

**FACULTY OF ENGINEERING
UNIVERSITI TEKNOLOGI MALAYSIA**

**Special Minutes of meeting for discussion with Industry Advisory Panels (IAPs)
for Bachelor in Engineering (Mechanical-Aeronautics) and Master in Mechanical Engineering (major
in Aeronautics)**

School of Mechanical Engineering

Date: 23rd November 2021

Time: 2:30 pm

Venue: Online

Attendance:

1. Ir. Dr.-Ing Mohd Nazri bin Mohd Nasir
2. Dr. Iskandar Shah bin Ishak
3. Prof. Ir. Dr. Shuhaimi bin Mansor
4. Ir. Dr. Shabudin bin Mat
5. Dr. Nik Ahmad Ridhwan bin Nik Mohd
6. Dr. Norazila binti Othman
7. Prof. Ir. Dr. Wan Khairuddin Wan Ali
8. Prof. Dr. Mohammad Nazri bin Mohd Jaafar
9. Dr. Haris Ahmad bin Israr Ahmad
10. Dr. Mohd Fairuz bin Shamsudin
11. Dr. Md. Nizam bin Dahalan

Master of Science (Mechanical Engineering)
Master of Science (Materials Engineering)
Master of Science (Aeronautical Engineering)
Master of Science (Ship and Offshore Engineering)
Master of Science (Advanced Manufacturing Technology)
Master of Science (Industrial Engineering)
Master of Science (Automotive Engineering)

SCHOOL OF MECHANICAL ENGINEERING

INDUSTRIAL ADVISORY PANEL (IAP) REPORT

**Please kindly tick (✓) in the check box for the relevant program*

IAP PERSONAL DETAILS

NAME OF PANEL	:	<u>Naguib Mohd Nor</u>
		<u></u>
COMPANY/INSTITUTION (WITH COMPANY STAMP)	:	<u>Strand Aerospace Malaysia Sdn Bhd</u>
		<u></u>
E-MAIL ADDRESS	:	<u>naguib@strandeng.com.my</u>
PHONE NUMBER	:	<u>0172157055</u>

ASSESSMENT REPORT

X	Undergraduate program
	Postgraduate program

**Please kindly tick (✓) in the check box for the relevant program*

1. CURRENT TECHNOLOGY TREND AND THE REQUIREMENTS IN INDUSTRIES

CRITERIA	COMMENTS	Panel's responses
i. What are the current trends, technology adopted in the industry?	1) Digitalisation of design and manufacturing process 2) Automated manufacturing processes 3) ESG compliance	Noted. The panel agreed with the given statement. There are courses embedded in our programme namely Aviation Management and Aircraft Design II which introduce students to Digitalisation of design, Automated manufacturing processes and ESG compliance.
ii. What technologies do you think will be necessary for the curriculum for the next 3-5 years?	1) Not necessary to add to syllabus but have more industrial linked projects	Noted. The panel agreed with the given statement. There are courses embedded in our programme namely undergraduate project and Aircraft Design II which encourage students to work with industrial-related problems (compiled during industrial training at the end of the third year) with a given timeline of completions under the supervision of lecturers.
iii. Which sustainability area(s)* do you think very important to Malaysia Industrial Environment? <i>* Examples of sustainability areas: renewable energy, 6R, zero carbon foot print, life cost cycle etc.</i>	1) ESG understanding is key as it will dictate whether a company is "investible" or not. This will dictate which businesses will survive going forwards. ESG is an auditable standard.	Noted. The panel agreed with the given statement. There is a course embedded in our programme namely Aviation Management which introduces students to ESG compliance. The student will be exposed to the ESG's definition, its importance and implementation as proposed by the UN.

2. EXPECTATIONS ON STUDENT

CRITERIA	COMMENTS	Panel's responses
1. In your opinion, which ability is more important: 1) proficient in oral communication but with less impactful ideas OR 2) has courage to express impactful ideas but with little grammatical errors	1. Item 2 makes more sense. Courage comes from understanding and control over subject matter that comes mainly from tacit knowledge	Noted. The panel agreed with the given statement. There are courses embedded in our programme namely Aircraft Design I and Aircraft Design II which requires the students to communicate with their team members during brainstorming sessions, deliver the idea for possible designs' solutions.
2. In your opinion, what are the strengths and weaknesses of our students/graduates from technical and generic skills perspectives?	1. They need to be exposed sooner to industrial scenarios at a global level so that they can achieve some level of tacit appreciation of the challenges that industry will face. The aim is to have them hit the ground running.	Noted. The panel agreed with the given statement. There are courses embedded in our programme namely undergraduate project and Aircraft Design II which encourage students to work with industrial-related problems (compiled during industrial training at the end of the third year) with a given timeline of completions under the supervision of lecturers.
2. What are the areas of technical knowledge and generic skills that are considered important to your company?	1. Complex data analytics 2. Global collaboration	Noted. The panel agreed with the given statement.

3. IAP PARTICIPATION IN ACADEMIC TEACHING AND LEARNING (T&L) ACTIVITIES:

All below are applicable and reflective of normal activities in countries where there is a high level of industry, government and academia integration. These countries have a clear apprenticeship programs where all three of the triple helix are co-invested

X	Sharing Industrial Experience in a Technical Talk
X	Being an Evaluator Panel for Final Year Project Presentation
X	Being a Judge/Jury for Course (Subject) Project Competitions
X	Lecture Sharing on Specific Topic in a Course (Subject)
X	Provide Industrial Problem for Final Year Project
X	Assist in Finding Industrial Training Placement
X	Assist in Providing Upskilling Graduate Employability Programme
	Others. Please state:

**Please kindly tick (✓) one or more activities in the check box*

X
X
X
X
X
X
X
X
X
X

4. OPINION ON IR4.0 APPLICATIONS IN INDUSTRIES

CRITERIA	COMMENTS	Panel's responses
Select the following IR4.0 areas that are important to industries:		Noted. The panel agreed with the given statement.

Internet of Things Cyber Security Augmented Reality Big Data Autonomous Robots Additive Manufacturing Simulation System Integration Cloud Computing <i>*please kindly tick (✓) one or more areas in the check box</i>		
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5. ADAPTING TO THE NEW NORMAL

CRITERIA	COMMENTS	Panel's responses
1. Your suggestion for alternative implementation of industrial training practice	You need to have a clear industry 4.0, industry engagement strategy and plug the institution into industry materially so that your programs are part of industry development. AEROLAB as a programme anchor need to apply as one of MAIA member (RM1500 annually).	Noted. The panel agreed with the given statement. There are courses embedded in our programme namely Flight mechanic and Aircraft Design II which require students to include automation in their projects. Element industry 4.0 has been introduced in Aircraft Design II and the students are encouraged to include this technology in their design activities. Panel welcomes the suggestion to include industrial certification in the programme. In addition, the panel has agreed to be a member of the Malaysia Aerospace Industry Association
2. Your suggestion for alternative implementation for teaching & learning activities		

		(MAIA) commencing 2022 subjected to annual fees of RM1500 that will be covered by the school.
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Signature : 

Name : _____

Date : _____

Naguib Mohd Nor

28 Oct 2021