

Call for Participation

TE2022

July 5-8 MIT, Boston USA

Since 1994 our ISTE community has convened annually to discuss engineering for today's most pressing social and technical challenges. The next TE conference will be held in the summer of 2022 on the MIT campus in Boston, USA. **The theme for the TE2022 conference is "The Future of Engineering".**

Engineering is changing rapidly. The connectedness of the world's most critical systems along with rapid advancement of methods push us to ask "How will we teach, research, and practice engineering?" The recent decade has shown an ongoing shift towards model-based design, instrumented products and teams, data-driven analytics, rapid prototyping, and continuous delivery. These changes are enabled on digital and physical platforms driven by distributed teams and open interfaces. Transformations are underway in several industrial sectors, including energy, agriculture, health, and mobility. *It is an exciting time to be an engineer.*

We recognize the insufficiency of simple boundary crossing amongst traditional disciplines, given that engineers move beyond disciplinary norms established in the mid to late 20th century. Today we address systems in their context across a life-cycle, collaborate with a myriad of stakeholders and non-engineering experts, and -- for these most valuable and daunting challenges -- generate new engineering disciplines.

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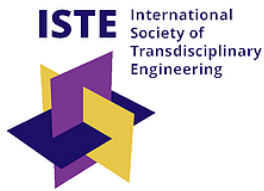
The conference will be organized across three tracks:

- A. **Research** on Engineering
- B. Engineering **Education**
- C. Engineering **Practice**

The conference will also include keynote speeches, panels, and posters.

Key Dates

Jan 7, 2022	Abstract submission and workshop proposal deadline
Jan 31, 2022	Notification of abstract approval
Mar 15, 2022	Deadline for full paper submission
Apr 23, 2022	Feedback on submitted papers
May 26, 2022	Deadline for final paper submission
Mar 14, 2022	Registration opens (all participants)
Jul 5-8, 2022	Conference event at MIT, Cambridge, MA, USA



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Conference Committee

Bryan Moser, Massachusetts Institute of Technology, USA and Univ. of Tokyo, Japan, *Conference Chair*

Linda Newness, University of Bath, UK, *President of ISTE*

Cees Bil, RMIT, Australia

Milton Borsato, Federal University of Technology, Brazil

Barrett Caldwell, Purdue University, USA

Chun-Hsien Jason Chen, Nanyang Tech. University, Singapore

Kazuo Hiekata, University of Tokyo, Japan

Susan Lattanzio, University of Bath, UK

Margherita Peruzzini, University of Modena and Reggio Emilia, Italy

Jerzy Pokojski, Warsaw University of Technology, Poland

Eric Rebentisch, Massachusetts Institute of Technology, USA

Donna Rhodes, Massachusetts Institute of Technology, USA

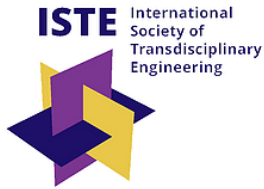
David Romero, Tecnológico de Monterrey, Mexico

Michael Sobolewski, SourceSoft, USA

Tetsuya Toma, Keio University, Japan

Amy Trappey, National Tsing Hua University, Taiwan

Federico Trigos, EGADE Business School, Monterrey, Mexico



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Call for Papers

Researchers, Academics, and Practitioners with novel contributions are welcome to propose papers by submitting abstracts before January 7, 2022. The TE conference series welcomes papers on topics that address transdisciplinary engineering topics. The abstracts and papers are peer-reviewed with a follow-on indexed publication. In addition, several related journals will invite the top papers for expansion and refinement from the event for journal publication.

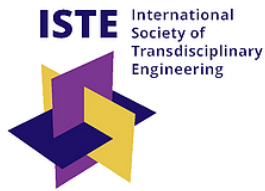
Submission of abstract and papers on EasyChair: <https://easychair.org/conferences/?conf=te2022>

Further details at <https://te2022.org>

Inquiries at te2022@mit.edu

A **transdisciplinary engineering** paper:

- Addresses a real-world problem.
- Involves multiple engineering disciplines and other fields relevant to the context of the engineered system (e.g. social scientists, economists, legal scholars...)
- Integrates knowledge from across disciplines and stakeholders.
- Demonstrates insights beyond a specific technical challenge, contributing emerging engineering principles and methods outside existing domains.



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Areas of interest

The following list identifies areas of interest for the conference. It is not an exhaustive list. If you as an author wish to submit a paper that fits within the theme of the conference, then please, do so.

New Product Development

- Design of Personalized Products and Services
- Product and Production Platforms
- Multidisciplinary Design Optimization
- Democratization of Design
- Citizen/ community-led Design
- Concurrent Engineering
- Human-centered Design

Digital Engineering

- Collaborative Model-building
- Multi-physics models
- Digital Twins
- Model Validation and Verification
- Model Curation
- Rapid Prototyping
- Continuous Delivery

Transdisciplinary approaches to

- Decision Support Tools and Methods
- Value Engineering
- Risk Management
- Knowledge Management and Knowledge Engineering
- Cost Modelling, Analysis, and Engineering

Engineering Teamwork

- Methods for Transdisciplinary Engineering
- Collaborative Design Environments
- Interactive Simulation for Engineering
- Team Performance Measurement
- Managing Cultural and Disciplinary Differences
- Computational Organizational Theory and Experiments

Engineering Education

- Learning Strategies and Instructional Design for Engineering
- Transdisciplinary Engineering Project-Based Learning
- Digital and Open Learning for Engineering
- Competency and Capability Evaluations
- Professional Education and Certification

Theoretical Contributions

- Engineering Thinking and Practice
- Systems Thinking
- Complex Sociotechnical Systems

Publication

TE2022 proceedings will be published by IOS Press in OPEN ACCESS BOOK and fully indexed by Thomson Reuters/SCI, Scopus, Compendex/Ei and others.

Authors of distinguished papers will be invited to submit extended versions of their work to one of several international journals, including:

- International Journal of Agile Systems and Management
- Advanced Engineering Informatics
- Journal of Industrial Information Integration