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ARTIFICIAL INTELLIGENCE (AI): Embracing the Future

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RISE

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ABOUT THE MAGAZINE

RISE Magazine is published by Office of the Deputy Vice-Chancellor (Research and Innovation) with aims to highlight a research and innovation on multidisciplinary expert of fields in UiTM. It serves as a platform for researcher to showcase their high quality and impactful findings, activities and innovative solution through publication. Contribution of these ideas come from academicians, researchers, graduates and universities professionals who will enhance the visibility of research and stride to elevate Universiti Teknologi MARA to global standards. This is an effort to promote research as a culture that is accepted by all expertise.

ABOUT UiTM

Universiti Teknologi MARA (UiTM) is a public university based primarily in Shah Alam, Malaysia. It has grown into the largest institution of higher education in Malaysia as measured by physical infrastructure, faculty and staff, and student enrollment. UiTM is the largest public university in Malaysia with numerous campuses throughout all 13 states in Malaysia. There is a mixture of research, coursework and programmes offered to the students. The Office of the Deputy Vice-Chancellor (Research and Innovation) also known as PTNCPI *(Pejabat Timbalan Naib Canselor (Penyelidikan dan Inovasi))* serves as a *Pusat Tanggungjawab* (PTJ) for navigating the research and innovation agenda of the university to achieve UiTM's goals.The PTNCPI office strives to mobilize faculty and campuses, fostering collaboration among researchers, with the aim of transforming the University into a Globally Renowned University by 2025

Artificial Intelligence (AI) in Agriculture Industry:

Experience as a Visiting Scholar in Angers, France

I would like to share my positive experience as a visiting scholar at École supérieure d'agricultures d'Angers. First of all, I would like to say “thank you very much” to my research partner in France, Dr. Soazig Di Bianco, and the team for giving me this great opportunity. Also, my gratitude goes to the Embassy of France in Malaysia for choosing me as one of the four recipients of the Year 2022 Mobility Grant for Academic Staff. The scholarship includes an allowance that covers the living expenses (including housing) and a round-trip plane ticket. I was also blessed with the support from Universiti Teknologi MARA and especially the Rector of UiTM Sarawak, Professor Dato’ Dr. Jamil Hamali.

I was able to join the postgraduate classroom sessions to observe and become an invited assessor for student presentations regarding smart agriculture practices among French farmers. Apart from academicians, they also invited industry representatives to become the assessors. This session allowed the students to receive feedback from various individuals including academicians and practitioners. Therefore, the students can improve their project whilst relating it to the current market and industry.

This was a good contribution to my teaching and learning development, as I was able to emulate the good approach and incorporate it into my teaching practice.

Besides that, I was also invited to give a lecture to students and lecturers regarding the Malaysian youth’s participation in agriculture. The talk centered on how smart agriculture had changed the landscape of the Malaysian agriculture industry. The development of smart farming in Malaysia was able to overcome the 3Ds: dirty, dangerous, and drudgeries, which began to appeal to more young farmers to participate in agriculture. During the question-and-answer session, a lot of questions were asked. This signifies that the participants showed a keen interest in the Malaysian agriculture industry, particularly in our initiatives toward sustainable agriculture.

During this visit, I had the opportunity to visit the farm in France and meet with the farmers. I was accompanied by Dr. Bertile, the head of LARESS. We met the chicken farmer, Mr. Yannick in Ancenis, a town in Loire-Atlantique, north-west of France and about 50 km from Angers. Mr. Yannick was a degree holder in Animal Production. He had two poultry houses, and each house could accommodate about 3,000 chickens. The poultry house was equipped with modern technology such as an automatic chicken feeder with a sensor and ventilation with air cooling

solutions for humidity and temperature control in poultry. Mr. Yannick raised completely antibiotic-free poultry and used an herbal mixture of chicken feed and water to improve their immune system.

I also went to visit Mr. Antoine, a cow breeder from Ancenis. He was a master's degree holder in Animal Production, and an alumnus of the École supérieure d'agricultures d'Angers. He owned 280 hectares of farm to rear the cow and plant wheat and grassing area for the cows. Mr. Antoinne adopted smart agriculture technology including artificial intelligence (AI) in agriculture. He owned a driverless tractor which is an autonomous farm vehicle that delivers a high tractive effort at slow speeds for tillage and other agriculture tasks. This tractor is hard at work, helping farms go green as it brings AI-powered smart technology to the fields.

Agriculture has always been of great importance for France, as feeding the world's largest population is not an easy task. The French government has supported the agriculture industry with various policies in their effort to stabilize the output and seek ways to ensure the sector is growing healthily and sustainably. This includes the application of AI in agriculture. AI spending in the agriculture industry in France has increased by 69.6% in

2018 to US$ 32.8 million. Over the forecast period (2019-2025), spending on AI is expected to record a CAGR of 26.3%, increasing from US$ 49.1 million in 2019 to reach US$ 252.3 million by 2025. The country has made great efforts to integrate new agricultural technologies to improve the sector's efficiency and increase land productivity.

During my one-month stay in Angers, France, which was about three hours by train from Paris, I had learnt a lot about the smart agriculture industry in France. The use of technology can be found everywhere in French farms, but the so-called "agri-tech" trend seeks to push innovation even further. Two hundred and fifty of France's start-ups are already specializing in agriculture and are working towards developing software, drones, robots, AI, and satellites.

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