The 2022 IEEE International Conference on Digital Twin (DigitalTwin 2022)

http://www.ieee-smart-world.org/2022/digitaltwin/

December 15 - 18, 2022, Haikou, Hainan, China

IMPORTANT DATES

Workshop Proposal:	**Jul. 15, 2022**
Paper Submission:	**Sep. 01, 2022**
Author Notification Date:	**Oct. 01, 2022**
Camera Ready Submission:	**Oct. 31, 2022**

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Co-located Conferences

- The 2022 IEEE Int'l Conf. on Metaverse (Metaverse 2022)
- The 19th IEEE Int'l Conf. on Ubiquitous Intelligence and Computing (UIC 2022)
- The 19th IEEE Int'l Conf. on Autonomous and Trust Vehicles Conference (ATC 2022)
- The 22th IEEE Int'l Conf. on Scalable Computing & Commun. (ScalCom 2022)
- The 8th IEEE Int'l Conf. on Privacy Computing (PriComp 2022)

Digital Twin

Digital twin, as a recent iconic phrases of fashions, has been coined and broadened somewhat in that it is now being extensively applied, or rather used, to characterize a variety of digital simulation models that run alongside real-time processes that pertain to social and economic systems as well as physical systems since its inception. It is even conceivable that latency between when data is received from the basic system and when the users closest to the system can use is often short enough to enable good corrective actions. Progress towards digital twins will surely enable us to gain ever deeper insights into the nature of reality and its virtual form. How close we can get to the real thing is a collective exploration we are about to embark upon as a society.

The 2022 IEEE International Conference on Digital Twin will provide a high-profile, leading-edge forum for researchers, engineers, and practitioners to present state-of-art advances and innovations on Digital Twin, as well as to identify emerging research topics and define the future of Digital Twin. We seek submissions of papers which invent new techniques, introduce innovative methodologies, and propose new research directions in advanced digital twin theories, methods, implementations, and applications.

Tracks and Topics

Track 1: Modeling & Simulation

- Data-driven modeling
- Mechanism-driven modeling
- Event driven simulation
- Multi-agent simulation
- Real-time simulation
- Distributed simulation
- Model-based system engineering
- Multi-disciplinary collaboration

Track 2: Technologies & Applications

- Physical entity perception
- Communications
- Cyber-physical system
- Data mining
- Incremental learning methods
- Smart services/application
- Model Reuse
- Model composition
- Metaverse

Track 3: Evaluation & Optimization

- Verification, Validation, and Accreditation
- Model Maturity analysis
- Online evaluation
- White/Grey/Black box model evaluation
- Parameter optimization
- Physical/Digital part optimization
- Model evolution

Track 4: System & Management

- Deployment
- Database
- Model library
- Multi-disciplinary model integration
- Management platform
- Cloud-edge-assisted system
- Adaptive and intelligent systems

Track 5: Security & Privacy

- Threat modeling in Digital Twin-based applications and scenarios
- Cybersecurity for Digital Twin protection
- Digital Twin for Cybersecurity
- Privacy issues and approaches
- Trustworthy Digital Twin interoperability and communications

SPECIAL SESSIONS

We invite proposals for special sessions associated with the conference, addressing research areas related to the conference. Accepted special sessions papers will be included in the proceedings published by IEEE. Send your proposals to shelicy@hainanu.edu.cn.

PAPER SUBMISSION

Main conference papers are limited to 8 pages (regular paper), or 6 pages (short paper), and 2-4 pages for a poster paper following the IEEE proceedings format, and are to be submitted as PDF via the site: http://www.ieee-smart-world.org/2022/digitaltwin/cmt.php.

PAPER PUBLICATION

Accepted conference papers will be published by IEEE (IEEE-DL and EI indexed). At least one author of each accepted paper is required to register and present their work at the conference; otherwise the paper will not be included in the proceedings. Selected papers, after further extensions and revisions, will be recommended to special issues. More details at the conference website: http://www.ieee-smart-world.org/2022/digitaltwin/.

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