

Dear all

Three announcements this week:

- 4th IEEE Systems Modelling Conference
- 6th International Conference on Mathematics and Computers in Sciences and Industry
- PhD opportunity at UNSW Canberra

If you would like something included in this digest please email it to [office@mssanz.org.au](mailto:office@mssanz.org.au)

kind regards, Karen

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#### **4th IEEE Systems Modelling Conference**

The Capability Systems Centre at UNSW Canberra is organising the 4th IEEE Systems Modelling Conference as a virtual and free conference on October 27<sup>th</sup>. The conference theme is *Building resilient futures: using models for foresight*. See <https://www.unsw.adfa.edu.au/conferences/SMC-2020> and the attached flyer (PDF).

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#### **6th International Conference on Mathematics and Computers in Sciences and Industry**

<http://www.mcsi-conf.org>

Athens, Greece  
August 22-24, 2020

For online presentation the fees are: 300 EUR

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Proceedings will be Published by IEEE and will be indexed in ISI, Scopus, EI Compindex ACM, DBLP, Springerlink etc.

Extended versions will be published in ISI, Scopus, EI Compindex ACM, DBLP, Springerlink etc.

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#### **PhD at UNSW Canberra**

**We are looking for** graduates from the field of Design Science with knowledge of computational modelling and interest in Computational Education and Artificial Intelligence. Applicants must be self-motivated with an interest in research innovation and implementation of autonomous systems.

**You will join** a unique inter-disciplinary team with experts in Curriculum Design and Pedagogy, Modelling, Knowledge Co-Design, and Artificial Intelligence from University of New South Wales Canberra (UNSW Canberra) and University of Canberra (UC). You will be located at UNSW Canberra.

**You will work as a member of an ARC project which focuses on educating artificial intelligence (AI) systems.** This literature on machine (AI) systems is in its infancy, primarily driven by data scientists. We would like to design end-to-end methodologies and theory-driven curriculums to educate human teachers to teach artificial intelligence systems. The team will be joined by a post-doctoral fellow with expertise in AI and a PhD student with expertise in human education. The successful candidate will

work closely with the team in designing curricula for artificial intelligence systems and build the pedagogical capacity of non-AI expert humans.

**You should have:**

- A Masters degree in Design Science, or related field such as information systems, computer science, or engineering.
- Interest and/or experience in evaluating and applying knowledge design approaches to Artificial Intelligence and Robotics technologies.
- Self-motivation and curiosity to work in an inter-disciplinary area.
- Ability to work in a team and strive for research excellence.
- Excellent oral and written communication skills.

Applicants will be required to apply for the competitive UNSW Scholarship (up to \$35,000 per year). To quickly check your suitability to the scholarship, a self-assessment tool is available to get a general feel for your competitiveness: <https://selfassessment.research.unsw.edu.au/>

You need to meet the English language requirements.

**Your supervision panel will consist of**

Associate Professor Sondoss Elawah, University of New South Wales Canberra

Professor Hussein Abbass, University of New South Wales Canberra

Associate Professor Eleni Petraki, University of Canberra

If you are interested, please email your resume, the results of your self-assessment and English language test (if applicable) to [s.elsawah@unsw.edu.au](mailto:s.elsawah@unsw.edu.au).



**UNSW**  
CANBERRA

Australia's  
Global  
University

# THE 4<sup>TH</sup> IEEE SYSTEMS MODELLING CONFERENCE A VIRTUAL CONFERENCE

27<sup>th</sup> October 2020

The University of New South Wales,  
(UNSW Canberra)

## BUILDING RESILIENT FUTURES: USING MODELS FOR FORESIGHT

### CONFERENCE BACKGROUND

Systems thinking and modelling (ST/SM) is the science of integration, where every system is conceptualised as a set of inter-related components. ST/SM enables researchers to answer several questions, such as how an assumedly pure-technical/infrastructural system co-evolves with the society and economy, how a system can result in unexpected behaviours in long-term, and how we should be prepared to deal with unexpected surprises and shocks. The Capability Systems Centre at UNSW Canberra presents a one day virtual conference on the use of whole-systems approaches to design and manage complex problems in socio-technical and socio-ecological systems. The day-long conference features showcases on the use of ST/SM in a wide range of areas. This event provides a platform for researchers and practitioners to communicate about scientific and practical aspects of real-world problems, receive feedback, and share learning lessons. It also provides a unique networking opportunity among people from academia, industry and government for initiating future collaborations. After the successful conferences since 2017, the Capability Systems Centre proudly presents the fourth Systems Modelling Conference on 27 October 2020 at UNSW.

### COVID-19 IMPACTS ON ANNUAL SYSTEMS MODELLING CONFERENCE 2020

In light of the global Covid-19 outbreak, the Annual Systems Modelling Conference 2020 aims to support international efforts to slow the spread of the virus and ensure the safety of individuals and communities. As a result of the pandemic, SMC2020 will be held as a virtual conference. We believe that this free virtual conference is an opportunity to create an inclusive event in which everyone around the world can attend and make contribution.

We look forward to welcoming you to the virtual SMC2020 in October.

### CONFERENCE THEME

#### **Building resilient futures: using models for foresight**

The last few years have seen records being broken in Australia and around the world: from souring temperatures, prolonged droughts, unprecedented disasters, massive immigration, and unforeseen political movements. During recent months, world has seen the COVID-19 pandemic emerge as a global crisis requiring immediate, wide-spread and evidence-based action. As the landscape of our social, economic, and environmental systems change, our ability to cope and adapt to these changes must also evolve. To survive and thrive in years where disruptions are becoming the norm rather than the exception, we need to build resilient and agile systems, organizations, and communities which can cope, recover, and harness change. This will require a transformation in the way we use models from being predictive tools to foresight devices. What are the challenges that the modelling community need to foresee and confront if we would like to be at the forefront of decision support? What are the opportunities ahead? It is both an exciting and a scary time to be a modeller.

Thus, this year's conference theme is chosen as "Building resilient futures: using models for foresight".

In the spirit of this theme, SMC 2020 conference is aimed to facilitate a critical discussion on model-based policy development by asking if models can sufficiently address the challenges our society must face today and tomorrow. SMC 2020 conference provides an opportunity to look back at prior models and their evolution in light of recent developments to see how they may inspire future directions for the next generation of models under disruptions.



## KEYNOTE SPEAKERS

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- Professor Dursun Delen  
Regents Professor, Spears and Patterson Chairs,  
Spears School of Business,  
Oklahoma State University, USA
- Distinguished Professor Alexey Voinov  
School of Information, Systems and Modelling  
Director, PERSWADE - Centre on Persuasive Systems  
for Wise Adaptive Living University of Technology  
Sydney, Australia
- Dr Louise Freebairn,  
Knowledge Translation and Health Outcomes  
with the Epidemiology Section at ACT Health
- Dr Oz Sahin,  
Research Program Director,  
Griffith Climate Change Response Program and  
School of Engineering and Built Environment,  
Griffith University

## SUBMISSION METHOD

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Authors are requested to submit their papers electronically using the [Electronic Submission System](#) in PDF format before the deadline.

**Note:** To submit a paper you need to have an EasyChair account. Follow the link [EasyChair Signup](#) to create EasyChair account, if needed.

## SUBMISSION TYPE

### Full Paper (Presentation and Publication)

Prospective authors are kindly invited to submit full text papers including results, tables, figures, and references. Full text papers will be accepted by [Electronic Submission System](#).

All submitted articles should report original, previously unpublished research results, experimental or theoretical. Articles submitted to the Conference should meet these criteria and must not be under consideration for publication elsewhere.

Outcomes will be communicated to authors by 15 September. Manuscripts should follow the style of the Conference and are subject to both review and editing. The accepted full paper submissions will be published on the conference webpage and will be indexed by IEEE.

### Extended Abstract (Presentation Only)

Accepted abstracts will be invited to give the presentation at the conference, the abstract will not be published. Extended abstracts (max 500 words) should be submitted by 1 October 2020 through [Electronic Submission System](#).

Extended abstracts should describe the key research questions, theory, method and findings, and references.

### Templates

For more information and templates please visit the conference [website](#).

## KEY DATES

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### Full Papers

<b>2 June 2020</b>	Submission System Opens
<b>30 August 2020</b>	Submission deadline
<b>15 September 2020</b>	Review notifications
<b>30 September 2020</b>	Final submission of revised full papers
<b>27 October 2020</b>	Conference date

### Extended Abstracts

<b>2 June 2020</b>	Submission System Opens
<b>1 October 2020</b>	Submission deadline
<b>10 October 2020</b>	Review notifications
<b>27 October 2020</b>	Conference date

## REGISTRATION

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This is a free event for both presenters and listeners.

## ORGANISING COMMITTEE

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Dr. Hasan Turan (UNSW Canberra)

Associate Professor Sondoss Elsawah (UNSW Canberra)

Professor Michael J. Ryan (UNSW Canberra)

Fateme Zare (UNSW Canberra)

Any enquiries should be directed to [smc-2020@easychair.org](mailto:smc-2020@easychair.org) in the first instance.