London Digital Twin Research Centre

Transforming Industry and Society with Digital Twins

24th May 2023 (09:30 – 16:00)

Welcome to our 2023 Annual Workshop at the

London Digital Twin Research Centre

Digital Twin has been identified as a top ten Gartner Trend in 2019 and its position at the convergence of economic drivers and underpinning technology maturation supports its use in a wide variety of domains. While DT technology originates from the manufacturing domain it now represents great potential to reshape the future across other diverse domains. The London Digital Twin Research Centre (LDTRC) at Middlesex University, London would like to extend an invitation to all the Digital Twin researchers and enthusiasts from industry and academia to attend our annual 2023 workshop which is on our campus in Hendon on 24th May 2023. This workshop on "Transforming Industry and Society with Digital Twins" brings together experts from industry and academia to share their valuable insights regarding the adoption of the Digital Twin technology across different industries.

The workshop will explore the use of DT technology in a variety of different domains from 5G/6G mobile wireless networks, smart agriculture, to health. The domains covered in this event provide opportunities and research challenges that the future maturation of digital twin technology demands. The LDTRC team will update latest outcomes on three ongoing projects on Digital Twin technologies for i) Open RAN in 5G/6G (EPSRC through UKI-FNI); ii) health care resilience (British Council Indonesia); and iii) smart agriculture (British Council Vietnam). The workshop will also have a line-up of excellent external speakers who will share their experience on digital twin and related areas of research/projects. The workshop will represent an excellent opportunity for networking for Digital Twin enthusiasts to share ideas for future developments in digital twins.

EventBrite link: https://www.eventbrite.com/e/2023-annual-workshop-on-transforming-industry-and-society-with-digital-twin-tickets-629869706247

Date: 24th May 2023 (Wednesday); Time: 09:30 to 15:10

Venue: Room Number CG77, College Building, Middlesex University, The Burroughs, London – NW4 4BT

Zoom link (if not attending in person): https://mdx-ac-uk.zoom.us/j/94021712814?pwd=SG4rNDQrS1dvUGtxTUhveElYSkRGUT09 (ID: 940 2171 2814, Passcode: 646858)

Programme - Wednesday 24th May 2023 at Room CG77, College Building, Middlesex University, The Burroughs, London - NW4 4BT	
Opening Welcome and Introduction	
09:30 - 09:40	**Opening speeches** *Prof. Balbir Barn*, Executive Dean, Faculty of Science and Technology, Middlesex University, UK *Prof. Tjitjik Sri Tjahjandarie*, Ministry of Education, Culture, Research and Technology (MOECRT), Indonesia
09:40 – 09:55	**Talk 1: Introduction to LDTRC and onging Digital Twin projects** *Prof. Huan Nguyen* and partners

Use Case of Healthcare & Social Good (supported by BC Indonesia – Going Global Partnerships)	
09:55 – 10:15	**Talk 2: Digital health and curriculum development** *Dr Yodi Mahendradhata, Dr Lutfan Lazuardi*, Universitas Gadjah Mada (Indonesia)
10:15 – 10:35	**Talk 3: Digital twin for Social Good** *Dr Souvik Barat*, Tata Consultancy Services (TCS) Research, Pune, India
10:35 – 10:50	**Coffee break**
5G/6G Use Case (supported by EPSRC – UKI-FNI)	
10:50 – 11:15	**Talk 4: 6G: Transition towards convergence of "Connectivity, Computing, Control and Sensing"** *Dr Mallik Tatipamula*, CTO, Ericsson Silicon Valley
11:15 – 11:35	**Talk 5: Digital Twin for 5G Network and Beyond** *Dr Kexuan Sun, Dr Duc To, Dr. Vihang Kamble*, Rakuten Symphony (UK)
11:35 – 11:55	**Talk 6: Open RAN: Implementation and Development Aspects** *Ramesh Sriraman and Amit Srivastava,* HCL Technology (India and Vietnam)
11:55 – 12:15	**Talk 7: Digital Twin brings real-world performance and chaos for Open RAN commercial readiness** *Steven Douglas*, Head of Market Strategy, Spirent
12:15 – 13:00	**Buffet Lunch**
Other Use Cases (Agriculture – supported by BC Vietnam, Socio-technical DT, Industry 4.0)	
13:00 – 13:20	**Talk 8: Digital Awareness in Sustainable Urban Agriculture** Dr Meri Juntti, Prof. Huan Nguyen, Middlesex University, UK and Dr Quyen Vu, Dr Hien Ho, Van Lang University
13:20 – 13:40	**Talk 9: Update on Connected Curriculum and Industry 4.0 projects** Prof. Mehmet Karamanoglu, Head of Department of Design Engineering, Middlesex University and Dr Purav Shah, Middlesex University
13:40 – 14:00	**Talk 10: Digital Twins to Support the UN Sustainability Goals in Construction** Dr Noha Saleeb, Middlesex University
14:00 – 14:15	**Talk 11: Digital Twins - Real Live Sustainable Construction Case Studies** Shaun Farrell, Information Management Lead, BuroHappold
14:15 – 15:00	**Panel "Digital Twin for industry and Society" and discussion** All speakers
15:00 – 15:10	**Closing & Remarks**