Data Science and Systems

As an interdisciplinary area, Data Science draws scientific inquiry from a broad range of subject areas such as statistics, mathematics, computer science, machine learning, data mining, optimization, information retrieval, databases, cloud computing, social science, network science, computer vision, natural language processing, etc. Data Science is on the essence of deriving valuable insights from data. With the continuing data explosion in many fields, such as sciences and engineering, finance, media, online information resources, it is necessary to develop data intensive systems to process such large volumes of data. This brings up many research issues, in forms of capturing and accessing data effectively and efficiently, processing it while still achieving high performance and high throughput, and storing it efficiently for future use.

The 7th IEEE International Conference on Data Science and Systems (IEEE DSS-2021) is the next event in a series of successful events, i.e., DSDIS-2015, DSS-2016, DSS-2017, DSS-2018, DSS-2019 and DSS-2020. The main conference will be held on 17th-19th December 2021 at Haikou, China, and will provide a prime international forum for researchers, industry practitioners and domain experts to exchange the latest advances in Data Science and Data Systems as well as their synergy. The DSS 2021 topics include, but are not limited to the following:

IEEE DSS-2021 Tracks and Topics

Track 1: Data Science

- ✧ Foundational Theories of Data Science
- ✧ Data Classification and Taxonomy
- ✧ Data Metrics and Metrology
- ✧ Data Analytics
- ✧ Social Network Analysis and Mining
- ✧ Security, Privacy and Trust in Data

Track 2: Data Processing Technology

- ✧ Data Representation and Processing
- ✧ Machine Learning and Deep Learning
- ✧ Graph Neural Networks
- ✧ Semi-supervised and Unsupervised Learning
- ✧ Statistical, Mathematical and Probabilistic Modeling and Theories
- ✧ Information Retrieval
- ✧ Data Visualization

Track 3: Data Systems

- ✧ Storage and File Systems
- ✧ High Performance Access Toolkits
- ✧ Compiler and Runtime Support
- ✧ Real-time Data Intensive Systems
- ✧ Multi/many-core Platforms
- ✧ Big Data and Cloud Computing

Track 4: Data Applications

- ✧ Business and Finance Applications
- ✧ Industrial Data Applications
- ✧ Bioinformatics Applications
- ✧ Healthcare and Medical Services
- ✧ Applications in Soil and Water
- ✧ HPC Systems for Data Applications
- ✧ Future Data Applications

Special Issues

1. **IEEE Transactions on Intelligent Transportation Systems**
SI: Graph-based Machine Learning for Intelligent Transportation Systems
2. **IEEE Transactions on Intelligent Transportation Systems**
SI: Data Science for Cooperative Intelligent Transportation Systems
3. **IEEE/ACM Transactions on Computational Biology and Bioinformatics**
SI: Deep Learning-Empowered Big Data Analytics in Biomedical Applications and Digital Healthcare
4. **IEEE Transactions on Network Science and Engineering**
SI: The Nexus Between Edge Computing and AI for 6G Networks
5. **MDPI Sensors**
SI: Recent Advances in Algorithm and Distributed Computing for the Internet of Thing
6. **IET Communications**
SI: Intelligent Metasurfaces for Smart Connectivity

Sponsored and Organized by

Important Dates

Workshop Proposal:	**Aug. 1, 2021**
Paper Submission:	**Sep. 30, 2021**
Notification of Acceptance:	**Oct. 22, 2021**
Camera-Ready Version:	**Nov. 7, 2021**
Conference Date:	**Dec. 17-19, 2021**

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Paper Submission

All papers need to be submitted electronically through the website https://edas.info/N28861 with PDF format. Each paper is limited to 8 pages (or 10 pages with over length charge) including figures and references using IEEE Computer Society Proceedings Manuscripts style (two columns, single spaced, 10 fonts). For further information, please visit our website: http://www.ieee-cybermatics.org/2021/dss/.