ACADEMIC PROJECT 1

(WIA3002 / WIB3002)

BRIEFING

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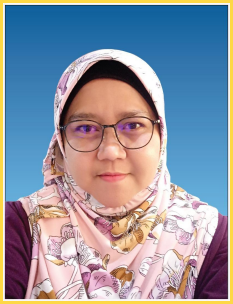
MEET OUR GREAT TEAM

Head Coordinator



Pn. Hannyzzura Affal

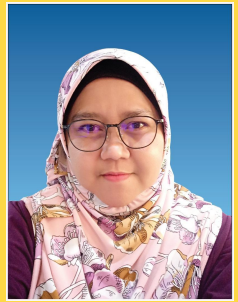
Department/Unit Coordinators

Dr. Hazrina Sofian
(SE)

AP Ts Dr. Sri Devi
(IS)

En. Noorzaily
Mohamed Noor
(CSN)

Dr. Nurul Japar
(AI)



Pn. Hannyzzura Affal
MM & Islamic Studies

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INTRODUCTION

The aim of these courses is to leverage students' **technical** and **soft skills** (communication, problem-solving, critical thinking, and teamwork & leadership skills)

No.	Course Title	Course Code	Programme	Credits	Semester
1.	Academic Project I	WIA3002*	Bachelor of Computer Science	3	Semester II Year 3
		WIB3002*	Bachelor of Information Technology		
2.	Academic Project II	WIA3003#	Bachelor of Computer Science	5	Semester I Year 4
		WIB3003#	Bachelor of Information Technology		

* **Pass all Faculty and Programme Core Courses except for Industrial Training and Academic Project II.**

\# Pre-requisite: Bachelor of Computer Science - WIA3002
Bachelor of Information Technology - WIB3002

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COURSE OUTCOME

At the end of the course, students are able to

1. State the problem background.
2. Identify a solution approach that is suitable for the stated problem.
3. Report a literature review that is related to the stated problem.
4. Conduct suitable data gathering techniques.
5. Write a project proposal.

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CURRICULUM STRUCTURE
BACHELOR OF COMPUTER SCIENCE (COMPUTER SYSTEM AND NETWORK)
ACADEMIC SESSION 2020/2021

COURSE CODE	COURSE COMPONENT UNIVERSITY COURSES	CREDITS	SEMESTER
GIG1012	Philosophy and Current Issues *(for local student only)*	2	1
GLT1017	Basic Malay Language *(for international student)*		
GIG1013	Appreciation of Ethics and Civilizations	2	2
GIG1003	Basic Entrepreneurship Culture	2	1
GIG1004	Information Literacy	2	2
GIG1005	Social Engagement	2	2
GLTXXXX	English for Communication (1)	3	1
GLTXXXX	English for Communication (2)	3	2
	Co-Curriculum	2	1
	External Faculty Elective	2	1
	Total	**20**	
COURSE CODE	**FACULTY CORE COURSES**	**CREDITS**	**SEMESTER**
WIX1001	Computing Mathematics I	3	1
WIX1002	Fundamentals of Programming	5	1
WIX1003	Computer Systems and Organization	3	1
WIX2001	Thinking and Communication Skills	3	1
WIX2002	Project Management	3	1
	Total	**17**	
COURSE CODE	**FACULTY ELECTIVE COURSES** *(Choose only 2 courses)*	**CREDITS**	**SEMESTER**
WIX3001	Soft Computing	3	1 or 2
WIX3002	Social Informatics	3	1 or 2
WIX3003	Information Security Management and Ethics	3	1 or 2
WIX3004	Mobile Application Development	3	1 or 2
WIX3005	Digital Cinematography	3	1 or 2
	Total	**6**	
COURSE CODE	**PROGRAMME CORE COURSES**	**CREDITS**	**SEMESTER**
WIA1001	Information Systems	3	1
WIA1002	Data Structure (#WIX1002)	5	2
WIA1003	Computer System Architecture (#WIX1003)	3	2
WIA1004	Fundamentals of Artificial Intelligence	3	2
WIA1005	Network Technology Foundation	4	2
WIA2001	Database	3	1
WIA2002	Software Modeling	3	1
WIA2003	Probability and Statistics	3	1
WIA2004	Operating Systems	4	2
WIA2005	Algorithm Design and Analysis (#WIA1002)	4	2
WIA3001	Industrial Training *	12	1
WIA3002	Academic Project I **	3	2
WIA3003	Academic Project II (#WIA3002)	5	1
	Total	**55**	
COURSE CODE	**SPECIALIZATION ELECTIVE COURSES** *(Choose only 10 courses)*	**CREDITS**	**SEMESTER**
WIC2001	Advanced Network Technology	3	1 or 2
WIC2002	Network Security	3	1 or 2
WIC2003	Digital Design and Hardware Description Language	3	1 or 2
WIC2004	Internet Technology	3	1 or 2
WIC3001	Mathematics in Networking	3	1 or 2
WIC3002	Cryptography	3	1 or 2
WIC3003	Embedded System Programming	3	1 or 2
WIC3004	Computer Penetration	3	1 or 2
WIC3005	Enterprise Network Design and Management	3	1 or 2
WIC3006	Mobile Computing	3	1 or 2
WIC3007	Principles of Distributed Systems	3	1 or 2
WIC3008	Microprocessor	3	1 or 2
WIC3009	Parallel Programming	3	1 or 2
	Total	**30**	
	TOTAL CREDITS FOR GRADUATION	**128**	

CURRICULUM STRUCTURE
BACHELOR OF COMPUTER SCIENCE (SOFTWARE ENGINEERING)
ACADEMIC SESSION 2020/2021

COURSE CODE	COURSE COMPONENT UNIVERSITY COURSES	CREDITS	SEMESTER
GIG1012	Philosophy and Current Issues *(for local student only)*	2	1
GLT1017	Basic Malay Language *(for international student)*		
GIG1013	Appreciation of Ethics and Civilizations	2	2
GIG1003	Basic Entrepreneurship Culture	2	1
GIG1004	Information Literacy	2	2
GIG1005	Social Engagement	2	2
GLTXXXX	English for Communication (1)	3	1
GLTXXXX	English for Communication (2)	3	2
	Co-Curriculum	2	1
	External Faculty Elective	2	1
	Total	**20**	
COURSE CODE	**FACULTY CORE COURSES**	**CREDITS**	**SEMESTER**
WIX1001	Computing Mathematics I	3	1
WIX1002	Fundamentals of Programming	5	1
WIX1003	Computer Systems and Organization	3	1
WIX2001	Thinking and Communication Skills	3	1
WIX2002	Project Management	3	1
	Total	**17**	
COURSE CODE	**FACULTY ELECTIVE COURSES** *(Choose only 2 courses)*	**CREDITS**	**SEMESTER**
WIX3001	Soft Computing	3	1 or 2
WIX3002	Social Informatics	3	1 or 2
WIX3003	Information Security Management and Ethics	3	1 or 2
WIX3004	Mobile Application Development	3	1 or 2
WIX3005	Digital Cinematography	3	1 or 2
	Total	**6**	
COURSE CODE	**PROGRAMME CORE COURSES**	**CREDITS**	**SEMESTER**
WIA1001	Information Systems	3	1
WIA1002	Data Structure (#WIX1002)	5	2
WIA1003	Computer System Architecture (#WIX1003)	3	2
WIA1004	Fundamentals of Artificial Intelligence	3	2
WIA1005	Network Technology Foundation	4	2
WIA2001	Database	3	1
WIA2002	Software Modeling	3	1
WIA2003	Probability and Statistics	3	1
WIA2004	Operating Systems	4	2
WIA2005	Algorithm Design and Analysis (#WIA1002)	4	2
WIA3001	Industrial Training *	12	1
WIA3002	Academic Project I **	3	2
WIA3003	Academic Project II (#WIA3002)	5	1
	Total	**55**	
COURSE CODE	**SPECIALIZATION ELECTIVE COURSES** *(Choose only 10 courses)*	**CREDITS**	**SEMESTER**
WIF2001	Human Computer Interaction	3	1 or 2
WIF2002	Software Requirements Engineering	3	1 or 2
WIF2003	Web Programming	3	1 or 2
WIF3001	Software Testing	3	1 or 2
WIF3002	Software Process and Quality	3	1 or 2
WIF3003	Concurrent Programming (#WIX1002; WIA2004)	3	1 or 2
WIF3004	Software Architecture and Design Paradigms (#WIA2002)	3	1 or 2
WIF3005	Software Maintenance and Evolution	3	1 or 2
WIF3006	Component-Based Software Engineering (#WIA2002)	3	1 or 2
WIF3007	Design Patterns	3	1 or 2
WIF3008	Real Time Systems	3	1 or 2
	Total	**30**	
	TOTAL CREDITS FOR GRADUATION	**128**	

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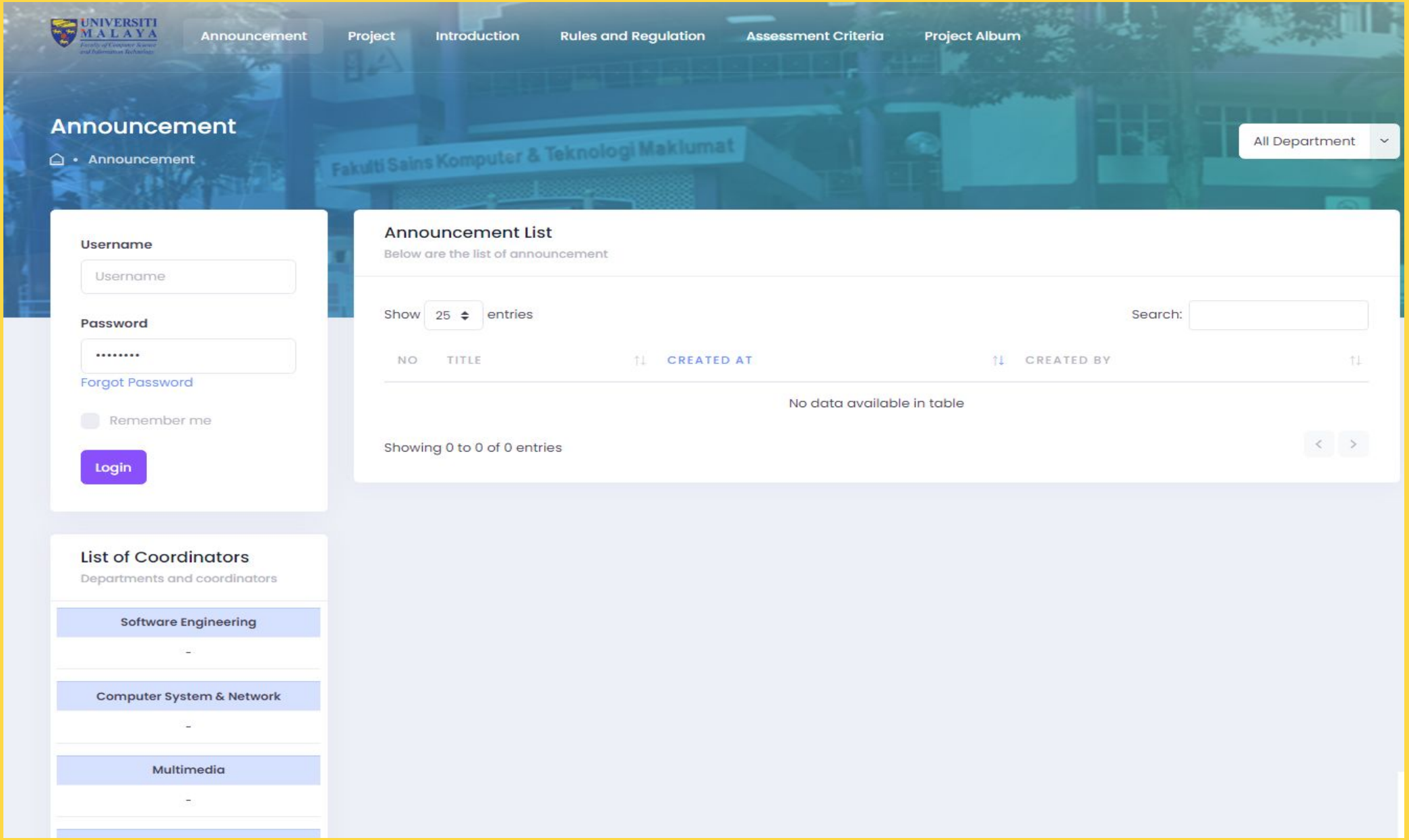
AP system @ https://ilmiah.fsktm.um.edu.my



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First Time Login

Academic Project System @ https://ilmiah.fsktm.um.edu.my/

- Username : matrix number (e.g. **14118528)**
- Default Password : **fsktmnomatrik**

(e.g. **fsktm14118528)**

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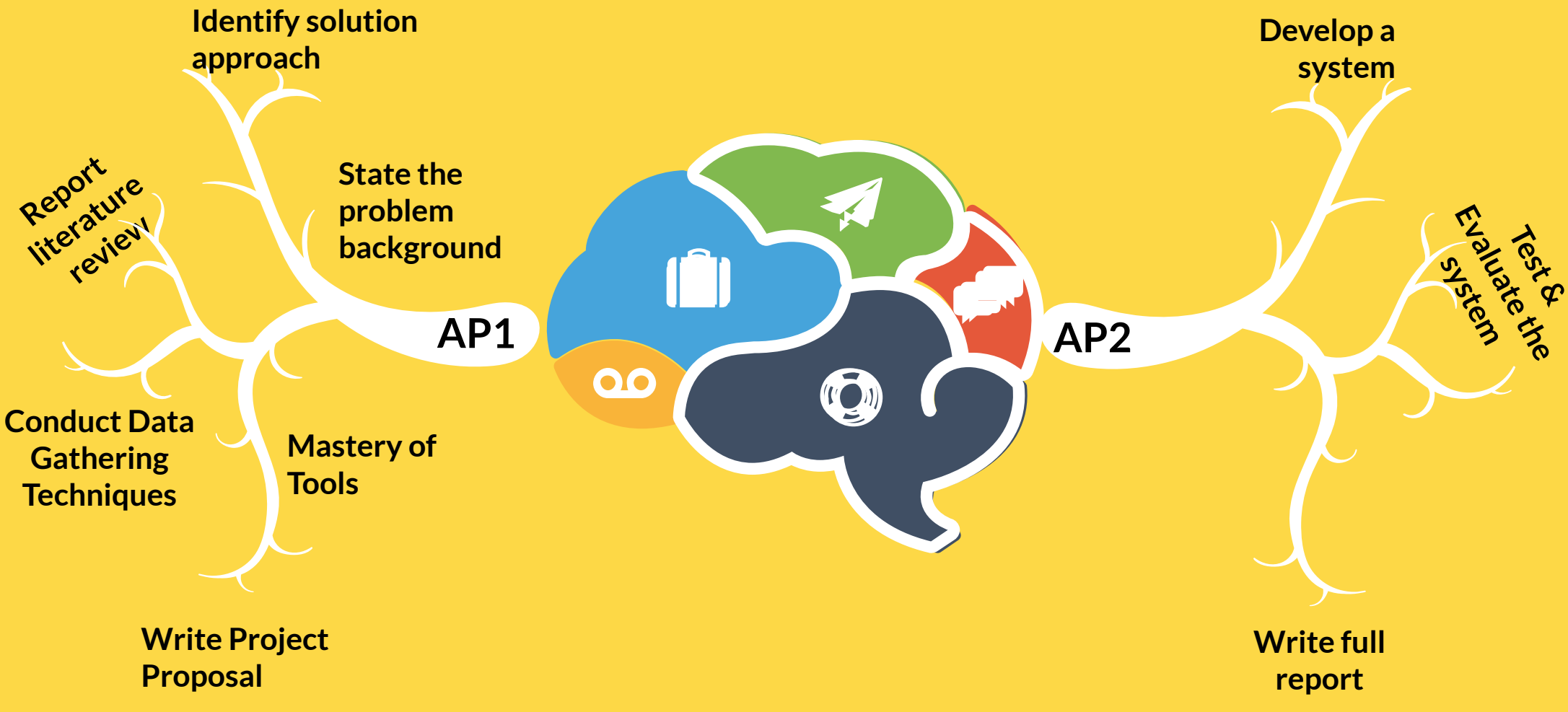
FOCUS OF ACADEMIC PROJECT I & II



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2 MODES OF ACADEMIC PROJECT

- CONVENTIONAL AP
- IPPI AP

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Innovative Product Project Initiative (IPPI)

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ABOUT IPPI

An initiative to produce final year projects that are ready to **commercialize/use** by the target clients/users

Teach, develop, instill and inculcate **multiple technology** and **entrepreneurial skills** to the undergraduates

Increase the **involvement of industry** in teaching and learning in the faculty's teaching environment

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FOCUS OF IPPI

- Problems and projects come from **industry**
- Focus on product innovation which has commercial value
- It is a group project

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COMPARISON

	IPPI	CONVENTIONAL
Supervision	Multi supervisors per team	1 supervisor
Formation of Group	Group	Individual/Group
Cross-majoring	Compulsory	Not required
Collaboration	Industry	Industry/Community/ Organization
Assessment & Viva	Department	Department
Technical Training/ Industrial Talk	Yes	Yes
Monitoring Seminar	Yes	Yes

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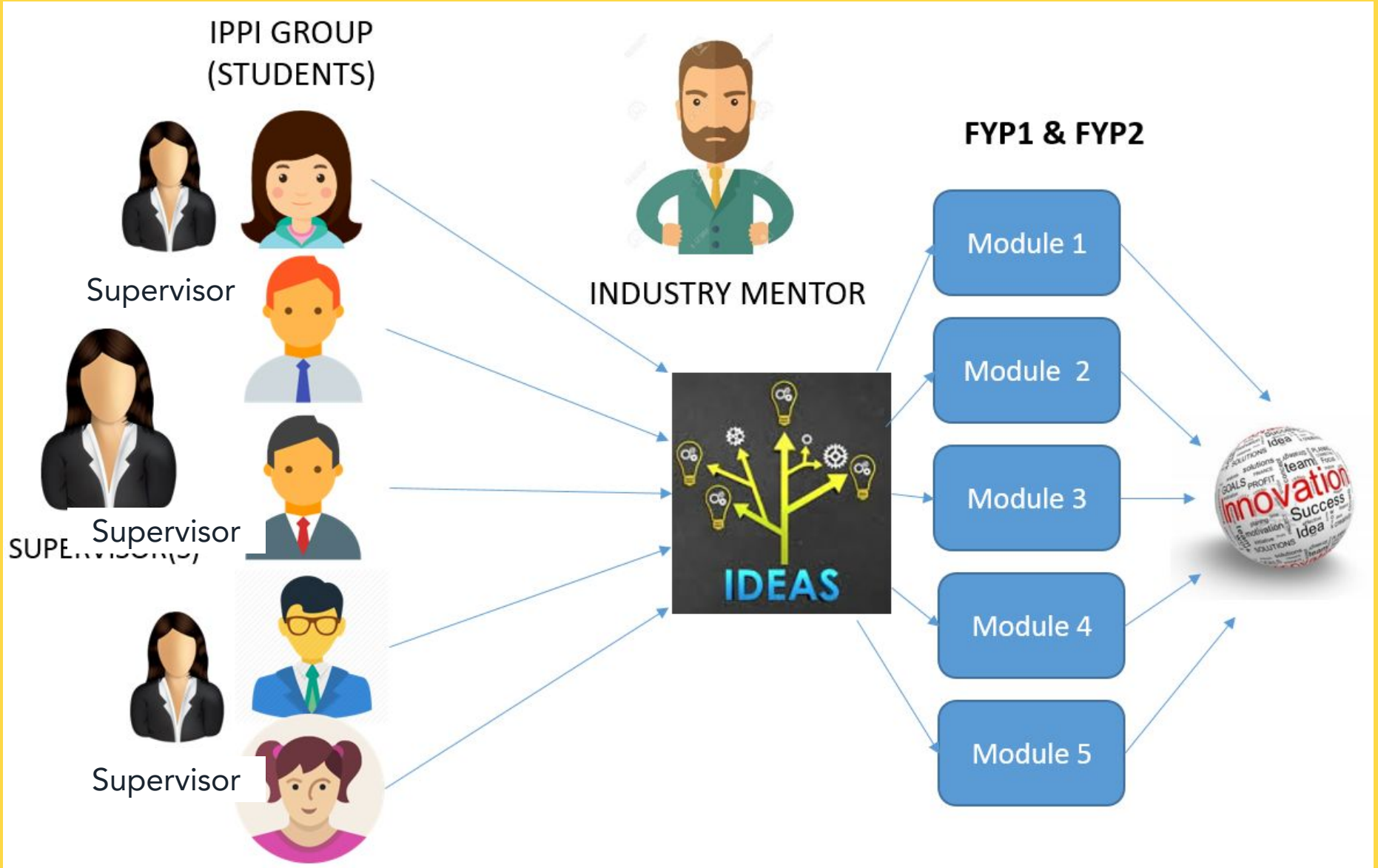
IPPI WORKING TEAM



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INDUSTRIAL COLLABORATORS

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STUDENTS' RESPONSIBILITIES

01 **Attend Briefing**

Attend the briefing on Academic Project by the Coordinator in Week 1

02 **Identify Supervisors**

Identify your supervisor and confirm the project title by Week 2

03 **Regular Meetings**

- Discussion with project supervisor
- **Fill in the Logbook for each meeting with supervisor**

04 **Submitting Monitoring Materials**

- Attend the monitoring session (Week 8 – Week 10)

05 **Attend Viva (COMPULSORY)**

- Attend viva session (Week 13 – Week 14)

06 **Submit Final Academic Report**

Submit the final report via e-ilmiah system

* **Identify Collaborator/Stakeholder**

- **COMPULSORY**
- **Industries/NGO/Public & private sectors/Business owners/Domain experts**
- **Upload collaboration letter into Ilmiah system**

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SUPERVISORS' RESPONSIBILITIES

01 **Propose Project Titles**

Propose and key-in project titles in e-Ilmiah system (prior to Week 1).

02 **Decide on supervisee**

Decide on students to supervise and to assign student to project title in e-ilmiah System.

03 **Regular Meetings**

- Supervise and coach students to implement the project
- Discussion with students about project progress
- **to record attendance**

04 **Evaluate Report**

- evaluate report submitted by supervisee
- Enter report evaluation marks in e-ilmiah system

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PANEL RESPONSIBILITIES

01

Panel of Monitoring Sessions

- Assess the work carried out by students assigned
- Enter evaluation in e-ilmiah system

02

Evaluate Viva

- Attend assigned students' viva sessions
- Perform question and answer during viva sessions
- Enter viva evaluation marks in e-ilmiah system

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COORDINATOR RESPONSIBILITIES

01

Project Titles

- Request department/unit academic staffs to propose AP titles in the e-ilmiah system
- Delegate all proposed titles to appointed academic staffs to review the projects proposed
- Approve all reviewed proposed project titles in e-ilmiah system

02

Assign Panels

Assign academic staff as panels for monitoring and viva sessions in e-ilmiah system

03

Arrange Schedules

- Arrange monitoring and viva sessions schedules
- Inform schedules to supervisors, panels and students via emails, announcements in e-ilmiah and/or Spectrum platform.

04

Report

- Extract marks from e-ilmiah system
- Generate report on evaluation marks
- Submit reports to Head Coordinator

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AP1 2023/2024 TIMELINE

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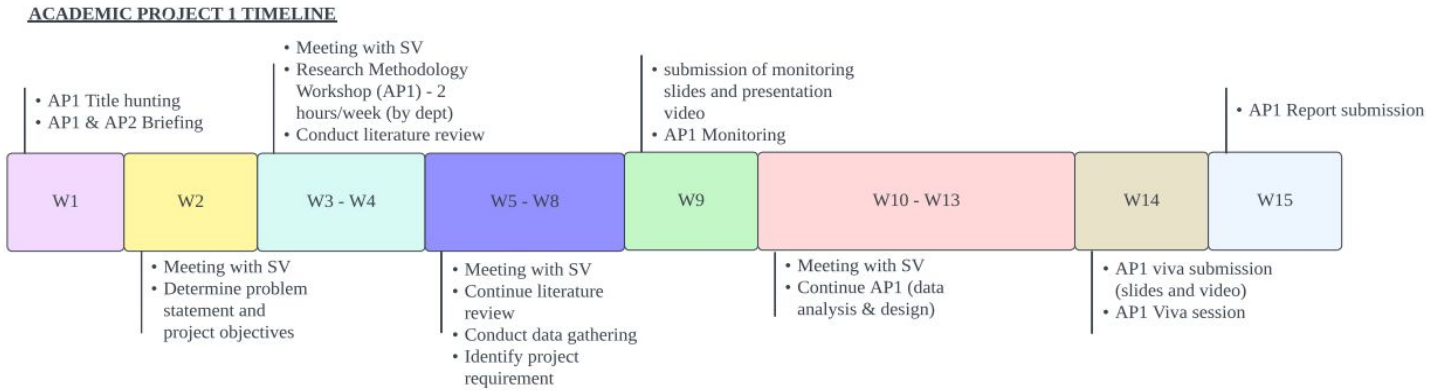

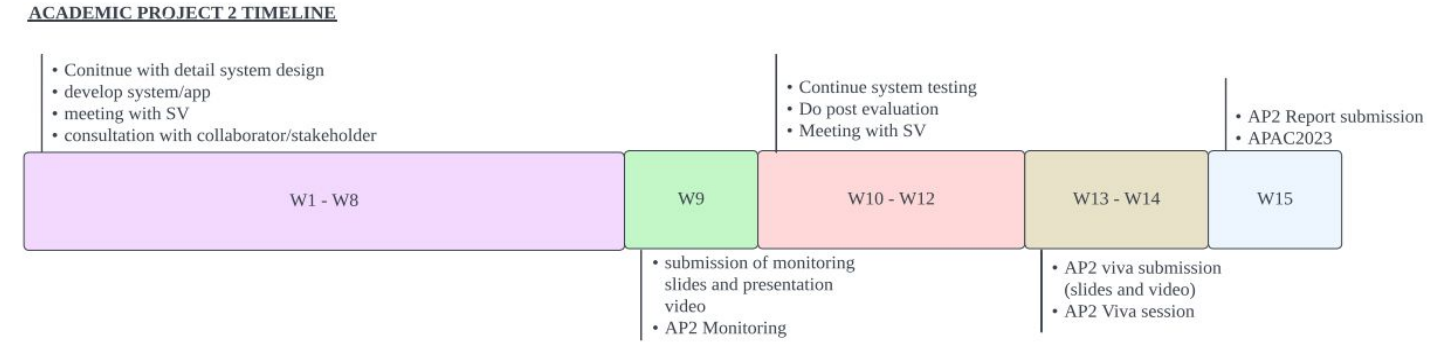

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WIA/WIB3002 (AP1) Journey

Week	Activities
1-8	• Discussion preliminary requirement to start on the project with respective supervisor • Carry out literature review (related research papers/previous works), data collection, data analysis, identify project functional and non-functional requirements, , • Discussion with project stakeholders • Report 1 writing
9	• Monitoring session
10-13	• Improvement on system based on feedback (monitoring session) • develop mini prototype (including few workable functions using the programming language(s), platform, dbs identified) • Discussion with supervisor and stakeholder for testing • Finalizing Report 1 writing • Preparation for final AP1 presentation and viva
14	• AP1 presentation and viva
14/15	• Report submission via Ilmiah System

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WIA/WIB3003 (AP2) Journey

Week	Activities
1-8	• Discussion on detail design and system implementation with supervisor • Continue develop the system and continuously demo the system to supervisor • Discussion with project stakeholders • Report writing
9	• Monitoring session
9-13	• Improvement on system based on feedback (monitoring session) • Discussion with supervisor and stakeholder for testing • Conduct User Acceptance Test • Finalizing Report writing • Preparation for final AP2 presentation and viva
14	• AP2 presentation and viva
15	• Report submission via Ilmiah system

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EVALUATION (100% Continuous Assessment)

	Course Code & Title	Assessment Method	Weightage	Assessor
1	WIA/WIB3002 Academic Project 1	Monitoring	10	2 x Panels (Dept)
		Viva	50	2 x Panels (Dept)
		Report	40	Supervisor
		Total	100	
2	WIA/WIB3003 Academic Project 2	Monitoring	10	2 x Panels (Dept)
		Viva	50	2 x Panels (Dept)
		Report	40	Supervisor
		Total	100	

- Viva : 30 minutes session-individual

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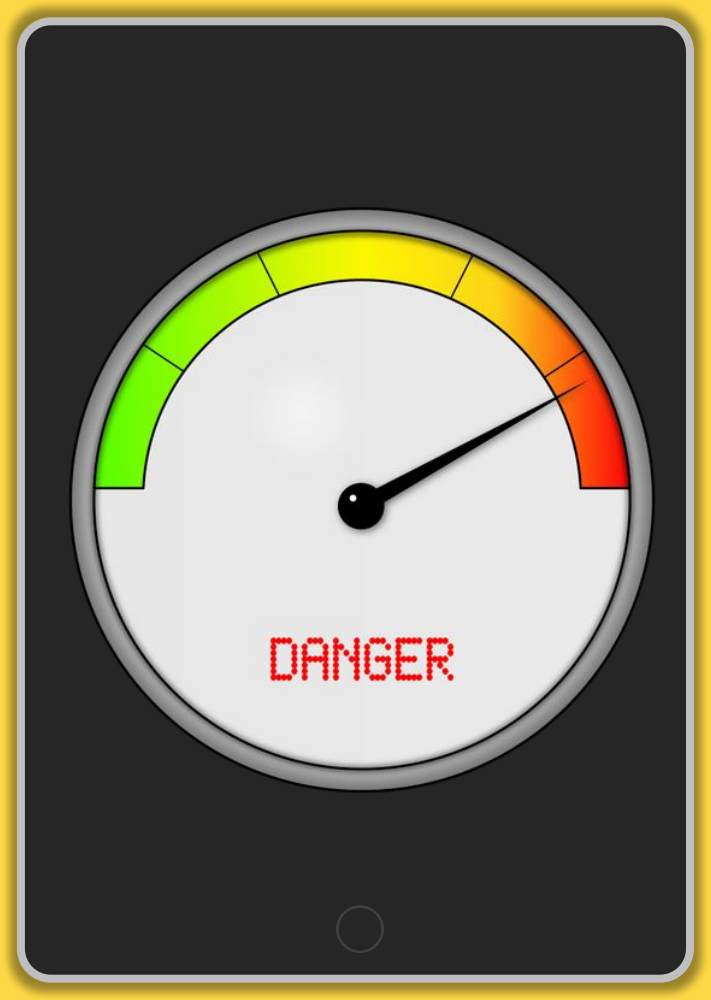

IMPORTANT REMINDER

If the student

- FAIL to attend, or
- FAIL the viva, or
- FAIL to submit the report,

The student will be considered as FAIL in the Academic Project!

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MAIN BODY OF REPORT AP1

Chapter 1:

- Introduction to relevant project/title: In the introduction, students must introduce the subject of the project. It should give some insight into the structure of the report. Some general remarks including problems and existing works must be included.
- Problem statements
- Project objectives (and module objectives if it is a group project)
- Project timeline

Chapter 2: Literature review

Chapter 3: Research methodology

Chapter 4: System analysis and design (Project requirements and initial design)

Refer Programme Handbook

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EXCELLENCE ACADEMIC PROJECT AWARD (APAC)

Annual Event

The event will be conducted during Week 15 of Semester I in every session

Excellent Project-A'

Only excellent projects are selected to enter APAC competition

Pitch your Product

Internal and external judges to evaluate the product thru 5mins pitching session

Cash Rewards (eWallet topup)

Cash rewards to be won

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EXCELLENCE ACADEMIC PROJECT AWARD (APAC)

- To motivate students to produce excellent projects.

The objectives of APAC are to:

1. steer the competition spirits amongst students to produce good/quality systems.
2. acknowledge the effort of the students in designing and developing good systems.
3. identify good projects for other students' references and exhibitions.
4. promote good projects for competitions, exhibitions, and intellectual property (IP).

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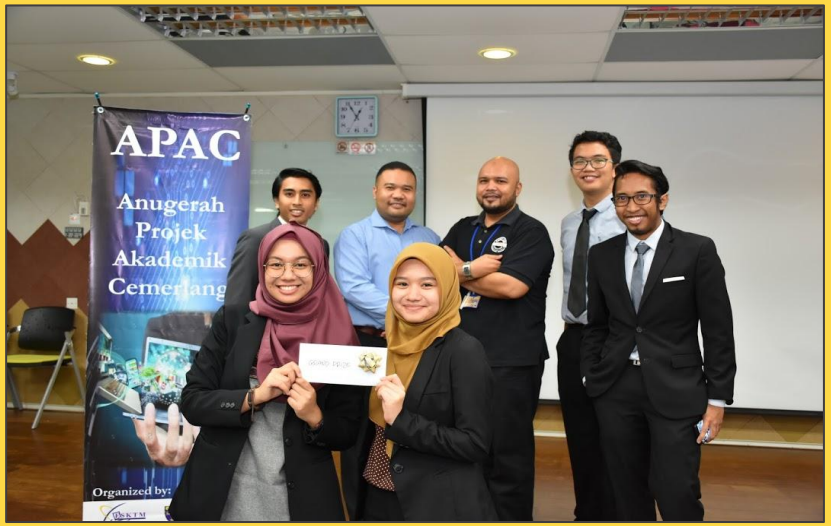
KELUAR
ANUGERAH PROJEK AKADEMIK CEMERLANG
EXCELLENT ACADEMIC PROJECT AWARD
APAC

ANUGERAH PROJEK AKADEMIK CEMERLANG
EXCELLENT ACADEMIC PROJECT AWARD
APAC
UNIVERSITI MALAYA

FAKULTI SAINS KOMPUTER DAN TEKNOLOGI MAKLUMAT
Faculty of Computer Science and Information Technology
ANUGERAH PROJEK AKADEMIK CEMERLANG
EXCELLENT ACADEMIC PROJECT AWARD
APAC
APAC 2024
Congrats!
WINNER
ARTIFICIAL INTELLIGENCE
APAC 2024
Congrats!
GRAND WINNER

ANUGERAH PROJEK AKADEMIK CEMERLANG
EXCELLENT ACADEMIC PROJECT AWARD
APAC

EXCELLENCE ACADEMIC PROJECT AWARD (APAC)



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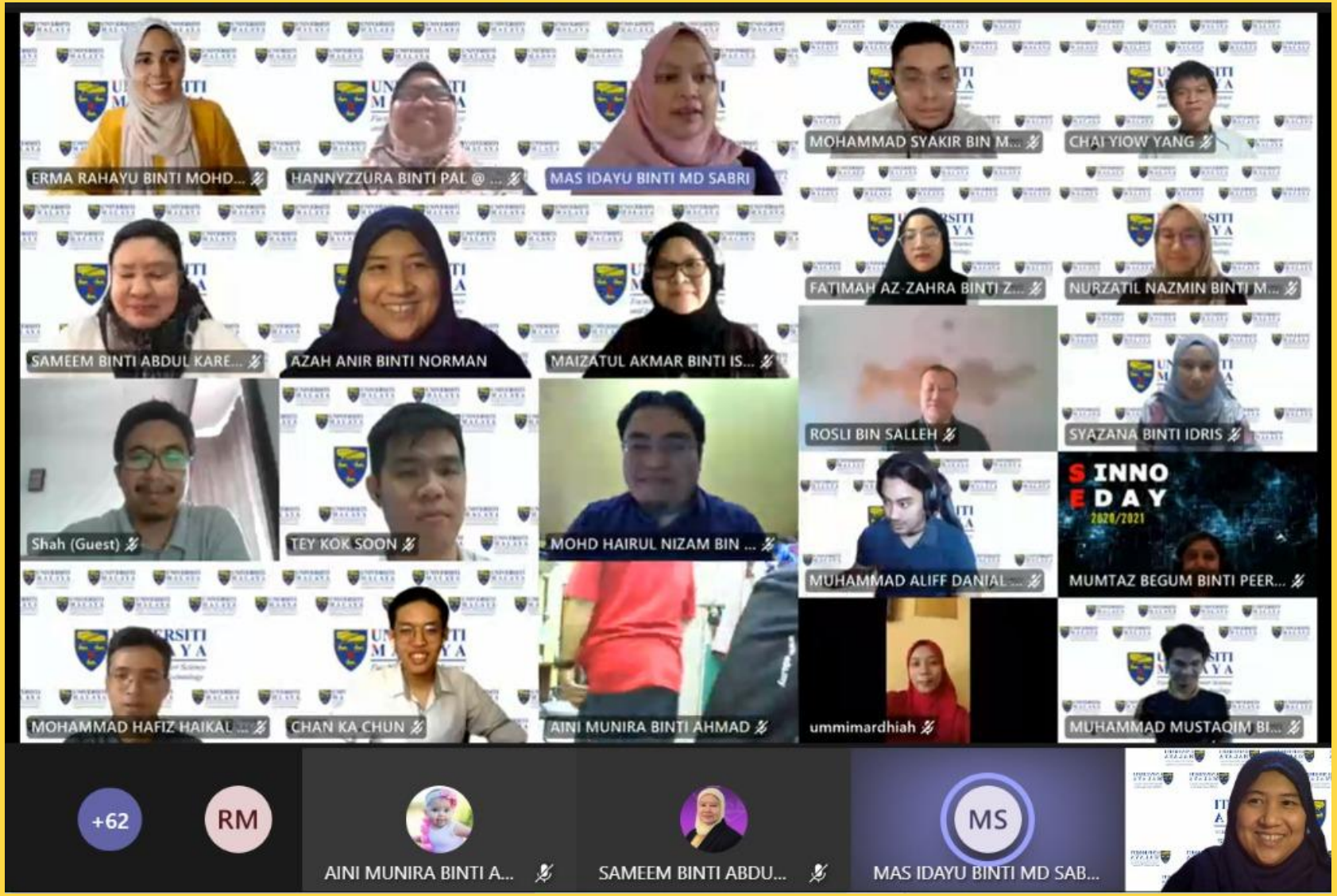

APAC 2020/2021

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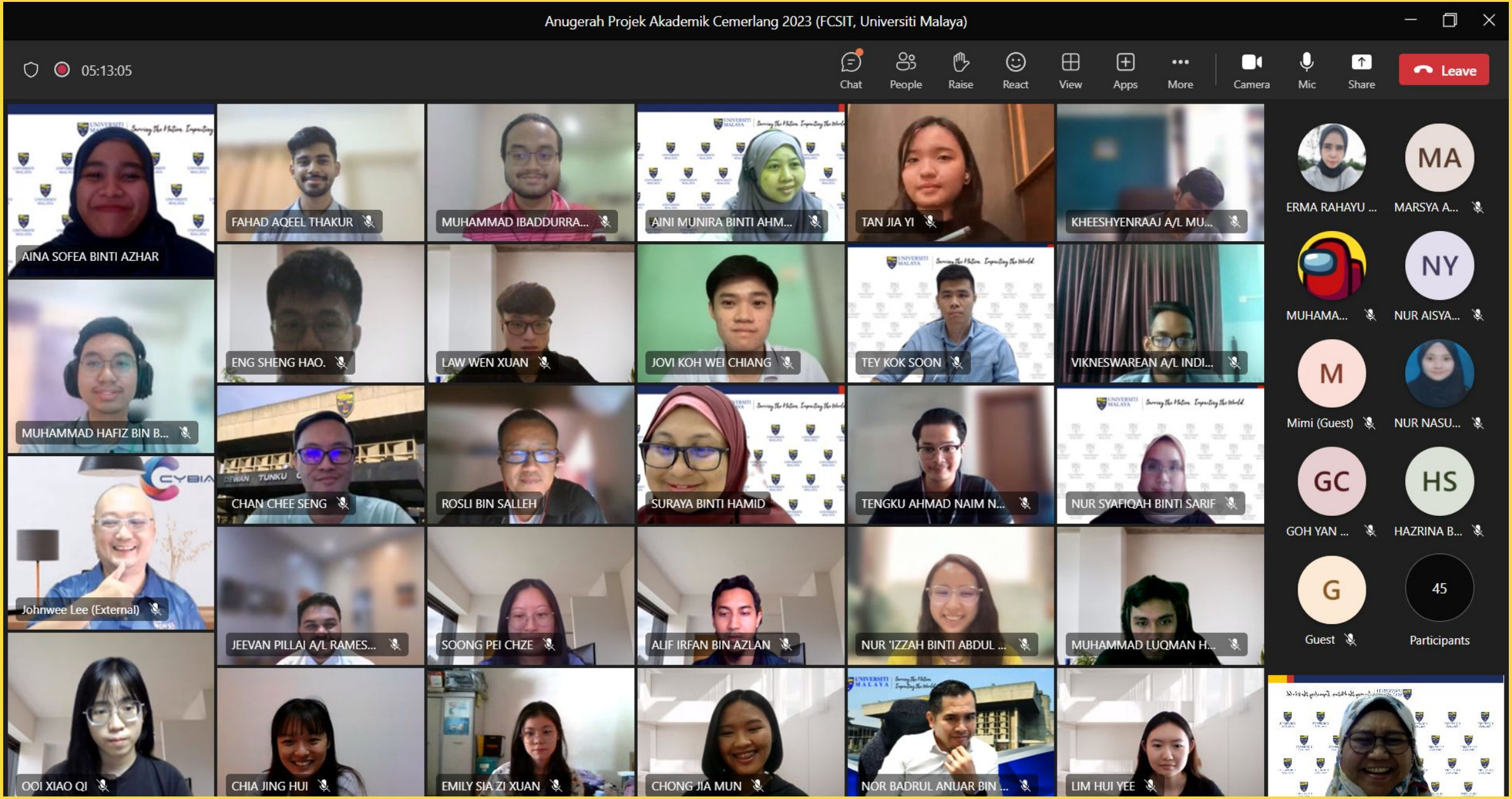
APAC 2022/2023



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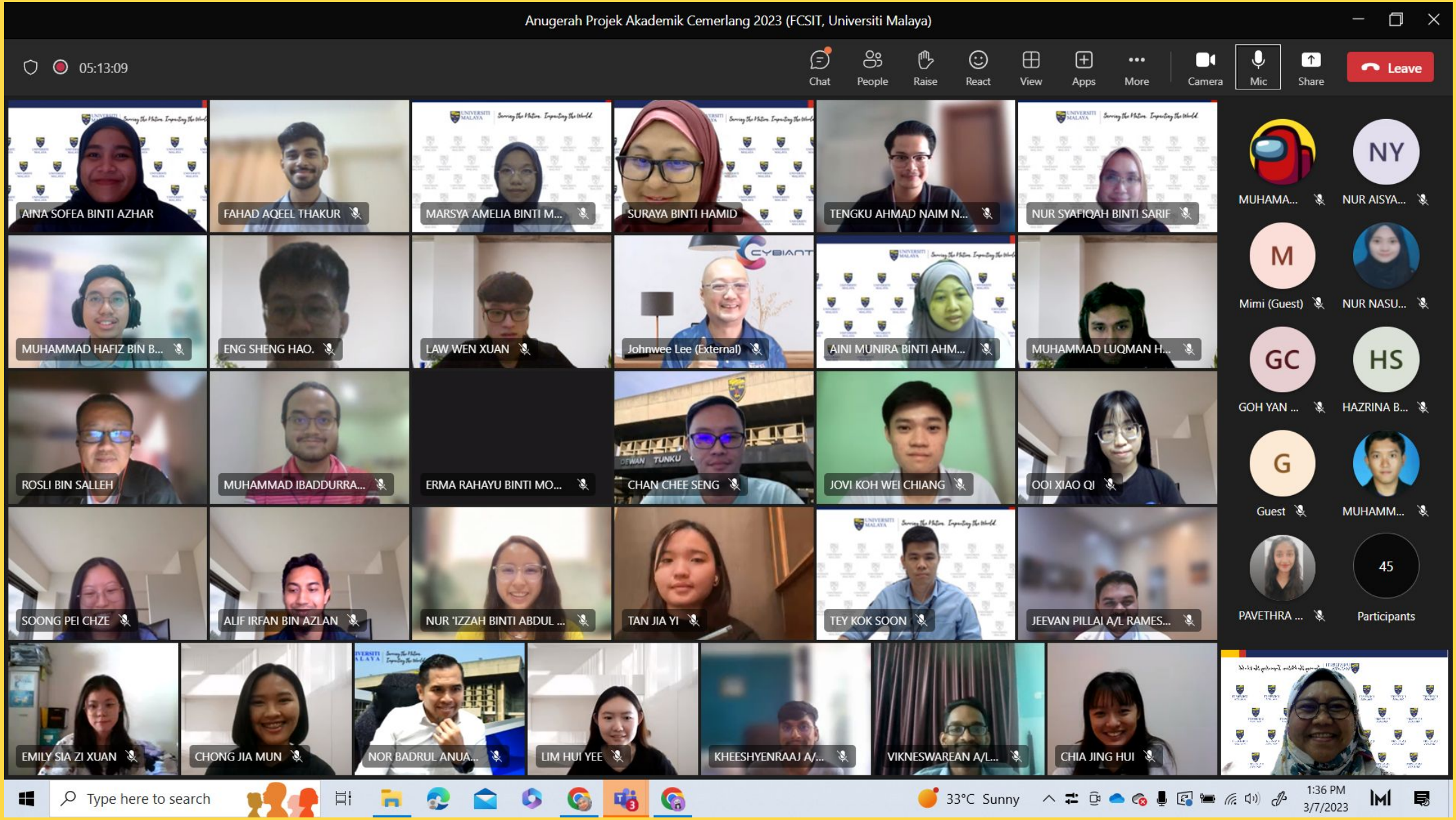
APAC 2023/2024



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APAC 2023 Winner link: https://rb.gy/gp8abd

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GET IT IN TOUCH

FYP Coordinators & IPPI Team

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thank you
danke
謝謝
ngiyabonga
teşekkür ederim
gracias
merci
obrigado
bedankt
dziękuję
go raibh maith agat
sukriya
kop khun krap
terima kasih
grazie
arigatô
takk
dakujem
mochchakkeram
tapadh leat
dank je
спасибо
рахмат
Баярлалаа
faafetai lava
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nanni
nandri
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hvala
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তোমাকে ধন্যবাদ
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sulpáy
taiku
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tanemirt
rahmet