

The metrics of Infocommunications Journal keep improving

Pal Varga

INFOCOMMUNICATIONS Journal has received its metrics for the last year, and we are happy to report that they all show an increasing trend. The citations have almost doubled, and the SCR index has improved 1.5 times compared to the previous period. The journal has kept its Q3 place that was gained last year. Although we have not received an official impact factor yet, the impact score is 1.16, which is a very good indicator – even makes us hopeful for the near future. We keep the scientific and publication standards of the Infocommunications Journal high and keep improving these metrics. The current issue is over 100 pages long, a record number for the journal.

Let us have a brief overview of the articles included in the current, second 2022-issue of the Infocommunications Journal.

In their paper, Ákos Leiter et al. present an extensive survey on the joint domain of PMIPv6 and SDN mobility management, detailing the available SDN-integrated network-based techniques and architectures. Their paper aims to be comprehensive, taking into account all possible architectures in the field, and provides a summarizing table of the key functional indicators related to the surveyed architectures and papers.

Regarding delay-constrained optical fronthaul design for 5G and beyond, Abdulhaim Fayad and Tibor Cinkler provide a cost-effective solution. They propose an integer linear program (ILP) that simultaneously optimizes BBU (baseband unit) number and placement together with the fronthaul deployment through simulation to achieve the goal of minimum CAPEX. Among the many results, they found that free-space optic solutions can be more cost-efficient than fiber optic when weather conditions are supportive.

Kotaru Kiran and D. Rajeswara Rao present an analytical review on vertical handover management technologies in 5G heterogeneous network setup. The authors categorized the research papers in their approach on handover, distinguishing them as radio access-based, self optimization-based, SDN-based, authentication-based, eNodeB-based, neural network-based and blockchain-based approaches, and discussed the various issues and research gaps within.

Tamás König and Lajos Nagy have been motivated to decrease the noise emission of switching-mode power supplies that are used on satellites. They simulated and measured the noise reduction effect of the interleaving method in the case of a system with two DC-DC Buck converters. They found that it is a complex problem and that the phase delay of the converters can be optimized in order to improve the noise reduction.

Mohammad Bawaneh and Vilmos Simon present a unique method on time series handling called Adaptive Simulated Annealing Representation (ASAR). The root of the idea is to consider the time series representation as an optimization

problem where the objective is to preserve the time series shape and reduce the dimensionality. When comparing ASAR with other methods, they found it superior in compression ratio, as well as great computational performance when used for algorithms such as 1-NN classification and K-Means clustering.

Yasir Ahmed Idris Humad and Levente Dudás present the capabilities of the wideband spectrum monitoring system for the MRC-100 3-PocketQube satellite, especially in terms of measuring radio frequency signals, with the limited size, weight, and power consumption of the designed system. They found that this architecture has enough sensitivity and dynamic range for the purpose, even at a very wide bandwidth.

Zoltán Pödör and Anna Szabó introduce a practical framework and a complex application to manage synthetic sensor data. This framework can be used for generating, storing, and visualizing of real-looking synthetic sensor data sequences that can be used in various test scenarios.

The environment of education and professional meetings has changed dramatically in the last two years due to the worldwide COVID-19 pandemic. Besides providing a survey on Quality of Experience (QoE) for various video-transmission-related services, Tushig Bat-Erdene et al. analyzed the QoE of content sharing in online education and meetings in actual real-life scenarios and shared some fascinating findings in their paper.

Fatima Es-sabery et al. provides a comparative study of various feature extractors within the sentiment analysis domain that aims at recognizing and categorizing emotions in textual data. As one of the important results, they found that the combination of CNN+FastText outperforms all other combinations in terms of accuracy, precision, recall, and F1 measure.

With this brief overview, Infocommunications Journal wishes a great summer period, as well as peace and perseverance for the rest of 2022, to all its partners.



Pal Varga received his Ph.D. degree from the Budapest University of Technology and Economics, Hungary. He is currently an Associate Professor at the Budapest University of Technology and Economics and also the Director at AITIA International Inc. His main research interests include communication systems, Cyber-Physical Systems and Industrial Internet of Things, network traffic analysis, end-to-end QoS and SLA issues – for which he is keen to apply hardware acceleration and artificial intelligence, machine learning techniques as well.

Besides being a member of HTE, he is a senior member of IEEE, where he is active both in the IEEE ComSoc (Communication Society) and IEEE IES (Industrial Electronics Society) communities. He is Editorial Board member of the Sensors (MDPI) and Electronics (MDPI) journals, and the Editor-in-Chief of the Infocommunications Journal.