MMU
MULTIMEDIA UNIVERSITY ®

MMU
INAUGURAL LECTURE
Series 2022

ARTIFICIAL INTELLIGENCE FOR DIGITAL PATHOLOGY: CHALLENGES AND OPPORTUNITIES

Prof. Ir. Dr. Mohammad Faizal Ahmad Fauzi
Faculty of Engineering

FRIDAY
9:OO A.M. - 12:00 A.M
27 MAY
MMU Cinema, Cyberjaya

LIVE @mmumalaysia
LIVE @mmumalaysiatv

Organised by
Research, Industrial Relations and Engagement Division
Faculty of Engineering

TM Group

ARTIFICIAL INTELLIGENCE FOR
DIGITAL PATHOLOGY:
CHALLENGES AND OPPORTUNITIES

MMU
INAUGURAL LECTURE
Series 2022

ARTIFICIAL INTELLIGENCE FOR DIGITAL PATHOLOGY: CHALLENGES AND OPPORTUNITIES

ABSTRACT

Pathology is a branch of medical science primarily concerning the examination of organs, tissues, and bodily fluids in order to make a diagnosis of disease, especially cancers. While radiology imaging tests, such as X-rays, CT and MRI are helpful in detecting masses or areas of abnormality, they alone cannot differentiate cancerous cells from non-cancerous cells. For most types of cancer, pathology remains the 'gold standard' for the diagnosis of cancer. Digital pathology is the management and interpretation of pathology information in a digital environment that enables better, faster and cheaper diagnosis and prognosis of cancer and other important diseases. With the advent of whole slide imaging, the field of digital pathology has gained great attention and is currently regarded as one of the most promising avenues of diagnostic medicine.

The current approach in manual diagnosis is very tedious, as well as susceptible to sampling bias, subjective interpretation, and human errors. Incorporating machine learning and artificial intelligence in the process will reduce the pathologists' workload significantly, at the same time elevating the standard of healthcare. In this lecture, Prof. Mohammad Faizal will discuss the challenges and opportunities in fusing two exciting research fields: artificial intelligence/machine learning and digital pathology. He will also share his journey that started all the way back to 2000 (for machine learning) and 2013 (for digital pathology), as well as the establishment of the Artificial Intelligence for Digital Pathology (A14DP) research consortium between MMU, UKM and IMU to elevate the AI research in digital pathology to international standards.

Dr. Mohammad Faizal Ahmad Fauzi, PEng, CEng, MIEM, SMIEEE
Professor, Faculty of Engineering, Multimedia University, Malaysia
Head, MMU-UKM-IMU AI4DP Research Excellence Consortium

BIOGRAPHY

Mohammad Faizal Ahmad Fauzi (PEng, CEng, MIEM, SMIEEE) received the B.Eng. degree in Electrical and Electronic Engineering from Imperial College London in 1999, and the Ph.D. degree in Electronics and Computer Science from University of Southampton in 2004. He is currently a Professor at the Faculty of Engineering, Multimedia University, and the Head for the MMU-UKM-IMU Artificial Intelligence for Digital Pathology (AI4DP) Research Excellence Consortium. His main research interests are in the area of signal and image processing, pattern recognition, machine learning, medical imaging and biomedical informatics. From 2013 to 2014, and again in 2017, he was attached to the Ohio State University Wexner Medical Center, where he worked on machine intelligence for cancer diagnosis and prognosis with leading pathologists in the US. He has published more than 100 journal and conference articles to date, and given keynote and invited lectures in many international conferences. He is a recipient of several individual awards such as the 2016 MCMC Senior Researcher Award, 2016 TM GCEO Merit Award, 2017 MMU Excellent Researcher Award, 2020 IEEE SPS Meritorious Regional/Chapter Service Award, and 2021 IEEE Region 10 Outstanding Volunteer Award.

FACULTY OF ENGINEERING INAUGURAL LECTURE 2022

Date : 27 May 2022 (Friday)
Time : 9:00 A.M. – 12:00 P.M.
Venue : MMU Cinema, Faculty of Cinematic Arts
MMU Cyberjaya

PROGRAMME ITINERARY

9:00 A.M. : Arrival of Guests and MMU staff
9:25 A.M. : Arrival of
Prof. Ir. Dr. Hairul Azhar Bin Abdul Rashid
Vice President, Research, Industrial Collaborations
and Engagement

Prof. Dato' Dr. Mazliham Mohd Su'ud
President, Multimedia University

9:35 A.M. : Welcome remark by Assoc. Prof. Dr. Ooi Chee Pun
Dean, Faculty of Engineering
9:40 A.M : Introduction of the Speaker by Prof. Ir. Dr. Hafizal Mohamad
Head of Department (Electrical & Electronic Engineering),
Faculty of Engineering and Built Environment,
Universiti Sains Islam Malaysia
9:50 A.M : Inaugural Lecture by Prof. Ir. Dr. Mohammad Faizal Ahmad Fauzi
Faculty of Engineering
10:50 A.M : Presentation of Token of Appreciation
10:55 A.M. : Photography session
11:00 A.M : Lunch and Networking
12:00 P.M. : End of event