(D2C-ML&AI): Predictive and Learning approaches based on Distributed-to-Centralized Machine Learning and Artificial Intelligence techniques in Management of Large-Scale Internet of Things networks in Smart Cities

in conjunction with **22nd International Conference on Distributed Computing and Networking (ICDCN)**
Nara, Japan, 8 January 2021

ML and AI algorithms and techniques are overgrowing and have been continuously changing and improving smart predictive approaches through different use cases, domains, and scenarios, such as Smart Cities. However, one of the main limiting factors which prevent many ML tasks is the need for huge and diverse training datasets. In Smart Cities, widely distributed IoT devices networks are continuously capturing various environmental city events and producing many data/datasets. Collecting many datasets may provide several facilities for the data stakeholders in the Smart Cities, but several challenges raise when the exponential growth of city-data is stored.

The first series of the international 3SCity-E2C workshops were organized, IEEE 3SCity-E2C, in conjunction with IEEE International Conference on Mobile Data Management (IEEE MDM 2020). The second series of the 3SCity-E2C workshop focuses on Machine Learning (ML) and Artificial Intelligence (AI) challenges in smart cities mainly focus on **distributed-to-centralized ML and AI techniques (D2C-ML&AI)**.

The workshop provides a forum to discuss the theoretical foundations and original technical contributions of building "Predictive and Learning Approaches based on ML and AI in Large-Scale Internet of Things (IoT) networks of Smart Cities." We are interested in novel proposals based on Edge-to-Cloud computing solutions by bringing together industry, academia, engineers, and researchers. Proposals can contribute to **all different domains of the Smart Cities (such as healthcare, energy, and grid)** as well as **different data analysis scopes (such as cybersecurity challenges and solutions for threat and attack detection, and resource allocation and consumption)**.

Topics

- **Track 1- Large-Scale IoT Management & ML/AI**
  - **Sub-track I- Different business domains of smart cities (e.g., building, Energy Management System (EMS), grid, e-health, and automated vehicles) & ML/AI**
  - **Sub-track II- Edge-to-Cloud orchestration & ML/AI**
  - **Sub-track III- Performance and Economic Efficiency & ML/AI**
- **Track 2- Cybersecurity & ML/AI**
  - **Sub-track I- Malware & ML/AI**
  - **Sub-track II- Blockchain & ML/AI**
- **Track 3- Resource Management & ML/AI**

+ More details information available in "**https://fmezen.no/3scity-e2c-workshop-2021/**"

Important dates

All accepted papers will be published in the proceedings of the main conference papers as part of the ACM International Conference Proceedings Series (ICPS) and will be indexed by the ACM Digital Library (CORE2018 Rank B). Also, authors of top papers will be invited to submit the extension of their quality work to the special issue of the MDPI journal – Networks Section, «Network Management: Advances and Opportunities. »

- **Paper Submission Deadline:** August 9th, 2020
- **Notification of Paper Acceptance:** September 14th, 2020
- **Camera-readv Deadline:** October 20th. 2020

Workshop Organizer & Idea Creator

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Keynote Speakers

TBA

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ICDCN