Preface to JAISE 14(4)

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1. This issue

This regular issue of JAISE is composed of four articles. The review process for the manuscripts in this issue was supervised by our editors Brenda Bannan, Jeannette Chin, Ehsan Adeli, and Lukas Esterle, whom we thank for their service.

Various technological advances converge in developing smart city applications. The concept of a smart city is evolved from making use of large amounts of data for decision making in the various aspects of daily life. The manuscript "**Probabilistic data structures in smart city: Survey, applications, challenges, and research directions**" by Kumar and Singh provides a survey on the various aspects of designing smart city applications. It discusses devices used for data collection, processing, storage, retrieval, analysis, and decision making. Probabilistic data structures are proposed as a technique for handling big data with real-time responses. The paper also sets forth a discussion on current research trends, challenges, existing application of the proposed data structure along with research gaps and future directions.

Several computing paradigms have emerged based on IoT technology to realize the complex hyperspace associated with cyber physical social thinking hyperspace. While a set of principles that define the related paradigms exists, a unified and appropriate definition of these principles is still a challenge. The manuscript "**Paradigms for the conceptualization of cyber-physical-social-thinking hyperspace: A thematic synthesis**" by Macías and Navarro surveys the existing literature about IoT and their related paradigms to fit the requirements of the target system. Cyber-physical-social systems are identified as the paradigm focusing on social and human factors that better realizes the complex hyperspace of the smart world.

Existing deep learning techniques have made great progress in detecting traffic signs. However, there are still many unsolved challenges in employing any available contextual information and sensing scale variations to efficiently detect small and ambiguous traffic signs. The manuscript "**ReYOLO: A traffic sign detector based on network reparameterization and features adaptive weighting**" by Zhang et al. proposes a new traffic sign detection network named ReYOLO that replaces the conventional convolutional block with modules built by structural re-parameterization methods, thus decoupling the training structures and the inference structures using parameter transformation. This allows the model to learn more effective features and achieve adequate performance scores in conventional traffic sign datasets.

The manuscript "**Smart building evacuation system with hybrid network based CNC-C architecture**" by Raja et al. proposes a path-planning algorithm with a hybrid network-based CNC-C (Cooperative Network Coded-Communication) architecture for a smart evacuation system. The proposed technique uses a combination of parameters such as the building condition, hazard estimates, path capacity, along with the occupant's age, speed and health status, to generate possible evacuation routes. The paper evaluates the performance of the proposed method using a four-story shopping mall as a building model and examines the performance of various test cases for abnormal event management.

2. Upcoming issues

The following is a list of upcoming issues of JAISE:

– September 2022: Regular Issue.
– November 2022: Regular Issue.
– January 2023: Thematic Issue on Intelligent IoT for Autonomous Control and Ambient Intelligence.
– March 2023: Regular Issue.
– May 2023: Thematic Issue on Current Trends in Energy Management, Sustainability and Security for Intelligent Environments.
– July 2023: Regular Issue.

More information on the call for papers to the future issues is available on the webpage of JAISE at: iospress.com/journal-of-ambient-intelligence-and-smart-environments.