



TEXAS A&M  
Institute of  
Data Science

# ETHICAL AND EXPLAINABLE GEOAI WORKSHOP

BUILDING TRANSPARENT, FAIR, AND ACCOUNTABLE GEOAI SYSTEMS



February 27 | 8:30 am – 4:00 pm

Chevron Studios 298-299, Zachry Engineering Education Complex, Texas A&M University

## Workshop Agenda

8:30 AM – 9:00 AM	Opening Session (Check-In and Light Breakfast)
9:00 AM – 10:00 AM	<b>Keynote Speaker — Dr. Michael Goodchild</b> <i>Topic — Ethical and Explainable GeoAI</i>
	<b>GeoAI and Geography</b>
10:00 AM – 10:50 AM	<ul style="list-style-type: none"><li>• Dr. Lei Zou, Texas A&amp;M University</li><li>• Dr. Zhe Zhang, Texas A&amp;M University</li><li>• Dr. Daniel Goldberg, Texas A&amp;M University</li></ul>
10:50 PM – 11:00 AM	Break
	<b>Interdisciplinary Ethical Principles</b>
11:00 AM – 11:50 AM	<ul style="list-style-type: none"><li>• Dr. Martin Peterson, Texas A&amp;M University</li><li>• Dr. James Caverlee, Texas A&amp;M University</li><li>• Dr. Gengchen Mai, University of Texas Austin</li></ul>
12:00 PM – 1:00 PM	Group Photo Session and Lunch
1:00 PM – 2:00 PM	<b>Keynote Speaker — Dr. Youssef Hashash</b> <i>Topic — Explainable AI in Geotechnical &amp; Civil Engineering</i>
	<b>Transportation, Mobility and Smart cities</b>
2:00 PM – 2:50 PM	<ul style="list-style-type: none"><li>• Dr. Yunpeng Zhang, University of Houston</li><li>• Dr. Zhengzhong Tu, Texas A&amp;M University</li><li>• Dr. Jinmeng Rao, Google DeepMind</li></ul>
2:50 PM – 3:00 PM	Break
	<b>Explainability and Sustainability in High-stakes Decision</b>
3:00 PM – 3:40 PM	<ul style="list-style-type: none"><li>• Dr. Cason Schmit, Texas A&amp;M University</li><li>• Dr. Hanjie Chen, Rice University</li></ul>
3:40 PM - 4:00 PM	Group Activity and End Session — Dr. Sulong Zhou

## Keynote Speakers



### **Dr. Michael Goodchild**

*Professor Emeritus and Holder of the Jack and Laura Dangermond Chair, Department of Geography, College of Letters and Science, University of California Santa Barbara*

Dr. Goodchild is a pioneering expert in the field and the originator of the term “Volunteered Geographic Information” (VGI). His groundbreaking work has advanced spatial databases, data modeling, and the integration of GIS with other systems, fostering interdisciplinary collaboration across GIScience, urban science, and computer science. A member of the National Academy of Sciences and the American Academy of Arts and Sciences, Goodchild has received numerous honors, including the Prix Vautrin Lud and the Founder’s Medal from the Royal Geographical Society. With 598 peer-reviewed articles and 15 books to his name, he continues to shape the future of GIS. Goodchild is a Distinguished Lecturer at the [Texas A&M Hagler Institute for Advanced Study](#).



### **Dr. Youssef Hashash**

*Holder of the Grainger Distinguished Chair in Engineering, Department of Civil and Environmental Engineering, University of Illinois Urbana-Champaign*

Dr. Hashash specializes in urban tunneling, earthquake engineering, soil-structure interaction, and geotechnical applications of AI and visualization technologies. He co-developed DEEPSOIL, extensively used globally, and co-leads NIST’s investigation of the Champlain Towers South Collapse. His work shapes seismic design and engineering practices. Dr. Hashash is a Member of the National Academy of Engineering, a Fellow of the American Society of Civil Engineers (ASCE), a past president of the Geo-institute of ASCE and has received a number of teaching, university and professional awards including the Presidential Early Career Award for Scientists and Engineers and the ASCE 2014 Peck medal. Hashash is a Hagler Fellow at the [Texas A&M Hagler Institute for Advanced Study](#).

### **Workshop Co-Chairs**

- **Sulong Zhou**, *Department of Landscape Architecture and Urban Planning | TAMIDS-Urban AI Lab; [sulong.zhou@tamu.edu](mailto:sulong.zhou@tamu.edu)*
- **Xinyue Ye**, *Department of Landscape Architecture and Urban Planning | Center for Geospatial Sciences Applications, and Technology | TAMIDS-Urban AI Lab; [xinyue.ye@tamu.edu](mailto:xinyue.ye@tamu.edu)*
- **Martin Peterson**, *Professor of Philosophy and the Sue and Harry Bovay Chair of History and Ethics of Professional Engineering; [martinpeterson@tamu.edu](mailto:martinpeterson@tamu.edu)*