INTERNATIONAL CONFERENCE

«ENGINEERING MANAGEMENT OF COMMUNICATION AND TECHNOLOGY» (EMCTECH)

IEEE Conference Record #63049

Vienna, Austria
October 16 – 18, 2024

FINAL INFORMATION AND STATISTICS

"Connecting Development of Technology,
Engineering Management and Personal Skills"

International conference

"ENGINEERING MANAGEMENT OF COMMUNICATION AND TECHNOLOGY" (EMCTECH) was held on October 16-18, 2024 in Vienna (Austria)

On EMCTECH-2024 was invited researchers, educators, managers, and students, which research activity, case studies or best practices, shedding light on the theory or practice of engineering, technology, innovation management, or development of personal skills, business and entrepreneurship.

CONFERENCE ORGANIZERS:
- INSTITUTE OF ELECTRICAL AND ELECTRONICS ENGINEERS (IEEE);
- INSTITUTE OF RADIO AND INFORMATION SYSTEMS (IRIS ASSOCIATION, VIENNA, AUSTRIA)
- RUSSIA SECTION TEM/GRS/ITSS JOINT CHAPTER

CONFERENCE EMCTECH-2024 WILL PRODUCE A PUBLICATION. All accepted and presented Papers following the conference will be submitted for inclusion into IEEE Xplore and will be submitted also for indexing in Scopus and Web of Science data bases.

FIELD OF INTEREST ON EMCTECH-2024:
- Technology advancements in IoT devices, artificial Intelligence, Broadcasting, wire and optical communication;
- New opportunities using technology in BioMedical, Farming, Transportation, and Cyber Physical Systems;
- Digital Transformation and Data Risk Management in ICT/Telecommunication, smart cities, public policy;
- Engineering technology leading to social, political and economical change.

On EMCTECH-2024 IEEE in cooperation with Institute of Radio and Information Systems (IRIS) provide various opportunities for publishing results of research, based on international scientific and technical cooperation of researchers, PhD students and students in the field of radio and information systems.

EMCTECH TOTAL STATISTICS

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Year	Applications	Accepted papers	% of accepted papers	IEEE Members - Conference Participants	Conference participants	Conference authors	Organizations	Cities	Countires/ Continents
2020	95	57	60	10	201	139	38	17	12/5
2021	46	28	60	10	80	65	31	25	22/5
2022	95	46	48	10	140	122	44	29	11/3
2023	46	24	52	10	180	72	20	14	8/2
2024	50	26	52	8	160	60	20	17	10/4

The table shows statistical data based on the conference results (four years). At the same time, the number of submitted reports changed despite external conditions, and the number of co-authors and their geographical location varied from year to year.

The papers which are discussed at the conference can be divided into the following topics:

TECHNOLOGY ADVANCEMENTS IN IOT DEVICES & ARTIFICIAL INTELLIGENCE

SMART CONTROL TECHNOLOGY IN TRANSPORTATION, FARMING AND CYBER PHYSICAL SYSTEMS

BROADCAST TECHNOLOGIES ADVANCEMENTS – RADIO, IP, CELLULAR, ON DEMAND, INTERACTIVE

TECHNOLOGY ADVANCEMENTS IN WIRE AND OPTICAL COMMUNICATION AND CONTROL SYSTEMS

DIGITALIZATION PROCESS AND SECURITY MANAGEMENT IN DIGITAL SOCIETY

DIGITAL TRANSFORMATION AND DATA RISK MANAGEMENT IN ICT/TELECOMMUNICATION

DEVELOPING PERSONAL SKILLS FOR LEADING INNOVATION INITIATIVES

20 companies took part in the conference:

1. Almaty University of Power Engineering and Telecommunications named after Gumarbek Daukeev, Almaty, Kazakhstan
2. Application Development, Wayne, NJ, USA
3. Cloud Computing and SaaS Platforms, Sunnyvale, USA
4. Engineering and Information Technology, Shiraz University, Shiraz, Iran
5. ENS Paris-Saclay, Gif-sur-Yvette, France
6. Enterprise Data Products in Digital Advertising, Saratoga, USA
7. Financial University under the Government of the Russian Federation, Moscow, Russia
8. Institute of Radio and Information Systems (IRIS), Vienna, Austria
9. International Information Technologies University, Almaty, Kazakhstan
10. International Telecommunication Union (GCBI ITU), Switzerland
11. Moscow Technical University of Communication and Informatics, Moscow, Russia
12. National Central University, Taoyuan, Taiwan
13. Northcentral University, San Diego, United States
14. P.G. Demidov Yaroslavl State University, Yaroslavl, Russia
15. Product Marketing & Development, Seattle, USA
16. Queensland University of Technology, Australia, Brisbane, Australia
17. Russian University of Transport (MIIT), Moscow, Russia
18. School of Software Engineering and Computer Science Afeka – the Academic College of Engineering, Tel Aviv, Israel
19. Tomsk State University of Control Systems and Radioelectronics, Tomsk, Russia
20. Yuri Gagarin State Technical University of Saratov, Saratov, Russia

Participants with reports from 17 cities and 10 countries took part in the conference:

1. *Almaty, Kazakhstan*
2. *Brisbane, Australia*
3. *Geneva, Switzerland*
4. *Gif-sur-Yvette, France*
5. *Moscow, Russia*
6. *San Diego, United States*
7. *Saratoga, USA*
8. *Saratov, Russia*
9. *Seattle, USA*
10. *Shiraz, Iran*
11. *Sunnyvale, USA*
12. *Taoyuan, Taiwan*
13. *Tel Aviv, Israel*
14. *Tomsk, Russia*
15. *Vienna, Austria*
16. *Wayne, NJ, USA*
17. *Yaroslavl, Russia*

1. *Australia*
2. *Austria*
3. *France*
4. *Iran*
5. *Israel*
6. *Kazakhstan*
7. *Russia*
8. *Switzerland*
9. *Taiwan*
10. *United States*

Some of reports were presented at a plenary session, the remaining reports were distributed over two sessions. The sessions were moderated by leading industry experts.

Plenary Session: Valery Tikhvinskiy, Doctor of Economics Science (2003), Ph.D. Degree in Radio engineering (1988), Member of European Standards Organization (ETSI), (TC/M2M, TC/ERM, TC/STQ) and oneM2M Partnership Project. Actively participated in ITU (ITU-R SG1), CEPT/ECC (ENC/WG RA, ENC/WG/FM). ITU Field Expert ID: 06169. ITU-D Mission: Erevan-2001 (Armenia), Sana'a-2005 (Yemen) and Astana (2014). Visit-Professor of Tunisian Telecommunication Institute (IsetCom, Tunisia) and International Information Technologies University (IITU, Kazakhstan), published over 350 scientific papers on Economic-legal, QoS – problems of telecommunications, Spectrum Management and EMC issues, author of 15-th books on Economic-legal and Technological issues of Internet of Things and 2G/3G/4G/5G/6G mobile communications.

Session 1: Vladimir Dokuchaev, Professor, Doctor of Technical Sciences, TEMIC Fellow, Member (Expert) of Group on Capacity Building Initiatives International Telecommunication Union (GCBI ITU), Switzerland, IEEE member. Author of more than 250 scientific and academic publications in the field of Telecommunication Networks Management, Teletraffic, Information Security, Data Risk Management, Human Capacity Building.

Session 2: Elena Korableva, Associate professor, Doctor of Philosophy, Specializing in Ontology and Gnoseology, author of more than 150 scientific publications. Her Academic interests are Ontology, Gnoseology, person in information-oriented society, humanitarian dimensions of intelligent networks.

The authors of the best reports, based on the decisions of the conference program committee, are annually awarded commemorative diplomas. After several years of EMCTECH international conference successful holding, one can conclude that these publications are in demand in the scientific community.

Based on the results of past EMCTECH conferences, in the engineering and technology community, there is no sharp increase in the number of co-authors and geography of participants. At the same time, having considered the topics of scientific articles submitted for review, we can conclude that this area of research is expanding, including a noticeable increase in the number of publications of artificial intelligence and widespread use of information technology.

The next EMCTECH conference – October 15-17, 2025
Vienna, Austria