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# THAILAND IN TRANSFORMATION

อาเซียนในความเปลี่ยนแปลง

## HOW TECHNOLOGY IS CHANGING JOBS AND ENTERPRISES

เทคโนโลยีกำลังส่งผลเปลี่ยนแปลงงานและกิจการต่างๆ อย่างไร

## Thurday 7, Decmber, Pullman Hotel Bangkok

In the last number of years the scope, range and speed of technological innovation and its potential (and actual) impact on labour markets has garnered much attention in the media and elsewhere.

Technologies such as **3D printing** also known as **Additive Manufacturing** which can be deployed everywhere from high tech industries such as aerospace to build jet engines to back garden sheds to produce gardening equipment, is indicative of this transformation. Additive Manufacturing has now evolved to the extent it can produce almost any component using metal, plastic, mixed material and even human tissue. The Internet of Things (IoT) allows electronic devices to communicate with each other without human interference for example a fault in production machinery communicated directly to a supplier.

Advances in robotics technology are making human-machine collaboration an everyday reality. Using GPS technology, just like smartphones, robots are beginning to be used in precision agriculture for weed control and harvesting. In Japan, robots are being trialled in nursing roles: they help patients out of bed and support stroke victims in regaining control of their limbs. Robots have helped make the workplace safer, as some take on jobs that are too dangerous, such as locating radiation sources.

These are all highly exciting emerging technologies that will have transformative impacts on societies and workplaces.

Given the right forward looking policy environment, firms and workers can be well primed to capitalize on the benefits that these technologies present. But major efforts are needed to capitalize on the potential gains. A down side exists.

In a study<sup>1</sup> the ILO carried out across south-east Asia in 2016 it was found that robots and automation are fast eliminating low skilled manufacturing jobs. These are the jobs in sectors like textile, clothing footwear, electronics that developing countries utilize to move up the development ladder. Pull workers from poor paying jobs in agriculture, into better paid ones in factories, and then into higher paid ones in the service sector.

According According to a a major study by the ILO on the impact of technology in ASSEAN, over half of all jobs in 5 countries in South East Asia region (combined population of just over half a billion people) could be automated in the next decade or two.

In national terms that is 70% of all current jobs in Vietnam. In countries that have become reliant on key labour intensive sectors that are most at risk. 88% of jobs in the garment sector in Cambodia for example.

<sup>&</sup>lt;sup>1</sup> <u>http://www.ilo.org/public/english/dialogue/actemp/whatwedo/aseanpubs/report2016.htm</u>







In previous eras of technological innovation this disruption was largely positive. It created new sectors, made existing firms and workers more productive, extended opportunities. That will and is still happening. But what is happening today is the disappearance of low skilled jobs in manufacturing developing economies, and medium skilled ones in manufacturing in Developed economies. That is a new phenomenon.

Technology adoption in Thailand is already transforming skill requirements. Enterprises in the automotive and E&E sectors are requiring technicians and high-skilled workers with strong STEM backgrounds. In the TCF sector, robotic automation and automated sewing machines are likely to become widespread, also changing skills demands in the sector. In this context, it is key to focus on skills and workforce readiness in Thailand across several sectors.

Policymakers, employers and training institutions need to work together in order to foster technical skills, strategic thinking, communication and foreign language skills among workers. Promoting academic pursuits in STEM is important, particularly among young women. These skills would increasingly be required in technology-centred enterprises.

## AGENDA

#### 9.00- 09.45 **Opening**

**Mr. Ekasit Kunanantakul** Chairman Employers' Confederation of Thailand

Dr. Graeme Buckley

Director, ILO Country Office for Thailand, Cambodia and Lao People's Democratic Republic

**Minsiter of Labour (TBC)** Thainland 4.0 and what it mmeans for the Thai labour market

- 9.45-10.30 Future of Work: The global picture Roberto Suarez Deputy Sectary General International Organization of Employers (IOE)
- 10.30 11.00 COFFEE
- 11.00 12.00 ASEAN In transformation: Implications for Thailand

#### Dr. Phu Huynh

Co-author of the "ASEAN in transformation: the impact of technology on jobs and enterprises

#### Jae Hee Chang

Co-author of the "ASEAN in transformation: the impact of technology on jobs and enterprises

12.00-13.00 LUNCH

## 13.00-14.30 Artificial Intelligenc & Industry

4.0 lead to current and future trends. Its impacts our sectors of production and services, positive and negative impacts.

Dr, Chockchal Suthavej Mahidol University

### Dr. Anusorn Thammajai

Vice Rector, Rangsit University