**<http://www.DTPI.org>**

**DTPI in Mechatronics Systems (平行机电一体化系统)**

**CALL FOR PAPERS**

**Social Transportation NC**

**Session Chairs:**

The technical areas of interest include (but not limited to):

• Theory Development on DTPI

• Information Infrastructure R&D for DTPI

• Data Analytics and Artificial Intelligence R&D

for DTPI

• Applications of DTPI in Vertical Areas

• Social Transportation

• Power & Energy Systems

• Autonomous Driving and Unmanned Systems

• Oceanic Systems

• Blockchain and Distributed Systems

• Social System Management and Control

• Ecology digital twins

• Cyber-Physical Social Systems

• Robotics

• Manufacture Systems

• Industrial Practices of DTPI

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**Junyi Cao**

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The digital twins (DT) and parallel intelligence recently play a central technological role in the emerging global scientific and research communities on intelligent systems. Taking place in Beijing, China, this conference series on DTPI aims to bring together academic scholars and industrial practitioners to share scientific and technological advances as well as to gain a deeper understanding of the digital twins generating real-virtual system interactions and resulting in parallel intelligence. DTPI’s particular topics also include various vertical applications of DTPI, including industrial Internet, transportation, energy, robotics, manufacturing, healthcare, etc.

The Session on Mechatronics Systems aims to exchanging enabling DTPI ideas for transforming mechatronics systems to be more intelligent, more sustainable, more flexible with more smartness embedded. To satisfy the growing entire lifecycle desire to improve the performance and efficiency of Mechatronics Systems, most engineering solutions are required to connect all development disciplines and enables simulation-driven teamwork. More importantly, smart components for gathering data about real-time status are integrated with a physical item. The components are connected to a cloud-based system that receives and processes all the data the sensors monitor. DTPI virtual and physical worlds allow analysis of data and monitoring of systems to head off problems before they even occur, prevent or reduce downtime, improve efficiency and even plan for the future by using simulations.

Submissions are invited in the following categories:

·Full papers (4 pages maximum) addressing relevant DTPI topics will be peer-reviewed and,

if accepted, presented at the workshop. Review, Tutorial and Vision papers are also welcome. <http://www.DTPI.org>

The workshop program will only include papers of the highest standard as selected by the TPC, in accordance with the IEEE guidelines. All manuscripts will be accepted with the understanding that the authors will present them at the DTPI Conference. At least one author of an accepted paper will be required to register for the conference before uploading the final version. Accepted manuscript will be presented either in oral or poster format. Accepted papers will be included in the digital in the conference “preprints” and published in the online workshop proceedings. All papers and invited session proposals must be submitted through the workshop website and conform to the policy found therein. Accepted papers will be submitted for inclusion into IEEE Xplore subject to meeting IEEE Xplore's scope and quality requirements.

Conference Awards:

·The DTPI Best Young Scholar Paper Prize

·The DTPI Best Poster Prize

·The DTPI Best Paper Prize

·The DTPI Best Practice Prize

**General Chairs**

**Technical Program Chairs**

**Financial Chair**

**Local Arrangement Chair**

**Publication Chairs**

**Publicity Chairs**

· **Submission Due** May. 15, 2021 · **Notification of Acceptance** Jun. 15, 2021

· **Submission of Final Paper** Jun. 30, 2021

**KEY DATES (2021)**