

Infocommunications Journal

A PUBLICATION OF THE SCIENTIFIC ASSOCIATION FOR INFOCOMMUNICATIONS (HTE)

December 2025 Volume XVII Number 4 ISSN 2061-2079

Authors, co-authors of the December 2025 issue	1
<i>PAPERS FROM OPEN CALL</i>	
Evaluation of Embedding Models for Hungarian Question-Answer Retrieval on Domain-Specific and Public Benchmarks	<i>Margit Antal</i> 2
PAPR Reduction in OTSM Systems: A Comparative Analysis of SLM Techniques with Novel Phase Matrix Designs	<i>Hsin-Ying Liang, and Chuan-Bi Lin</i> 12
Design of Enhanced Dual Band Rectenna with Binary Coding Technique of Genetic Algorithm: Design of Enhanced Dual Band Rectenna with BCT-GA	<i>Yasmeen Taha Yaeen, Mohd Fadzli Mohd Salleh, and Taha A. Elwi</i> 20
Significant performance improvement in polarization-diversity GMSK reception using atypical filters	<i>Ádám Kiss, and László Schäffer</i> 26
AMC-Transformer: Automatic Modulation Classification based on Enhanced Attention Model	<i>Yuewen Xu</i> 32
Blind Source Separation Spectrum Detection Method Based on Wavelet Transform and Singular Spectrum Analysis	<i>Qian Hu, Zhongqiang Luo, and Wenshi Xiao</i> 41
Performance Evaluation of FBMC with optimal subcarrier spacing for 5G & beyond Communications	<i>T. Padmavathi, Kusma Kumari Cheepurupalli, and R. Madhu</i> 49
Dynamic XTEA Optimization and Secure Key Management for Embedded Microcontroller-Based SDN Systems in Smart Cities	<i>Sunil Kumar Shah, Raghvendra Sharma, and Neeraj Shukla</i> 58
The Effect of Large Jumps in a Ring-Like Quantum Network	<i>Márton L. Márton, and László Bacsárdi</i> 72
<i>CALL FOR PAPER / PARTICIPATION</i>	
IECON 2026 / The 52nd Annual Conference of the IEEE Industrial Electronics Society Doha, Qatar	81
<i>ADDITIONAL</i>	
Guidelines for our Authors	80

Technically Co-Sponsored by





Who we are

Founded in 1949, the Scientific Association for Infocommunications (formerly known as Scientific Society for Telecommunications) is a voluntary and autonomous professional society of engineers and economists, researchers and businessmen, managers and educational, regulatory and other professionals working in the fields of telecommunications, broadcasting, electronics, information and media technologies in Hungary.

Besides its 1000 individual members, the Scientific Association for Infocommunications (in Hungarian: HÍRKÖZLÉSI ÉS INFORMATIKAI TUDOMÁNYOS EGYESÜLET, HTE) has more than 60 corporate members as well. Among them there are large companies and small-and-medium enterprises with industrial, trade, service-providing, research and development activities, as well as educational institutions and research centers.

HTE is a Sister Society of the Institute of Electrical and Electronics Engineers, Inc. (IEEE) and the IEEE Communications Society.

What we do

HTE has a broad range of activities that aim to promote the convergence of information and communication technologies and the deployment of synergic applications and services, to broaden the knowledge and skills of our members, to facilitate the exchange of ideas and experiences, as well as to integrate and

harmonize the professional opinions and standpoints derived from various group interests and market dynamics.

To achieve these goals, we...

- contribute to the analysis of technical, economic, and social questions related to our field of competence, and forward the synthesized opinion of our experts to scientific, legislative, industrial and educational organizations and institutions;
- follow the national and international trends and results related to our field of competence, foster the professional and business relations between foreign and Hungarian companies and institutes;
- organize an extensive range of lectures, seminars, debates, conferences, exhibitions, company presentations, and club events in order to transfer and deploy scientific, technical and economic knowledge and skills;
- promote professional secondary and higher education and take active part in the development of professional education, teaching and training;
- establish and maintain relations with other domestic and foreign fellow associations, IEEE sister societies;
- award prizes for outstanding scientific, educational, managerial, commercial and/or societal activities and achievements in the fields of infocommunication.

Contact information

President: **FERENC VÁGUJHELYI** • elnok@hte.hu

Secretary-General: **GÁBOR KOLLÁTH** • kollath.gabor@hte.hu

Operations Director: **PÉTER NAGY** • nagy.peter@hte.hu

Address: H-1051 Budapest, Bajcsy-Zsilinszky str. 12, HUNGARY, Room: 502

Phone: +36 1 353 1027

E-mail: info@hte.hu, Web: www.hte.hu