

INDUSTRY 4.0 – OUR NATIONAL POLICY

ELECTRICAL ENGINEERING TECHNICAL DIVISION

reported by



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On 4 May, 2019, the Electrical Engineering Technical Division (EETD) organised a talk on Industry 4.0 – Our National Policy, prior to its 34th Annual General Meeting. There were 150 participants at the talk delivered by Puan Hazami Habib, CEO of Akademi Sains Malaysia.

World population will stand at 9.7 billion in 2050. Naturally, there will be an increase in the demand for clean water and food. Japan will be going for Society 5.0 while Singapore aims to be a Smart Nation by that time. Meanwhile, the Fourth Industrial Revolution (4IR), which started in Germany, has been adopted and intensified in many countries including Malaysia as Industry4WRD.

Globally, change will be driven socially, technologically, economically and environmentally. Locally, there will be a strong need to enhance global competitiveness, strengthen growth and productivity in the manufacturing industry, create high value added jobs and reduce dependency on foreign labour as well as increase SME competitiveness. Collaboration between SMEs, partnerships between academia and industry, upskilling of existing workers, standardisation of new technologies and incentivisation from the government to promote innovation and entrepreneurship will be the keys to satisfy the aforementioned needs.

Puan Hazami then talked about emerging technologies such as Artificial Intelligence (AI), blockchain technology and quantum computing which would shake up Industry 4.0. There will be a paradigm shift in the manufacturing sector towards becoming “smarter”. Industry4WRD sets the vision for Malaysia to be a strategic partner for smart



Puan Hazami on Industry 4.0

manufacturing and related services in Asia Pacific which necessitates optimisation in people, process and technology. This policy requires funding, infrastructure, regulations, skills and talents as well as technology to materialise.

The number of highly skilled workers has to be almost doubled in 2025. Engineers of the 21st century need to be equipped with skills such as complex problem solving, critical thinking, creativity and leadership. Productivity in the manufacturing industry also has to increase by 30% per person in 2025. The new economy, which is knowledge-centric, collaborative, horizontal trust oriented, customisation-based

and much more flexible, will emerge. The car industry is also expected to produce zero emission vehicles, micro factories, connected and share-based vehicles.

The government will evolve in the order of an electronic government, transformatory government, lean government and ultimately, open government. Technologically speaking, Malaysia is looking at getting into the top 30 nations in terms of Global Innovation Index by 2025. Application of robots to perform repetitive tasks, drones for delivery and surveillance, 3D and 4D printers to print solid and “growing” objects will not be uncommon by then.

Moving forward as Progressive Malaysia 2050, science, technology and innovation shall be fully leveraged. A total of 95 emerging technologies have been identified to power the nation progressively to 2050. These technologies will impact the country's well-being, wealth creation and governance by establishing preventive healthcare, reducing carbon footprint, creating new business models,



EETD Committee of 2018/2019

democratising knowledge and safeguarding our well-being as well as adding value to the resources and management efficiency. The academia and industry have to be bridged to share a common vision to intensify knowledge and value creation in priority areas.

Puan Hazami concluded by emphasising the importance of empowering the people to design and make 4IR a reality.

The AGM took place right after the talk. Immediate Past Chairman Ir. Chong Chew Fan took the opportunity to thank the committee (2018/2019 session) for their contributions which resulted in EETD receiving the PAOE award for being the most active technical division yet again.

The incoming chairman, Ir. Francis Xavier, then commenced the AGM. ■

Table 1: Main Office Bearers of EETD (2019/2020)

Chairman	Ir. Francis Xavier
Deputy Chairman	Ir. Lee Cheng Pay
Secretary/Advisor	Dr Siow Chun Lim
Advisor	Ir. Chong Chew Fan
General Members	Ir. Amir Hussein bin Jaafar Ir. Ng Win Slau Ir. Tejinder Singh Mr. Alex Looi Tink Huey Ms. Cynthia Choo Yern Syn Mr. Low Pek Jun