

ICCEFA 2020 **ICESA** 2020

(ICCEFA'20) & (ICESA'20) PROGRAM

September 7 - 8, 2020 | Virtual Conference

The organizing committees of the two co-located events, ICCEFA'20 and ICESA'20, have decided to allow registrants of either conference to attend sessions from both events. As a result, we encourage attendees to study the program and attend the sessions which they may find relevant/interesting.

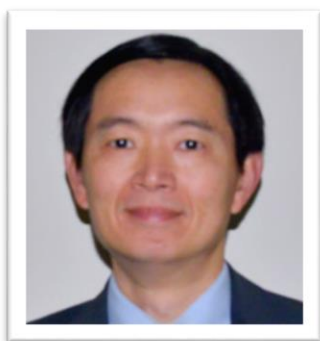
**OUR PROGRAM SCHEDULE IS BASED ON EASTERN TIME
(ET - OTTAWA TIME)**

**SCIENTIFIC
COMMITTEE CHAIR**

SEPTEMBER 7

SEPTEMBER 8

ICCEFA'20 & ICESA'20 SCIENTIFIC COMMITTEE CHAIR:



Dr. Zhi Chen

Concordia University, Canada
Conference Chair

[Website](#)

[Return to Top](#)

SEPTEMBER 7

8:00 AM - 9:00 AM	Registrations
9:00 AM - 9:10 AM	Official Opening
	Dr. Zhi Chen, Concordia University, Canada
9:10 AM - 10:00 AM	ICESA KEYNOTE LECTURE
	<u>Release Of Nanomaterials During Construction Activities That Could Potentially Pollute The Surrounding Air</u> Dr. Kavitha Palaniappan, University of Newcastle, Australia
10:00 AM - 10:50 AM	ICESA KEYNOTE LECTURE
	<u>DEVELOPMENT OF AN ENVIRONMENTAL SUSTAINABILITY RANKING TOOL (ESRT) FOR INDUSTRIES</u> Dr. Charles Lee, The University of Newcastle, Singapore
10:50 AM - 11:00 AM	Break
11:00 AM - 11:45 AM	SESSION <u>Environmental I</u>
11:45 AM - 12:15 PM	Lunch

SEPTEMBER 7

12:15 PM - 1:05 PM

ICESA KEYNOTE LECTURE

Forensic Geotechnical Engineering Challenges
Dr. Ahmed Fahmy, Senior Geotechnical Engineer at AECOM, NJ, USA

1:05 PM - 1:15 PM

Break

1:15 PM - 1:45 PM

SESSION
Civil Engineering I

[Return to Top](#)

KEYNOTE LECTURE

SEPTEMBER 7 | 9:10 AM - 10:00 AM | SESSION CHAIR: DR. ZHI CHEN, CONCORDIA UNIVERSITY, CANADA



Title: Release Of Nanomaterials During Construction Activities That Could Potentially Pollute The Surrounding Air

[Dr. Kavitha Palaniappan, University of Newcastle, Australia](#)

[View Abstract](#)

[Return to Top](#)

Dr. Kavitha Palaniappan is the Academic Director at UON Singapore, a wholly-owned entity of The University of Newcastle, Australia. In her capacity as Academic Director, she oversees the Business, Communication, Information Technology and Engineering degree programs that are offered in Singapore. She also teaches into the program of Bachelor of Environmental and Occupational Health and Safety (BEnvOHS). Apart from teaching into the program, she is also actively involved in multi-disciplinary research, that include prevalence of psychosocial illnesses and their impacts on the society, economy and country, alternative therapies to enhance sleep, yoga and its health benefits, toxicity of nanomaterials, exposure measurements and hygiene requirements for nano titanium dioxide, exposure to nano silver in mattresses and beddings and their health effects, associations between seasonal patterns, climate variables and dengue risks in Singapore. She is also a graduate member of IOSH and a member of the Singapore NanOsing consortium.

KEYNOTE LECTURE

SEPTEMBER 7 | 10:00 AM - 10:50 AM | SESSION CHAIR: DR. ZHI CHEN, CONCORDIA UNIVERSITY, CANADA



Title: Development of an Environmental Sustainability Ranking Tool (ESRT) for Industries
Dr. Charles Lee, The University of Newcastle, Singapore

[View Abstract](#)

[Return to Top](#)

Dr Charles Lee is a Program Convenor and Senior Lecturer at the University of Newcastle (Australia) Singapore. He has more than 25 years' experience in environmental research, education and consulting in North America, and Asia-Pacific countries. His experience encompasses consulting at one of the top environmental consulting firms in the San Francisco Bay Area (California) USA, R&D at the Agency for Science Technology and Research (A*Star, Singapore), and academic teaching and research at the University of Newcastle (Australia). Previously at A*STAR (Singapore) he has a patent on photocatalytic degradation of halogenated compounds. His research areas include remediation of contaminated sites, ecological rehabilitation of degraded land, and environmental sustainability of industries to meet the UN Sustainable Development Goals (SDGs). For more information Please visit : <https://iccefa.com/program/>

KEYNOTE LECTURE

SEPTEMBER 7 | 12:15 PM - 1:05 PM | SESSION CHAIR: DR. FABIANA CORAMI, CNR-IDPA, ITALY



Title: Battery Characterization and SOC/SOH Estimation

Dr. Ahmed Fahmy, Senior Geotechnical Engineer at AECOM, NJ, USA

[View Abstract](#)

[Return to Top](#)

Dr. Ahmed Fahmy is a Senior Geotechnical Engineer at AECOM, NJ. He has extensive practical experience working with several employers in Canada, the United States, and the middle east, including AECOM, 30 Forensic Engineering, Golder Associates Ltd., Geoterre Ltd., Dar Al Handasah Consultants, and Geo-Consultants Group. He has provided engineering support services on a wide variety of large scale projects, and was involved in numerous forensic investigations related to legal and insurance claims.

In addition to his practical experience, Dr. Fahmy served as assistant professor (LDA) and research associate at the University of Western Ontario where he taught graduate and undergraduate level geotechnical engineering design courses. He is also a former assistant professor at Dhofar University.

Dr. Fahmy is an active member of the executive education committee of the Canadian Geotechnical Society and the deep foundations committee of ASTM international. He has received several awards, has several publications, and has served as a reviewer for multiple geotechnical journals and conferences.

SESSION

ENVIRONMENTAL I

SEPTEMBER 7 | 11:00 AM - 11:45 AM | SESSION CHAIR: DR. FABIANA CORAMI,
CNR-IDPA, ITALY

Title: Population Study Of Proboscis Monkey (Nasalis Larvatus) On The Islands Of Pulau Bakut And Pulau Curiak In South Kalimantan, Indonesia

ICESA 124

Time: 11:00 AM - 11:15 AM

Presenter: Elliott James Ong, National University of Singapore, Singapore

Authors: Amalia Rezeki, Zainudin, Elliott James Ong, Charles CC Lee, Tim Roberts

[View Abstract](#)

Title: Singapore's 2030 Zero Waste Masterplan (ZMP): Is it Achievable?

ICESA 125

Time: 11:15 AM - 11:30 AM

Presenter: Siow Li Gin, University of Newcastle (Australia) Singapore, Singapore

Authors: Li Gin Siow, Charles CC Lee

[View Abstract](#)

Title: Biodesulfurization of petro-diesel by a new hydrocarbon tolerable bacterium

ICESA 114

Time: 11:30 AM - 11:45 AM

Presenter: Hussein Mohamed Nabil, Egyptian Petroleum Research Institute, Egypt

Authors: Hussein N. Nassar, Nour Sh. El-Gendy

[View Abstract](#)

[Return to Top](#)

SESSION

CIVIL ENGINEERING I

SEPTEMBER 7 | 1:15 PM - 1:45 PM | SESSION CHAIR: DR. AHMED FAHMY, SENIOR
GEOTECHNICAL ENGINEER AT AECOM, NJ, USA

Title: Parametric Study of Energy Dissipating Steel Plate Fuses

ICCEFA 135

Time: 1:15 PM - 1:30 PM

Presenter: Ahmad Siar Mahmood Shah, Ryerson University, Canada

Authors: Ahmad Siar Mahmood Shah, Saber Moradi

[View Abstract](#)

Title: Three-Dimensional Modeling of Concrete Reinforced with
Randomly Distributed Fiber

ICCEFA 128

Time: 1:30 PM - 1:45 PM

Presenter: Sahar Ghanem, Eastern Kentucky University, USA

Authors: Sahar Ghanem

[View Abstract](#)

[Return to Top](#)

SEPTEMBER 8

9:00 AM - 9:50 AM

ICCEFA KEYNOTE LECTURE

Performance-based Seismic Design Of Bridges: Challenges And Opportunities

Dr. Muntasir Billah, Lakehead University, Canada

9:50 AM - 10:40 AM

ICCEFA KEYNOTE LECTURE

Assessing Long term performance of magnesia-based binders in contaminated soil remediation

Dr. Fei Jin, Cardiff School of Engineering, Cardiff University, UK

10:40 AM - 10:45 AM

Break

10:45 AM - 11:35 AM

ICESA KEYNOTE LECTURE

Effects of the Environment on Infectious Diseases

Dr. Noelle Samia, Northwestern University, USA

11:35 AM - 11:40 AM

Break

11:40 AM - 12:15 PM

SESSION

Civil Engineering II

12:15 PM - 12:45 PM

Lunch

SEPTEMBER 8

12:45 PM - 1:35 PM

ICESA KEYNOTE LECTURE

Sources and pathways of small microplastics (<100 µm) in terrestrial ecosystems

Dr. Fabiana Corami, CNR-IDPA, Italy

1:35 PM - 2:00 PM

SESSION

Environmental II

[Return to Top](#)

KEYNOTE LECTURE

SEPTEMBER 8 | 9:00 AM - 9:50 AM | SESSION CHAIR: DR. CHARLES LEE, THE UNIVERSITY OF NEWCASTLE, SINGAPORE



Title: Performance-based Seismic Design Of Bridges: Challenges And Opportunities
Dr. Muntasir Billah, Lakehead University, Canada

[View Abstract](#)

[Return to Top](#)

Dr. Muntasir Billah, P.Eng., is a tenure track assistant professor in The Department of Civil Engineering at Lakehead University, Thunder Bay, Canada. Before joining LU, he worked as a structural (bridge) engineer at Parsons, Vancouver, BC. He received his PhD and MAsC in structural engineering from the University of British Columbia, Canada. He is the recipient of many awards and scholarships. He was awarded the 2016 UBC Governor General's Gold Medal—one of Canada's most prestigious academic awards. He has authored and co-authored 27 journal papers and 42 conference proceedings. He is the secretary of the Engineering Mechanics and Materials (EMM) division of CSCE, member of ACI Committee 341, Earthquake-Resistant Concrete Bridges, Associate Member of American Society of Civil Engineers and Structural Engineers Association of British Columbia. Dr. Billah's research is focused towards improving our understanding of the behaviour of civil infrastructures under various extreme load conditions. His research is drawn towards the development and application of advanced and novel materials in civil engineering structures and its experimental investigation, advances in numerical and experimental earthquake engineering along with development of advance modeling tools and techniques. His research interests include seismic design and retrofit of buildings and bridges, performance-based seismic design, application of high performance materials (e.g. shape memory alloys), and multi hazard analysis of bridges.

KEYNOTE LECTURE

SEPTEMBER 8 | 9:50 AM - 10:40 AM | SESSION CHAIR: DR. CHARLES LEE, THE UNIVERSITY OF NEWCASTLE, SINGAPORE



Title: Assessing Long Term Performance Of Magnesia-based Binders In Contaminated Soil Remediation

Dr. Fei Jin, Cardiff School of Engineering, Cardiff University, UK

[View Abstract](#)

[Return to Top](#)

Dr. Fei Jin is a Chartered Engineer (CEng) in the UK and joined the School of Engineering at Cardiff University in July 2020. He obtained his PhD degree from University of Cambridge in 2014 working on MgO-bearing cementitious materials. After that he continued to work as a research associate in Cambridge on the technical and commercial development of magnesia-bearing binders for land remediation and energy infrastructure. In 2017, he joined University of Glasgow as an Assistant Professor in its Singapore campus. As an Editorial Board Member for the ICE-Environmental Geotechnics and guest editor for Environmental Pollution, he has reviewed for more than 30 international journals covering material science, geotechnical engineering and environmental engineering. He is the recipient of the Canadian Geotechnical Journal Fredlund Award in 2019 and serves as Scientific Committee Member in a number of international conferences. His research interests include: 1. Sustainable binders and reuse of waste materials; 2. Magnesia cements; 3. Alkali-activated cements; 4. Soil/water remediation.

KEYNOTE LECTURE

SEPTEMBER 8 | 10:45 AM - 11:35 AM | SESSION CHAIR: DR. CHARLES LEE, THE UNIVERSITY OF NEWCASTLE, SINGAPORE



Title: Effects of the Environment on Infectious Diseases

Dr. Noelle Samia, Northwestern University, USA

[View Abstract](#)

[Return to Top](#)

Noelle I. Samia. B.S. (Valedictorian) in Mathematics, Notre Dame University, Lebanon; M.S. in Actuarial Science, University of Iowa, USA; Ph.D. in Statistics, University of Iowa, USA. Dr. Noelle I. Samia is an associate professor in the Department of Statistics at Northwestern University, USA. Her research work focuses on introducing and developing new statistical linear and nonlinear (threshold) models for count time-series and spatial data. Her work is both, theoretical and applied in nature. Through crossdisciplinary collaborations, these advanced and often new statistical methodologies are tailored to each specific application with the aim of explaining the dynamics of complex biological systems, particularly in the areas of infectious diseases and epidemiology, statistical ecology, and biomedical research. Her fields of research include nonlinear (e.g., threshold) spatio-temporal modeling, count time-series data, statistical inference for infectious diseases, statistical ecology, and statistical applications to biomedical research.

KEYNOTE LECTURE

SEPTEMBER 8 | 12:45 PM - 1:35 PM | SESSION CHAIR: DR. NOELLE SAMIA, NORTHWESTERN UNIVERSITY, USA



Title: Sources And Pathways Of Small Microplastics (<100 μm) In Terrestrial Ecosystems

[Dr. Fabiana Corami, CNR-IDPA, Italy](#)

[View Abstract](#)

[Return to Top](#)

Dr. Fabiana Corami, PhD, MSc Researcher at the Institute of Polar Sciences, National Research Council CNR-ISP, Venice – Italy Master Degree in Biology and PhD in Environmental Sciences, her current research field is on microplastics in the environment and in biota. She is working on developing preanalytical and analytical methods for quantification and simultaneous identification of microplastics via Micro-FTIR. Science communicator, co-author of contributions in monographs, author of several papers on peer reviews journals, she has attended to national and international conferences, also as invited keynote speaker. She is a member of the Board Committee of the Venetian District for Research and Innovation, DVRI, and is a member of the Leonardo Group of Science Gallery Venice.

SESSION

CIVIL ENGINEERING II

SEPTEMBER 8 | 11:40 AM - 12:15 PM | SESSION CHAIR: DR. SAHAR GHANEM,
EASTERN KENTUCKY UNIVERSITY, USA

Title: Spatial Differentiation And Influencing Factors Of Attended Collection And Delivery Points In Nanjing City, China

ICCEFA 129

Time: 11:40 AM - 11:55 AM

Presenter: Muhammad Sajid Mehmood, Northwest university, China

Authors: Muhammad Sajid Mehmood, Gang Li, Shuyan Xue, Qifan Nie, Xueyao Ma, Zeeshan Zafar, Adnan Rayit

[View Abstract](#)

Title: More Sustainable Tomorrow's Transport Systems Based On Big Data Concerning Travel Preferences

ICCEFA 132

Time: 11:55 AM - 12:10 PM

Presenter: Grzegorz Sierpiński, Silesian University of Technology, Poland

Authors: Grzegorz Sierpiński

[View Abstract](#)

Title: Concept Of Mobile Measuring Station As An Element Of Smart Cities Of The Future

ICCEFA 136

Time: 12:10 PM - 12:15 PM

Presenter: Grzegorz Sierpiński, Silesian University of Technology, Poland

Authors: Weronika Janc, Krzysztof Sitko, Kamil Kopeć, Grzegorz Sierpiński

[View Abstract](#)

[Return to Top](#)

SESSION

ENVIRONMENTAL II

SEPTEMBER 8 | 1:35 PM - 2:00 PM | SESSION CHAIR: DR. HUSSEIN MOHAMED NABIL, EGYPTIAN PETROLEUM RESEARCH INSTITUTE, EGYPT

Title: Effectiveness Of Conventional Drinking Water Treatment In The Removal Of Polycyclic Aromatic Hydrocarbons

ICESA 115

Time: 1:35 PM - 1:40 PM

Presenter: Maria Villén Guzmán, Department of Chemical Engineering. University of Malaga, Spain

Authors: Isabel Gutierrez-Urbano, Maria Villen-Guzman, Rocio Perez-Recuerda, Jose M. Rodriguez-Maroto

[View Abstract](#)

Title: Post-wildfire Emergency Intervention in Portugal: an Analysis of Public Reports and Policy

ICESA 118

Time: 1:40 PM - 1:55 PM

Presenter: Renata Martins Pacheco, Universidade do Porto – Faculdade de Engenharia, Portugal

Authors: Renata Martins Pacheco, João Claro

[View Abstract](#)

Title: Kinetic And Thermodynamic Studies On Biosorption Of Ni (II) And Cd (II) By Chemically Modified Lemon Peel

ICESA 116

Time: 1:55 PM - 2:0 PM

Presenter: Maria Villén Guzmán, Department of Chemical Engineering. University of Malaga, Spain

Authors: M. Villen-Guzman, B. Arhoun, M.M. Cerrillo-Gonzalez, J.M. Paz-Garcia, J.M. Rodriguez-Maroto

[View Abstract](#)

[Return to Top](#)