Preface to JAISE 14(5)

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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 Jerry Chun-Wei Lin, Carles Gomez, Björn Gottfried, and Andrés Muñoz, whom we thank for their service.

With the recent pandemic (still ongoing) and the possibility that similar situations may develop in the near future, the use of technology to assess the air quality of living and work environments in real-time has become a subject of attention. **A low-cost air quality monitoring system based on internet of things for smart homes**, by Mehmet Taştan, reports results of a project on using IoT in measuring indoor air quality. This was achieved with a low-cost system and the article reports advantages for the proposed method such as modularity, scalability, low cost, portability, easy installation, and open source technologies.

Design of Internet of Things enabled personalized healthcare device for vital signs monitoring, by A. Pravin Renold and K.V. Ranjith Kumar, also reports on the design and prototype of an Internet of Things enabled personalized healthcare device for monitoring human vital signs. The hardware prototype is developed with a low-cost Wi-Fi enabled embedded board known as NodeMCU.

Feature selection by machine learning models to identify the public's changing priorities during the COVID-19 pandemic, by Kenan Mengüç and Nezir Aydın, discusses the results of a machine learning algorithm applied to data sets on citizens mobility trends during the pandemic. It considers 39 different districts of Istanbul and employs 82 features in making comparisons with similar data available from other cities in the world. This work contributes to the understanding of city life during the pandemic and hints on what people in cities consider important during a pandemic, which can be valuable in similar future contexts.

A highly efficient garbage pick-up embedded system based on improved SSD neural network using robotic arms, by Shih-Hsiung Lee and Chien-Hui Yeh, presents a solution on garbage classification by using object detection technology for garbage sorting. This paper proposes a highly efficient garbage pick-up embedded system, where detection is optimized based on the Single Shot MultiBox Detector (SSD) neural network architecture and reduced model parameters. The experimental results show that the modified model can accurately identify garbage types with a speed close to 28 frames per second on NVidia Jetson TX2, and an accuracy rate of approximately 87%.

2. Upcoming issues

The following is a list of upcoming issues of JAISE:

– November 2022: Regular Issue.

– January 2023: Thematic Issue on Intelligent IoT for Autonomous Control and Ambient Intelligence.
– April 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.