

ChemEng Evolution

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## Chemical Engineering Education Online Symposium –the next 100 years of Education.

Sharing innovative practices and discussing the future of education for the profession globally.

## Program

| Time (BST)     | Session  |   |  |  |
|----------------|--|---|--|--|
|                | Day 1: 27/June   |   |  |  |
| 8:00-8:15      | Welcome and housekeeping   | Esther Ventura-Medina, Chair of the EdSIG   |  |  |
| 8:15-8:45      | Discussion – Responsible energy, resources and ethical challenges. |   |  |  |
|                | Guest: Saeid Baroutian, University of Auckland.                    |   |  |  |
|                | Host: Dominic Foo / Jully Tan                                      |   |  |  |
| 8:45-9:00      | Screen free break  |   |  |  |
| 9:00-9:45      | Presentations– Current projects and practice                       | Chair: Michaela Pollock   |  |  |
|                | EdSIG Sustainability teaching gap analysis                         | Andrew Hoadley, Monash University   |  |  |
|                | Mind the Gap: Mapping Digitalisation Skills                        | Mo Zandi, Sheffield University  |  |  |
|                | tbc  |   |  |  |
| 9:45-10:00     | Screen free break  |   |  |  |
| 10:00-10:45    | Morton Medal webinar –   | Jarka Glassey –winner of the<br>2021 Morton Medal<br>Medal presented by Mark Simmons,<br>University of Birmingham and Lev<br>Sarkisov, University of Manchester |  |  |
| Day 2: 28/June |  |   |  |  |
| 8:00-8:15      | Networking   |   |  |  |



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| 8:15-8:45      | Discussion –Systems thinking: dealing with new processes/products & complexity.  |   |  |  |
|----------------|--|---|--|--|
|                | Guest: Kathryn Hadler, European Space Resources Innovation Centre: ESRIC   |   |  |  |
|                | Host: Peter Swanson  |   |  |  |
| 8:45-9:00      | Screen free break  |   |  |  |
| 9:00-9:45      | Panel discussion –Students' perspectives on the future of education  |   |  |  |
|                | Guests: Michael Kalpage, University of Auckland; Sue Wern Lim, Monash University;<br>Marious Norbye, University of Manchester. |   |  |  |
|                | Host: Naomi Bury   |   |  |  |
| 9:45-10:00     | Screen free break  |   |  |  |
| 10:00-10:45    | Presentations- Multidisciplinary projects  | Chair: Andrew Hoadley   |  |  |
|                | Challenge-based learning in Chemical<br>Engineering  | John van der Schaaf, Eindhoven<br>University of Technology TU/e |  |  |
|                | Design and Thinking About Stage 2<br>Chemical Engineering Course on Design<br>Thinking   | May Lim, University of New South<br>Wales                       |  |  |
|                | Online tools for assessing Process<br>Simulation   | Luisa Malek, CGC Capital-Gain<br>Consultants GmbH               |  |  |
| Day 3: 29/June |  |   |  |  |
| 8:00-8:15      | Networking   |   |  |  |
| 8:15-8:45      | Discussion –Cybersecurity and Process safety   |   |  |  |
|                | Guest: Tristan Hunter, OT Digital Consulting   |   |  |  |
|                | Host: Brent Young  |   |  |  |



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| 8:45-9:00      | Screen free break  |  |  |  |
|----------------|--|--|--|--|
| 9:00-9:45      | <ul> <li>Panel discussion –What knowledge and skills would the future curriculum have?</li> <li>Guests: Omar Matar, Imperial College London; Hermann J. Feise, European<br/>Federation of Chemical Engineering WP Education &amp; BASF; Tony Heynen,<br/>University of Queensland.</li> <li>Host: Daniel Beneroso-Vallejo</li> </ul> |  |  |  |
| 9:45-10:00     | Screen free break  |  |  |  |
| 10:00-10:45    | Presentations- Digital transformation  | Chair: Greg Birkett                        |  |  |
|                | Immersive Technologies for Chemical<br>Engineering Education   | Chioma Udeozor, University of<br>Newcastle |  |  |
|                | tbc  | Chris Hamlin, IChemE DigiTAG               |  |  |
|                | Digital Twins: tbc   | Isuru Udugama, University of Waikato       |  |  |
| Day 4: 30/June |  |  |  |  |
| 8:00-8:15      | Networking   |  |  |  |
| 8:15-8:45      | Discussion –ChemEng in Space<br>Guest: Sarah Blyde, Rocket Labs New Zealand<br>Host: Marta Granollers-Mesa   |  |  |  |
| 8:45-9:00      | Screen free break  |  |  |  |
| 9:00-9:45      | Presentations –Bio-systems   | Chair: Duygu Dikicioglu                    |  |  |



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|             | Integrating Bio into the Chem Eng Curriculur working with industrial partners large and sm  |  |
|-------------|---|--|
|             | tbc   | Teresa Gea Leiva, Universidad<br>Autónoma de Barcelona |
|             | Development of Virtual Bioprocess<br>Laboratories   | Ulrich Krühne, Technical University of Denmark DTU     |
| 9:45-10:00  | Screen free break   |  |
| 10:00-10:45 | Panel discussion –How would the future curriculum be delivered?<br>Guests: Joanne Tanner, Monash University; Gregor Colville, Herriot Watt University;<br>tbc, Malaysia/Singapore panellist.<br>Host: Esther Ventura-Medina |  |
| 10:45-11:00 | Closing remarks   | Jarka Glassey  |