

CEM 2024

The 14TH International Workshop On
Electromagnetic Compatibility (CEM 2024)
18-20 September 2024, Sibiu, România



The 14th International Workshop on
Electromagnetic Compatibility

CEM 2024

18 – 20 September 2024
Sibiu, Romania

- PROGRAMME -

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Wednesday, 18 September 2024

Venue: “Nicolae Bălcescu“ Land Forces Academy of Sibiu, Sibiu, Romania

13:00 - 15:00
ACCOMMODATION
PRELIMINARY INFORMATION

15:00 - 17:00
REGISTRATION OF PARTICIPANTS

Hall “Mareşal Prezan”

17:00 - 17:30
OPENING CEREMONY

17:30 - 18:30
Visit the campus of the „Nicolae Bălcescu” Land Forces Academy, Sibiu

18:30 - 19:00
POSTERS DISPLAY

20:00 - 22:00
WELCOME DINNER

Participation in the scientific event represents your consent for the processing of personal data

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Thursday, 19 September 2024

Hall “Mareşal Prezan” Section 1		Hall “Mareşal Averescu” Section 1	
09:00 - 10:30	INVITED LECTURES Chair: BESNIER Philippe (France)	INVITED LECTURES Chair: ROŞU Georgiana (Romania)	
09:00 - 09:30	INVITED SPEAKER: KARPOWICZ Jolanta (Poland) - ONLINE - Radiofrequency electromagnetic exposure of outdoor workers managing tourist river boat journeys <u>KARPOWICZ Jolanta</u> , GRYZ Krzysztof, ZRADZIŃSKI Patryk	INVITED SPEAKER: BĂDIC Mihai (Romania) Issues of validating electromagnetic shielding effectiveness measurements for conductive/magnetic materials <u>BĂDIC Mihai</u> , MORARI Cristian	
09:30 - 10:00	INVITED SPEAKER: BESNIER Philippe (France) Properties of electromagnetic reverberation chambers and their broad range of applications	INVITED SPEAKER: HELEREA Elena (Romania) New challenges and trends in electromagnetic shielding materials <u>HELEREA Elena</u> , CĂLIN Marius Daniel	
10:00 - 10:30	INVITED SPEAKERS: MICLĂUŞ Simona and PETRIŢA Teodor (Romania) Analysis methods to extract information from raw data provided by the fixed electromagnetic monitoring stations deployed by ANCOM in Romania <u>MICLĂUŞ Simona</u> , <u>PETRIŢA Teodor</u>	INVITED SPEAKER: MAKOTO Nagata (Japan) - ONLINE - Deployment of EMC-compliant IC chip techniques in design for hardware security	
10:30 - 10:45	COFFEE / TEA BREAK		

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Hall “Mareșal Prezan” Section 2		Hall “Mareșal Averescu” Section 2	
10:45 - 11:45	INVITED LECTURES Chair: MICLĂUȘ Simona (Romania)	10:45 - 11:45	INVITED LECTURES Chair: HELEREA Elena (Romania)
10:45 - 11:15	INVITED SPEAKER: ROWLEY Jack (UK) - ONLINE - A framework for reviewing RF-EMF policies for mobile communication networks and devices	10:45 - 11:15	INVITED SPEAKERS: SAVA Lilia (Republic of Moldova) (ONSITE) and ANTONINO-DAVIU Jose Alfonso (Spain) - ONLINE - Energy consumption in electric motors operating under different fault conditions <u>ANTONINO-DAVIU Jose Alfonso</u> , <u>HERRERA-GUACHAMIN Jonathan</u> , <u>DUNAI Larisa</u> , <u>TURCANU Dinu</u> , <u>SAVA Lilia</u>
11:15 - 11:45	INVITED SPEAKER: RĂDOI Emanuel (France) - ONLINE - Range-Doppler analysis of impulse radio ultra-wideband signals for indoor people detection	11:15 - 11:45	INVITED SPEAKER: ROȘU Georgiana (Romania) Engineering techniques for enhancing naval electromagnetic security and signature management <u>ROȘU Georgiana</u> , <u>BALTAG Octavian</u> [†]
11:45 - 12:15	ORAL PRESENTATIONS	11:45 - 12:15	ORAL PRESENTATIONS
11:45 - 12:00	Intelligent lift solutions for energy efficiency <u>DOROGAN Andrei</u> , <u>CERNEI Maria</u>	11:45 - 12:00	SAR deposition in head tissues at 3.5 GHz: does modulation matters? <u>MAFTEI Vivian-Mihaela</u> , <u>STANCA Remus</u> , <u>MICLĂUȘ Simona</u> - ONLINE -
12:00 - 12:15	Mathematical algorithms and applications in the analysis of photovoltaic systems <u>POPA Nicolae-Silviu</u> , <u>SAMOILESCU Gheorghe</u>	12:00 - 12:15	Case of radio interferences in civilian radio spectrum, along 20 years of spectrum monitoring <u>PETRIȚA Teodor</u>
12:15 - 12:30	COFFEE / TEA BREAK	12:15 - 12:30	COFFEE / TEA BREAK

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Hall “Mareșal Prezan” Section 3

Hall “Mareșal Averescu” Section 3

12:30 - 13:00

ORAL PRESENTATIONS

ORAL PRESENTATIONS

12:30 - 12:45

Restructurable optical attenuator
NISTIRIUC Pavel, TURCAN Dinu, CHIHAI Andrei, SAVA Lilia,
GRÎȚCO Roman

The influence of 5G services on sustainable economic growth
IACOVLEV Anton, MIROVSKI Vladimir

12:45 - 13:00

Possibilities of capturing and analyzing compromising emissions
from radio frequency sources
IONICĂ Cristian-Aurelian - **ONLINE** -

Transferable reference flicker generator
MORARI Cristian, POPESCU Mircea, CONSTANTIN Anghel,
CONSTANTINESCU Adrian-Daniel

13:00 - 14:00

LUNCH

Hall “Mareșal Prezan” Section 4

14:00 - 15:00

INVITED LECTURES

Chair: MICLĂUȘ Simona (Romania)

14:00 - 14:30

INVITED SPEAKER: MARINESCU Andrei (Romania) - **ONLINE** -
Wireless power transfer from high power to micro power for bio-medical systems

14:30 - 15:00

INVITED SPEAKER: DOBREF Vasile (Romania) - **ONLINE** -
Autonomous system for mines identification, and neutralization at sea
DOBREF Vasile, MOCANU Vlad

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Hall “Mareșal Prezan”

Section 4

15:00 - 15:30 ORAL PRESENTATIONS

15:00 - 15:15 Electromagnetic core valve for X and Y ray
NISTIRIUC Pavel, TURCAN Dinu, CHIHAI Andrei, SAVA Lilia, [GRITCO Roman](#)

15:15 - 15:30 Analysis of the TEMPEST risk levels associated with signals unintentionally generated by IT equipment
POPESCU Mircea, [POPESCU Călin](#), MORARI Cristian - **ONLINE** -

15:30 - 15:45 COFFEE / TEA BREAK

Hall “Mareșal Prezan”

Section 5

15:45 - 16:45 INVITED LECTURES

Chair: POPESCU Mircea (Romania)

15:45 - 16:15 INVITED SPEAKER: MOREGA Alexandru (Romania)
Electromagnetic field couplings
[MOREGA M.Alexandru](#), MOREGA Mihaela - **ONLINE** -

16:15 - 16:45 INVITED SPEAKER: NICOLAE Petre-Marian (Romania) - **ONLINE**
How to use the black-box model for low frequency static converters

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Section 5

16:45 - 18:15 ORAL PRESENTATIONS

16:45 - 17:00 Variable optical attenuator

NISTIRIUC Pavel, MIROVSKI Vladimir, CHIHAI Andrei, TURCAN Dinu, SAVA Lilia, TÎRȘU Valentina

17:00 - 17:15 Performance evaluation of MICROTİK routers according to electromagnetic compatibility testing standards

SAVA Lilia, TÎRȘU Valentina, PLĂMĂDEALĂ Constantin - **ONLINE** -

17:15 - 17:30 Permalloy target sintering and magnetron sputtering thin film deposition for EMI shielding applications

TSAKIRIS Violeta, TEIȘANU Aristofan Alexandru, POENARU Iuliana, PĂTROI Delia, MARINESCU Virgil Emanuel, TĂLPEANU Dorinel, MANEA Ciprian Alexandru - **ONLINE** -

17:30 - 17:45 Audio signal's powerline eavesdropping threat

VIZITIU Alexandru-Mădălin

17:45 - 18:00 Simulating the performance of 6G networks in urban and rural scenarios by using NYUSIM 4.0

SAVA Lilia, TÎRȘU Valentina, PETUȘCA Corina - **ONLINE** -

18:00 - 18:15 AI implications in security and resource management in IoT networks

HARALAMBIE Florin, HAZAPARU Sorin-Daniel, NICHITA Mihai-Virgil

20:00 - 22:00 DINNER

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Friday, 20 September 2024

Hall "Mareşal Prezan"

Section 1

09:00 - 10:00 Brief presentation of sponsors and exhibitors

Chair: POPESCU Mircea (Romania)

09:00 - 09:10 Technical session of Keytech Alba-Iulia (Romania)

09:10 - 09:20 Brief presentation of COMTEST SRL (Romania)

09:20 - 09:30 Brief presentation of MCL CONSULTS TELECOM (Romania)

09:30 - 09:40 Brief presentation of RomTek Electronics SRL (Romania)

09:40 - 09:50 Brief presentation of MarcTel S.I.T. SRL Bucureşti (Romania)

09:50 - 10:00 Brief presentation of Rohde & Schwarz (Romania)

10:00 - 11:15 POSTERS SESSION

Electromagnetic shielding complex alloys with aggressive media possible application

GEAMBAZU Laura Elena, MANEA Ciprian Alexandru *

Research on the characteristics and influencing factors of Romanian urban households' electricity consumption efficiency

LIHET Mihaela-Annamaria *, HORGOS Mircea, LUNG Claudiu, TÎRNOVAN Radu-Adrian

Measurement of electromagnetic field at a transformer from the electricity distribution station

BURADA Elena-Denisa *, VOICU Viorica, DUMBRAVĂ Ionel, NICOARĂ Tania

Electromagnetic field measurements performed by ICEMENERG in power stations

MOTORCEANU Marian, PURECE Cristian *

Open data for electromagnetic spectrum monitoring: opportunities and challenges

SÂRBU Annamaria *, ŞORECĂU Mirela, ŞORECĂU Emil

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11:15 - 11:30	COFFEE / TEA BREAK
12:00 - 18:00	SOCIAL PROGRAMME (TOUR WITH VISIT TO ALBA-IULIA city) LUNCH in Alba-Iulia city
19:00 - 19:30	AWARDING CEREMONY
19:30 - 20:00	CLOSING REMARKS
20:00 - 22:00	OFFICIAL DINNER

Saturday, 21 September 2024

09:00 DEPARTURE of PARTICIPANTS

SPONSORS



EXHIBITORS



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