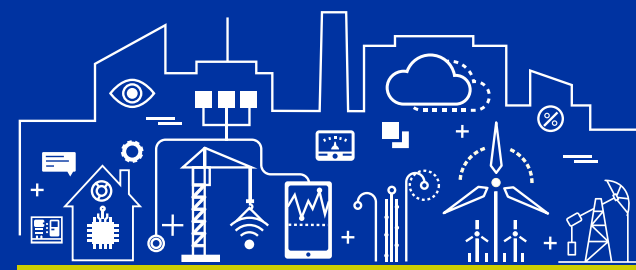


Advances in the Digitalisation of the Process Industries 2021




Wednesday 20 October 2021

All times are British Summer Time

09:15–09:30	Welcome from the conference chair Chris Hamlin, Conference Chair
09:30–09:40	New IChemE <i>Digital Chemical Engineering</i> journal introduction Professor Jin Xuan, Loughborough University, Editor-in-Chief

Room 1 Digital Twins

Room 2 Digital Training and Research

09:45–10:10	<i>A digitalisation dilemma: unexciting industrial data</i> Isaac Severinsen, University of Auckland, New Zealand	<i>Advances in process engineering education of digitalisation knowledge and skills: industry needs, academic requirements, and practical delivery</i> Brent Young, University of Auckland, New Zealand
10:15–10:40	Event partner presentation <i>How the digital twin enables productivity gains or chemical & process industries</i> 	<i>Bridging the gap between industry 4.0 and academia</i> Sathyanarayana Appia, Consultant, India
10:45–11:10	<i>Developing an advanced digital twin for continuous pharmaceutical manufacturing</i> Donald Ntamo, University of Sheffield, UK	<i>Development and validation of a dynamic model for flotation predictive control incorporating froth physics</i> Paulina Quintanilla, Imperial College London, UK
11:15–11:40	<i>Digital twins in the process industries</i> Anne-Marie Walters, Bentley Systems, UK	<i>Training the whole organization toward digital transformation, at scale: a curriculum for building analytics and knowledge capture skills</i> Misha Schurman, Seeq Corp, USA
11:45–12:10	Facilitated discussion	Facilitated discussion

12:15–13:15	Plenary speaker <i>Leading your organisation and industry to adapt and thrive in the new world of rapidly advancing technologies in AI, robotics, autonomous systems, IoT and data science.</i> Russell Potapinski, former Head of Intelligent and Autonomous Systems at Woodside Energy, Australia
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13:15–14:15	Break
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14:15–15:10	Plenary speaker <i>The Future of Engineering</i> Rachel Cooke, Amazon, Luxembourg	Peter Burton Memorial Lecture
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Room 1 Digital Operations

Room 2 Tools and Standards

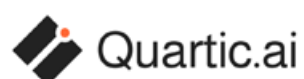
15:15–15:40	<i>The journey towards remote and autonomous operations</i> Maurice Wilkins, Yokogawa Electric Corporation, UK and Tom Fiske, Yokogawa Corporation of America	<i>Digital tools for optimised powder processing</i> Jess Andrews, Centre for Process Innovation, UK
15:45–16:10	<i>AI experts – the new continuous improvement revolution</i> Jagadish Gattu, UptimeAI Inc., USA	<i>Digital tools as communication aids in the design and delivery of water treatment plants</i> Emily Froese, MWH Treatment, UK
16:15–16:40	<i>JM-Levo: enabling optimisation using advanced analytical tools and machine learning</i> Paul Clark, Johnson Matthey, UK	<i>Applying the IEC-62443 standard in discrete and process solutions</i> Paul Hingley, Siemens Digital Industries, UK
16:45–17:10	<i>The application of GHGSat data to improve the detection of methane leaks and the integration opportunities with plant sensor data.</i> Darren Steele, Stiperstone Analytics Ltd and Ian Spence, GHGSat, UK	<i>Work team design for remote operations</i> David Lee, Emerson Automation Solutions, USA
17:15–17:45	Facilitated discussion	Facilitated discussion

Event Partner



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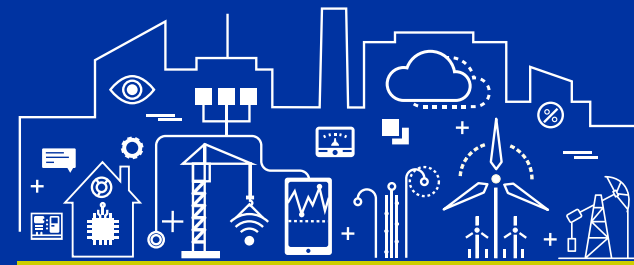


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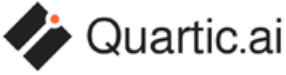
 ADVANCING CHEMICAL ENGINEERING WORLDWIDE

Advances in the Digitalisation of the Process Industries 2021



Thursday 21 October 2021

All times are British Summer Time

Room 1 Digital Engineering and Construction		Room 2 Digital Operations
09:15–09:40	<i>The digital design basis. building a framework to reduce costs and improve quality in early-phase design</i> Arnljot Skogvang, Lundin Energy, Norway	Event sponsor presentation AVEVA Predictive Analytics: do more with the data you already have! 
09:45–10:10	<i>Advances in conceptual design emulation</i> Peter Kauders, CDE Projects Limited, UK	<i>Optimising energy and carbon management for an AAD plant at Northumbrian Water using mixed integer linear programming</i> Harry Laing, Newcastle University, UK
10:15–10:45	Break	
10:45–11:10	<i>Automated extraction of data from engineering diagrams</i> Brian Bain, DNV, UK	<i>Smart furnace analytics - delivering operational excellence and sustainability through domain and data</i> Noorhidayah Binti Hussein, Petronas, Malaysia
11:15–11:40	Event sponsor presentation <i>Automated to autonomous: using Bayesian optimisation to accelerate product development and autonomous process manufacturing</i> 	<i>Mathematical computing tool for modelling, optimization and sustainability analyses of alternative process systems</i> Dr Jhuma Sadhukhan, University of Surrey, UK
11:45–12:15	Facilitated discussion	Facilitated discussion
12:15–13:15	Break	
Room 1 Digital Engineering and Construction		Room 2 Digital Operations
13:30–13:55	<i>Safety, efficiency, and training through the process digital twin: a cost-effective approach</i> Ben Firth, Flex Process Ltd, UK	<i>Data-driven performance standard compliance boosts productivity</i> Chris Bell, DNV, UK
14:00–14:25	Invited speaker <i>Open process automation: status of industry standard and commercial adoption</i> Don Bartusiak, Collaborative Systems Integration, USA	<i>Self-service analytics and the processing of hydrocarbons</i> Siang Lim, Parkland Refining (B.C) Ltd., Canada and Darren Steele, Stiperstone Analytics Ltd, UK
14:30–14:55	Facilitated discussion	Facilitated discussion
15:00–15:55	Plenary speaker <i>Finding real pathways to a sustainable economy</i> Mike Train, Emerson, USA	
16:00–16:45	Invited speaker <i>Organizing and scaling for AI success</i> Franziska Bell, bp, USA	
16:45–17:00	Closing session Chris Hamlin, Conference Chair	

This is a draft programme and is subject to change.

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