# DISCOVER.
# BUILD.
# CHALLENGE.

**AUA UNIVERSITI MALAYA OVERSEAS STUDY PROGRAM ON ARTIFICIAL INTELLIGENCE IN HEALTH SCIENCES**

**UNIVERSITI MALAYA**

December 1-3, 2021
Universiti Malaya, Malaysia

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## What this programme is about?

The AUA-Universiti Malaya Overseas Study Program on Artificial Intelligence in Health Science is a platform where the experts in the field of AI in Health Science share their knowledge, expertise and research findings to the researchers, industry and students around the world. The 3-days programme, gather experts from Universiti Malaya, Ngee Ann Singapore University, Changshu Institute of Technology, Computer Science and Engineering College, China and Federal University of Technology Minna, Nigeria. Hosted by the Department of Biomedical Engineering, Faculty of Engineering and iNess Universiti Malaya, we are looking forward to gathering all participants to this event.

## Programme Objectives

- ◇ To bring together leading academic icons, researchers and industrial representatives for exchanging and sharing their knowledge and research results in the field biomedical engineering focusing on Artificial Intelligence in Health Science
- ◇ To bridge the knowledge and findings in the research field related to Artificial Intelligence in Health Science

## Learning Outcome

- ◇ Empower the participants with knowledge on the importance of AI in Health Science
- ◇ Promote exchange of knowledge and culture among participating researchers, industry, and students

## Duration
- ◇ 3 Days

## Target Group
- ◇ Researcher
- ◇ AI Industry
- ◇ Medical and Health AI Experts
- ◇ Full time students (Undergraduate or Postgraduate)
- ◇ AUA Members

## Registration Fee (Pax)
USD60

# SPEAKERS' BIOGRAPHY

**Dr. Mohd Yazed Ahmad** received the B.E. degree in electrical engineering from the Department of Electrical Engineering, Universiti Malaya, Kuala Lumpur, Malaysia, in 2003, the M.Eng.Sc. degree (Instrumentation) from the Department of Biomedical Engineering, Faculty of Engineering, Universiti Malaya, in 2006, and the Ph.D. degree in electrical engineeringscience from the University of Technology, Sydney, NSW, Australia, in 2013. He is currently a Senior Lecturer at the Department of Biomedical Engineering, Faculty of Engineering, Universiti Malaya. At the central university level, he is serving as Head of E-Learning unit under Academic Development & Enhancement Centre (ADeC). His current research interests include instrumentation, wearable and implantable device, self sustained IOT systems with SMART Energy harvesting & wireless power transfer. He is one of the committee members in Working Group on Extremely Low Frequency for Electromagnetic Field for Malaysian Standard, Members of Technical Committee on Code of Practice of Active Medical Devices andLow-Voltage Electrical Equipment/System for Healthcare Facilities (MALAYSIAN STANDARD). He is an active and Permanent member for UNIVERSITI MALAYA ECO-CAMPUS STANDING COMMITTEE - UMECS.

**Dr. Hamidreza Hamidreza Mohafez** received the B.A.Sc. degree from the K. N. Toosi University of Technology in 2001, the M.A.Sc. degree from Tarbiat Modares University, Tehran, Iran, in 2004, and the Ph.D. degree from Universiti Putra Malaysia, Kuala Lumpur, Malaysia, in 2016. He is currently a Senior Lecturer in biomedical engineering with the Department of Biomedical Engineering, Faculty of Engineering, Universiti Malaya, Kuala Lumpur, Malaysia. His research interests include optimization methods in medical imaging, artificial intelligence, machine learning, deep learning, and statistical analysis.

**Kaijian Xia**, received the B.S. in School of Computer Science and Engineering from Changshu Institute of Technology, Changshu, Jiangsu, China, in 2007, the M.S. degree in School of Information and Engineering from Jiangnan University, Wuxi, Jiangsu, China, in 2009 and the PhD. degree at School of Information and Control Engineering from China University of Mining and Technology, Xuzhou, Jiangsu, China, in 2020. Currently, he is a professor of computer science with the affiliated Changshu Hospital of Soochow University, Changshu, Jiangsu, China, an associate adjunct professor of medical information with Xuzhou Medical University, and a graduate supervisor with Jiangnan University and Soochow University. His research interests include intelligent medical information, image processing, machine learning. He is the author/co-author of more than 50 research papers in international/national journals, including IEEE Trans. on Industrial Informatics, IEEE Trans. on Intelligent Transportation System, IEEE /ACM Trans. on Computational Biology and Bioinformatics, ACM Trans. on Internet Technology ACM Trans. on Multimedia Computing, Communications, and Applications and Information Sciences. Dr. Xia has served as the TPC Vice-Chair for CyberLife 2019 and currently serves the Editor in Chief for International Journal of Health Systems and Translational Medicine, an Associate Editor for Journal of Medical Imaging and Health Informatics. He was also a leader guest editor for IEEE/ACM transactions on computational biology and bioinformatics, Personal and Ubiquitous Computing, Journal of Grid Computing, and Multimedia Tools and Applications.

**Abiodun Musa Aibinu** (Ph.D.), is an "AcadoPreneur" and a highly-motivated career driven achiever with over 22 years working experience. He has been actively involved in teaching, supervision, mentoring and research activities at various universities in Nigeria and Malaysia. He is presently a Professor of Mechatronics Engineering at Federal University of Technology (FUT), Minna, Nigeria. He is an advocate of Spiritual Intelligence, Artificial Intelligence and AcadoPreneurship. AcadoPreneurship simply means turning academic ideas into businesses. Efforts are ongoing in turning some of his research outputs and other colleagues into start-up businesses. AcadoPreneur Aibinu was one of the recipients of the highly prestigious Nigerian Air Force Research and Development award in 2017. Also, in 2019, he was also honored with SERVICOM Excellence Award by FUT Minna, Nigeria in recognition of his excellent selfless services and contributions to the development of the university and the country at large. Professor Aibinu is a registered Engineer and his research interests include: Digital signal and Image processing, ICT, Intelligent system design with focus on Telecommunication and Mechatronics System development and Artificial Intelligence

**U. R. Acharya**, MTech, PhD, DEng, DSc is a senior faculty member at Ngee Ann Polytechnic, Singapore. He is also (i) Adjunct Professor at University of Malaya, Malaysia, (ii) Adjunct Professor at Asia University, Taiwan, (iii) Associate faculty at Singapore University of Social Sciences, Singapore and (iv) Adjunct Professor at University of Southern Queensland, Australia. He received his Ph.D. from National Institute of Technology Karnataka (Surathkal, India), DEng from Chiba University (Japan) and DSc from AGH University of Science and Technology, Poland. He has published more than 500 papers, in refereed international SCI-IF journals (345), international conference proceedings (42), books (17) with more than 45,000 citations in Google Scholar (with h-index of 107). He has worked on various funded projects, with grants worth more than 6 million SGD. He is ranked in the top 1% of the Highly Cited Researchers for the last five consecutive years (2016 to 2021) in Computer Science according to the Essential Science Indicators of Thomson. He is on the editorial board of many journals and has served as Guest Editor for many journals. He is on the editorial board of many journals and has served as Guest Editor for many journals. Please visit https://scholar.google.com.sg/citations?user=8FjY99sAAAAJ&hl=en for more details.

**Sheng Han** is a Machine Learning Engineer at Intel experienced in building AI solutions for manufacturing efficiency. He recently contributed to CovidNow in his personal capacity as a full-stack data scientist and was responsible in building the backend, data pipelines, vaccination projections and modelling, and visualization of Covid-19 indicators on the portal.

**Assoc. Prof. Ir. Dr. Chuah Joon Huang** received the B.Eng. (Hons.) degree from the Universiti Teknologi Malaysia, the M.Eng. degree from the National University of Singapore, and the M.Phil. and Ph.D. degrees from the University of Cambridge. He is currently Head of VIP Research Group at the Department of Electrical Engineering, Faculty of Engineering, Universiti Malaya. He is a Chartered Engineer registered under the Engineering Council, U.K., and also a Professional Engineer registered under the Board of Engineers, Malaysia. He is the Vice Chairman of the Institution of Engineering and Technology (IET) Malaysia Network. He is a Fellow and the Honorary Secretary of the Institution of Engineers, Malaysia (IEM). His main research interests include image processing, computational intelligence, IC design, and scanning electron microscopy.

**Dr. Lai Khin Wee** obtained his PhD from Universiti Teknologi Malaysia and Technicsche Universitat Ilmenau, Germany under DAAD PhD Sandwish Programme. He is a Fellow of Engineers Australia, Chartered Professional Engineer (Australia), APEC Engineer, IntPE (Australia), Fellow of Institute of Engineers Malaysia, Professional Engineer with Practising certificate with Board of Engineers Malaysia, Chartered Engineer from UK Engineering Council. He is currently a Senior Lecturer at the Department of Biomedical Engineering Department, Faculty of Engineering, Universiti Malaya. His research expertise are medical imaging, machine learning, point-of-care and healthcare analytics.

**Ir. Dr. Mas Sahidayana Mohktar** received her Bachelor Biomedical Engineering degree in Biomedical Engineering from the Department of Biomedical Engineering, University of Malaya, Kuala Lumpur, Malaysia, in 2004, the M.Eng.Sc. degree (Biomedical Engineering) from the Department of Biomedical Engineering, Faculty of Engineering, Universiti Malaya, in 2007, and Ph.D. degree in Biomedical Engineering from the University of New South Wales, Sydney, NSW, Australia, in 2012. She is currently a Senior Lecturer at the Department of Biomedical Engineering, Faculty of Engineering, Universiti Malaya. At the central university level, she serve as the Head of Universiti Malaya STEM Centre Her current research interests include Clinical Decision Support System, Learning Technology Enhacement and STEM Policy research.

**Assoc. Prof. Ir. Dr. Ting Hua-Nong** obtained his Bachelor, Master and PhD degree from University of Technology Malaysia, Malaysia. He is a Charted Engineer of Engineering Council, UK and a member of the Institute of Engineering and Technology (IET). He is a Professional Engineer (Ir) with the Board of Engineers Malaysia. He is currently an Associate Professor at the Department of Biomedical Engineering, Faculty of Engineering, Universiti Malaya. His research expertise and areas of research are speech analysis and processing and recognition, baby cry recognition, Artificial Intelligence, deep learning, dielectric measurement.

## COURSE SETTINGS

- ❖ Date : 1st December 2021 – 3rd December 2021
- ❖ Time: 10.00 am - 5.00 pm (Day 1 & Day 2)
  - : 3.00 pm – 6.00 pm (Day 3)
  - (gmt+8, Malaysia time)
- ❖ Platform : Zoom Meeting (Link will be given a day before programme)
- ❖ Inclusive : E-Certificate of Participation
- ❖ E-Registration: Online Registration Form

## SCHEDULE

### DAY 1

| Time | Speakers | Topic |
|---|---|---|
| 10.00am – 11.30am | Dr. Mohd Yazed Ahmad, Universiti Malaya | Smart Monitoring System For Future Health |
| 11.30am - 1.00pm | Dr. Hamidreza Mohafez, Universiti Malaya | Enhanced Detection of Medical Image Features Using Phase Congruency |
| 2.00pm - 3.30pm | Prof. Dr. Kaijian Xia, reponseChangshu Hospital of Soochow University, Suzhou, China | AI Driven Medical Applications |
| 3.30pm - 5.00pm | Prof. Dr. Abiodun Musa Aibinu, Federal University of Technology Minna, Nigeria | Artificial Intelligence and Clean Energy In Health Care Delivery: Recent Contributions From Nigeria |

### DAY 2

| Time | Speakers | Topic |
|---|---|---|
| 10.00am - 11.30am | Prof. Dr. U Rajendra Acharya, Ngee Ann, Singapore University Of Social Science, Singapore | Application of Machine Learning Techniques in Health Science |
| 11.30am - 1.00pm | Mr. Lim Sheng Han, Intel Malaysia<br>Ir. Dr. Khairunnisa Hasikin, Universiti Malaya **(Moderator)** | COVIDNOW in Malaysia : Towards COVID19 Endemic in Malaysia |
| 2.00pm - 3.30pm | Assoc. Prof. Ir. Dr. David Chuah Joon Huang, Universiti Malaya | Recent Advances in Biomedical Image Processing |
| 3.30pm - 5.00pm | Ir. Dr. Lai Khin Wee, Universiti Malaya | Computational Intelligence in Healthcare Analytics |

### DAY 3

| Time | Speakers | Topic |
|---|---|---|
| 3.00pm - 4.30pm | Ir. Dr. Mas Sahidayana Mokhtar, Universiti Malaya | Clinical Decision Support System |
| 4.30pm - 6.00pm | Assoc. Prof. Ir. Dr. Ting Hua Nong, Universiti Malaya | Pathological Infant Cry Classification Using Deep Learning Models |

## PAYMENT INFORMATIONS

Bank's Name : CIMB Bank Berhad

Account Number : 8007814214

Account Name: UM INNOVATIONS SDN BHD

Bank Swift Code : CIBBMYKL

Bank's Branch : KL GATEWAY

Address : LG 2.01, KL Gateway Mall, No. 2, Jalan Kerinchi, Gerbang Kerinchi Lestari, Kuala Lumpur

For payment reference, please type **AUA2021 <Participant's Name>**
**(Last date for payment is November 30th, 2021)**

## CONTACT US

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