



## Workshop on Data Driven Intelligence for Networks and Systems (DDINS)



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### Important Dates

- ❖ Paper submission deadline:  
**January 20, 2022**
- ❖ Notification of acceptance:  
March 06, 2022
- ❖ Camera-ready papers:  
March 15, 2022

### Submission link

<https://edas.info/N28800>

### Webpage link

TBD

### Scope

Network traffic is expected to grow exponentially in the next decade thanks to the advances in smart devices, Internet of Things (IoT) and cloud computing. Not only the volume of the traffic is increasing, the characteristics of the traffic are also becoming more diverse. While many advanced communication technologies have been proposed to push up the network capacity, increasing capacity alone is inadequate to deal with the traffic diversity. To properly manage traffic diversity, different but coherent strategies are needed at different protocol layers, and this often results in complex designs in the network which are difficult to deploy and manage. The recent advancement in artificial intelligence (AI) technology has provided a promising approach to deal with complex problems faced in the network design and operation. The trend towards highly integrated networks with diverse underlying access technologies to support simultaneously multiple vertical industries has demanded complex operation in the network. This represents a great challenge in network design.

### Topics

This workshop focuses on applying AI technologies to deal with the design complexity in wireless networks, particularly the machine learning techniques that are based on empirical or simulated data. Topics that may apply data driven intelligence to manage the complexity of a smart wireless network include, but not limited to:

- Quality of Service (QoS) and Quality of Experience (QoE) support
- Radio resource allocation and transmission scheduling
- Medium access control design
- Data centers and cloud systems
- Radio access technology selection
- Spectrum sharing in intra- and inter-tier HetNets
- Traffic load estimation and resource reservation
- User mobility prediction and handover support
- Network fault detection and self-healing
- Network self-configuration and self-organization
- Intrusion detection and self-protection

### Paper Submission

Submitted papers must represent original material which is not currently under review in any other conference or journal and has not been previously published. Paper length should not exceed five-page standard IEEE conference two-column format (including all text, figures, and references). Please see the Author Information page for submission guidelines in the IEEE ICC 2022 website <https://icc2022.ieee-icc.org/authors/call-submissions>. All submitted papers will go through a peer review process. All accepted and presented papers will be included in the IEEE ICC 2022 proceedings and IEEE digital library. IEEE reserves the right to exclude an accepted and registered but not presented paper from the IEEE.