5TH INTERNATIONAL CONFERENCE OF RECENT TRENDS IN ENVIRONMENTAL SCIENCE AND ENGINEERING (RTESE’21)

6TH INTERNATIONAL CONFERENCE ON CIVIL, STRUCTURAL AND TRANSPORTATION ENGINEERING (ICCSTE’21)

May 17, 2021 - May 19, 2021 | Niagara Falls, Canada | Virtual Conference

OUR PROGRAM SCHEDULE IS BASED ON EASTERN TIME (ET - OTTAWA TIME)
Registrants from the two conferences are permitted and encouraged to attend sessions from any of the two conferences.

10:00 AM – 12:00 PM Registrations

**RTESE’21 Scientific Committee Chair**

Dr. Mehrab Mehrvar  
Ryerson University, Canada  
Conference Chair  
[View Profile](#)

Dr. Zhi Chen  
Concordia University, Canada  
Conference Co-Chair  
[View Profile](#)

**ICCSTE’21 Scientific Committee Chair**

Dr. Khaled Sennah  
Ryerson University, Canada  
Conference Chair  
[View Profile](#)
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<tr>
<th>Time</th>
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<tr>
<td>7:30 AM - 8:30 AM</td>
<td>Registrations</td>
</tr>
<tr>
<td>8:30 AM - 8:40 AM</td>
<td>Official Opening</td>
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<tr>
<td></td>
<td>Dr. Mehrab Mehrvar, Ryerson University, Canada and Dr. Khaled Sennah, Ryerson University, Canada</td>
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<tr>
<td>8:40 AM - 9:25 AM</td>
<td>ICCSTE’21 KEYNOTE LECTURE</td>
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<tr>
<td></td>
<td>Building Sustainability in New and Existing Concrete Structures with FRP</td>
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<tr>
<td></td>
<td>Dr. Shamim A. Sheikh, University of Toronto, Canada</td>
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<tr>
<td>9:25 AM - 10:10 AM</td>
<td>ICCSTE’21 KEYNOTE LECTURE</td>
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<td>Utilizing Superelastic Shape Memory Alloys to Improve the Seismic Response of Bridges</td>
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<td>Dr. Shahria Alam, The University of British Columbia, Canada</td>
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<tr>
<td>10:10 AM - 10:20 AM</td>
<td>Break</td>
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<td>10:20 AM - 11:40 AM</td>
<td>Session</td>
</tr>
<tr>
<td></td>
<td>Earthquake and Structural Engineering I</td>
</tr>
<tr>
<td>11:40 AM - 12:00 PM</td>
<td>Lunch Break</td>
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## MAY 18

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<tr>
<td>12:00 PM - 12:45 PM</td>
<td>RTESE’21 KEYNOTE LECTURE</td>
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<tr>
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<td><strong>Value Added Utilization of Petroleum Sludge Waste</strong></td>
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<td><strong>Dr. Jianbing Li, University of Northern British Columbia, Canada</strong></td>
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<tr>
<td>12:45 PM - 01:30 PM</td>
<td>RTESE’21 KEYNOTE LECTURE</td>
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<td><strong>Water-Energy-Food Nexus: Rethinking the Integrated Resources Management and Modeling</strong></td>
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<td><strong>Dr. Amin Elshorbagy, University of Saskatchewan, Canada</strong></td>
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<tr>
<td>1:30 PM - 1:40 PM</td>
<td>Break</td>
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<tr>
<td>01:40 PM - 02:55 PM</td>
<td>Session</td>
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<td><strong>Water and Air Pollutions and Treatments I</strong></td>
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<tr>
<td>2:55 PM - 03:00 PM</td>
<td>Break</td>
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<tr>
<td>03:00 PM - 04:00 PM</td>
<td>Session</td>
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<td></td>
<td><strong>Transportation Engineering I</strong></td>
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<tr>
<td>04:00 PM - 04:05 PM</td>
<td>Break</td>
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<tr>
<td>04:05 PM - 05:05 PM</td>
<td>Session</td>
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<tr>
<td></td>
<td><strong>Water and Air Pollutions and Treatments II</strong></td>
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<tr>
<td>05:05 PM - 05:10 PM</td>
<td>Break</td>
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<tr>
<td>05:10 PM - 06:10 PM</td>
<td>Session</td>
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<tr>
<td></td>
<td><strong>Transportation Engineering II</strong></td>
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</table>
Dr. Shamim A. Sheikh, is a Professor of Civil Engineering at the University of Toronto. He is a past Chair and member of Joint American Concrete Institute-American Society of Civil Engineers Committee 441, Reinforced Concrete Columns, and a member of ACI Committee 374, Performance-Based Seismic Design of Concrete Structures. He currently chairs Committee TSC16 on Structures with FRP for the Canadian Highway Bridge Code. His research interests include earthquake resistance and seismic upgrade of concrete structures, structural sustainability, use of fiber-reinforced polymers in concrete structures and the effects of climate change on structures. He is a recipient of several national and international awards including ACI Structural Research Award, CSCE Horst Leipholz Medal, Fellowship of Canadian Academy of Engineers and Sitarae-Imtiaz medal from the government of Pakistan.
Dr. Shahria Alam is a Professor of Civil Engineering and the Tier 1 Principal’s Research Chair in Resilient & Green Infrastructure at The University of British Columbia (UBC)’s Okanagan campus. He is serving as the Director of the Green Construction Research & Training Center (GCRTC) at UBC. Dr. Alam is the Chair of the Engineering Mechanics and Materials Division of the Canadian Society for Civil Engineering (CSCE). He received his PhD in Civil Engineering from Western University in 2008. His research interests include smart and recycled materials and their structural engineering applications. He has published more than 300 peer-reviewed articles in these areas. He is the recipient of many national and international awards including CSCE Pratley Award 2015.
Titles: Influence of Concrete Compressive Strength on Transfer Length in Pretensioned Concrete Members Using 3D Nonlinear FEM Analysis
ICCSTE 112
Time: 10:20 - 10:25
Presenter: Zaher Alkurdi, Budapest University of Technology and Economics, Hungary
Authors: Zaher Alkurdi

Titles: CFRP Strengthening of Beams in Reinforced Concrete Frames with Openings in Shear Zone
ICCSTE 128
Time: 10:25 - 10:40
Presenter: Osama A. Mohamed, Abu Dhabi University, United Arab Emirates
Authors: Osama A. Mohamed, Rania M. Khattab

Titles: Experience on Earthquake Safety of Large Embankment Dams constructed in Turkey
ICCSTE 137
Time: 10:40 - 10:55
Presenter: Hasan Tosun, Eskisehir Osmangazi University, Turkey
Authors: Hasan Tosun

Titles: Total Risk and Seismic Stability of Existing Large CFRD’s in Turkey
ICCSTE 138
Time: 10:55 - 11:10
Presenter: Hasan Tosun, Eskisehir Osmangazi University, Turkey
Authors: Hasan Tosun
Titles: A Study for immerge VR Applied in RC Building Earthquake Damage Assessment
ICCSTE 140
Time: 11:10 - 11:25
Presenter: Ren-Jwo Tsay, Vanung University, Taiwan
Authors: Ren-Jwo Tsay
View Abstract

Titles: Use of Non-Woven Polyethylene Terephthalate (PET) Tissue to improve Certain Properties of Concrete
ICCSTE 157
Time: 11:25 - 11:40
Presenter: Sifatullah BAHIJ, University of Strasbourg, France
Authors: Sifatullah Bahij, Safiullah Omary, Francoise Feugeas, Amanullah Faqiri
View Abstract
Dr. Jianbing Li is a professor in the environmental engineering program at the University of Northern British Columbia (UNBC). He obtained his PhD degree in environmental systems engineering from the University of Regina in 2003. He has research interests in environmental pollution control, petroleum waste management, contaminated soil and groundwater remediation, environmental modeling and decision analysis, and environmental risk assessment. He has produced more than 230 publications in international journals and conferences, with a h-index of 39 (Google Scholar). His research has been supported by a number of federal, provincial and municipal funding organizations. He obtained the 2013 Northern BC Business and Technology Award, the 2010, 2014 and 2019 UNBC Research Excellence Award, and the 2013 UNBC Achievement Award in Professional Practice and Mentorship. He also received several best paper awards from international conferences and international journal. He has served as the co-director of the UNBC/UBC environmental engineering program for 4 years (2013-2017). He has also served as a member of NSERC’s Research Tool and Instruments Selection Committee for Civil, Industrial and Systems Engineering, and the Board of Examiners with Engineers & Geoscientists BC (EGBC). He served as a guest editor for three international journals, and acted as a committee member for many international conferences. He regularly serves as a reviewer for many international journals and conferences as well as a variety of national and international research funding organizations.
Gil Bohrer received a PhD from the Department of Civil and Environmental Engineering at Duke University, in 2007. He was a Harvard University Center for the Environment Fellow 2007-2008. He is a professor at the Department of Civil, Environmental and Geodetic Engineering at the Ohio State University since 2008. Bohrer’s research centers on understanding the role and dynamics of the ecosystem in atmospheric exchange, at the resolution of individual plants. He developed a canopy large eddy simulation to study the role of canopy structure in transport and surface uptake of seed, pollen and atmospheric pollutants. He developed a plant hydrodynamic model to study the effects of the hydraulic traits and behavior of trees on transpiration dynamics during water stress. He is one of the national Ameriflux core site PIs, and contributes long-term observations of ecosystem carbon and methane fluxes from forest and wetland sites. His research in wetlands is combining observations and modeling to identify the role of small-scale within-wetland ecological and hydrological heterogeneity in regulating the fluxes of methane and CO2.
SESSION
WATER AND AIR POLLUTIONS AND TREATMENTS I
MAY 18 | 01:40 PM - 02:55 PM | SESSION CHAIR: DR. JIANBING LI, UNIVERSITY OF NORTHERN BRITISH COLUMBIA, CANADA

**Titles:** Source Identification of Continuous Discharge Pollution in River Accidents Based On A DREAM Inverse Method

RTESE 120
**Time:** 01:40 - 01:55
**Presenter:** Yinying Zhu, Concordia University, Canada
**Authors:** Yinying Zhu, Zhi Chen

[View Abstract]

**Titles:** Challenges and Critical Water Quality Issues in Micro Water Systems in British Columbia, Canada

RTESE 201
**Time:** 01:55 - 02:10
**Presenter:** Zawad Abedin, University of Northern British Columbia, Canada
**Authors:** Zawad Abedin, Jianbing Li, Guangji Hu

[View Abstract]

**Titles:** Particle Pollution and Urban Forests: An Estimation of Particle Density on Leaves of Urban Plants Using Scanning Electron Microscopy

RTESE 113
**Time:** 02:10 - 02:25
**Presenter:** Samira Muhammad, University of Antwerp, Belgium
**Authors:** Samira Muhammad, Karen Wuyts, Karolien De Wael, Roeland Samson

[View Abstract]
### Contributions to Keep the Atmosphere Balanced: Application of Scientific Fundamentals to Design a Magnetic Efficient Minimizer of Emissions from Mobile Sources

**RTESE 121**  
**Time:** 02:25 - 02:40  
**Presenter:** Raul Guerrero Torres, University of Cartagena, Colombia  
**Authors:** Raul Guerrero Torres, Mehrab Mehrvar

View Abstract

### Contributions to Keep the Atmosphere Balanced: A Simple MEB Minimizer for Light Cars Cutting Emissions from Mobile Sources Controlling CO2

**RTESE 123**  
**Time:** 02:40 - 02:55  
**Presenter:** Raul Guerrero Torres, University of Cartagena, Colombia  
**Authors:** Raul Guerrero Torres, Mehrab Mehrvar

View Abstract
**SESSION**

**TRANSPORTATION ENGINEERING I**

**MAY 18 | 03:00 PM - 04:00 PM | SESSION CHAIR: DR. RAJESHWAR GOODARY, UNIVERSITÉ DES MASCAREIGNES, MAURITIUS**

**Titles:** Analysis of the Variability of Parking Characteristics in A Weekly Distribution in the Conditions of PPZ and DPI Function  
*ICCSTEE 122*  
*Time: 03:00 - 03:15*  
*Presenter: Agata Kurek, Silesian University of Technology, Poland*  
*Authors: Agata Kurek, Elżbieta Macioszek*

**View Abstract**

**Titles:** A Methodology Proposal of an Accessible Design for an Urban Intersection to Improve Mobility of People with Physical Disabilities  
*ICCSTEE 147*  
*Time: 03:15 - 03:30*  
*Presenter: Carlos Santisteban Soto, University of Johannesburg, South Africa*  
*Authors: K Fernández, C Santisteban, A Sánchez*

**View Abstract**

**Titles:** Experimental Investigation on the Performance of Rail Fastening Systems  
*ICCSTEE 162*  
*Time: 03:30 - 03:45*  
*Presenter: Mehmet Ali TOPRAK, Istanbul Technical University, Turkey*  
*Authors: M. Ali Toprak, Furkan Calim, Emre Gonulcu, M. Fatih Sahin, Ahmet Gullu, Yavuz Durgun, Hakan Saruhan, Ercan Yuksel*

**View Abstract**

**Titles:** Evaluation of Precast/Prestressed Concrete Girder Transport Vehicle Stability  
*ICCSTEE 136*  
*Time: 03:45 - 04:00*  
*Presenter: Iraj Mamaghani, University of North Dakota, USA*  
*Authors: Iraj H.P. Mamaghani, Njiru, Mwaura, Alexander Hasbargen, Arya Alishahi, Barry McAndrews, and Eric Schneider*

**View Abstract**
| Titles: Quantifying Water Use, Conservation and Footprint in the Winery Industry |
| RTESE 301 |
| Time: 04:05 - 04:20 |
| Presenter: Melody Blythe Johnson, Ryerson University, Canada |
| Authors: Melody Blythe Johnson, Mehrab Mehrvar |

| Titles: Adverse Effect of Direct Discharge of Hot Spring Tributaries into Rivers on Life Aquatic Ecosystems |
| RTESE 302 |
| Time: 04:20 - 04:35 |
| Presenter: Melody Blythe Johnson, Ryerson University, Canada |
| Authors: Yuly Sánchez1, Mehrab Mehrvar, Lynda McCarthy, Edgar Quiñones-Bolaños, Luis Cheu, Jairo Chacón |

| Titles: ARX-PID/NARX-PID Modelling and Control of UV/H2O2 Tubular Photoreactor for PVA Degradation in Water |
| RTESE 303 |
| Time: 04:35 - 04:50 |
| Presenter: Yi Ping Lin, Ryerson University, Canada |
| Authors: Yi Ping Lin, Ramdhane Dhib, Mehrab Mehrvar |

| Titles: Evaluation Of The Impact Of Pumped Groundwater On The Environment And The Socio Economic Benefits Thereof |
| ICCSTE 127 |
| Time: 04:50 - 05:05 |
| Presenter: Armand Beukes, University of Johannesburg, South Africa |
| Authors: Armand J. Beukes, Jeffrey Mahachi, German K. Nkhonjera |
Titles: Analysis of selected parking characteristics in the Paid Parking Zone - a Case Study Based on City in Poland
ICCSTE 118
Time: 05:10 - 05:25
Presenter: Agata Kurek, Silesian University of Technology, Poland
Authors: Agata Kurek, Elżbieta Macioszek

Titles: Assessment of Railway Transport Safety in Bangladesh: A Before-After Study of COVID-19 Case
ICCSTE 163
Time: 05:25 - 05:40
Presenter: Armana Huq, Bangladesh University of Engineering and Technology, Bangladesh
Authors: Armana Huq, Hamim Tasin, Syeda Manila Jannat

Titles: The Evidence of Critical Issues in Transportation Infrastructures of Bangladesh to Introduce Connected and Autonomous Vehicles
ICCSTE 164
Time: 05:40 - 05:55
Presenter: Armana Huq, Bangladesh University of Engineering and Technology, Bangladesh
Authors: Armana Huq, Kamol Debnath Dip, Nadia Binte Mohammad, Nazmus Sakib

Titles: A Bayesian Structural Time Series Model for Assessing Road Traffic Accidents During COVID-19 Period
ICCSTE 166
Time: 05:55 - 06:10
Presenter: Armana Huq, Bangladesh University of Engineering and Technology, Bangladesh
Authors: Armana Huq, Shahrin Islam
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<th>Speaker/Details</th>
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</table>
| 8:30 AM - 9:15 AM | RTESE’21 KEYNOTE LECTURE                    | **The Profound but Often Forgotten Significance of Energy as a Measure of Change of State**  
                     | Dr. Bryan Karney, University of Toronto, Canada   |
| 9:15 AM - 10:00 AM| RTESE’21 KEYNOTE LECTURE                    | **Water-Energy-Food Nexus: Rethinking the Integrated Resources Management and Modeling**  
<pre><code>                 | Dr. Amin Elshorbagy, University of Saskatchewan, Canada |
</code></pre>
<p>| 10:00 AM - 10:10 AM| BREAK                                      |                                                      |
| 10:10 AM - 10:35 AM| SESSION                                    | <strong>Environmental Risk Assessments</strong>                   |
| 10:35 AM - 10:40 AM| BREAK                                      |                                                      |
| 10:40 AM - 11:40 PM| SESSION                                    | <strong>Earthquake and Structural Engineering II</strong>         |
| 11:40 AM - 11:45 AM| BREAK                                      |                                                      |
| 11:45 AM - 12:50 PM| SESSION                                    | <strong>BUILDING MATERIALS</strong>                               |</p>
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<td>12:50 PM - 1:10 PM</td>
<td>Lunch Break</td>
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<td>1:10 PM - 1:55 PM</td>
<td>ICCSTE'21 KEYNOTE LECTURE</td>
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<td>High Performance Asphalt Pavements</td>
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<td>Dr. Peter E. Sebaaly, University of Nevada, USA</td>
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<td>1:55 PM - 2:00 PM</td>
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<td>02:00 PM - 02:45 PM</td>
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<td>CONCRETE TECHNOLOGY</td>
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<td>02:45 PM - 02:50 PM</td>
<td>BREAK</td>
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<td>02:50 PM - 03:05 PM</td>
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<td>NEW TECHNOLOGIES, METHODS AND TECHNIQUES IN CIVIL ENGINEERING</td>
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<td>3:05 PM - 4:35 PM</td>
<td>SESSION</td>
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<td>STRUCTURAL MECHANICS</td>
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</table>
RTESE'21 KEYNOTE LECTURE

MAY 19 | 8:30 AM - 9:15 AM | SESSION CHAIR: DR. MEHRAB MEHRVAR, RYERSON UNIVERSITY, CANADA

**Titles:** The Profound but Often Forgotten Significance of Energy as a Measure of Change of State

Dr. Bryan Karney, University of Toronto, Canada

Bryan Karney graduated from the University of British Columbia with a B.A.Sc. degree in 1980 and a Ph.D. in Civil Engineering in 1984. His first academic appointment was at the University of Calgary in 1985 but he has been at the University of Toronto since 1987. Bryan is currently a professor of Civil Engineering and has been the Associate Dean of the Cross-Disciplinary Programs office in the Faculty of Applied Science and Engineering since 2006. Bryan is also a principal of HydraTek with more than 30-years experience in providing comprehensive hydraulic and hydraulic transient consulting services on a wide range of fluid systems, including water, wastewater, storm, oil, gas, and jet fuel. Bryan has spoken and written widely on subjects related to water resource systems, energy issues, hydrology, climate change, optimization, engineering education, and engineering ethics. He was Associate Editor for the ASCE’s Journal of Hydraulic Engineering from 1993 to 2005 and has been an Associate Editor for IAHR’s Journal of Hydraulic Research since 2016. He has written numerous papers and has been awarded a number of teaching and research awards.
Dr. Amin Elshorbagy, a professor of hydrology and water resources engineering at the University of Saskatchewan, is a licensed professional engineer with the Association of Professional Engineers and Geoscientists (APEGS) of Saskatchewan. The research and expertise of Dr. Elshorbagy are focused on, and link, the areas of hydrologic and water resources systems modeling and decision analysis through synthesizing the results of various modeling tools and techniques to support the decision making process. Dr. Elshorbagy also works extensively on integrated water resources management of trans-boundary rivers, attempting to address the challenges of sustainable utilization of water resources in light of the past hydroclimatic conditions as well as possible future changes. Water-energy-food nexus is an emerging, central theme of Elshorbagy’s current research as the second-generation approach of managing integrated resources, including water. The areas of expertise and interests of Dr. Elshorbagy include system dynamics and emulation of complex models, stochastic hydrology, data driven hydrology, watershed modeling, flood modeling in the Canadian prairies, uncertainty analysis, multicriterion decision and risk analysis, impact of climate change on water resources and urban systems, and use of proxy records (tree rings) for extending hydrological records. Amin’s expertise led him to deliver invited talks in several places in Canada, Europe, and Australia. Professor Elshorbagy is currently an Associate Editor of the Journal of Water Resources Research and served as Editor of the Journal of Hydroinformatics.

For more information please visit:
https://rtese.com/keynote-speakers
**SESSION**

**ENVIRONMENTAL RISK ASSESSMENTS**

MAY 19 | 10:10 AM - 10:35 AM | SESSION CHAIR: DR. AMIN ELSHORBAGY, UNIVERSITY OF SASKATCHEWAN, CANADA

** Titles:** Identifying and Ranking Environmental Risks of Oil and Gas Projects Using the VIKOR Method for Multi-Criteria Decision Making

**ICCSTE 113**

**Time:** 10:10 - 10:15

**Presenter:** Sasan Aryaee, Islamic Azad University, Iran

**Authors:** Sasan Aryaee, Mahdi Ravanshadnia

[View Abstract](#)

** Titles:** Ranking Environmental Risks for Promoting HSE Management, Case Study: Oil and Gas Projects

**ICCSTE 114**

**Time:** 10:15 - 10:20

**Presenter:** Sasan Aryaee, Islamic Azad University, Iran

**Authors:** Sasan Aryaee, Mahdi Ravanshadnia

[View Abstract](#)

** Titles:** Georisks and Sustainability Resource of The Mascarene Islands Territories to External Impacts

**ICCSTE 151**

**Time:** 10:20 - 11:35

**Presenter:** Rajeshwar Goodary, Université des Mascareignes, Mauritius

**Authors:** Viacheslav Iegupov, Rajeshwar Goodary, Yeshvin Goodary

[View Abstract](#)
### SESSION
**EARTHQUAKE AND STRUCTURAL ENGINEERING II**  
**MAY 19 | 10:40 AM - 11:40 PM | SESSION CHAIR: DR. ALEXANDER BRAND, VIRGINIA TECH, USA**

| Titles: Seismic Response of LNG Storage Tanks under Earthquake Excitations  
ICCSTE 141  
Time: 10:40 - 10:55  
Presenter: Iraj Mamaghani, University of North Dakota, USA  
Authors: Iraj H.P. Mamaghani, Wiryachai RoopKumdee |
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| Titles: Seismic Resistance and Buckling Strength of Cylindrical Steel Liquid Storage Tanks  
ICCSTE 134  
Time: 10:55 - 11:10  
Presenter: Iraj Mamaghani, University of North Dakota, USA  
Authors: Mohammed Wiryachai Roopkumdee, Iraj H.P. Mamaghani |
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| Titles: Investigation on Teardrop Connection of Rack Clad Building  
ICCSTE 161  
Time: 11:10 - 11:25  
Presenter: Radin Md Mahirul Hoque, Bangladesh  
Authors: Radin Md Mahirul Hoque, Peng Zhang, M. Shahria Alam, Robert Tremblay |
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| Titles: Dynamic Stability of Large Embankment Dams and a Case Study  
ICCSTE 139  
Time: 11:25 - 11:40  
Presenter: Hasan Tosun, Eskisehir Osmangazi University, Turkey  
Authors: Hasan Tosun |
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Titles: Aggregate Moisture Content and Fresh Property Control Measures in Cementitious Mortars  
ICCSTE 130  
Time: 11:45 - 11:50  
Presenter: Alexander S. Brand, Virginia Tech, USA  
Authors: Morgan C. Jenkins, Alexander S. Brand  

Titles: A Preliminary Digital Image Correlation Study of the Anisotropic Mechanical Properties of a 3D-Printed Mortar  
ICCSTE 146  
Time: 11:50 - 12:05  
Presenter: Alexander S. Brand, Virginia Tech, USA  
Authors: Morgan C. Jenkins, Alexander S. Brand, T. Trevor Painter, Samuel T. Sherry  

Titles: Impact of Dynamic Thermal Conductivity Change of EPS Insulation on Temperature Variation through a Wall Assembly  
ICCSTE 144  
Time: 12:05 - 12:20  
Presenter: Maatouk Khoukhi, United Arab Emirates University, UAE  
Authors: Maatouk Khoukhi  

Titles: Interaction between Internal and External Shear Reinforcement for Strengthened RC Deep Beams  
ICCSTE 168  
Time: 12:20 - 12:35  
Presenter: Mohamed Ibrahim, Qatar University, Qatar  
Authors: Mohamed Ibrahim, Qusai Aborahmeh, Usama Ebead
SESSION
BUILDING MATERIALS
MAY 19 | 11:45 PM - 12:50 PM | SESSION CHAIR: DR. ZHI CHEN, CONCORDIA UNIVERSITY, CANADA & DR. IRAJ MAMAGHANI, UNIVERSITY OF NORTH DAKOTA, USA

Titles: A Reliability-Based Comparison of EC3 & SANS 10162-1
ICCSTE 131
Time: 12:35 - 12:50
Presenter: Gerald Nkosi, University of Johannesburg, South Africa
Authors: Gerald Musa Nkosi, Jeffery Mahachi, Stephen Adeyemi Alabi

[View Abstract]
Dr. Peter E. Sebaaly is a Professor of Civil Engineering and Director of the Western Regional Superpave Center (WRSC) and the Pavement Engineering & Science (PES) Program at the University of Nevada, Reno (UNR). He is a registered Professional Engineer in the states of Nevada & Arizona, USA. He earned his B.S.C.E. (1982) and M.S.C.E. (1983) from the State University of New York at Buffalo and his Ph.D. (1987) from Arizona State University, specializing in pavements/materials engineering. In 1990, Dr. Sebaaly joined the faculty of the University of Nevada, Reno (UNR). Dr. Sebaaly is currently working on several research projects on the development of new engineered materials to enhance the durability and sustainability of asphalt pavements and the incorporation of these materials into design methods and specifications for maintenance, rehabilitation, and construction of pavements.
**SESSION**

**CONCRETE TECHNOLOGY**

**MAY 19 | 02:00 PM - 02:45 PM | SESSION CHAIR: DR. PETER E. SEBAALY, UNIVERSITY OF NEVADA, USA**

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**Titles:** Testing Post Tensioned Slabs with Bonded and Unbonded Tendons  
**ICCSTE 117**  
**Time:** 02:00 - 02:15  
**Presenter:** Jasmin Osama Abdelhalim, The American University in Cairo, Egypt  
**Authors:** Jasmin Osama Abdelhalim, Ezzeldin Yazeed Sayed-Ahmed

[View Abstract]

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**Titles:** Utilization of Sewage Sludge Ash in Self-Compacted Concrete  
**ICCSTE 126**  
**Time:** 02:15 - 02:30  
**Presenter:** Siham AlShanti, United Arab Emirates University, UAE  
**Authors:** Siham Al Shanti, Amr El-Dieb, Munjed A. Maraqa

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**Titles:** Experimental Investigations of Eccentrically Loaded Circular Concrete Filled Double Steel Tubular Short Columns  
**ICCSTE 158**  
**Time:** 02:30 - 02:45  
**Presenter:** Ahmed Hamoda, Kafrelsheikh University, Egypt  
**Authors:** Junchang Ci, Mizan Ahmed, Shicai Chen, Ahmed Hamoda, Khaled Sennah

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Titles: Assessment of Civil Engineering Students’ Exposure Levels to Active Learning Strategies in the UAE

ICCSTE 153

Time: 02:50 - 03:05

Presenter: Francisco D. B. Albuquerque, United Arab Emirates University, UAE

Authors: Melinda J. B. Albuquerque, Francisco Daniel B. Albuquerque

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### Session Structural Mechanics

**MAY 19 | 03:05 PM - 04:35 PM | SESSION CHAIR: DR. KHALED SENNAH, RYERSON UNIVERSITY, CANADA & DR. RAJESHWAR GOODARY, UNIVERSITÉ DES MASCAREIGNES, MAURITIUS**

**Titles:** Strength Properties of Hardwood Timber Species Exposed to Decay and Marine Borer Attack in Tidal Zones  
**ICCSTE 145**  
**Time:** 03:05 - 03:20  
**Presenter:** Iraj Mamaghani, University of North Dakota, USA  
**Authors:** Jeffrey Lynes, Iraj H.P. Mamaghani  
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**Titles:** Glass as a Structural Material: Post-tensioned Glass T-Beam  
**ICCSTE 301**  
**Time:** 03:20 - 03:35  
**Presenter:** Emrullah Koca, Middle East Technical University, Turkey  
**Authors:** Emrullah Koca, Ahmet Türer  
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**Titles:** Analytical and Experimental Investigation of Post-tensioned Tempered Glass T-Beams  
**ICCSTE 303**  
**Time:** 03:35 - 03:50  
**Presenter:** Ahmet Türer, Middle East Technical University, Turkey  
**Authors:** Ahmet Türer, Emrullah Koca  
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STRUCTURAL MECHANICS
MAY 19 | 03:05 PM - 04:35 PM | SESSION CHAIR: DR. KHALED SENNAH, RYERSON UNIVERSITY, CANADA & DR. RAJESHWAR GOODARY, UNIVERSITÉ DES MASCAREIGNES, MAURITIUS

Titles: A Comparison Investigation into Analysis Methods to Determine the Buckling Capacity of South African Cold-Formed Steel Lipped Channel Sections
ICCSTE 133
Time: 03:50 - 4:05
Presenter: Johan van Vuuren, University of Johannesburg, Ireland
Authors: Johan van Vuuren, Jeffrey Mahachi

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Titles: Performance of Roof Anchor Systems for Low-Income Housing in South Africa
ICCSTE 119
Time: 04:05 - 04:20
Presenter: Ruben van der Merwe, University of Johannesburg, South Africa
Authors: Ruben van der Merwe, Jeffrey Mahachi

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Titles: Conceptual Framework for a Decision-Making Model to Select the Public-Private Partnership (PPP) Structure for Urban Rail Transit in Jakarta
ICCSTE 160
Time: 04:20 - 04:35
Presenter: Retno Ambarsari, University of Indonesia, Indonesia
Authors: Retno Ambarsari, Sutanto Soehodho, R Jachrizal Sumabrata

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