Are we ready for change?

WE often hear that Industry 4.0 is transforming jobs, economics and society. This new revolution will embed smart technologies not only in industry and organisations, but in our daily lives as well.

The big question is whether we are producing enough high-skill engineers and technologists for this revolution.

In the past, it was good enough for fresh engineering graduates to have the basic knowledge and skill to enter the workforce. However, in today's highly competitive, fast-paced market, these limited attributes are no longer good enough for the job market.

Artificial intelligence has transformed everyday items into smart technologies and changed our way of interacting with these objects.

For example, virtual assistants with built-in artificial intelligence such as Amazon's Alexa, Google Assistant and Microsoft's Cortana have transformed user interface from physical interaction to audio-based input (commands).

Other areas such as Big Data and the Internet of Things form the backbone of the innovation that is leading us into a new type of economy from the previous labour-driven one.

Experts agree that future engineers should be developed through curricula that focus on updated competency skills that match the current market demand.

Therefore, partnerships between higher education institutions and the industry are important. There are several interesting initiatives that have been introduced in universities to bridge the gap between education and industry.

For example, Universiti Kuala Lumpur (UniKL) launched its Teaching Factory concept, where students are exposed to the authentic industry environment within the campus.

The concept was made possible through collaborations with specific industrial partners to open a workshop, small plant or service centre within the university campus.

In addition, to meet the challenges of Industry 4.0, postgraduate programmes have been reshaped to offer more advanced courses and research areas focusing on the revolution.

Another exciting initiative by UniKL is the establishment of new research clusters that focus on interdisciplinary studies for Industry 4.0 that gather campus experts, researchers and graduate students working for the industry under one roof.

In a nutshell, it is important for higher academic institutions to grow in line with the fast-paced technological trends to produce engineers of the future so that we can create enough high-skill talent for the evolving market. – **By Dr Mohammed Reyasudin Basir Khan, senior lecturer at UniKL British Malaysian Institute**

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