

Organized by:





National University of Science and Technology POLITEHNICA Bucharest

http://www.upb.ro

University of Craiova https://www.ucv.ro/

Technical University of Cluj-Napoca https://www.utcluj.ro/





HELLA Technical Center Craiova (FORVIA Group)

https://www.hella.com/hella-ro/









IEEE HU&RO EPS&NTC Joint Chapter

https://r8.ieee.org/huro-epnano/

Association for Promoting Electronics Technology, APTE

http://www.apte.org.ro

Important Projects of Common European Interest on Microelectronics

https://www.ipcei-me.eu/

Continental Automotive Romania

https://www.continental.com/

EDITORS:

- ❖ Paul SVASTA
- Rodica NEGROIU
- ❖ Delia LEPĂDATU

PUBLISHER:



2nd SUMMIT OF IEEE EPS & NTC STUDENT BRANCH CHAPTERS

Dear Advisors, Dear Students,

Dear Members of the Electronics Packaging & Nanotechnology Community,

The first Student Branch Chapters Summit, September 2022, was a large-scale event gathering the Student Branch Chapters from our geographical region. The Summit was attended by *Kitty Pearsall*, PhD., at that time the *IEEE Electronics Packaging Society President*. The event was highly appreciated by Kitty who suggested creating a tradition in organizing such an event. Consequently, we are today facing the second edition of the IEEE EPS & NTC Student Branch Chapters Summit that is a good opportunity where the participating Student Branch Chapters will have the chance to broaden their horizons. This Summit aims to achieve the following objectives:

- Bringing together in one place IEEE students from Romania and abroad. In this way, new ideas can be developed, and fruitful collaboration will occur;
- Improving connections between attendees and industry, as the Summit program includes a visit to a major electronics company;
- The opportunity to meet and network with key figures from academia and industry. Keynote speakers will focus in depth on topics of great interest to the electronics industry that will have a significant impact on the future.

Considering the current context in which the European Commission is giving high priority to semiconductor technology and its applications, we propose a topic of great interest for the second edition of the Summit: Chiplet Technology. We would like to draw the attention of all participants to this hot topic that will revolutionize chip technology in the not-too-distant future. The highlight of October 17 will be the panel discussion, where we have tried to bring together representatives from the industry. They all have a background in electronic packaging and, more recently, in chiplet technology. The purpose is to get the participating students interested in the proposed topic, but also to determine the students' perception of chiplet technology.

We would like to thank the University of Craiova for hosting this summit and the companies that made possible the smooth running of this event, especially to Forvia Hella, for its efforts put into organizing and sponsoring this summit. We want to give special thanks to Professor Cătălin CONSTANTINESCU, Vice-Dean of the Faculty of Automation, Computers and Electronics of the University of Craiova, and to Ms. Cosmina BÂLDEA, manager of "Casa Universitarilor", for their special efforts put into the success of this event.

We wish you all a pleasant stay in Craiova and hope that each student of the branch chapters will become a *chiplet* that, although individually packaged, can achieve greater things interconnected.

Prof. Ovidiu POP, Ph.D.

Technical university of Cluj-Napoca
IEEE EPS & NTC Hu-Ro Joint Chapter SBC's Coordinator

Lect. Rodica NEGROIU, Ph.D.

UNST Politehnica of Bucharest
Advisor of Nanotechnology Student Branch Chapter
UNST Politehnica of Bucharest





2nd SUMMIT OF IEEE EPS & NTC STUDENT BRANCH CHAPTERS AGENDA

17 October 2023, "CASA UNIVERSITARILOR" building	
"Nicolae Romanescu" Room, 1 st floor	
08:30	Registration
09:00	Opening ceremony Speakers: ❖ Ovidiu A. POP (IEEE EPS & NTC Hu-Ro Joint Chapter SBC's Coordinator) ❖ Mark POLIKS (Director of IEEE EPS Student Programs) ❖ Cosmin IONETE (Director, Faculty of Automation, Computers and Electronics Department, University of Craiova) ❖ Nicolae NEAGU (General Manager, Hella Technical Center Craiova, Romania) ❖ Attila BONYÁR (IEEE EPS & NTC Hu-Ro Joint Chapter Chair, IEEE NTC Nanopackaging Technical Committee Chair)
09:30	Oral Session Chair: Attila BONYÁR Keynote Speaker: ❖ Mark POLIKS (Director of IEEE EPS Student Programs, SUNY Distinguished Professor of Engineering, Director of Center for Advanced Microelectronics Manufacturing (CAMM)) "Maintaining an Active IEEE Electronics Packaging Society Student Branch Chapter"
10:00	Keynote Speaker: Cătălin CIOBANU (Lecturer, Transilvania University of Brasov) "Beyond Moore's Law: Leveraging Advanced Packaging Technology"
10:30	CoffeeBreak 🔐

2nd SUMMIT OF IEEE EPS & NTC STUDENT BRANCH CHAPTERS

Panel discussion - "Chiplets technology" Moderators: Paul SVASTA, UNST POLITEHNICA of Bucharest, Romania Bogdan MIHĂILESCU, UNST POLITEHNICA of Bucharest, Romania Panelists: * Kemal AYGÜN (Distinguished INTEL Fellow, Intel Corporation) * Anda JÂJÂIE (Vice-Chair, Nanotechnology Student Branch Chapter UNST POLITEHNICA of Bucharest, Romania) * Alin FLOREA (Principal Engineer, CE Packaging, Marvell Technology) * Dan MANOLESCU (Director, Package Design Engineering, Marvell Technology) * Cosmin MOISA (Head of R&D Advanced Projects Software and Central Technologies Timisoara, Continental Automotive Romania) 12:45		Panal discussion "Chiplots tack notes:"
Paul SVASTA, UNST POLITEHNICA of Bucharest, Romania Bogdan MiHĂILESCU, UNST POLITEHNICA of Bucharest, Romania Panelists: * Kemal AYGÜN (Distinguished INTEL Fellow, Intel Corporation) * Anda JÂJÂIE (Vice-Chair, Nanotechnology Student Branch Chapter UNST POLITEHNICA of Bucharest, Romania) * Alin FLOREA (Principal Engineer, CE Packaging, Marvell Technology) * Dan MANOLESCU (Director, Package Design Engineering, Marvell Technology) * Cosmin MOISA (Head of R&D Advanced Projects Software and Central Technologies Timisoara, Continental Automotive Romania) 12:45		
Bogdan MIHĂILESCU, UNST POLITEHNICA of Bucharest, Romania Panelists: * Kemal AYGÜN (Distinguished INTEL Fellow, Intel Corporation) * Anda JÂJÂIE (Vice-Chair, Nanotechnology Student Branch Chapter UNST POLITEHNICA of Bucharest, Romania) * Alin FLOREA (Principal Engineer, CE Packaging, Marvell Technology) * Dan MANOLESCU (Director, Package Design Engineering, Marvell Technology) * Cosmin MOISA (Head of R&D Advanced Projects Software and Central Technologies Timisoara, Continental Automotive Romania) 12:45 Lunch 13:30 SBCs activity report, Common future cooperation Chair: Ovidiu A. POP 14:30 Transfer to Hella ##ELLA presentation * Paul ZDRAVCU (Head of Testing Team, Hella Technical Center Craiova, Romania) 15:30 ##ELLA visit 17:30 Closing ceremony Chairs: Ovidiu A. POP, Attila BONYÁR 18:00 Transfer back		
Panelists: * Kemal AYGÜN (Distinguished INTEL Fellow, Intel Corporation) * Anda JÂJÂIE (Vice-Chair, Nanotechnology Student Branch Chapter UNST POLITEHNICA of Bucharest, Romania) * Alin FLOREA (Principal Engineer, CE Packaging, Marvell Technology) * Dan MANOLESCU (Director, Package Design Engineering, Marvell Technology) * Cosmin MOISA (Head of R&D Advanced Projects Software and Central Technologies Timisoara, Continental Automotive Romania) 12:45		
* Kemal AYGÜN (Distinguished INTEL Fellow, Intel Corporation) * Anda JÂJÂIE (Vice-Chair, Nanotechnology Student Branch Chapter UNST POLITEHNICA of Bucharest, Romania) * Alin FLOREA (Principal Engineer, CE Packaging, Marvell Technology) * Dan MANOLESCU (Director, Package Design Engineering, Marvell Technology) * Cosmin MOISA (Head of R&D Advanced Projects Software and Central Technologies Timisoara, Continental Automotive Romania) 12:45		
* Anda JÂJÂIE (Vice-Chair, Nanotechnology Student Branch Chapter UNST POLITEHNICA of Bucharest, Romania) * Alin FLOREA (Principal Engineer, CE Packaging, Marvell Technology) * Dan MANOLESCU (Director, Package Design Engineering, Marvell Technology) * Cosmin MOISA (Head of R&D Advanced Projects Software and Central Technologies Timisoara, Continental Automotive Romania) 12:45		
Chapter UNST POLITEHNICA of Bucharest, Romania) Alin FLOREA (Principal Engineer, CE Packaging, Marvell Technology) Dan MANOLESCU (Director, Package Design Engineering, Marvell Technology) Cosmin MOISA (Head of R&D Advanced Projects Software and Central Technologies Timisoara, Continental Automotive Romania) 12:45		
* Alin FLOREA (Principal Engineer, CE Packaging, Marvell Technology) * Dan MANOLESCU (Director, Package Design Engineering, Marvell Technology) * Cosmin MOISA (Head of R&D Advanced Projects Software and Central Technologies Timisoara, Continental Automotive Romania) 12:45	40.45	
Marvell Technology) Dan MANOLESCU (Director, Package Design Engineering, Marvell Technology) Cosmin MOISA (Head of R&D Advanced Projects Software and Central Technologies Timisoara, Continental Automotive Romania) 12:45 Lunch SBCs activity report, Common future cooperation Chair: Ovidiu A. POP 14:30 Transfer to Hella HELLA presentation Paul ZDRAVCU (Head of Testing Team, Hella Technical Center Craiova, Romania) 15:30 HELLA visit 17:30 Closing ceremony Chairs: Ovidiu A. POP, Attila BONYÁR 18:00 Transfer back	10:45	
 ❖ Dan MANOLESCU (Director, Package Design Engineering, Marvell Technology) ❖ Cosmin MOISA (Head of R&D Advanced Projects Software and Central Technologies Timisoara, Continental Automotive Romania) 12:45 Lunch 13:30 SBCs activity report, Common future cooperation Chair: Ovidiu A. POP 14:30 Transfer to Hella ★ Paul ZDRAVCU (Head of Testing Team, Hella Technical Center Craiova, Romania) 15:30 HELLA visit 17:30 Closing ceremony Chairs: Ovidiu A. POP, Attila BONYÁR 18:00 Transfer back 		() []
Marvell Technology) Cosmin MOISA (Head of R&D Advanced Projects Software and Central Technologies Timisoara, Continental Automotive Romania) 12:45 Lunch SBCs activity report, Common future cooperation Chair: Ovidiu A. POP 14:30 Transfer to Hella HELLA presentation Paul ZDRAVCU (Head of Testing Team, Hella Technical Center Craiova, Romania) 15:30 HELLA visit 17:30 Closing ceremony Chairs: Ovidiu A. POP, Attila BONYÁR 18:00 Transfer back		
* Cosmin MOISA (Head of R&D Advanced Projects Software and Central Technologies Timisoara, Continental Automotive Romania) 12:45		
Central Technologies Timisoara, Continental Automotive Romania) 12:45		
Romania) 12:45		· ·
13:30 SBCs activity report, Common future cooperation Chair: Ovidiu A. POP 14:30 Transfer to Hella HELLA presentation Paul ZDRAVCU (Head of Testing Team, Hella Technical Center Craiova, Romania) 15:30 HELLA visit 17:30 Closing ceremony Chairs: Ovidiu A. POP, Attila BONYÁR 18:00 Transfer back		
13:30 SBCs activity report, Common future cooperation Chair: Ovidiu A. POP 14:30 Transfer to Hella HELLA presentation Paul ZDRAVCU (Head of Testing Team, Hella Technical Center Craiova, Romania) 15:30 HELLA visit 17:30 Closing ceremony Chairs: Ovidiu A. POP, Attila BONYÁR 18:00 Transfer back		Romania)
13:30 Chair: Ovidiu A. POP 14:30 Transfer to Hella HELLA presentation Paul ZDRAVCU (Head of Testing Team, Hella Technical Center Craiova, Romania) 15:30 HELLA visit 17:30 Closing ceremony Chairs: Ovidiu A. POP, Attila BONYÁR 18:00 Transfer back	12:45	Lunch
Transfer to Hella ### HELLA presentation Paul ZDRAVCU (Head of Testing Team, Hella Technical Center Craiova, Romania) #### HELLA visit #### Closing ceremony Chairs: Ovidiu A. POP, Attila BONYÁR #### 18:00 Transfer back	13:30	SBCs activity report, Common future cooperation
## HELLA presentation		Chair: Ovidiu A. POP
## HELLA presentation	14.20	Transfer to Hella
15:00 ♣ Paul ZDRAVCU (Head of Testing Team, Hella Technical Center Craiova, Romania) 15:30 HELLA visit 17:30 Closing ceremony Chairs: Ovidiu A. POP, Attila BONYÁR 18:00 Transfer back	14:30	Transfer to riena
Romania) 15:30 HELLA visit 17:30 Closing ceremony Chairs: Ovidiu A. POP, Attila BONYÁR 18:00 Transfer back		HELLA presentation
Romania) 15:30 HELLA visit 17:30 Closing ceremony Chairs: Ovidiu A. POP, Attila BONYÁR 18:00 Transfer back	15:00	❖ Paul ZDRAVCU (Head of Testing Team,
15:30 HELLA visit 17:30 Closing ceremony Chairs: Ovidiu A. POP, Attila BONYÁR 18:00 Transfer back		Tiend Teelimedi Center Graid (a)
17:30 Closing ceremony Chairs: Ovidiu A. POP, Attila BONYÁR 18:00 Transfer back		Romania)
17:30 Chairs: Ovidiu A. POP, Attila BONYÁR 18:00 Transfer back	15:30	HELLA visit
Chairs: Ovidiu A. POP, Attila BONYAR 18:00 Transfer back	17:30	Closing ceremony
Transjer saek		Chairs: Ovidiu A. POP, Attila BONYÁR
18:30 Networking Dinner	18:00	Transfer back
	18:30	Networking Dinner

On the IEEE EPS & NTC Student Branch Chapters Summit

In the name of the IEEE Hungary/Romania Section EPS&NTC joint-chapter, I welcome all participants at the 2nd Student Branch Summit in Craiova, 2023. In IEEE EPS the seven SBCs in the Romania-Hungary-Bulgaria region is an exceptionally high density, while in IEEE NTC, there are no other SBCs in the whole R8, except for Bucharest and Budapest. This achievement praises both the initiative of Prof. Paul Svasta and the efforts of all chapter members in establishing not just the SBCs themselves, but for establishing and maintaining the strong professional network on which the SBCs could be built. The approaching 30th anniversary of the International Symposium for Design and Technology in Electronic Packaging proudly illustrates that this effort encompasses several decades, both on a national and international level. In this second event, I would like to encourage all participants, especially the SBC members, to connect with each other, try to find areas of possible cooperation with other SBCs, and ultimately help us maintain and grow this professional network further. It is often heard that "students are the future", the fresh blood that can vitalize and sustain our profession. This is true for both academia and industry, where you will

continue your career after graduation, and also for our professional communities and I hope that this regional hot-spot of student branch chapters is heralding a bright future for our community.

Dr. Attila Bonyár, Ph.D., habil Associate professor Department of Electronics Technology of BME Chair, Hu&Ro EPS&NTC joint-chapter



The IEEE Student Branch Chapter (SBC) system was conceived to allow like-minded, passionate electronics students to create local associations and to communicate as peers. Along with the implicit IEEE benefits such as providing access to papers and opinion articles, SBCs are encouraged to grow and develop their projects within the field. In recent years, the number of Electronic Packaging and Nanotechnology chapters has increased in the region, with Bulgaria, Hungary and especially Romania establishing SBCs in Ruse, Budapest, Bucharest, Cluj, Timişoara, Iaşi, Sibiu and, most recently, Craiova.

The 2022 ESTC conference held in Sibiu brought for the first time a flagship event in electronics to Eastern Europe. Arguably more important for the Student Chapter community may have been the day before the conference. The Sibiu Chapter, with the full support of the Sibiu Faculty of Engineering and the main sponsor Continental, organized the first SBC Summit, in which student members from all the universities met face to face, shared experiences and insights, connected and found out that collaboration may not be as farfetched as it seemed. The Summit also included visits to influential local industrial partners, whose support and tours showed the necessity and widespread use of electronics in the current industrial environment.

The Summit has been a good step in establishing more direct contact between students, opening the doors for increased communication and common projects, as well as setting a precedent for meaningful meetings in person, within such dedicated events.

Let's make it a tradition!

Mihai NEGHINĂ Chair of the 1st Summit of IEEE EPS & NTC SBCs, 2022





Mark POLIKS

Director of IEEE EPS Student Programs



Mark POLIKS is Empire Innovation Professor of Engineering, Professor of Systems Science and Industrial Engineering, Professor of Materials Science and Engineering and Director of the Center for Advanced Microelectronics Manufacturing (CAMM) at the State University of New York at Binghamton. In 2006 he established the first research center (CAMM), to explore the application of roll-to-roll processing methods to flexible electronics and displays, with equipment funding from the United States Display

Consortium (USDC) and the Army Research Lab. His research is in the areas of industry relevant topics that include: high performance electronics packaging, flexible hybrid electronics, medical and industrial sensors, materials, processing, aerosol jet printing, roll-to-roll manufacturing, in-line quality control and reliability. He is the recipient of the SUNY Chancellor's Award for Excellence in Research. He is an active member of the IEEE Electronics Packaging Society Electronic Component and Technology Conference and served and the 69th ECTC General Chair. Poliks received dual undergraduate degrees, with honors, in chemistry and mathematics from the University of Massachusetts and a Ph.D. from the University of Connecticut in materials science and engineering.

Cătălin CIOBANU

Lecturer of Transilvania Univesity of Brașov



Cătălin CIOBANU has a 5-year engineering degree from Transilvania University of Brașov, graduating in 2006. He obtained a Master of Science degree in 2007 and a PhD in Computer Engineering in 2013, both from Delft University of Technology, The Netherlands. He continued as a PostDoc at Chalmers University of Technology, Sweden and as a researcher at University of Amsterdam, The Netherlands. Since 2020 he is affiliated with Transilvania University of Brașov at the Faculty of Electrical Engineering and Computer

Science. In 2018, he received the Best paper award at Reconfigurable Architectures Workshop, Vancouver, Canada for the paper "MAX-PolyMem: High-Bandwidth Polymorphic Parallel Memories for DFEs". In 2023 he supervised a team from Transilvania University of Brasov which won the Student Category at the AMD/Xilinx Open Hardware competition with the project "Al-augumented barcode reader using Xilinx Kria KV260".

Panel discussion - Moderators

Paul SVASTA

Senior Joint Chapter Chair of IEEE EPS & NTC Hu-Ro Joint Chapter
President APTE



Paul SVASTA, Ph. D. is Emeritus professor at the National University of Science and Technology Politehnica of Bucharest, Romania, Head of Center for Technological Electronics and Interconnection Techniques, UPB-CETTI.

He is President and Founder of APTE (Association for Promotion of Electronics Technology) and ELINCLUS (Electronic INnovation CLUSter). APTE, as cluster management entity, after evaluation by

ESCA (European Secretariat for Cluster Analysis), was labeled with Silver Label. He is Doctor Honoris Causa of the Technical University of Cluj Napoca and the University of Pitesti. He received in 2000 the National Order "Faithful Service" with the rank of officer. Medal of Merit, Armed Forces Communication & Electronics Association Award (AFCEA) in 2014, he received, in 2015 the IEEE CPMT Regional Contributions Award – Region 8 (Europe, Africa, Middle East) and in 2021 the IEEE EPS David Feldman Award. He is co-founder and very active with the Hungarian & Romanian IEEE-EPS Joint Chapter, past advisor of IEEE EPS "Politehnica University of Bucharest" Student Branch Chapter and member of many international conferences Steering Committees and Scientific Program Committees (ISSE, SIITME, ESTC, IMAPS etc).

Bogdan-Traian MIHĂILESCU

Lecturer of UNST Politehnica of Bucharest, Romania



Bogdan-Traian MIHĂILESCU, Ph.D. is lecturer of the National University of Science and Technology Politehnica of Bucharest, Romania, the Faculty of Electronics, Telecommunications and Information Technology. He has been involved in national and international projects regarding Digital Innovation, E-Learning Education and Continuing Training to Electronics Assembling Technology, research projects in the domain of Electronics

Packaging. The latest project, Pack4EU, aims to create a European Definition of "Advanced Packaging" to give European policy makers a chance to understand and prepare measures for SMEs engagement in the innovation ecosystem, as well as assess the gap in education and skills for the need of the advanced packaging industries for the next 10 years. Since 2014 he is also the Executive Manager of Electronics Innovation Cluster (ELINCLUS) based in Romania which in 2023 has 84 members, 68 of which are SMEs in the field of Electronics and IT&C.

Panel discussion - Panelists



Distinguished INTEL Fellow, Intel Corporation



Kemal AYGÜN received the Ph.D. degree in electrical and computer engineering from the University of Illinois at Urbana-Champaign, Urbana, IL, USA, in 2002. In 2003, he joined the Intel Corporation, Chandler, AZ, USA, where he is currently an Intel Fellow and manages the High Speed I/O (HSIO) team in the Electrical Core Competency group. His research interests include novel technologies along with electrical modelling and characterization techniques for microelectronic packaging. Dr.

Aygün was a recipient of the Semiconductor Research Corporation (SRC) Global Research Collaboration (GRC) Mahboob Khan Outstanding Mentor Award in 2008 and 2015 for his contributions in mentoring SRC GRC academic research projects. He was the General Chair of the 2020 IEEE Electrical Performance of Electronic Packaging and Systems Conference. He is an IEEE Fellow and has been acting as a Distinguished Lecturer for the IEEE Electronics Packaging Society (EPS); a co-chair of the EPS Technical Committee on Electrical Design, Modelling, and Simulation; and an associate editor for the IEEE Transactions on Components Packaging, and Manufacturing Technology.

Anda JÂJÂIE

Vice-Chair, Nanotechnology Student Branch Chapter UNST POLITEHNICA of Bucharest, Romania



Anda JÂJÂIE is an undergraduate student at the Faculty of Electronics, Telecommunications and Information Technology, part of the National University of Science and Technology Politehnica Bucharest. This spring, she participated at "Smart Diaspora" conference organized at Timisoara, where she met professionals in various areas of electronics, as well as at the Students' Scientific Communications Session, a contest organized

in her faculty. In the summer of this year, she took part in two summer schools: "ASIC Design Summer School", organized by MARVELL in her faculty, and "Fascinating Electronics for a Cool World Summer School", organized by Eposs, Aeneas and Inside in Italy. She is part of a team which will present the "Chiplets and Next-gen Packaging Technologies in University Education" paper at SIITME 2023 conference.

Panel discussion - Panelists

Alin FLOREA

Principal Engineer, CE Packaging, Marvell Technology



Alin FLOREA has over 18 years of experience in package planning, design, simulation manufacturing and assembly, Alin Florea is currently responsible for packaging roadmap and new technologies at Marvell, working with suppliers to develop next generation package technologies. He's focused on a wide range of packaging technologies like 2.5D, 3D, embedded, and Co-Package Optics.

Dan MANOLESCU

Director, Package Design Engineering, Marvell Technology



Dan MANOLESCU is a dynamic leader with a wealth of experience in the field of Package Design, currently holding the position of Director of Package Design at Marvell Technology. Based in Bucharest, he leads Marvell's advanced package design and simulation team.

Dan's journey in engineering began with his graduation from UPB, where he earned a degree in Electrical Engineering and Computer Science in 2004. Since then, his career has been

marked by a focus on interconnect design. Throughout his career, he has successfully executed numerous ASIC projects, harnessing a variety of advanced packaging technologies. Since 2018, Dan has been at the helm of Marvell's package design group, where he spearheads the development of advanced packages for new Marvell products. Beyond his role at Marvell, Dan is actively engaged in cultivating partnerships with local academia. He played a pivotal role in coordinating Marvell's ASIC Summer School in both 2022 and 2023, in collaboration with UPB. Furthermore, he contributes to educational initiatives by sponsoring and sharing his knowledge in contests like TIE and TIE+.



Cosmin MOISA

Head of R&D Advanced Projects
Software and Central Technologies Timisoara
Continental Automotive România



Cosmin MOISA studied between 1999 - 2006 Electrical Engineering at Politehnica University of Timisoara with a diploma stage with a 6-month contract at the "Fraunhofer Institute for Manufacturing Engineering and Automation" IPA in Stuttgart, Germany. In 2005, he started as Hardware Engineer at Siemens VDO, Timisoara. Since 2010, he joined the Interconnection Techniques in Electronics (TIE) contest as General Industrial Co-Chair and the IEEE International Symposium for Design and Technology in Electronic Packaging

(SITME) as Conference Co-Chair. In 2011, he started as Head of Department for Hardware and System Engineering. Between 2012 - 2019 he was Associated Lecturer and coordinator for the external class Development of Electronic Products. Between 2015-2022, he was heading the Product Development Center, Camera and Interior Sensing Timisoara. In 2020, he co-organized and hosted the kick-off for the IEEE Hungary & Romania EPS & NTC Joint Chapter. He started in 2021 as IEEE Romania Section Industry Ambassador. He was nominated in 2021 as the Secretary of the Working Group Microelectronics under the Aegis of the Romanian Academy.



NTC&EPS SBC at Budapest University of Technology and Economics

Our activities and current results

The SBC at Budapest University of Technology and Economics, Faculty of Electrical Engineering and Informatics, Department of Electronics Technology was founded during the summer, 2022. The main activities of the SBC are connected to both NTC and EPS. Our NTC-related activities include nanoparticle and nanocomposite synthesis for sensing and nanopackaging applications; development of localized surface plasmon resonance (LSPR) and surface enhanced Raman-spectroscopy measurement platforms for label-free biosensing applications; development of microfluidics to support our sensoric applications and the development of digital-twins for the optimization of plasmonic nanostructures with numerical simulations. The EPS-related activities include the focus on improving sustainability of traditional packaging processes, e.g. the research of novel biodegradable printed circuit board materials for greener, sustainable electronics; developing numerical simulations and sensor-fusion based monitoring solutions; investigations of the influence of nanocomposite solder pastes; investigation of machine learning techniques in reflow soldering processes and developing numerical simulations for various packaging-related areas, such as reflow soldering, or high-current applications.

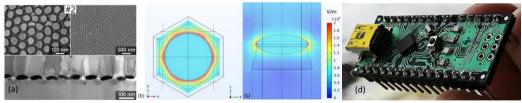


Fig. 1.a) Hexagonally arranged gold nano-ellipsoid particle arrangements on SiO₂ support, used as a plasmonic nanocomposite sensor. b) and c) E-field distribution around the particles calculated with the digital twin of the nanocomposite sensor element (Ref: Bonyár and Kovács, Nanomaterials 2023, 13(14), 2044).

d) Biodegradable Arduino Nano clone designed and manufactured by BME-ETT.

2nd SUMMIT OF IEEE EPS & NTC STUDENT BRANCH CHAPTERS

Our student branch chapter team







Dániel STRAUBINGER

Past-Chair



Gergő HAVELLANT
Secretary



Alexandra BORÓK

Treasurer



Dr. Attila Bonyár

Advisor of NTC&EPS SBC at Budapest University of Technology and Economics

bonyar.attila@vik.bme.hu



IEEE Electronics Packaging Society, Student Branch Chapter, Technical University of Cluj-Napoca

Our activities and current results

The EPS Student Branch Chapter from Technical University of Cluj-Napoca aims to provide students with opportunities to learn, collaborate, and engage in activities related to electronic packaging technology, which plays a crucial role in the design, manufacturing, and reliability of electronic devices and systems. Numerous activities are dedicated to organizing technical training sessions for students who wish to gain proficiency in contemporary Computer-Aided Design (CAD) tools. Additionally, active involvement in presenting original research papers and coordinating Student Scientific Communication Sessions stands out as a significant objective, consistently yielding commendable outcomes. Our organization offers technical guidance for the advancement of student research projects and the necessary infrastructure for the practical realization of their projects. The Board of SBC initiated training events and workshops tailored to students interested in competing in the TIE and TIEplus contests. As a result of these efforts, some of our students successfully advanced to the final rounds of the competition, achieving valuable results. It's a tradition that every year, we actively participate in the coordination of the Student Scientific Communication Sessions, and we also have some of our faculty members serving on the evaluation committee.

Our student branch chapter team



Elena ŞTEŢCO

Chair

Elena.Stetco@ael.utcluj.ro



Adelina ILIEŞ

Vice-Chair



Cristina DAVIDAŞ

Secretary



Ana Maria PETRI

Treasurer



Alexandru BERCIU
Webmaster



Alin GRAMA

Advisor of IEEE EPS Student Branch Chapter from Technical University of Cluj-Napoca

Alin.Grama@ael.utcluj.ro



A student branch chapter of the IEEE Nanotechnology Council

Nanotechnology Student Branch Chapter, National University of Science and Technology POLITEHNICA of Bucharest, Romania

Our activities and current results

Our student branch chapter, the Nanotechnology Student Branch Chapter (NTC SBC), National University of Science and Technology POLITEHNICA of Bucharest, is part of the technical organization IEEE Nanotechnology Council. It was founded in April 2020 with the aim of creating synergies between students, members of the Nanotechnology Students Chapter and students of other student branches, both at national and international level. Lately, the members of our student branch chapter have been and are still massively involved in events related to organizing and promoting the chapter and the Romanian IEEE community, as well as in activities related to scientific research with a major impact on current and future technology. Among the first events our NTC SBC members contributed to being organized, two are worth mentioning: the first edition of the IEEE EPS&NTC Student Branch Chapters Summit, held in last autumn at Sibiu, Romania, one day before the beginning of The Electronics System-Integration Technology Conference (ESTC 2022), and the 120th IEEE Region 8 Committee Meeting, which took place in March 2023 in Bucharest, Romania (see figure 1).



Fig. 1. Some of the events in which our team was involved

2nd SUMMIT OF IEEE EPS & NTC STUDENT BRANCH CHAPTERS

In terms of the promotion and development of our SBC, our vice-chair was selected to participate in two summer schools (2023 ASIC Design Summer School, Fascinating Electronics for a Cool World Summer School 2023) and our secretary had the opportunity to study for a semester at the Deggendorf Institute of Technology in Germany through the Erasmus programme. In all the events they attended, NTC SBC members tried to create synergies with the local communities, but also those outside the country.

In terms of scientific research, our collective is strongly involved in the development of supercapacitors, but also in chiplets technology. Scientific papers have been presented at The International Symposium for Design and Technology in Electronic Packaging (SIITME), The International Spring Seminar on Electronics Technology (ISSE) and The Electronics System-Integration Technology Conference (ESTC) based on these broad topics. One of the papers presented at the ISSE conference resulted from our collaboration with the Student Branch Chapter of the Budapest Nanotechnology Chapter coordinated by Dr. Attila Bonyar. Also, together with the Budapest team under the IEEE Ro&Hu EPS&NTC Joint Chapter we won a project in the Innovation Grant 2023 competition funded by the IEEE Nanotechnology Council.

Our student branch chapter team



Mădălina-Irina BURCEA Chair madalina.burcea@cetti.ro



Anda JÂJÂIE Vice-Chair



Daria-loana DEDU Secretary



Andreea CHIOREANU
Treasurer



Corina SĂNDULESCU Member



Rodica NEGROIU

Advisor of NTC SBC, UNST POLITEHNICA of Bucharest, Romania

rodica.negroiu@cetti.ro





A Student Chapter of the Electronics Packaging Society

Electronics Packaging Society (EPS) Student Branch Chapter at the University of Ruse, IEEE

Our activities and current results

The University of Ruse EPS student branch chapter was created in 2022. Currently it has 9 members, who are students in the Faculty of Electrical Engineering, Electronics and Automation. The chapter is involved in a wide range of activities, such as:

- Organization of events in the area of Electronics;
- Participation in conferences, workshops, expos, etc. (Fig. 1);
- Exchange of experience with other EPS student branch chapters from Eastern and Central Europe;
- Meetings with world -renowned experts in the field of electronics;
- Support in the organization of the IEEE conference on Energy Efficiency and Agricultural Engineering (https://eeae-conf.uni-ruse.bg/) – a photo from the industrial session (Fig. 2).



Fig. 2. Participation in the Innovative Youth Expo 2023



Fig. 3. Participation in the IEEE EE&AE 2022 conference

Our student branch chapter team



Tsvetelina STEFANOVA

Chair
tsveti.stefanov@gmail.com



Atila PANDJAR Vice-Chair



Reni KABAKCHIEVA
Secretary



Denis SAMI Treasurer



Tsvetelina MLADENOVA
Webmaster



Boris EVSTATIEVAdvisor of EPS SBC of the University of Ruse

bevstatiev@uni-ruse.bg

Politehnica University of Timisoara IEEE Student Branch



EPS IEEE Student Branch Chapter @ UPT

Our activities and current results

Our Student Branch Chapter provides IEEE Student members a networking opportunity to meet and learn from fellow students and faculty members, and professionals in the field to share their interests, future professions and ideas. The number of students joining our SBC has been increasing steadily in the last year.

In November 2020 the petition for EPS IEEE Student Branch Chapter @ UPT formation was formally submitted. It was approved in February 2021.

Later, our SBC get involved and help develop existing technical & scientific events for students, such as: the Interconnection Techniques in Electronics (TIE 2022), encourage students to participate at local symposiums through prizes such as: Best Paper and Excellent Paper, at IEEE Conferences that organize sessions devoted to Student papers, such as: DrETC 2023, International Symposium for Design and Technology in Electronic Packaging (SIITME 2022) and other local symposiums.

We participate to Automotive PCB Design Tips at the invitation of IEEE EPS UPB SBC. We participate to International Workshop Education open during the pandemic at the invitation of UPT. We continue to develop new strategies for attracting more students into learning and research topics, making academical life accessible.

Our student branch chapter team



Bianca-Roberta LAZĂR

Chair
bianca.lazar@student.upt.ro



Elisei ILIEŞ Vice-Chair



Anca DĂRĂBUŢ
Secretary



Magadalena MARINCA

Treasurer

2nd SUMMIT OF IEEE EPS & NTC STUDENT BRANCH CHAPTERS



Andrei BURTA
Webmaster



Miruna ȚICA Webmaster



Radu RICMAN
Webmaster



Paul SCHULDESZ
Webmaster



Rareș DOBRE-BARON
Webmaster



Darius DRAGOTĂ

Webmaster



Assoc. Prof. Dr. Eng. Roland SZABO

Faculty Counselor of EPS IEEE Student Chapter @ UPT

roland.szabo@upt.ro



Prof. Dr. Eng. Aurel GONTEAN

Faculty Advisor of EPS IEEE Student Chapter @ UPT

aurel.gontean@upt.ro



Student Branch Chapter "Lucian Blaga" University of Sibiu

Our activities and current results

The Faculty of Engineering at the Lucian Blaga University has always offered its students a great environment by keeping the curriculum adapted to the technological progress and maintaining amazing partnerships with the industrial sector, thus offering excellent practice opportunities and promoting a balanced relation between fundamental knowledge and practical skills.

A couple of years ago, enthusiastic students from the electronics department joined IEEE and decided to form the EPS student branch chapter. Members of the Sibiu branch intend to continue their development in the field though projects, collaborations, demonstrations, as well as participating to conferences, competitions and other events. They have been actively involved in the preparations of the first SBC Summit, an event held along side the IEEE ESTC Conference, and will be actively involved in organizing future events such as the Interconnected Techniques in Electronics (TIE) with its related contests (TIEM, TIE+, TIEµ), the Hardware and Software Engineering contest (HSE) and the 30th International Symposium for Design and Technology in Electronic Packaging (SIITME), all held in Sibiu in 2024.

Our student branch chapter team





Mihai NEGHINĂ

Advisor of IEEE EPS SBC of Sibiu, Romania

mihai.neghina@ulbsibiu.ro



IEEE Electronics Packaging Society Student Branch Chapter UNST Politehnica of Bucharest

Our activities and current results

The EPS Students Branch Chapter for UNST Politehnica of Bucharest is a technical subunit of the IEEE EPS, formed with the purpose of offering opportunities to network with other students, faculty, and professionals at technical meetings, conferences, contests and social events. Many activities are dedicated to organizing technical trainings for students, that desire to be familiarized with modern CAD tools. Our organization offers financial support for the development of student research projects and provides technical support, as well as adequate environment needed for the physical implementation. Another important goal is to establish a connection between the academic and the industrial environment, through online workshops and webinars, in collaboration with some of the biggest companies that currently exist on the market. The SBC gives students from our organization the opportunity to collaborate with other chapters from IEEE, academia and industry, in order to increase the visibility of young researchers (students or PhD students). Each year we contribute to the organizing of the Student Scientific Communication Sessions and some of our staff are enlisted in the evaluation committee. The SBC organized some training activities and workshops for students who desired to participate in the TIE and TIEplus contests and offered support by organizing training sessions for the ANSYS software suite, Altium Designer and Autodesk Inventor. Some of our students qualified for the final stages of the competition, getting good results, including a 2nd place in TIEplus. We were part of the IEEE EPS Student Chapters Support Committee for SIITME Conference and took part in some other events (Networking IEEE-IMAPS Student Branch Chapters Meeting) where we had the opportunity to present our vision and future projects. All members of our SBC were present at the SIITME conference with research papers, posters and oral presentations.

Our student branch chapter team



Mircea CĂLIN Chair mircea.calin@cetti.ro



Daniela-Mihaela PAVEL Vice-Chair

madalin.moise@cetti.ro



Webmaster



Ana-Maria NICULESCU Andreea DUMITRASCU Secretary



Mădălin MOISE Advisor of IEEE EPS SBC of Bucharest, Romania

Contacts



IEEE EPS/NTC Hungary & Romania Section Joint Chapter

Prof. dr. eng. Ovidiu A. POP - Ovidiu.Pop@ael.utcluj.ro

IEEE EPS SBC - UNST Politehnica of Bucharest

Lect. dr. eng. Mădălin MOISE - madalin.moise@cetti.ro

IEEE EPS SBC - Technical University of Cluj-Napoca

Assoc. prof. dr. eng. Alin GRAMA - Alin.Grama@ael.utcluj.ro

IEEE EPS SBC - Politehnica University of Timisoara

Assist. dr. eng. Radu RICMAN - radu.ricman@upt.ro

IEEE EPS SBC - "Lucian Blaga" University of Sibiu

Lect. dr. eng. Mihai NEGHINĂ - mihai.neghina@ulbsibiu.ro

IEEE EPS SBC - "Angel Kanchev" University of Ruse

Assoc. prof. dr. eng. Boris EVSTATIEV - bevstatiev@uni-ruse.bg

IEEE NTC - UNST Politehnica of Bucharest

Lect. dr. eng. Rodica NEGROIU - rodica.negroiu@cetti.ro

IEEE NTC - University of Technology and Economics, Budapest

Assoc. prof. dr. Attila BONYÁR - bonyar.attila@vik.bme.hu

IEEE EPS SBC (under construction) - University of Craiova

Lect. dr. eng. Diana FIRICA - diana.firinca@edu.ucv.ro



FORVIA



























FORVIA



HELLA has been present in Romania since 2005. It has five design and development centers, an administrative center and three production units in Timisoara, Arad, Lugoj, Craiova, Oradea and Iasi. Over 5000 employees work today in HELLA Romania. As a leading automotive supplier operating under the FORVIA umbrella, HELLA develops innovative technologies along the three major growth drivers of electrification and energy management, safe and automated driving as well as digital and sustainable cockpit experiences.

About HELLA

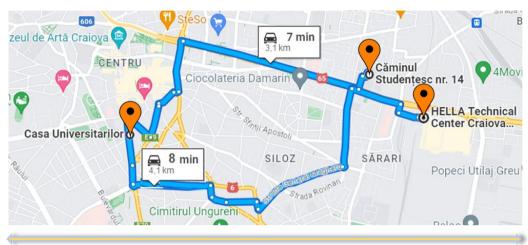
HELLA is a listed, internationally positioned automotive supplier operating under the umbrella brand FORVIA. Within this factual group, HELLA stands for high-performance lighting technology and automotive electronics. At the same time, the Company covers a broad service and product portfolio for the spare parts and workshop business as well as for manufacturers of special-purpose vehicles with its Lifecycle Solutions business group. HELLA has around 36,000 employees at more than 125 locations worldwide and generated sales of €4.4 billion in the seven-month short fiscal year 2022. www.hella.com

About FORVIA

FORVIA comprises the complementary technology and industrial strengths of Faurecia and HELLA. With over 290 industrial sites and 76 R&D centers, 157,000 people, including more than 15,000 R&D engineers across 40+ countries, FORVIA provides a unique and comprehensive approach to the automotive challenges of today and tomorrow. Composed of 6 business groups, and a strong IP portfolio of over 14,000 patents, FORVIA is focused on becoming the preferred innovation and integration partner for OEMS worldwide. FORVIA aims to be a change maker committed to foreseeing and making the mobility transformation happen. www.forvia.com

Venue of the 2nd SUMMIT of IEEE EPS & NTC STUDENT BRANCH CHAPTERS

The 2nd SUMMIT of IEEE EPS & NTC STUDENT BRANCH CHAPTERS will take place at the "Casa Universitarilor" building, Nicolae Romanescu Room, 1st floor, Calea Unirii no. 57, Craiova, Romania.





"Casa Universitarilor" building. Photo source: https://www.ucv.ro/



About "Casa Universitarilor" building (please scan)



Gordon Moore's vision*

"It may prove to be more economical to build large systems out of smaller functions, which are separately packaged and interconnected."



* G. E. Moore, "Cramming more components onto integrated circuits," 542 Electronics, vol. 38, no. 8, pp. 1–6, Apr. 1965.

