Teaching Structure

Activity	Total Hours	Hours per Week	Teaching Period Weeks
Lectures/Workshops/Seminars	36 hours	1.5 hours	Weeks 1 to 18
Supervisor Meetings	24 hours	1 hour	Weeks 1 to 24
Online Modules	24 hours	1 hour	Weeks 1 to 8

Week by Week Schedule

Week	Week Beginning	Teaching and Learning Activity	Student Task or Assessment
1		Lecture - Overview of requirements and Research Plan & strategy	Research Plan
2		Lecture - Literature Review Workshop – Lab safety Supervisor meeting	research module 1 Workbook Research Plan
3		Lecture - Report Writing Supervisor meeting	research module 1 Workbook
4		Lecture - Project Management and Communication Workshop - Database search, E-book, referencing Supervisor meeting	research module 2 Workbook Research Plan
5		Lecture - Risk management Supervisor meeting	research module 2 Workbook Research Plan
6		Lecture - Oral/Poster presentation Workshop - Endnotes Training Sessions Supervisor meeting	research module 3 Workbook Research Plan
7		Lecture - How to use MSWord effectively Supervisor meeting	research module 3 Research Plan Submission Workbook
8		Lecture - Reflective Journal Supervisor meeting	research module 4 Research activities Project development Workbook
9		Supervisor meeting	research module 4 Research activities Project development Workbook
10		Research Seminar Supervisor meeting	research module 5 Research activities Project development Workbook

11		Supervisor meeting	research module 5 Research activities Project development Workbook
12		Research Seminar Supervisor meeting	Poster Presentation Research activities Project development Workbook
13		Supervisor meeting	research module 6 Research activities Project development Workbook
14		Research Seminar Supervisor meeting	research module 6 Research activities Project development Workbook
15		Lecture - Writing a research paper Supervisor meeting	research module 7 Research activities Project development Workbook
16		Research Seminar Supervisor meeting	research module 7 Research activities Project development Workbook
17		Supervisor meeting	Research activities Project development Workbook
18		Research Seminar Supervisor meeting	Research activities Project development Research Paper Workbook
19		Supervisor meeting	Research activities Project development Research Paper Workbook
20		Research Seminar Supervisor meeting	Research activities Project development Research Paper Workbook
21		Supervisor meeting	Research activities Project development Research Paper Workbook
22		Supervisor meeting	Research Paper submission Workbook submission
23		Supervisor meeting	Oral presentation
24		Supervisor meeting	Final Report Submission

Assessment

a) Assessment Overview

Tasks and Details	Individual or Group	Weighting	Unit Learning Outcomes that this assessment task relates to	Assessment Due Date
Research Plan	Individual	10%	1, 2, 3, 4	Week 7
Poster Presentation	Individual	10%	1, 2, 3	Week 12
Oral Presentation	Individual	10%	1, 2, 3	Week 23
Research Paper	Individual	10%	1, 2, 3, 4	week 22
Final Report	Individual	40%	1, 2, 3, 4	week 24
Workbook	Individual	20%	1, 2, 3, 4, 5, 6, 7	week 22

b) Minimum requirements to pass this Unit

As the minimum requirements of assessment to pass the unit and meet all Unit Learning Outcomes to a minimum standard, a student must achieve:

- An aggregate mark for the unit of 50% or more

c) Examinations

There is no examination in this unit.

d) Submission Requirements

Assignments and other assessments are generally submitted online through the Canvas assessment submission system which integrates with the Turnitin plagiarism checking service. Please ensure you keep a copy of all assessments that are submitted.

ALL submissions must be submitted to the Canvas assignment in pdf format.

e) Extensions and Late Submission

Late Submissions - Unless an extension has been approved, late submissions will result in a penalty. You will be penalised 10% of your mark for each working day the task is late, up to a maximum of 5 days. After 5 working days, a zero result will be recorded.

You need to obtain approval for late submission from the convenor, stating the reason along with any factual evidence, at least one day before the due date of submission, in order to avoid this penalty.

f) Referencing

To avoid plagiarism, you are required to provide a reference whenever you include information from other sources in your work. Further details regarding plagiarism are available in Section C of this document.

Referencing conventions required for this unit are: IEEE style

Helpful information on referencing can be found at

<https://www.swinburne.edu.my/library/referencing>

g) Groupwork Guidelines

There is no groupwork in this unit.

Required Textbook(s)

Research publications and other materials suggested by the project supervisor.

Recommended Reading Materials

The Library has a large collection of resource materials, both texts and current journals. Listed below are some references that will provide valuable supplementary information to this unit. It is also recommended that you explore other sources to broaden your understanding.

Online Databases

<https://www.swinburne.edu.my/library/databases/databases-a.php>

eBooks

<https://www.swinburne.edu.my/library/databases/ebooks.php>

Online Magazines

<https://www.swinburne.edu.my/library/search/magazines.php>

Research publications and other materials suggested by the project supervisor.

Part C: Other Information

a) Project Details

- Individual project
- The project title will be proposed by the supervisors
- Project timeline:
 - Week 7 – Project proposal/ Research plan
 - Week 12 – Progress report/ Poster presentation
 - End of semester – Oral presentation, final report, research paper and workbook


b) Fees


Unit Fee : RM10, 000

c) Hubridy's Off-Campus Accommodation

Hubridy Company is a start-up founded by a Swinburne alumnus and is supported by the Swinburne Innovation Malaysia Sdn. Bhd. This accommodation options are tailored for Swinburne's students and staff members. Booking for accommodation can be done through its website at www.hubridycompany.com.

Accommodation options:

Room type	Maximum occupancy	Month rental per pax	Description
Option A			
Single room	1 pax	RM1,100	<p>Comes with a queen-size bed, an air-conditioner, open-styled wardrobe, a study table, a chair, bedsheet and two pillows</p> 




Sharing room	2 pax	RM700	<p>Comes with two single beds, an air-conditioner, two wardrobes, two study tables, two chairs, bedsheet and pillows</p> 
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Other amenities included:

- Shared Kitchen
- Shared bathroom with water heater
- Living Room
- Gym
- Student Lounge
- Wi-Fi

Option B

Single Room with Attached Bathroom	1 pax	RM1,200	<p>Comes with a single bed, an air-conditioner, a wardrobe, an attached bathroom with water heater, a study table and chair</p> 
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<p>Single Room without Attached Bathroom</p>	<p>1 pax</p>	<p>RM900</p>	<p>Comes with a single bed, an air-conditioner, a wardrobe, a study table and chair</p> 
<p>Sharing Room with Attached Bathroom – Type 1</p>	<p>2 pax</p>	<p>RM800</p>	<p>Comes with two single beds, an air-conditioner, two wardrobes, an attached bathroom with water heater, two study tables and two chairs</p> 
<p>Sharing Room with Attached Bathroom – Type 2</p>			<p>Comes with a double-decker bed, an air-conditioner, two wardrobes, an attached bathroom with water heater, two study tables and two chairs</p> 

<p>Sharing Room without Attached Bathroom – Type 1</p>	<p>2 pax</p>	<p>RM700</p>	<p>Comes with two single beds, an air-conditioner, two wardrobes, two study tables and two chairs</p> 
<p>Sharing Room without Attached Bathroom – Type 2</p>			<p>Comes with a queen-sized bed, an air-conditioner, two wardrobes, two study tables and two chairs</p> 
<p>Other amenities included:</p> <ul style="list-style-type: none"> • Shared Kitchen (Two Fridges, Water Dispenser, Induction Cookers, Rice Cooker, Microwave) • Common Area • Common Bathrooms (separated for Males and Females) • Washing Machine and Drying Area • Wi-Fi 			

Terms & Conditions:

- A booking fee of RM500 per pax is required to secure a room, and
- Rooms will be provided based on the availability during the booking.

d) Security Deposit and Other Fees

International student are required by the Malaysian Immigration Department to make a security deposit. The rate of the security deposit is based on the country of origin of the student. The security deposit will be refunded upon graduation or if the student withdraws from the course.

Refundable security deposit	
• India	RM2,000
Other fees (non-refundable)	
• medical insurance	RM400
• processing fee* including those for visa, medical examination and student pass	RM1,250

e) Living Expenses

- Groceries and eating out : RM200 – RM350 per month
- phone and internet : RM50 – RM150 per month
- transportation : RM25 – RM50 per week
- entertainment : RM60 – RM150 per month
- study expenses (book, stationery, etc.) : RM800 per year

The costs above are estimates only and should be taken as a guide in planning your budget while studying in Kuching.

Further Information:

If you have any questions or would like to discuss the proposal or request a specific program, please do not hesitate to contact:

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