

CAS 2026 PROGRAM

49th Edition
October 14-17, 2026,
Sinaia, ROMANIA



INTERNATIONAL SEMICONDUCTOR CONFERENCE

organized by
National Institute for Research and
Development in Microtechnologies -
IMT Bucharest



co-sponsored by
IEEE - Electron Devices Society



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CAS 2026

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Foreword

The International Semiconductor Conference (CAS) Organizing Committee is delighted to welcome you to CAS 2026!

The **International Semiconductor Conference (CAS)**, organised annually by the **National Institute for Research and Development in Microtechnologies – IMT Bucharest**, is a long-standing international forum for presenting advances in semiconductor technologies, micro- and nanoelectronics, and related fields.

Originally established as the **Annual Semiconductor Conference**, CAS became international in 1991 and adopted its current name in 1996. Since 1995, it has been an **official conference of the IEEE Electron Devices Society (EDS)**.

Initially focused on semiconductor devices, materials, integrated circuits, and their applications, CAS has progressively expanded its scope to **micro- and nanotechnologies, micro- and nanosystems, nanostructured materials**, and, more recently, **smart systems for biomedical and health applications**.

CAS 2026 Technical Programme

CAS 2026 offers a rich and engaging programme, with over 140 presentations organised into 3 plenary sessions (16 invited presentations), 16 oral sessions (74 presentations), and 6 poster sessions (53 posters), including 8 student paper sessions.

CAS 2026 Social Program includes:

- CAS 2026 Welcome Cocktail – Oct. 13, 19:30, Hotel Sinaia
- Trip to Rhein Sparkling Wine Cellars, Azuga: Tour and Tasting – Oct. 17, 14:00
- CAS 2026 Banquet including the Best Paper Awards ceremony – Oct. 17, 20:00, Hotel Sinaia

Thank you for being part of CAS and for your valuable contributions and engagement! We hope your time in Sinaia will be both rewarding and memorable, and we look forward to welcoming you again at the next edition of the conference.

1 October 2026

Miron Adrian DINESCU

Conference Chairman

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GENERAL INFORMATION

Venue and Dates

The conference will take place from **Wednesday, October 14, 2026 to Saturday, October 17, 2026, at Hotel Sinaia, Sinaia, Romania.**

Sinaia is a beautiful mountain resort located in the Carpathian Mountains, at 125 Km (by car or by train) from Bucharest, the capital of Romania. The weather in Sinaia is mild and sunny in October, the average temperature being about 10°C.

Technical Programme

The official language of the CAS Conference is English.

For the oral presentations, the authors should use PowerPoint or pdf format. The presentations time should be **20 minutes for contributed papers**, respectively **30 minutes for invited papers**, with 5 minutes for discussions included.

The poster sessions are scheduled on **Wednesday, Oct. 14 and Friday, Oct. 16**. The posters format should be A0 size. The poster panel will be marked with the corresponding code from the conference programme: Ex. P1.1 (P1=session code, 1=poster 1).

Workshop and Satellite events at CAS 2026:

- ⇒ **Workshop “Advanced responsive materials I (ARMAT)”**, organised in the frame of *the Excellence centre of advanced responsive materials*, Oct. 13, 2026, 14:00 – 17:00
- ⇒ **Workshop “Research Security, Ethics and Integrity”**, organized by IMT Bucharest in partnership with UEFSCDI and ANC, Romania, Saturday, Oct. 17, 2026, 14:00-17:00

Conference Secretariat

The Secretariat will be opened starting from **Tuesday, October 13, from 15:00 to 18:00**, and **daily from 08:30 to 11:00 and from 14:00 to 16:00**, during the conference.

Social Events

Welcome Cocktail: Tuesday, October 13, 19:30 h, Hotel Sinaia Restaurant.

Trip to Rhein Sparkling Wine Cellars: Tour and Tasting, Azuga: Saturday, October 17, 14:00 – 17:00

CAS 2026 Banquet, including the Best Papers and Best Student Paper Awards ceremony: Saturday, October 17, 20:00, Hotel Sinaia Restaurant.

For the registered participants, the costs of all social events are included in the conference fee.

Tourism Opportunities

The small town of Sinaia, with its famous Peles Castle, formerly the Summer Royal Residence, is a well-known mountain resort in Romania. Sinaia, the so-called "Pearl of Carpathians" (Bucegi chain, with 2500 meters highest altitude) is situated in the Prahova valley and it is the favourite place outside Bucharest for international conferences and high-level meetings.

By foot, by car, by bus or by cable transportation, you can reach very interesting places, like **Peles Royal Castle**, from the XIX century, which is the most visited museum in Romania, and to other places of cultural and historical interest: **Pelisor Castle, Sinaia Casino, George Enescu Memorial House, Sinaia Monastery.**

- **Peles Castle Museum**, within a walking distance (20 min.) from Hotel Sinaia. Opening hours: Wednesday 10:00-17:00; Thursday-Sunday 09:15-17:00.
- **Sinaia Casino**, in the Central Park of Sinaia. Opening hours: 10:00 – 17:00
- **George Enescu Memorial House, Sinaia:** Opening hours: Tuesday – Sunday 09.00 – 16.00.

A few kilometres North from Sinaia, **the Cantacuzino Castle, situated in the town of Busteni**, is surrounded by waterfalls, caves and fountains and is in top castles in Romania in terms of architecture. Opening hours: 09:00 – 21:00, Monday – Sunday.

The Bran Castle, in Bran, from the XIV century, recently related to the famous “Dracula”, may be visited in a few hours trip. Opening hours: Monday: 12:00 – 16:00, Tuesday –Sunday: 09:00 – 16:00.

Mountain trips near Sinaia

The rocky landscape of the Prahova valley is a paradise for mountain climbers.

You may reach the height of 2000 meters by cable car or by car and enjoy a walk, without any special equipment. **A few** chalets in the Bucegi Mountains may be reached by car (Cota 1,400 - elevation 1,400 m, Cuibul Dorului - 2,100 m, Poiana Stanii - 1,300 m etc.).

In other cases, it is a better idea to go **by cabin**: you may take the cabin from Hotel Silva in Busteni (10 Km North of Sinaia, by bus, or minibus) and you will reach immediately Babele ("the Old Ladies" rocks) - 2,206 m, from there you may take (for about two hours) the footpath to Peak "Omu" - 2,505 m, the highest peak and chalet in the region.

An easiest trip from the Babele chalet is to go South, following the footpath to Piatra Arsa - 1,950 m, and then to the cabin station Cota 2,000. The same point may be reached by using another cabin (in two steps), from the centre of Sinaia (behind the New Montana Hotel) - Sinaia - Cota 1,400 and Cota 1,400 - Cota 2,000. Other nearby mountain attractions could be found on the Prahova Valley, in towns like Poiana Tapului, Busteni, Azuga, Predeal, Brasov and Poiana Brasov.

CAS 2026 Plenary speakers

Prof. Dr. Sorin COTOFANA, Delft University of Technology, the Netherlands

"On revient toujours à ses premiers amours: Threshold Logic"

Prof. Leonid CULIUC (KULYUK), Moldova State University, Institute of Applied Physics, Moldova

"Radiative Properties of Halogen Molecule-Intercalated Transition Metal Dichalcogenide Crystals"

Prof. Danilo DEMARCHI, Department of Electronics and Telecommunications, Politecnico di Torino, Italy

"Wearable Plant Sensors for Climate-Smart Agriculture: Let the Plants do the talking"

Dr. James KERFOOT, Park Systems UK Ltd, Nottingham, United Kingdom

"Atomic Force Microscopy for Nanoscale Morphological and Electrical Characterisation of Semiconductors"

Günter KRASSER, Infineon Technologies Romania

"Strategy. Commitment. Achievement: Southeast Europe's largest Semiconductor R&D Center goes Live in Bucharest"

Prof. Igor A. LUKYANCHUK, Université de Picardie Jules Verne, France

"Nanoscale Ferroelectrics: Fundamentals and Featured Applications"

Dr. Emile MARTINCIC, Centre for Nanosciences and Nanotechnology, Université Paris-Saclay, France

"A method for performances of soft PDMS capacitive sensors fair comparison"

Prof. Yoshio MITA, Department of Electrical Engineering and Information Systems, Graduate School of Engineering and Nanosystem Integration Center, the University of Tokyo, Japan

"Harmonized Tiny Individuals can Produce Great Work - Recent Advancements on Autonomous Distributed Microsystems"

Prof. Dr. D. NIRMAL, Karunya Institute of Technology and Sciences, India; IEEE EDS R10 SRC – Chair

"Energy Everywhere: Nanogenerator for self-Powered Semiconductor Technologies"

Prof. Carlos PEREIRA, Research Center in Chemistry, Faculty of Sciences, University of Porto, Portugal

"Marine Waste Derived Carbons for Sustainable Energy Storage Applications"

Dr. Habil. Silviu POLOSAN, Functional Nanostructures Laboratory, National Institute of Materials Physics, Magurele, Romania

"Electroluminescent optoelectronic devices"

Assoc. Prof. Cristina RUSU, Division: Digital Systems, RISE Research Institutes of Sweden, Sweden

"Research Collaborations Advancing Energy-Autonomous IoT Sensor Systems "

Prof. Dr. Anatolie SIDORENKO, Technical University of Moldova, Institute of Electronic Engineering and Nanotechnologies, Moldova

"Functional Materials for Neuromorphic Computing: Superconducting Solution"

Prof. dr. Konrad SZACIŁOWSKI, Academic Centre for Materials and Nanotechnology, AGH University of Science and Technology, Poland

"Strength in Weakness: The Role of Weak Interactions in Shaping Optical and Electrical Properties of Thiazole-Based Molecular and Coordination Materials"

Prof. Ionel TIFREA, Department of Physics, California State University, Fullerton, USA

"Thermoelectric effects in semiconductor nanostructures"

Dr. Christos TSAMIS, National Center for Scientific Research "Demokritos", Institute of Nanoscience and Nanotechnology, Greece

"Triboelectric Tactile Sensors: Current Status, Challenges, and Future Directions"

Learn more about CAS 2026 Plenary speakers and their presentations



CAS 2026 International Semiconductor Conference

Programme at a glance

TUESDAY, OCTOBER 13

14:00- 17:00	Workshop “Advanced responsive materials I (ARMAT)” , organised in the frame of the Excellence centre of advanced responsive materials
15:00- 18:00	CAS 2026 Conference Registration
19:30	Welcome Cocktail (Hotel Sinaia Restaurant)

WEDNESDAY, OCTOBER 14

08:00- 09:00	Registration
	Room 1
09:00- 09:10	Welcome to CAS 2026 M. A. Dinescu, IMT Bucharest, Romania – CAS 2026 General Chairman
09:10- 11:40	Plenary Session I (Invited papers) Chair: C. Moldovan, G. Brezeanu Yoshio Mita, School of Engineering, University of Tokyo, Japan Christos Tsamis, National Center for Scientific Research "Demokritos", Institute of Nanoscience and Nanotechnology, Greece Danilo Demarchi, Politecnico di Torino, Italy Ionel Tifrea, Department of Physics, California State University, Fullerton, USA D. Nirmal, Karunya Institute of Technology and Sciences, India
11:40- 11:50	Ondrej Baco , Thermo Fisher Scientific, Czech Republic
11:50- 12:20	Coffee break & PHOTO “REMEMBER CAS 2026”

WEDNESDAY, OCTOBER 14

	Room 1	Room 2	
12:20-13:40	Nanoscience & Nanoengineering - Nanomaterials 1 <i>Oral presentations</i> Chair: M. Ciurea, C. Tsamis	Integrated Circuits <i>Oral presentations</i> Chair: V. Avramescu, M. Neag	
13:40-14:30	Lunch		
14:30-16:10	Nanoscience-Physical Phenomena & Microphotonics Chair: D. Cristea, C. Kusko	Integrated Circuits - Student Papers I Chr: M. Brezeanu, F. Draghici	
16:10-16:30	Coffee break		
16:30-19:00	Poster sessions		
Posters. Nanoscience & Nanoengineering -Nanomaterials Chair: A.M. Lepadatu, S. Vulpe	Posters. Nanoscience & Nanoengineering-Applications Chair: A. Avram, A. Mocanu	Posters. Microphotonics; Microsensors; Smart Systems for biomedical applications Chair: R. Tomescu, B. Firtat	Posters. Modelling & Semiconductor Devices Chair: T. Sandu, G. Moagar-Poladian

THURSDAY, OCTOBER 15

	Room 1	
09:00-11:30	Plenary Session II (Invited papers) Chair: O. Buiu, A. Müller	
	Igor A. Lukyanchuk, Université de Picardie Jules Verne, France	
	Konrad Szacilowski, Academic Centre for Materials and Nanotechnology, AGH University of Science and Technology, Poland	
	James Kerfoot, Park Systems UK Ltd, United Kingdom	
	Emile Martincic, Université Paris-Saclay, France	
	Leonid Culiuc, Moldova State University, Institute of Applied Physics, Moldova	
11:30-11:40	Gabriele Selvaggio, Oxford Instruments GmbH, Germany	
11:40-11:50	Adrian Costea, Evelyn Plesca, Analog Devices Romania	
11:50-12:10	Coffee break	
	Room 1 Oral presentations	Room 2 Oral presentations
12:10-13:30 / 13:50	Microwave and Millimeter Wave Circuits and Systems Chair: A. Nicoloiu, A. Cismaru	Modelling & Semiconductor Devices - Student papers Chair: F. Mitu, F. Vladoianu
13:30-14:30	Lunch	
14:30-16:10	Microsensors and Microsystems Chair: R. Müller, L. Dinu	Integrated Circuits - Student Papers II Chair: C. Dan, A. Cracan
16:10-16:30	Coffee break	
16:30-17:30	Modelling Chair: D. Neculoiu, G. Boldeiu	Devices and Smart Systems for Biomedical and Health Applications Chair: L. Bilteanu, R. Marinescu

FRIDAY, OCTOBER 16

	Room 1&2	
09:00-11:30	Plenary Session III (Invited papers) Chair: M. A. Dinescu, R. Müller Sorin Cotofana , Delft University of Technology, the Netherlands Cristina Rusu , RISE Research Institutes of Sweden, Sweden Günter Krasser , Infineon Technologies Romania Carlos Pereira , University of Porto, Portugal Silviu Polosan , National Institute of Materials Physics, Romania	
11:30-11:40	Cristian Bolovan-Paven , ROHDE & SCHWARZ, Romania	
11:40-11:50	Carmen Moldovan , IMT Bucharest, Romania	
11:50-12:10	<i>Coffee break</i>	
	Room 1	Room 2
12:10-14:00 / 13:50	Nanoscience & Nanoengineering Nanomaterials II <i>Oral presentations</i> Chair: S. Polosan, S. Iftimie	Integrated Circuits - Student Papers III <i>Oral presentations</i> Chair: V. Anghel, G. Pristavu
13:50-14:30	<i>Lunch</i>	
14:30-16:30	Nanoscience and Nanoengineering: Applications <i>Oral presentations</i> Chair: M. Mihaila, S. Iftimie	Semiconductor Devices <i>Oral presentations</i> Chair: O. Buiu, S. Cotofana
16:30-17:00	<i>Coffee break</i>	
17:00-18:30	Posters. Microsensors; Smart Systems for biomedical applications; Modelling & Semiconductor Devices - Student papers Chair: E. Ceuca, C. Pachiu	Posters. Integrated Circuits - Student papers Chair: R. Pascu, A. Tulbure

SATURDAY, OCTOBER 17

	Room 1	Room 2
10:00-11:40 / 12:00	Nanomaterials; Microsensors & Systems for biomedical applications - Student papers Chair: O. Ionescu, R. Voicu	Integrated Circuits - Student papers IV Chairs: T. Visan, A. Antonescu
13:00-14:00	Lunch	
14:00-17:00	Workshop “Research Security, Ethics and Integrity” organized by IMT Bucharest in partnership with UEFSCDI and ANC, Romania	
14:00-17:00	Trip to Rhein Sparkling Wine Cellars, Azuga: Tour and Tasting	
20:00	CAS 2026 Banquet including Best Paper Awards ceremony (Hotel Sinaia Restaurant)	

Tuesday, October 13

14:00-17:00 **Workshop Advanced responsive materials I (ARMAT)** organized in the frame of *the Excellence centre of advanced responsive material*

15:00-18:00 **CAS 2026 Conference Registration**

19:30 **CAS 2026 Welcome Cocktail**
(Hotel Sinaia Restaurant)

Wednesday, October 14
Room 1

09:00 **Welcome to CAS 2026, M. A. Dinescu,**
IMT Bucharest, Romania,
CAS 2026 General Chairman

PLENARY SESSION I (Invited Papers)
Session: PS1. *Oral presentations*

Chair: **C. Moldovan**, IMT Bucharest, Romania
G. Brezeanu, National Univ. of Science and
Technology POLITEHNICA Bucharest, Romania

PS1.1 **Harmonized Tiny Individuals can Produce Great**
09:10 **Work - Recent Advancements on Autonomous**
Distributed Microsystems, Y. Mita, Graduate School
of Engineering, Univ. of Tokyo, Japan

PS1.2 **Triboelectric Tactile Sensors: Current Status,**
09:40 **Challenges, and Future Directions, C. Tsamis,**
National Center for Scientific Research "Demokritos",
Institute of Nanoscience and Nanotechnology, Greece

PS1.3 **Wearable Plant Sensors for Climate-Smart**
10:10 **Agriculture: Let the Plants do the talking,**
D. Demarchi, Dept. of Electronics and
Telecommunications, Politecnico di Torino, Italy

PS1.4 **Thermoelectric effects in semiconductor**
10:40 **nanostructures, I. Tifrea,** Dept. of Physics, California
State Univ., Fullerton, USA

PS1.5 **Energy Everywhere: Nanogenerator for self-**
11:10 **Powered Semiconductor Technologies, D. Nirmal,**
Karunya Institute of Technology and Sciences, India

11:40 **An Integrated Workflow from EFA to Automated**
TEM for Materials and Device Characterization in
the AI Era, O. Baco, Thermofisher, Czech Republic

11:50 - 12:20 Coffee break &

PHOTO "REMEMBER CAS 2026"

Wednesday, October 14, 12:20

Room 1

**NANOSCIENCE & NANOENGINEERING.
NANOMATERIALS I**

Session: N&N1. Oral presentations

Chair: **M. L. Ciurea**, National Institute of Materials
Physics, Romania

C. Tsamis, National Center for Scientific Research
"Demokritos", Greece

- N&N-
N1.1
12:20** **On the photocatalytic activity of the GaN nanowires grown by PA-MBE, *C. Romanitan*^{1*}, *N. Gogneau*², *P. Pascariu*³, *O. Brincoveanu*¹, *M. Tchernycheva*², *I. Mihalache*¹, *B. S. Vasile*^{4,5}, *N. Djourelov*⁶, *M. Stoian*¹, ¹IMT Bucharest, Romania, ²Center for Nanoscience and Nanotechnology (C2N), Paris-Saclay Univ., Paris-Cité Univ., CNRS, UMR9001, France, ³"Petru Poni" Institute of Macromolecular Chemistry, ⁴Research Center for Advanced Materials, Products and Processes, National Research Center for Micro and Nanomaterials, National Univ. of Science and Technology POLITEHNICA Bucharest, ⁵Romanian Academy of Scientists, ⁶Extreme Light Infrastructure-Nuclear Physics (ELI-NP), "Horia Hulubei" National R&D Institute for Physics and Nuclear Engineering (IFIN-HH), Romania**
- N&N-
N1.2
12:40** **New Design of Gels for Wound-Dressing Applications Embedding Hydrophilic and Hydrophobic Compounds in the Same Matrix, *S. State (Rosoiu)*^{1,2}, *G. Isopencu*², *E. Rusen*², *A. Ginga*^{1,2}, *A. Sah*^{1,2}, *L. A. Dinu*¹, *G. Toader*³, *A. Diacon*³, *G.-M. Dănilă*⁴, *A. Mocanu*^{1,2}, ¹IMT Bucharest, ²National Univ. of Science and Technology Politehnica Bucharest, ³Military Technical Academy "Ferdinand I", ⁴CROMATEC PLUS S.R.L., Romania**

- N&N- N1.3 13:00** **Nonlinear Resistive Response of Nanocarbonic Materials-Based Composites for RH and Hydrophilic VOCs Sensing: Case Studies and Comparative Analysis,** *B.-C. Serban^{1*}, N. Dumbravescu¹, O. Buiu¹, M. Bumbac^{2,3}, C. Cobianu^{4,5}, M. Brezeanu⁶, R. Marinescu¹, M.-G. Ursachescu⁷, D. Dumitrascu⁸, ¹IMT Bucharest, ²Faculty of Sciences and Arts, Valahia Univ. of Târgoviște, ³Institute of Multidisciplinary Research for Science Technology, Valahia Univ. of Târgoviște, ⁴Academy of Romanian Scientists (ARS), ⁵eBio-hub Center of Excellence in Bioengineering, National Univ. Politehnica Bucharest, ⁶Faculty of Electronics, Telecommunications, and IT, National Univ. of Science and Technology, Bucharest ⁷National College B.P. Hasdeu, Buzau, ⁸National College Saint Sava, Bucharest, Romania*
- N&N- N1.4 13:20** **Synthesis of cobalt hexacyanoferrate nanoparticles as electrode materials with energy storage applications,** *M. Stoian, C. Obreja, A. Baracu, G. Craciun, A. Radoi,* IMT Bucharest, Romania

13:40-14:30 – Lunch

Wednesday, October 14, 12:20
Room 2

INTEGRATED CIRCUITS
Session: IC. Oral presentations

Chair: **V. Avramescu**, IMT Bucharest, Romania
M. Neag, Technical University of Cluj-Napoca,
Romania

- IC-1** **Extending the Automatic Device Temperature**
12:20 **Characterization: The High-Side Driver,**
 A. M. Antonescu, National Univ. of Science and
 Technology Politehnica Bucharest, Romania
- IC-2** **A Current Comparator with Resistive Gate-Drive**
12:40 **Sensing and Class-B Output Stage for Current-**
 Mode SAR ADCs, G. Bonteanu, A. Cracan,
 P. Bonteanu, N. Cojan, “Gheorghe Asachi” Technical
 Univ. of Iași, Romania
- IC-3** **Predicting Pseudo Failures in Power Supply**
13:00 **Manufacturing Using Neural Networks, B. Pasztor,**
 A. D. Buburuzan, M. Purcar, Technical University of
 Cluj-Napoca, Romania
- IC-4** **A Real-Time No-Reference Video Quality Analysis**
13:20 **System on an FPGA Platform, A.-A. Miftode, C. Bira,**
 Dept. of Devices, Circuits and Architectures, National
 Univ. of Science and Technology Politehnica Bucharest,
 Romania

13:40-14:30 – Lunch

Wednesday, October 14, 14:30
Room 1

**NANOSCIENCE - PHYSICAL PHENOMENA &
MICROPHOTONICS**

Session: N-PP&M. *Oral presentations*

Chair: **D. Cristea**, IMT Bucharest, Romania
C. Kusko, IMT Bucharest, Romania

- N-PP& M.1 14:30** **Compact Dual-Band Metamaterial Absorber with Polarization Tolerance and Moderate-Angle Stability for S- and C-Band Applications**, *N. Ullah¹, M. A. Khalil², M. Ouda³, Md. Moniruzzaman⁴, M. Singh⁵, M.T. Islam⁵*, ¹Faculty of I.C.T., BUITEMS, Pakistan, ²Space Science Centre, Institute of Climate Change, Univ. Kebangsaan Malaysia, ³Univ. of Doha for Science and Technology, Qatar, ⁴International Univ. of Business Agriculture and Technology Uttara, Bangladesh, ⁵Univ. Kebangsaan Malaysia
- N-PP& M.2 14:50** **Electric and thermal anisotropy of aligned chains of particles in a polymer matrix**, *T. Sandu, C. Tibeica, M. Gologanu*, IMT Bucharest, Romania
- N-PP& M.3 15:10** **Photo-Induced Phenomena in Semiconductor Amorphous Chalcogenide Films**, *V. Freilikher, Y. Kaganovskii, M. Rosenbluh*, Bar-Ilan Univ., Israel
- N-PP& M.4 15:30** **SPR Companion - A Browser-Based Simulation and Optimization Platform for Multilayer Surface Plasmon Resonance Sensors**, *P. Varasteanu*, IMT Bucharest, Romania

16:10-16:30 – Coffee break

Wednesday, October 14, 14:30

Room 2

**INTEGRATED CIRCUITS –
STUDENT PAPERS I**

Session: IC-S.1 *Oral presentations*

Chair: **M. Brezeanu**, National Univ. of Science and
Technology POLITEHNICA Bucharest, Romania
F. Draghici, National Univ. of Science and
Technology POLITEHNICA Bucharest, Romania

**IC-S.1.1 Comparison of block ciphers in hardware
14:30 applications, A. Cîrstea, C. Anghel, C. Paleologu,**
Faculty of Electronics, Telecommunications and
Information Technology, National Univ. of Science and
Technology POLITEHNICA Bucharest, Romania

**IC-S.1.2 GPS-PPS-Based Architecture for Synchronization of
14:50 Distributed FPGA Systems, D.-A. Manea¹,
O. Mirea², C.-E. Vasile¹,** ¹National Univ. of Science and
Technology Politehnica Bucharest, Romania,
²Norwegian Univ. of Science and Technology,
Trondheim, Norway

**IC-S.1.3 FPGA Implementation and Verification of the
15:10 NLMS Algorithm for Acoustic Echo Cancellation,
I. Preda, C. Anghel, C. Paleologu,** National Univ. of
Science and Technology Politehnica Bucharest,
Romania

**IC-S.1.4 FPGA Augmented RISC-V LLVM Backend,
15:30 M.-L. Mitu¹, V.-M. Popescu¹, I. Antochi²,
S. Costinescu², C.B. Ciobanu^{1,3}, C. Z. Kertész,**
¹Transilvania Univ. of Brasov, Romania, ²NXP
Semiconductors Romania, ³IMT Bucharest, Romania

**IC-S.1.5 Fully Integer-Quantized Thermal Image Super-
15:50 Resolution on Low-Cost Microcontrollers,
A.-G. Diaconu, A.-A. Ulmămei,** National Univ. of
Science and Technology Politehnica Bucharest,
Romania

16:10-16:30 – Coffee break

Wednesday, October 14, 16:30

**NANOSCIENCE AND NANOENGINEERING -
NANOMATERIALS**

Poster Session: P1

Chair: **A. M. Lepadatu**, National Institute of Materials
Physics, Romania
S. Vulpe, IMT Bucharest, Romania

- P1.1 Synthesis of 002 Textured Zinc Nanomaterials,**
*A. Jishiashvili¹, Z. Shiolashvili¹, E. Sanaia²,
A. Sichinava², N. Makhatadze¹, D. Jishiashvili³,*
¹Institute of Cybernetics, Georgian Technical Univ.,
Georgia, ²I. Vekua Sukhumi Institute of Physics and
Technology, Georgia, ³Institute of Physics, Tbilisi State
Univ., Georgia
- P1.2 Formation of aluminum titanate from anatase and
aluminum thin films through thermal annealing in
nitrogen,** *V. Dediu, G. Craciun, N. Vasile,
S. Dinulescu, R. Gavrilă,* IMT Bucharest, Romania
- P1.3 Development of antibacterial cotton dressings
functionalized with ZnO and Au-decorated ZnO
nanoparticles embedded in a chitosan matrix,**
M. Busila¹, A. R. Patko², V. Dediu³, ¹Dunarea de Jos
Univ. of Galati Galati, Romania, ²Expand Labs Clinic
Bucharest, Romania, ³IMT Bucharest, Romania
- P1.4 Photoelectric response of ZrO₂ and Hf_xZr_{1-x}O₂/ZrO₂ thin films integrated on silicon,**
*R. Plugaru, S. Vulpe, F. Nastase, A. Matei,
C. Romanitan, I. Mihalache,* IMT Bucharest, Romania
- P1.5 Morpho-structural and electrical properties of TCO
layers deposited by magnetron sputtering,** *N. Vasile,
C. Romanitan, S. Vulpe, I. Mihalache, F. Nastase,
R. Gavrilă, M. Stanca, C. Ciobota, M. A. Avram,
M. Avram,* IMT Bucharest, Romania

- P1.6 Innovative Cu₂SnZnS₄ Thin-Film Solar Cells with Compositionally Graded Absorber Layers, *B. S. Vasile^{1,2,3}, I. Boerasu^{1,3}, A. V. Surdu⁴, R. D. Trusca³, O. C. Oprea^{2,3}, A. Sobetkii⁵*, ¹Advanced Research Center for Innovative Materials, Products and Processes, National Univ. of Science and Technology Politehnica Bucharest, ²Romanian Academy of Scientists, ³National Research Center for Micro and Nanomaterials, National Univ. of Science and Technology Politehnica Bucharest, ⁴Faculty of Materials Science and Engineering, Transilvania Univ. of Brasov, ⁵MGM Star Construct SRL, Romania**
- P1.7 Preliminary Investigation of Fabrication Routes for a Molecularly Imprinted Polymer Based Electrochemical Sensor for Bisphenol A, *S. P. State, R. Mocanu, O. Brîncoveanu, C. Parvulescu, M. Aldrigo, L. A. Dinu***, IMT Bucharest, Romania
- P1.8 Morphological and structural characterization of Er-doped ZnO and graphene/Er-doped ZnO for EMI shielding applications, *O. Brîncoveanu¹, C. Romanîţan¹, D. Manica¹, C. I. Pachiu¹, P. Pascariu^{1,2}, M. P. Sucheai^{1,3}, E. Koudoumas^{1,3}***, ¹IMT Bucharest, ²Institute of Macromolecular Chemistry "Petru Poni", Iasi, Romania, ³Hellenic Mediterranean Univ., Greece
- P1.9 Exploring ZnO–CuO Nanocomposites: Balancing Photocatalytic Performance and Ecotoxicological Safety for Sustainable Water Remediation, *I. Zgura¹, M. Enculescu¹, N. Preda¹, L. Nedelcu¹, O. Rasoga¹, V.-A. Maraloiu¹, M. E. Barbinta-Patrascu², C. Nichita², J. Háhn³, Z. Csenki-Bakos³, F. Littorie⁴, P. Gillon⁴***, ¹National Institute of Materials Physics, ²Faculty of Physics, Univ. of Bucharest, Romania, ³Hungarian University of Agriculture and Life Sciences, Hungary, ⁴GEPEA, UMR 6144, CNRS, Nantes Univ., Oniris, IMT Atlantique, France
- P1.10 Photocatalytic activity and removal efficiency of Methylene Blue by SnS₂ nanosheets, *A. Tiron, V. Ciobanu, T. Galatanova, C. Creciunel, A. Mamoico***, Technical Univ. of Moldova, National Center for Materials Study and Testing, Republic of Moldova

**NANOSCIENCE AND NANOENGINEERING –
APPLICATIONS**

Poster Session: P2

Chair: **A. Avram**, IMT Bucharest, Romania

A. Mocanu, IMT Bucharest, Romania

- P2.1 Exploring interfacial phenomena in La_{0.7}Sr_{0.3}MnO₃/BiFeO₃/Au ferroelectric tunnel junction from first principles electronic structure, N. Plugaru¹, N. Filipoiu², A. M. Vlaicu³, R. Plugaru¹, T. Sandu¹, ¹IMT Bucharest, ²Horia Hulubei National Institute of Physics and Nuclear Engineering, ³National Institute of Materials Physics Romania**
- P2.2 Algae-derived Biochar for Preliminary Electrochemical Food Quality Sensing Application, L. A. Dinu¹, O. Brincoveanu¹, S. State^{1,2}, C. Romanitan¹, A. Diacon³, O. C. Pârvulescu², B. Vasile², A. Mocanu^{1,2}, ¹IMT Bucharest, ²National Univ. of Science and Technology Politehnica Bucharest, ³Military Technical Academy “Ferdinand I”, Romania**
- P2.3 Activation Strategies of NCG WE and Ag/AgCl Reference Electrode Integrated on Silicon-Based Three-Electrode Platforms, L. A. Dinu¹, C. Parvulescu¹, O. G. Simionescu¹, O. Brincoveanu¹, G. Marolt², ¹IMT Bucharest, Romania, ²Univ. of Ljubljana, Slovenia**
- P2.4 Electrospinning PVDF-based nanofibers with optimized properties for semiconductors, A. T. Matei¹, D. C. Nastac¹, O. T. Cramariuc¹, O. Brincoveanu², C. Romanitan², C. Pachiu², ¹IT Center for Science and Technology srl (CITST), ²IMT Bucharest, Romania**
- P2.5 Effect of TiO₂ Addition to Screen-Printing Ink on the Performance of a Flexible Piezoresistive Pressure Sensor, F. Pistritu¹, O. Brincoveanu¹, C. Romanitan¹, G. Marin², A. M. Popescu¹, M. P. Sucheai^{1,3}, ¹IMT Bucharest, ²NANOM MEMS SRL, Romania, ³Hellenic Mediterranean Univ., Greece**

- P2.6 Sensitive Layers based on Montmorillonite-Graphene Oxide-Polyvinylpyrrolidone for Flexible Humidity Sensors, *M.-R. Marinescu, B.-C. Șerban, C. I. Pachiu, N. Dumbrăvescu, V. Avramescu, O. Brîncoveanu, C. Romanițan, O. Buiu*, IMT Bucharest, Romania**
- P2.7 Impact of annealing temperature on the optoelectronic response and leakage currents of Ge-NPs embedded in Si₃N₄, *I. Stavarache, C. Palade, O. Cojocar, C. Negrila, M. L. Ciurea*, National Institute of Materials Physics, Romania**
- P2.8 Investigation of HfO_x/Ge_xSn_{1-x} Heterostructures as Plastic Synapses for Neuromorphic Networks, *A. Slav, C. Palade, V.-A. Maraloiu, I. Dascalescu, A. M. Lepadatu, M. L. Ciurea*, National Institute of Materials Physics, Romania**
- P2.9 Nanocomposite Thin Films of Carbon Allotropes and Zinc Oxide via Spray Pyrolysis: Structure-Property Relationships in Electromagnetic Shielding, *C. I. Pachiu, C. Romanițan, I.-V. Tudose, O. Brîncoveanu, M. Aldrigo, M. P. Suche*a, IMT Bucharest, Romania**
- P2.10 Electrochemical Processing of Wastewater: Comparison of the electrode nature on the electro-degradation performance, *A. T. S. C. Brandão, C. M. Pereira*, Instituto de Ciências Moleculares (CIQUP/IMS), Faculdade de Ciências da Univ. do Porto, Portugal**

Wednesday, October 14, 16:30

**MICROPHOTONICS; MICROSENSORS;
SMART SYSTEMS FOR BIOMEDICAL
APPLICATIONS**

Poster Session: P3

Chair: **R. Tomescu**, IMT Bucharest, Romania

B. Firtat, IMT Bucharest, Romania

- P3.1 Rapid SARS-CoV-2 Molecular Detection Using Isothermal Amplification and Electrochemical Sensing**, *M. Axinie¹, S. Mocanu¹, D. Maxim¹, A.-C. Mirica¹, M. I. Stoian²*, ¹DDS DIAGNOSTIC SRL, ²Carol Davila Univ. of Medicine and Pharmacy, Romania
- P3.2 Decrypting dielectric spectra of living cells**, *T. Sandu*, IMT Bucharest, Romania
- P3.3 Light trapping by PDMS Micro- lenses Arrays in Thin and Ultra-thin Films Silicon Solar Microcells**, *E. Manea, C. Tibeică, C. Pârvulescu, M. Purica*, IMT Bucharest, Romania
- P3.4 RCWA and TMM Statistical Analysis of Roughness Effects on Surface Plasmon Resonance Sensors**, *P. Varasteanu*, IMT Bucharest, Romania
- P3.5 Optimization of the Pre-Amplifier Stage for a MOPA Fiber Laser**, *B. Comanescu¹, P. Schiopu², M. Vladescu², C. Pârvulescu³*, ¹Optoelectronica 2001 S.A., ²National Science and Technology Univ. Politehnica Bucharest, ³IMT Bucharest, Romania
- P3.6 Fabrication and Characterization of Silicon Thin Films for Thermal Detection**, *M. Kusko, S. Vulpe, A. C. Obreja, G. Craciun, C. Kusko*, IMT Bucharest, Romania
- P3.7 Embedded Flexible Piezoresistive Sensor for Structural Deformation Monitoring in Additively Manufactured Structures**, *O. Mărculescu¹, M.-R. Marinescu¹, G. C. Ionescu², O. Buiu¹*, ¹IMT Bucharest, ²Univ. of Oil and Gas of Ploiești, Romania

- P3.8 Set-Up to Test the Response/Recovery Times of Resistive RH Sensors Based on CNO and Synthetic/Natural Polymers: Comparison at Three Air Speeds, *N. Dumbravescu¹, C. Dumbravescu², B.-C. Șerban¹, O. Buiu¹*, ¹IMT Bucharest, ²MIGSO-PCUBED, Romania**
- P3.9 A Systematic Review of Autofocus Technologies for Automotive Applications Using an Automated Review Pipeline, *A. E. Teoc, A. Avram, L. Kast***, “1 Decembrie 1918” Univ. of Alba Iulia, Romania

Wednesday, October 14, 16:30

MODELLING & SEMICONDUCTOR DEVICES

Poster Session: P4

Chair: **T. Sandu**, IMT Bucharest, Romania

G. Moagar-Poladian, IMT Bucharest, Romania

- P4.1 Genetic Algorithm Based Topology Selection for Operational Amplifiers**, *V. Grosu, I. Pavel*, “Gheorghe Asachi” Technical Univ. Iasi, Romania
- P4.2 Phasors as Spiral Similarities: A Complex-Plane View of First-Order RC Filters**, *O. Mirea¹, C. Bira²*, ¹Norwegian Univ. of Science and Technology, Trondheim, Norway, ²Univ. Politehnica Bucharest, Bucharest, Romania
- P4.3 Design and Preliminary Evaluation of a Client–Server SDR System for Remote Electromagnetic Spectrum Monitoring**, *M. Șorecău^{1,2}, E. Șorecău^{1,2}, A.-C. Bunea³, D. Neculoiu³, P. Bechet²*, ¹“Nicolae Bălcescu” Land Forces Academy, Sibiu, ²ROBETECH EMC Company, Sibiu, ³IMT Bucharest, Romania
- P4.4 Electrothermal Analysis of Diameter-Scaled GAA Cylindrical CNT-Based FETs Using 3D TCAD**, *M. S. B. Saimin¹, M. Muhamad¹, A. A. Aziz¹, N. E. Alias², Y. A. Wahab³, M. H. B. M. Rapi¹, S. W. F. M. Hatta⁴, H. Hussin^{*1}*, ¹Univ. Teknologi MARA, Shah Alam, Malaysia, ²Univ. Teknologi Malaysia, Skudai, Malaysia, ³Nanotechnology and Catalysis Research Centre Office, Univ. of Malaya, Malaysia, ⁴Center of Printable Electronics, Research, Univ. of Malaya, Malaysia
- P4.5 A Polarity-Controlled Reconfigurable GAA Nanowire Multibridge Channel FET with Enhanced Switching Performance**, *S. A. Kumar¹, V. Sandeep², V. Logisvary³, B. K. Jebalin I V³, Nirmal D³*, ¹Karunya Institute of Technology and Sciences (KITS), ²Mangalore Institute of Technology & Engineering, ³KITS, Coimbatore, India

- P4.6 Comparative Power-Quality Analysis of a Bidirectional Three-Level ANPC Grid Converter, *T. Bancu*¹, *E. Ceuca*²**, ¹Technical Univ. of Cluj-Napoca, ²“1 Decembrie 1918” Univ. of Alba Iulia, Romania
- P4.7 A silicon microgripper based of a new Z-shaped electro-thermal actuator, *R. Voicu*, *C. Pârvulescu*, *O. Brîncoveanu*, *O. G. Simionescu*, *R. Müller***, IMT Bucharest, Romania

Thursday, October 15, 09:00

Room 1

PLENARY SESSION II (Invited Papers)

Session: PS2. Oral presentations

Chair: **O. Buiu**, IMT Bucharest, Romania

A. Müller, IMT Bucharest, Romania

PS2.1 09:00 **Nanoscale Ferroelectrics: Fundamentals and Featured Applications**, *I. Lukyanchuk*, Université de Picardie Jules Verne, France

PS2.2 09:30 **Strength in Weakness: the Role of Weak Interactions in Shaping Optical and Electrical Properties of Thiazole-Based Molecular and Coordination Materials**, *K. Gutmańska¹, A. Podborska², T. Mazur², A. Sławek², A. Dolega¹, K. Szaciłowski^{2*}*, ¹Chemical Faculty, Gdansk Univ. of Technology, ²Academic Centre of Materials and Technology, AGH Univ. of Krakow, Poland

PS2.3 10:00 **Atomic Force Microscopy for Nanoscale Morphological and Electrical Characterisation of Semiconductors**, *J. Kerfoot*, Park Systems UK Ltd, United Kingdom

PS2.4 10:30 **A method for performances of soft PDMS capacitive sensors fair comparison**, *E. Martincic*, Univ. Paris-Saclay, France

PS2.5 11:00 **Radiative Properties of Halogen Molecule-Intercalated Transition Metal Dichalcogenide Crystals**, *N. Siminel, L. Kulyuk**, Institute of Applied Physics, Moldova State University, Republic of Moldova

11:30 **Nanoscale Metrology and Correlative Solutions for Semiconductor Technology**, *G. Selvaggio*, Oxford Instruments GmbH, Germany

11:40 **Analog Devices Romania**, *A. Costea, E. Plesca*

11:50-12:10 – Coffee break

Thursday, October 15, 12:10

Room 1

**MICROWAVE & MILLIMETER WAVE
CIRCUITS & SYSTEMS**

Session: MW. Oral presentations

Chair: **A. Nicoloiu**, IMT Bucharest, Romania

A. Cismaru, IMT Bucharest, Romania

- MW.1 12:10** **Fast Numerical Design of S-band Silicon Band-pass Filters: Validation Through EM Simulations and Experiments**, *M. Aldrigo¹, H. J. Christopher¹, C. Parvulescu¹, P. Russo², L. Zappelli²*, ¹IMT Bucharest, Romania, ²Univ. Politecnica delle Marche, Ancona, Italy
- MW.2 12:30** **Backscatter-Enabled Rectifiers and Rectennas for Enhanced Battery-Free Wireless Sensing and IoT Applications**, *T. E. Djidjekk, Q. Bernyer, A. Takacs*, LAAS-CNRS, Univ. de Toulouse, France
- MW.3 12:50** **Dual-Band 2.5/5 GHz Slot Antenna for f₀/2f₀ Harmonic RFID Sensor Front-Ends**, *A. C. Bunea, D. Neculoiu*, IMT Bucharest, Romania,
- MW.3 13:10** **A 28 GHz LNA with Adaptive Forward Body Bias for IP1dB Enhancement in 22 nm FDSOI**, *A. M. Emam, M. Mobarak, M. A. Y. Abdalla*, Cairo Univ., Egypt

13:30-14:30 – Lunch

Thursday, October 15, 12:10
Room 2

**MODELLING & SEMICONDUCTOR
DEVICES - STUDENT PAPERS**
Session: M&SD-S. *Oral presentations*

Chair: **F. Mitu**, National Univ. of Science and Technology
POLITEHNICA Bucharest, Romania
F. Vladoianu, IMT Bucharest, Romania

- M&SD- Automatic Sparse Identification of Foster Networks,**
S.1 *T.C. Haraga^{1,2}, G. Pristavu¹, M. Craciun²,*
12:10 *F. Draghici¹, G. Brezeanu¹,* ¹National Univ. of Science
and Technology POLITEHNICA Bucharest, ²Infineon
Technologies Romania
- M&SD- A Charge-Partition Compact Model for Forced-**
S.2 **Extraction IGBT Turn-Off Analysis,** *A.-G. Enache^{1,2},*
12:30 *D.-G. Sdrulla^{2,3}, G. Brezeanu², G. Pristavu²,* ¹Deloitte
Technology Delivery Center, ²National Univ. of Science
and Technology POLITEHNICA Bucharest, ³Analog
Power Conversion LLC, United States
- M&SD- An Iterative Methodology for Generating TCAD-**
S.3 **enabled AI-ML Models,** *A. Khatri, F. Udrea,* Univ. of
12:50 Cambridge, United Kingdom
- M&SD- On the Current Imbalance in Parallel 15 kV 4H-SiC**
S.4 **IGBTs with Negative On-State Voltage Temperature**
13:10 **Coefficient,** *K. C. Wang, C. W. Chan, N. Donato,*
V. Pathirana, F. Udrea, Univ. of Cambridge, United
Kingdom
- M&SD- Current-Dependent Multi-Mode Gate Control of a**
S.5 **Parallel ICeGaN/IGBT Hybrid Switch,** *D. Bartlett¹,*
13:30 *F. Udrea^{1,2}, F. Beg², D. Miller²,* ¹Univ. of Cambridge,
²Cambridge GaN Devices, United Kingdom

13:50-14:30 – Lunch

Thursday, October 15, 14:30

Room 1

MICROSENSORS AND MICROSYSTEMS

Session: M&M. *Oral presentations*

Chair: **R. Müller**, IMT Bucharest, Romania

L. Dinu, IMT Bucharest, Romania

M&M.1 Fabrication and Thin-Film Metallization of Polymer
14:30 Microneedle Biosensors for *In Vitro* Cell Culture
Monitoring, *A. Grigoriu, D. Dragomir, M. Carp,*
C. A. Moldovan, IMT Bucharest, Romania

M&M.2 Magnetic Sensor based on a GHz operating SAW
14:50 manufactured on ScAlN, *G. Boldeiu, I. Zdru,*
A. Nicoloiu, D. Vasilache, C. Nastase, M. Nedelcu,
A. Dinescu, A. Müller, IMT Bucharest, Romania

M&M.3 Influence of HfO₂ Sensing Layer Thickness on the
15:10 Sensitivity of Dual-Mode ScAlN/Si SAW Humidity
Sensors, *M. Nedelcu, C. Nastase, D. Vasilache,*
F. Nastase, A. Nicoloiu, I. Zdru, G. Boldeiu,
A. Dinescu, A. Müller, IMT Bucharest, Romania

M&M.4 Electrochemical Chlorination Strategies for the
15:30 Fabrication of Stable Ag/AgCl Pseudo-Reference
Microelectrodes, *A. Grigoriu, C. M. Mihailescu,*
M. Savin, C. A. Moldovan, B. Fîrtat, G. S. Muscalu,
M. Ion, O. Brîncoveanu, S. Dinulescu, C. Braşoveanu,
IMT Bucharest, Romania

M&M.5 Microwave Humidity Sensor Using a Graphene
15:50 Nanoplatelet-Coated Metamaterial Antenna,
A. Cismaru, M. Dragoman, M. P. Suchea,
C. Pârvulescu, D. Mladenovic, O. Brîncoveanu, IMT
Bucharest, Romania

16:10-16:30– Coffee break

Thursday, October 15, 14:30

Room 2

**INTEGRATED CIRCUITS –
STUDENT PAPERS II**

Session: IC-S.2 *Oral presentations*

Chair: **C. Dan**, National Univ. of Science and Technology
POLITEHNICA Bucharest, Romania

A. Cracan, Technical Univ. “Ghe. Asachi” Iasi

IC-S.2.1 Adaptive Filtering for Acoustic Echo Cancellation:

14:30 A Comparative MATLAB-Based Study of LMS, NLMS, APA, and RLS, I. Preda, C. Anghel, C. Paleologu, National Univ. of Science and Technology Politehnica Bucharest, Romania

IC-S.2.2 Automated UVM Testbench Generation from HLS

14:50 Interface Pragmas, M.-R. Petrisor, V. Balea, C.-E. Vasile, National Univ. of Science and Technology Politehnica Bucharest, Romania

IC-S.2.3 Computer Aided CAN Transmitter Design for

15:10 Optimized Area and EME Performance, A.-G. Pelin¹, L. Zhang², M. G. Neag¹, G.-G. Simeon³, R.-C. Oneț¹, ¹Technical Univ. of Cluj-Napoca, Romania, ²Infineon Technologies Germany, ³Infineon Technologies Romania

IC-S.2.4 Analysis and AI-Driven Semi-Automatic Sizing of

15:30 Three Conventional Comparator Topologies, A.-V. Pleș¹, C.-S. Pleșa², M. G. Neag¹, G.-G. Simeon³, K. Salian⁴, G. Alia⁵, ¹Technical Univ. of Cluj-Napoca, ²Infineon Technologies Romania, ³Infineon Technologies Romania, ⁴Infineon Technologies India, ⁵Infineon Technologies Germany

IC-S.2.5 Printed to Protect: Device-Unique Anti-Tamper

15:50 Security Meshes Using Conductive Ink, V. Radu¹, V. Anghel², S. Popescu¹, H. Marinica³, G. Brezeanu¹, ¹National Univ. of Science and Technology Politehnica Bucharest, ²EPIC Microsystems, ³Ubisoft Romania

16:10-16:30– Coffee break

Thursday, October 15, 16:30
Room 1

MODELLING

Session: M. *Oral presentations*

Chair: **D. Neculoiu**, IMT Bucharest, Romania
G. Boldeiu, IMT Bucharest, Romania

- M.1** **Lightweight Machine Learning-based Traffic**
16:30 **Classification for 5G Network Slice Selection,**
 M. Peiu, L. Fricosu, R. Gagionea, R. Stancu,
 A. Vulpe, Beam Innovation SRL, Romania
- M.2** **Analytical Modeling of Femtosecond Laser**
16:50 **Micromachining Using Simulated Chirped-Pulse**
 Amplification Parameters, *T. Imran, O. Buiu*, IMT
 Bucharest, Romania
- M.3** **Investigation of Machine Learning Models for sp^3s^***
17:10 **Tight Binding Parameter Prediction in III-V Binary**
 Semiconductors, *D. Malkoc, R. Hosavci*, Fatih Sultan
 Mehmet Vakif Univ., Turkiye

Thursday, October 15, 16:30
Room 1

**DEVICES AND SMART SYSTEMS FOR
BIOMEDICAL AND HEALTH
APPLICATIONS**

Session: D&SS. *Oral presentations*

Chair: **L. Bilteanu**, IMT Bucharest, Romania
R. Marinescu, IMT Bucharest, Romania

- D&SS.1** **Sensor signal feature extraction towards selectivity**
16:30 **enhancement, *A. Stanoiu, I. D. Vlaicu, O. G. Florea,***
C. E. Simion, National Institute of Materials Physics,
Romania
- D&SS.2** **Biocompatible microneedles patch for transdermal**
16:50 **anti-inflammatory drug delivery, *F. S. Iliescu^{1,2},***
A. R. Osi², G. L. Gheorghiu², O. Brîncoveanu¹,
G. C. Ionescu³, C. Iliescu^{1,2}, ¹IMT Bucharest, ²Centre of
Excellence in Bioengineering (eBio-hub), National
Univ. of Science and Technology POLITEHNICA
Bucharest, ³Petroleum and Gas Univ. from Ploiesti,
Romania
- D&SS.3** **Minnecc-Broker: A Field-Level HIPAA Minimum-**
17:10 **Necessary Disclosure Broker for Clinical Multi-**
Agent Systems, *F. Negoită, A. Dumachi*, IMT
Bucharest, Romania

Friday, October 16, 09:00

Room 1

PLENARY SESSION III (Invited Papers)

Session: PS3. *Oral presentations*

Chair: **M. A. Dinescu**, IMT Bucharest, Romania

R. Müller, IMT Bucharest, Romania

- PS3.1** **On revient toujours à ses premiers amours:**
09:00 **Threshold Logic, *S. Cotofana*,** Delft Univ.
of Technology, The Netherlands
- PS3.2** **Research Collaborations Advancing Energy-**
09:30 **Autonomous IoT Sensor Systems, *C. Rusu**,**
***V. Uden, E. Köhler, S. Sepehri, H. Staaf*,** RISE
Research Institutes of Sweden, Sweden
- PS3.3** **Strategy. Commitment. Achievement: Southeast**
10:00 **Europe's Largest Semiconductor R&D Center Goes**
Live in Bucharest, *G. Krasser*, Infineon Technologies
Romania
- PS3.4** **Marine Waste Derived Carbons for Sustainable**
10:30 **Energy Storage Applications, *A. T. S. C. Brandão¹,***
D. Bowman², R. Forde², R. Costa¹, D. McNulty²,
C. Pereira^{1*}, ¹Faculty of Sciences, Univ. of Porto,
²University of Limerick, Ireland
- PS3.5** **Electroluminescent Optoelectronic Devices,**
11:00 ***I. C. Ciobotaru, C. C. Ciobotaru, S. P. Polosan**,**
National Institute of Materials Physics, Romania
- 11:30** **Ensuring a safer and connected world with leading**
solutions from Rohde & Schwarz, *C. Bolovan-Paven*,
Rohde & Schwarz Romania
- 11:40** **The Romanian Centre of Competence on Smart**
Systems for Sensing and Robotics -
RO-SMARTSYS, *C. Moldovan*, IMT Bucharest,
Romania

11:50 –12:10 – Coffee break

Friday, October 16, 12:10

Room 1

**NANOSCIENCE & NANOENGINEERING.
NANOMATERIALS II**

Session: N&N2. Oral presentations

Chair: **S. Polosan**, National Institute of Materials Physics,
Romania

S. Iftimie, Univ. of Bucharest, Romania

N&N- Invited Paper:

N2.1 **Functional Materials for Neuromorphic Computing:**
12:10 **Superconducting Solution**, *A. Sidorenko*, Institute of
Electronic Engineering and Nanotechnologies,
Technical Univ. of Moldova, Moldova

N&N- Dielectric modelling of rare-earth-doped
N2.2 ZnO/graphene nanoplatelets composites using a
12:40 SEM-informed and experimentally validated
representative-volume finite-element framework for
EMI shielding design, *O. T. Nedelcu¹, T. Sandu¹,*
O. Brincoveanu¹, M. Gologanu¹, D. Manica¹,
M. P. Suchea^{1,2}, ¹IMT Bucharest, Romania, ²Hellenic
Mediterranean Univ., Greece

N&N- Hierarchical La-Doped ZnO–Graphene Hybrid
N2.3 Micropowders Synthesized by Electrospinning:
13:00 Structural and Vibrational Characterization,
C. Pachi¹, C. Romanitan¹, A. Popescu¹, D. Manica¹,
M. P. Suchea^{1,2}, E. Koudoumas^{1,2}, O. Brincoveanu¹,
¹IMT Bucharest, ²Center of Materials Technology and
Photonics, School of Engineering, Hellenic
Mediterranean Univ. (HMU), Greece

N&N- Photocatalytic degradation of paracetamol under UV
N2.4 irradiation using TiO₂-biocarbon composites,
13:20 *N. Iorgulescu^{1,2}, M. Veca¹, I. Mihalache¹,*
I.-C. Petcu^{1,2}, O. Brincoveanu¹, C. Romanitan¹,
R. Lascu^{1,2}, A. T.S.C. Brandão³, V. José⁴,
V. Jesús⁴, C. Pereira³, S. State^{1,2}, ¹IMT Bucharest,
²National Univ. of Science and Technology Politehnica
Bucharest, ³Univ. of Porto, Portugal, ⁴Instituto de
Investigaciones Marinas (IIM-CSIC), Spain

**N&N-
N2.5
13:40** **Evaluation of the adsorption performance of electrochemically synthesized magnetic nanoparticles for methylene blue removal, *I.-C. Petcu*^{1,2}, *L. M. Veca*², *I. Mihalache*², *A. T. S. C. Brandão*³, *O. Brîncoveanu*², *C. Romanițan*², *C. Pereira*³, *L. Anică*⁴, *C. Busuioc*¹, *S. P. State*^{2,5}, ¹Faculty of Chemical Engineering and Biotechnologies, National Univ. of Science and Technology Politehnica Bucharest, ²IMT Bucharest, ³Univ. of Porto, Portugal, ⁴Center of Surface Science and Nanotechnology, National Univ. of Science and Technology Politehnica Bucharest, ⁵Faculty of Medical Engineering, National Univ. of Science and Technology Politehnica Bucharest, Romania**

14:00-14:30 – Lunch

Friday, October 10, 12:10

Room 2

**INTEGRATED CIRCUITS –
STUDENT PAPERS III**

Session: IC-S.3 *Oral presentations*

Chair: **V. Anghel**, EPIC Microsystems, Romania
G. Pristavu, National Univ. of Science and
Technology POLITEHNICA Bucharest, Romania

IC-S.3.1 A 60-dB 4-stage OP-AMP for 100pF load in GaN-IC
12:10 technology, *F.-C. Georgescu, P.-C. Medinceanu,*
C. Dan, M. Enăchescu, National Univ. of Science and
Technology Politehnica Bucharest, Romania

IC-S.3.2 Memory-Centric FFT Hardware Accelerator,
12:30 *R. Stancu, M. Gologanu, A. Pușcașu, C. B. Ciobanu,*
O. Buiu, IMT Bucharest, Romania

IC-S.3.3 Split-Length Frequency Compensation for LDO
12:50 PSRR Improvement, *M.-R. Ciambur^{1,2},*
P. R. Moldovan², G. Brezeanu¹, M. G. Neag³,
¹University “Politehnica” of Bucharest, ²Infineon
Technologies Romania, ³Technical Univ. of Cluj-
Napoca, Romania

IC-S.3.4 A novel divide-by-2 injection locked frequency
13:10 divider for automotive applications, *D.-I. Domnici,*
I. Kovacs, M. G. Neag, Technical Univ. of Cluj-
Napoca, Romania

IC-S.3.5 Design Space Exploration of DC-DC closed loop
13:30 charge pump regulators, *M. Resmerita,*
P.-C. Medinceanu, M. Enăchescu, National Univ. of
Science and Technology Politehnica Bucharest,
Romania

13:50-14:30 – Lunch

Friday, October 16, 14:30

Room 1

**NANOSCIENCE & NANOENGINEERING.
APPLICATIONS**

Session: N&N.A. *Oral presentations*

Chair: **M. Mihaila**, IMT Bucharest, Romania
S. Iftimie, Univ. of Bucharest, Romania

N&N.A.1 Simulation of the graphene field effect transistor
14:30 GFET from the technology to transfer characteristics, *C. Ravariu¹, B. Adiaconiță², E. Chiriac², M. Avram²,* ¹National Univ. of Science and Technology Politehnica Bucharest, ²IMT Bucharest, Romania

N&N.A.2 Silicon-integrated nanocrystalline graphite
14:50 electrochemical sensor functionalized with chitosan-based molecularly imprinted biopolymer for ultrasensitive glyphosate detection, *L. A. Dinu¹, C. Pârvulescu¹, O. G. Simionescu¹, O. Brîncoveanu¹, C. Romanîțan¹, C. I. Pachiu¹, L. Motelica², D. Ozsoylu³, S. Kurbanoglu⁴,* ¹IMT Bucharest, ²National Univ. of Science and Technology Politehnica Bucharest, Romania, ³Institute of Nano- and Biotechnologies (INB), Aachen Univ. of Applied Sciences, Germany, ⁴Ankara Univ., Turkey

N&N.A.3 Antenna Integrated with Ultrafast MIM Diode for
15:10 Mid-IR Solar Energy Harvesting, *H. J. Christopher, C. Pârvulescu, A. Dinescu, M. Aldrigo,* IMT Bucharest, Romania

N&N.A.4 Onion-Like Carbon - PVP Nanocomposite Films for
15:30 Chemiresistive Detection of Isopropanol Vapor, *B.-C. Șerban¹, N. Dumbrăvescu¹, O. Buiu¹, M. Bumbac^{2,3}, C. Cobianu^{4,5}, M. Brezeanu⁶, M.-R. Marinescu, C. M. Zetu⁷, C. I. Pachiu¹, O. Brîncoveanu¹,* ¹IMT Bucharest, ²Faculty of Sciences and Arts, Valahia Univ. of Târgoviște, ³Institute of Multidisciplinary Research for Science Technology, Valahia Univ. of Târgoviște, ⁴Academy of Romanian Scientists, ⁵eBio-hub Center of Excellence in Bioengineering, National Univ. of Science and Technology Politehnica Bucharest, ⁶Faculty of Electronics, Telecommunications, and IT, National Univ. of Science and Technology Politehnica Bucharest, ⁷International Theoretical High School of Informatics, Bucharest, Romania

**N&N.A.5 A ZnO–PVP Functionalized Oxidized Carbon
15:50 Nanohorns Platform for Resistive Relative
Humidity Sensing, *B.-C. Serban*^{1*}, *N. Dumbravescu*¹,
*O. Buiu*¹, *M. Bumbac*^{2,3}, *C. Cobianu*^{4,5}, *M. Brezeanu*⁶,
*R. Marinescu*¹, *R. Salagean*⁷, *C. Pachiu*¹,
*O. Brancoveanu*¹, ¹IMT-Bucharest, ²Faculty of
Sciences and Arts, Valahia Univ. of Târgoviște,
³Institute of Multidisciplinary Research for Science
Technology, Valahia Univ. of Târgoviște, Targoviste,
⁴Academy of Romanian Scientists, ⁵eBio-hub Center of
Excellence in Bioengineering, National Univ.
Politehnica Bucharest, ⁶Faculty of Electronics,
Telecommunications, and IT, National Univ. of Science
and Technology, ⁷National College “Saint Sava”,
Bucharest, Romania**

**N&N.A.6 Semiconductor and Noble Metals to Engineer
16:10 Highly Sensitive 3D- SERS Platform, *A. Boldeiu*¹,
*A. B. Serban*², *C. I. Pachiu*¹, *M. Kusko*¹,
*I. Mihalache*¹, *C. Romanîţan*¹, ¹IMT-Bucharest,
²Extreme Light Infrastructure-Nuclear Physics (ELI-
NP), “Horia Hulubei” National R&D Institute for
Physics and Nuclear Engineering (IFIN-HH), Romania**

16:30-17:00 – Coffee Break

Friday, October 16, 14:30

Room 2

SEMICONDUCTOR DEVICES

Session: SD. *Oral presentations*

Chair: **O. Buiu**, IMT Bucharest, Romania

S. Cotofana, Delft University of Technology, The Netherlands

- SD.1** **An investigation of possibility for using the same**
14:30 **gate stack structure in nFET and pFET of GAA-**
 FET technology, *J. W. Park, M. Sohn, S. H. Lee,*
 S. H. Kim, W. Lee, D. Suh, Electronics and
 Telecommunications Research Institute (ETRI),
 Republic of Korea
- SD.2** **First results of a monolithically integrated Si-**
14:50 **LED/SPAD combination for a QRNG from the**
 QOSiLICIOUS project, *C. Ribisch¹, K. Schneider-*
 Hornstein², H. Zimmermann³, ¹Optical Quantum
 Technologies (OQT) AIT, ²MPEI TU Wien, ³OQT AIT
 & EMCE TU Wien, Austria
- SD.3** **Influence of Post-Fabrication Annealing in**
15:10 **Nitrogen-Purged Air Atmosphere on Charge**
 Trapping in Si MOS Capacitors, *R. Pascu¹,*
 G. Pristavu², G. Brezeanu², C. Romanitan¹,
 F. Drăghici², F. Mitu², ¹IMT-Bucharest, ²National
 Univ. Politehnica Bucharest, Romania
- SD.4** **Photo-Electrochemical Etching of Silicon Carbide**
15:30 **Junctions: Parameter Optimization and**
 Morphological Characterization, *A. Saji¹,*
 A. Gokarna¹, X. Gassman¹, K. Nomenyo¹,
 M. Lazar¹, I.-N. Bratosin², M. Stoian², R. Pascu²,
 D. Muller³, Y. Le Gall³, ¹L2n UMR CNRS 7076, Univ.
 of Technology of Troyes, France, ²IMT-Bucharest,
 Romania, ³Univ. of Strasbourg and CNRS, Strasbourg,
 France

- SD.5** **Experimental Platform for Gate-Drive-Dependent**
15:50 **Switching Characterization of Power**
Semiconductor Devices, *F. Mitu*^{1,2}, *A.-G. Enache*^{2,3},
F. Vladoianu^{4,2}, *G. Pristavu*², *F. Drăghici*²,
*G. Brezeanu*², ¹Mecro System, ²National University of
Science and Technology POLITEHNICA Bucharest,
³Deloitte Technology Delivery Center, ⁴IMT Bucharest,
Romania
- SD.6** **Surface Influence Assesment towards Selective**
16:10 **Electroplating for Thick and Fine Microelectrodes**,
*N. Kawai*¹, *Y. Mita*^{2,1}, ¹Nanosystem Integration Center,
Graduate School of Engineering, The Univ. of Tokyo,
²Dept. of Electrical Engineering and Information
Systems, Graduate School of Engineering, The Univ. of
Tokyo, Japan

16:30–17:00 – Coffee break

Friday, October 16, 17:00

**MICROSENSORS; SMART SYSTEMS;
MODELLING & SEMICONDUCTOR DEVICES -
STUDENT PAPERS**

Poster Session: P4

Chair: **E. Ceuca**, “1 Decembrie 1918” Univ. of Alba Iulia,
Romania

C. Pachiu, IMT Bucharest, Romania

- P4.1 Component-Aware Software Workflow for Automated Dosimetry Data Acquisition and Analysis**, *M. Tomić, D. Vasiljević-Radović*, Institute of Chemistry, Technology and Metallurgy, Univ. of Belgrade, Serbia
- P4.2 ADC Analog Switch Topologies Design-Oriented Performance Implementation**, *M. Marinca¹, E. Ilies¹, S. Krainer², J. L. Ceballos², A. Gontean¹*, ¹“Politehnica” University Timisoara, Romania, ²Infineon Technologies AG Villach, Austria
- P4.3 On Optimizing AI Upscaling for Medical Imaging**, *R.-F. Şoltuz¹, L. M. Sasu¹, C. B. Ciobanu^{2,1}*, ¹Transylvania University of Brasov, ²IMT Bucharest, Romania
- P4.4 Modeling and fabrication of a Bone-on-a-Chip device for osteoblast culture**, *M.-M. Bucur-Sabau^{1,2}, S. P. State^{1,2}, A. Banciu¹, O. G. Simionescu², E. Chiriac²*, ¹Faculty of Medical Engineering, National University of Science and Technology POLITEHNICA Bucharest, ²IMT Bucharest, Romania
- P4.5 Assessing Controlled Shutdown Performance in Dual Power MOSFET and IGBT Switch Topologies**, *F. Vladoianu^{1,2}, V.-E. Albei^{3,2}, F. Mitu^{4,2}, F. Drăghici¹, G. Pristavu²*, ¹IMT Bucharest, ²National Univ. of Science and Technology POLITEHNICA Bucharest, ³National Institute for R&D in Electrical Engineering ICPE-CA Bucharest, ⁴Mecro System
- P4.6 Comparative Evaluation of Three Additive Manufacturing Technologies for Printed Sensor Structures**, *E. Marinescu¹, C. I. Pachiu², M.-R. Marinescu², A. Jelescu², R. V. Aleksis¹, O. Marculescu², C. Marculescu², M. Ion², M. Carp², R. Popa², O. Buiu²*, ¹British School of Bucharest, ²IMT Bucharest

- P4.7 Cross-Architecture Benchmarking on Embedded Platforms, *C. Istudor¹, A. Visoiu¹, C. B. Ciobanu^{2,1}*,
¹Transilvania Univ. of Brasov, ²IMT Bucharest, Romania**
- P4.8 An ESP32-S3 TinyML Microsystem for Camera-Ultrasonic Parking Assistance, *A.-G. Neacsu, M.-A. Stoica, A.-E. Marcu*, National Univ. of Science and Technology POLITEHNICA Bucharest, Romania**
- P4.9 Real-Time Spectral Characterization of Light Sources Using a Portable AS7341-Based Sensing Platform, *M.-A. Stoica, A.-G. Neacsu, A.-E. Marcu*, National Univ. of Science and Technology POLITEHNICA Bucharest, Romania**
- P4.10 High-Precision Real-Time Parameter Extraction for a Planar Wireless Power Transfer System, *V. Petrascu¹, D. Samoila², G. Brezeanu¹, A. Tulbure²*,
¹National Univ. of Science and Technology POLITEHNICA Bucharest, ²“1 Dec. 1918” Univ. of Alba Iulia, Romania**

Friday, October 16, 17:00

INTEGRATED CIRCUITS - STUDENT PAPERS

Poster Session: P5

Chair: **R. Pascu**, IMT Bucharest, Romania

A. Tulbure, “1 Decembrie 1918” Univ. of Alba Iulia, Romania

- P5.1 Quality Assurance Methodology and Preliminary Results for bPOL12V-based Power Modules for Future LHCb RICH Detectors**, *G.-C. Salavarin^{1,2}, V.- M. Placinta¹, C. Ravariu²*, ¹Horia Hulubei National Institute for R&D in Physics and Nuclear Engineering, ²National Univ. of Science and Technology POLITEHNICA Bucharest
- P5.2 A Compact Single-Cycle Floating-Point Unit for Sensor Compensation**, *I.-S. Pirvu, C. Bira*, National Univ. of Science and Technology POLITEHNICA Bucharest
- P5.3 Functional Verification of a Device with SPI and Wishbone Interfaces using UVM Methodology**, *C.-N. Iordache, A. Dinu*, Transilvania Univ. of Braşov, Romania
- P5.4 A Low-Current Bidirectional Voltage Clamp for High-Voltage Differential Interfaces**, *C. Stancu, A. Voicu, O.-G. Profirescu, G. Dima*, National Univ. of Science and Technology POLITEHNICA Bucharest
- P5.5 A Programmable, Temperature-Compensated Gm-C Bessel Low-Pass Filter**, *M. Pangratie, F.-S. Dumitru, M. Enachescu*, National Univ. of Science and Technology POLITEHNICA Bucharest
- P5.6 Automated Technique for Sizing Current Mirrors for Mismatch Reduction**, *E. Şincari^{1,2}, L.-I. Vărzaru¹, F. Dumitru^{1,3}, M.-D. Ţopa²*, ¹Infineon Technologies AG, ²Technical Univ. of Cluj-Napoca, ³National Univ. of Science and Technology POLITEHNICA Bucharest
- P5.7 Stability Analysis of Multi-Loop Voltage Regulators using Signal Flow Graphs and Driving Point Impedance**, *P.-R. Moldovan, C.-S. Plesa, M. Neag*, Technical Univ. of Cluj-Napoca, Romania

Saturday, October 17, 10:00

**NANOMATERIALS; MICROSENSORS &
SYSTEMS FOR BIOMEDICAL APPLICATIONS -
STUDENT PAPERS**

Session: N.M&S. Oral presentations

Chair: **O. Ionescu**, IMT Bucharest, Romania

R. Voicu, IMT Bucharest, Romania

N.M&S- S.1 10:00 Air quality monitoring system, *D.-T. Rocsin¹, V. Linte¹, A. Grigoroiu², G. S. Muscalu², C. A. Moldovan², M. Enăchescu¹*, ¹National Univ. of Science and Technology POLITEHNICA Bucharest, ²IMT Bucharest, Romania

N.M&S- S.2 10:20 Electrochemical and Chemical Synthesis of Metallic Nanoparticle-Based Eutectogel Nanocomposites for Wound Dressing Applications, *A. Ginga^{1,2}, O. Brincoveanu¹, A. Mocanu¹, A. Serafim², G. Isopencu², A. Boldeiu¹, G. Toader³, A. Diacon³, S. State (Rosoiu)^{1,2}*, ¹IMT Bucharest, ²National Univ. of Science and Technology Politehnica Bucharest, ³Military Technical Academy "Ferdinand I", Romania

N.M&S- S.3 10:40 Doping ZnO with Dy, Eu and Gd - effect on morphological and optical properties, *M. Manica¹, L. Chiriacescu^{1,2}, I. V. Tudose^{3,1}, D. Manica¹, C. Romanițan¹, O. Brîncoveanu¹, E. Koudoumas^{1,3}, M. P. Sucheai^{1,3}*, ¹IMT Bucharest, ²Faculty of Physics, University of Bucharest, Romania, ³Hellenic Mediterranean Univ., Greece

N.M&S- S.4 11:00 On Accelerating Medical Diagnostics Algorithms, *C. B. Ciobanu^{1,2}, B. V. Floricescu², C.-N. Carcalețeanu², V. G. Anghel³, C. Bandas², G. Ș. Ionescu²*, ¹IMT Bucharest, ²Transilvania Univ. of Brasov, ³National Univ. of Science and Technology Politehnica Bucharest, Romania

N.M&S- S.5 11:20 U-Net for Synthetic Noise Reduction in Breast MRI: A Five-Noise Evaluation Study, *A. I. Dumachi, L. Bîlteanu, F. Negoită*, IMT Bucharest, Romania

13:00-14:00 – Lunch

Saturday, October 17, 10:00

**INTEGRATED CIRCUITS –
STUDENT PAPERS IV**

Session: IC-S.4 *Oral presentations*

Chair: **T. Visan**, Infineon Technologies Romania
A. Antonescu, National Univ. of Science and
Technology POLITEHNICA Bucharest, Romania

- IC-S.4.1** **Electromagnetic Interference Susceptibility of**
10:00 **Discrete-Time Sigma-Delta ADCs in Sensor**
Applications, A. Obuhov^{1,2}, D.-I.-D. Stoica²,
A.-R. Bacaoanu^{1,2}, R.-G. Bozomitu¹, ¹Technical Univ.
“Gheorghe Asachi” of Iasi, ²Infineon Technologies,
Romania
- IC-S.4.2** **Digital Charge-Mode Control with Adaptive Valley-**
10:20 **Current Estimation for a Buck Converter, E. Vladu,**
M. G. Neag, C. Crisan, Technical Univ. of Cluj-
Napoca, Romania
- IC-S.4.3** **Diminished Start-Up Overshoot Additional Control**
10:40 **Loop in a High Voltage Peak-Current Mode**
Asynchronous DC-DC Buck Converter,
G.-M. Constantin, G. Brezeanu, National Univ. of
Science and Technology Politehnica Bucharest,
Romania
- IC-S.4.4** **Design of a High-Speed Current-Steering DAC,**
11:00 **D.-A. Angelescu, T. Antonovici, F.-S. Dumitru,**
M. Enăchescu, National Univ. of Science and
Technology Politehnica Bucharest, Romania
- IC-S.4.5** **Built-In Self-Test Techniques for a 12-Bit SAR ADC**
11:20 **in 130 nm: A Functional Safety Case Study,**
C.-A. Plămădeală, T. Antonovici, M. Enăchescu,
National Univ. of Science and Technology Politehnica
Bucharest, Romania
- IC-S.4.6** **Design of a Second-Order Sigma-Delta ADC for**
11:40 **Microbolometer Sensor Readout, C. Condrea,**
T. Antonovici, F.-S. Dumitru, M. Enăchescu, National
Univ. of Science and Technology Politehnica
Bucharest, Romania

13:00-14:00 – Lunch

Saturday, October 17

- 14:00-17:00** **Workshop Research Security, Ethics and Integrity**
organized by IMT Bucharest in partnership with
UEFSCDI and ANC, Romania
(UEFISCDI - Executive Unit for Financing Higher
Education, Research, Development and Innovation;
ANC - National Authority for Research)
- 14:00-17:00** **Trip to Rhein Sparkling Wine Cellars, Azuga:
Tour and Tasting**
- 20:00** **CAS 2026 Banquet including Best Paper Awards
ceremony** (Hotel Sinaia Restaurant)

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