

The Fifth International Workshop on Next Generation Data-driven Networks (NGDN-2022)

Call for Papers

The technologies of computing, machine learning and deep learning have undergone a series of evolutionary innovation over the past decades and improved the networked systems performance and quality of human life significantly. By applying such techniques, the performance of computer networks including fixed computer networks, MANETs, VANETs, WSN, WBAN, FANET, etc., could be refined under the umbrella of network delivery capacity, resource availability and key metrics such as bandwidth, jitter, throughput, transmission delay, and availability.

In the past three years, NGDN was organized in UK (IUCC 2018), Shenyang China (IUCC 2019), Exeter UK (ISPA 2020), and Shenyang China (TrustCom 2021). This autumn, the NGDN workshop will be in-conjunction with the 21th IEEE International Conference on Trust, Security and Privacy in Computing and Communications (IEEE TrustCom-2022) held in Wuhan, China, 28-30 October, 2022. NGDN-2022 Summer aims to solicit original and previously unpublished papers addressing research challenges and advances towards the design, implementation and evaluation of data communication technologies, systems, machine learning and data mining.

Topics of interest include, but are not limited to following

Topics:

- Data-driven mobile computing and wireless communications
- Data-driven computer networks
- Data-driven network protocols
- Data-driven telecommunications
- Data-driven based network trust, security, and privacy
- Digital-twin networks
- Air-ground networks
- Big data-based 5G networks

- Data-driven software defined networking (SDN)
- Machine learning and deep learning technologies for networking
- Network-based models and optimization algorithms
- Data-driven social network analysis
- Internet of Things (IoT) and big data
- Machine learning and data mining from multimedia in social networks
- Data-driven network models and applications such as intelligent transport systems
- Cloud computing and applications
- System performance analysis
- Data mining, data quality, data visualization
- Data Center operation and maintenance (power/water/central heating supply etc.)
- Data Center management and optimization
- Big Data-based network planning and optimization
- Big Data analysis of users (user group/user behavior/user track etc.)
- Big Data assisted telecom operation (customer maintain/value-added service etc.)
- Big Data analysis of mobile terminals (distribution/category/brand etc.)
- Next-generation networking to deal with COVID-19
- Next-generation networked trust and security

Submission Guideline:

Authors are invited to submit manuscripts reporting original unpublished research and recent developments in the topics related to the workshop. The length of the papers is up to 6 pages (or 8 pages with over length charge, using IEEE Computer Society Proceedings Manuscripts style: two columns, single-spaced), including figures and references, using 10 fonts, and number each page. Papers should be submitted electronically in PDF format (or postscript). For paper submission, please submit paper via IEEE Trustcom EDAS site <https://edas.info/N29640> and then select Workshop 5: Next Generation Data-driven Networks, or via NGDN 2022 EDAS site <https://edas.info/newPaper.php?c=29640&track=112546>

All papers will be peer reviewed and the comments will be provided to the authors. The accepted papers will be published together with those of other TrustCom 2022 workshops by the IEEE Computer Society Press (indexed by EI). More information is available on IEEE TrustCom website: <http://www.ieee-hust-ncc.org/2022/TrustCom/>

General Chairs:

Liang Zhao, Shenyang Aerospace University, China

Ahmed Al-Dubai, Edinburgh Napier University, UK

Lexi Xu, China Unicom, China

Jiaying Shang, Chongqing University, China

Ammar Hawbani, University of Science and Technology of China, China

Jiajia Li, Shenyang Aerospace University, China

Xianwei Li, Bengbu University, China

Important Dates:

Submission Deadline: 30 July 2022

Notification: 15 August 2022

Camera-Ready: 22 September 2022