

# Hungary/Romania Section EP21/NANO42 Jt. Chapter

## Kick-off meeting

Attila Bonyár  
Chapter Chair

Thursday, 13. February, 2020  
*Timisoara*



# Chapter History



- ▶ The **IEEE Joint Hu/Ro EPS Chapter** was established in **1999** by **Zsolt Illyefalvi-Vitéz** and **Paul Svasta** (20-year anniversary in 2019)

- ▶ Past Chapter Chairs

- Zsolt Illyefalvi-Vitéz (1999-2001)
- Paul Svasta (2001-2005)
- Dan Pitica (2005-2012)
- Ciprian Ionescu (2012-2019)



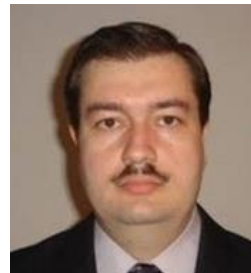
- ▶ The Chapter is active in many regular events
- ▶ The fundamental, traditional characteristic of the Chapter is the **strong connection and cooperation between members**, both on a professional and personal level.



# 2019.10.24. Cluj-Napoca: Elected officers for the next term



- ▶ Chapter Chair: Attila Bonyár
- ▶ Vice Chair: Norocel Codreanu
- ▶ Secretary: Radu Bozomitu
- ▶ Junior Past Chair: Ciprian Ionescu
- ▶ Senior Past Chair: Paul Svasta
- ▶ Senior Past Chair: Dan Pitica



# Prof. Illyefalvi-Vitéz IEEE Excellence Award

## Congratulations!



# Why join forces with NTC?

- ▶ The idea was first originated by **Jim Morris** and **Paul Svasta**, who saw potential benefits in the union of chapters.
- ▶ In the past two decades **nanotechnology** and **nanomaterials** made their way into different areas of **electronics packaging** and **electronics technology** in general.
- ▶ Traditional **conferences** and **seminars** related to electronics technology and packaging have their own „**nano-tracks**” for some time now.
- ▶ Romania and Hungary both have **academic experts** in research institutions and also **industrial companies** (mostly on the SME) level related to both areas (EPS&NTC).





# 2019.12.06.

## The proposed merging with NTC was accepted



Cecelia Jankowski  
Managing Director  
Member and Geographic Activities  
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Fax +1 732 867 9943  
c.jankowski@ieee.org

December 6, 2019

Attila Bonyar  
BUTE, Dep. of Electronics Technology  
Egry Jozsef Street 18  
V1 Building 009  
Budapest, Pest 1111  
Hungary

Dear Attila Bonyar:

Congratulations! On behalf of the IEEE Member and Geographic Activities Vice President, Francis Grosz, and IEEE Technical Activities Vice President, Ray Liu, it is a pleasure to inform you that the requirements of the MGA Board Operations Manual have been met, and the Nanotechnology Council has been added to the existing IEEE Hungary and Romania Joint Sections Electronics Packaging Society Chapter. The effective date of this chapter formation is December 5, 2019.

You have been recorded as the Chapter Chair. When an election has been held, please report the name and member number of the new Chapter Chair to the IEEE using the online officer reporting tool at <https://officers.vtools.ieee.org/>. Valuable information regarding IEEE Society Chapters can be found at [http://www.ieee.org/societies\\_communities/geo\\_activities/chapters](http://www.ieee.org/societies_communities/geo_activities/chapters). If we can assist you in any way in the planning of the chapter activities, please let us know.

We extend our best wishes for the successful operation of this chapter.

Sincerely,

*Cecelia Jankowski*

Cecelia Jankowski  
Managing Director  
Member and Geographic Activities

cc: F. Grosz – Member and Geographic Activities Vice President  
R. Liu – Technical Activities Vice President  
M. Salazar-Palma – Region 8 Director  
A. Bar-Cohen – Electronics Packaging Society President  
D. Manning – Electronics Packaging Society Executive Director  
K. Pearsall – Electronics Packaging Society Chapter Programs  
Y. Tzeng – Nanotechnology Council President  
N. Massetti – Nanotechnology Council Chapters  
L. Kovacs – Hungary Section Chair  
C. Negrescu – Romania Section Chair  
M. Ward-Callan – Technical Activities Managing Director



### IEEE HU&RO EPS&NTC JOINT CHAPTER



# IEEE NTC Chapters Worldwide

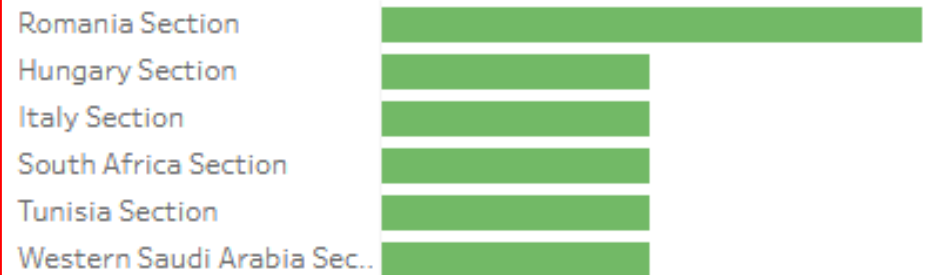


**Student Branch – 12**  
**Chapter – 22**  
**Joint Chapter – 7**  
**SUM - 41**

# IEEE NTC Chapters – Region 8



## Chapters by Section



**We are among the first NTC chapters in Europe!**



# IEEE EPS Chapters Worldwide

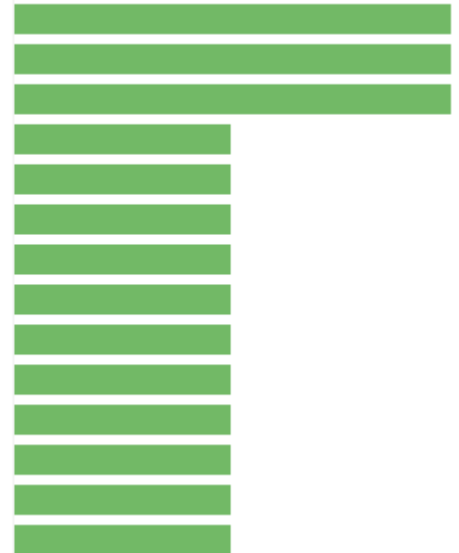


**Student Branch – 14**  
**Chapter – 16**  
**Joint Chapter – 19**  
**SUM – 49**

# IEEE EPS Chapters – Region 8

## Chapters by Section

Romania Section  
Sweden Section  
Ukraine Section  
Benelux Section  
Bulgaria Section  
Denmark Section  
Estonia Section  
Finland Section  
France Section  
Germany Section  
Hungary Section  
Iceland Section  
Norway Section  
Poland Section

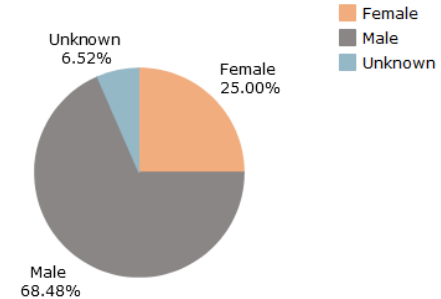


# Our joint chapter in numbers

Count by Region and Grade

Region	Council	Section	Grade Category	Grade	Total
R8	Region 8 - No Council	Hungary Section	IEEE Grades	Associate Member	1
				Graduate Student Member	2
				Life Member	1
				Member	12
				Senior Member	1
				Student Member	1
			Total	18	
		Romania Section	IEEE Grades	Graduate Student Member	14
				Life Senior	2
				Member	39
				Senior Member	5
				Student Member	13
			Other Grades	Affiliate	1
		Total	74		
Grand Total					92

Count by Gender



Before merging with the NTC we had **5 (Hu) + 26 (Ro) = 31** members.

Now we have **18 (Hu) + 74 (Ro) = 92** members.


This is a **x3** increase in total number of members.

(Not including 4 new Hungarian members.)

# Joining the IEEE NTC – Step 1

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### Welcome, members!


- > Renew your membership
- > Join a community
- > Add a Society
- > Get your company engaged

### Get involved


- > Become a member
- > Volunteer
- > Join a Society
- > Attend or organize a conference

# Joining the IEEE NTC – Step 2






<https://ieeenano.org/>



**IEEE Nanotechnology Council**  
Advancing Nanotech for Humanity



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IEEE Open Journal of Nanotechnology

IEEE Transactions on NanoBioscience

Journal on Exploratory Solid-State Computational Devices and Circuits

IEEE Transactions on Molecular, Biological and Multi-Scale Communications


IEEE Nanotechnology Magazine

IEEE Nanotechnology e-Newsletter

—Resources—

**Frequently Asked Questions**

January 11th, 2019




Frequently asked  
QUESTIONS

Check out our [FAQ page](#) to find out more about the IEEE Nanotechnology Council!


Posted in [Announcement](#), [Nano News](#) | Comments Off on Frequently Asked Questions


**Welcome to Join the IEEE NTC Facebook**

February 12th, 2016



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Advancing Nanotech for Humanity







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### IEEE Nanotechnology Council



The [IEEE Nanotechnology Council](#) focuses on the advancement and coordination of work in the field of Nanotechnology. The Council is a multi-disciplinary group supporting the theory, design, and development of nanotechnology and its scientific, engineering, and industrial applications.

The Council sponsors well-recognized, international conferences and publications, including:

- ▶ [IEEE Transactions on Nanotechnology](#)
- ▶ [IEEE Transactions on NanoBioscience](#)
- ▶ [IEEE Nanotechnology Magazine](#)
- ▶ International Conference on Nanotechnology (NANO)
- ▶ IEEE Nanotechnology Materials and Devices Conference (NMDC)
- ▶ IEEE International Conference on Nano/Micro Engineered and Molecular Systems (NEMS) IEEE International Conference on Nano/Molecular Medicine and Engineering (NANOMED)

Through the Council's sponsored activities, participants have the opportunity to publish and collaborate on research, network with colleagues, stay current on news and events, develop standards, and participate in educational activities.

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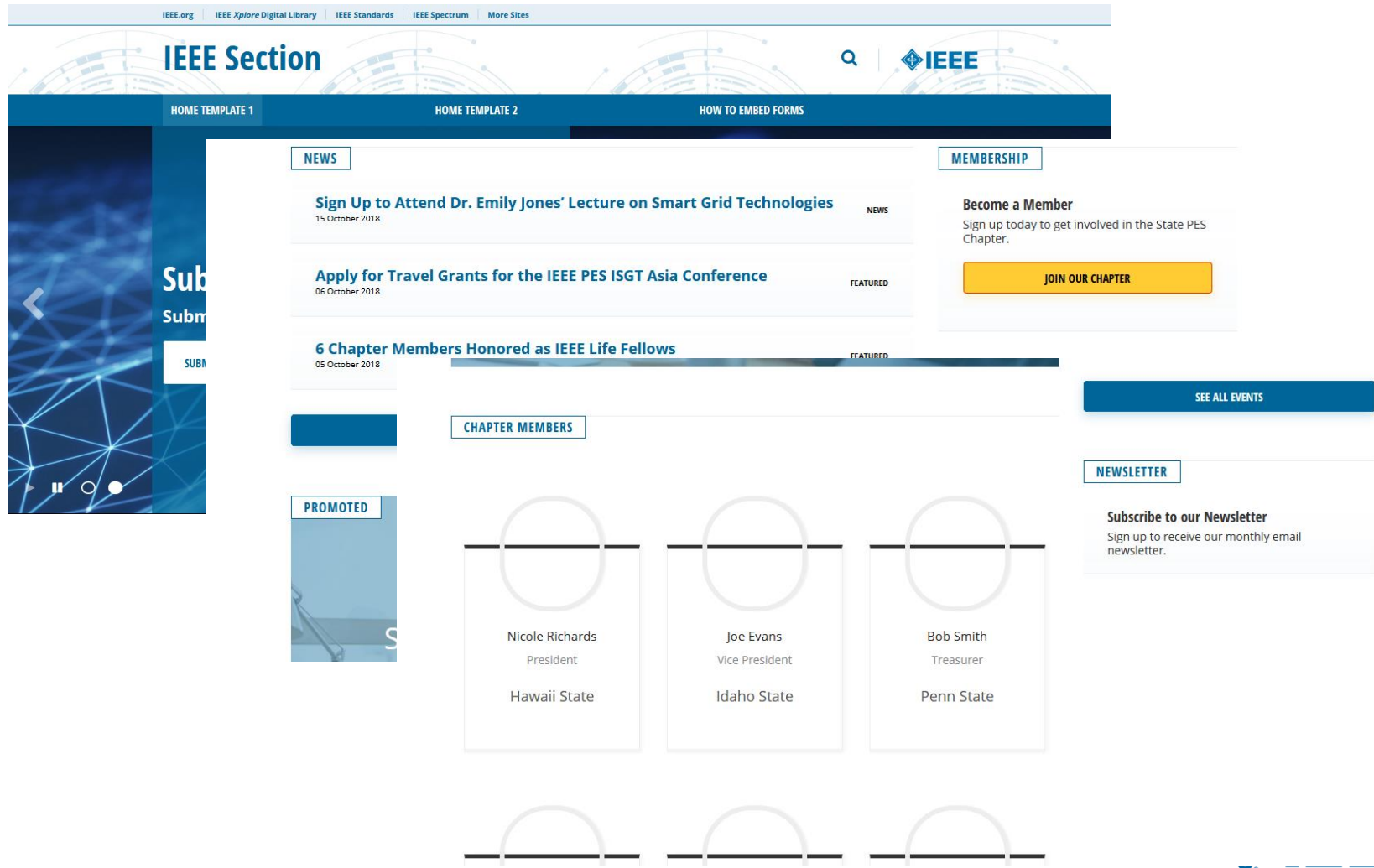
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# Chapter mailing list and website

- ▶ An IEEE mailing list was established on the IEEE LISTSERV
- ▶ **Name of the list:** [huro-epsntc@listserv.ieee.org](mailto:huro-epsntc@listserv.ieee.org)
  - Adding IEEE (EPS/NTC) members (all 92)
  - Add other non IEEE members as well?
- ▶ **IEEE provides domains for chapters as well**
- ▶ I will apply for the [site.ieee.org/huro-epsntc](http://site.ieee.org/huro-epsntc) site.
- ▶ There are two types of templates to choose from
  - Section template (official) – modern
  - Comm. Soc. Template – classic look

# Website template – modern



# Website template – classic

IEEE.org | IEEE Xplore Digital Library | IEEE Standards | IEEE Spectrum | More Sites

IEEE Romania IMS Chapter

IEEE

IEEE.org | IEEE Xplore Digital Library | IEEE Standards | IEEE Spectrum | More Sites

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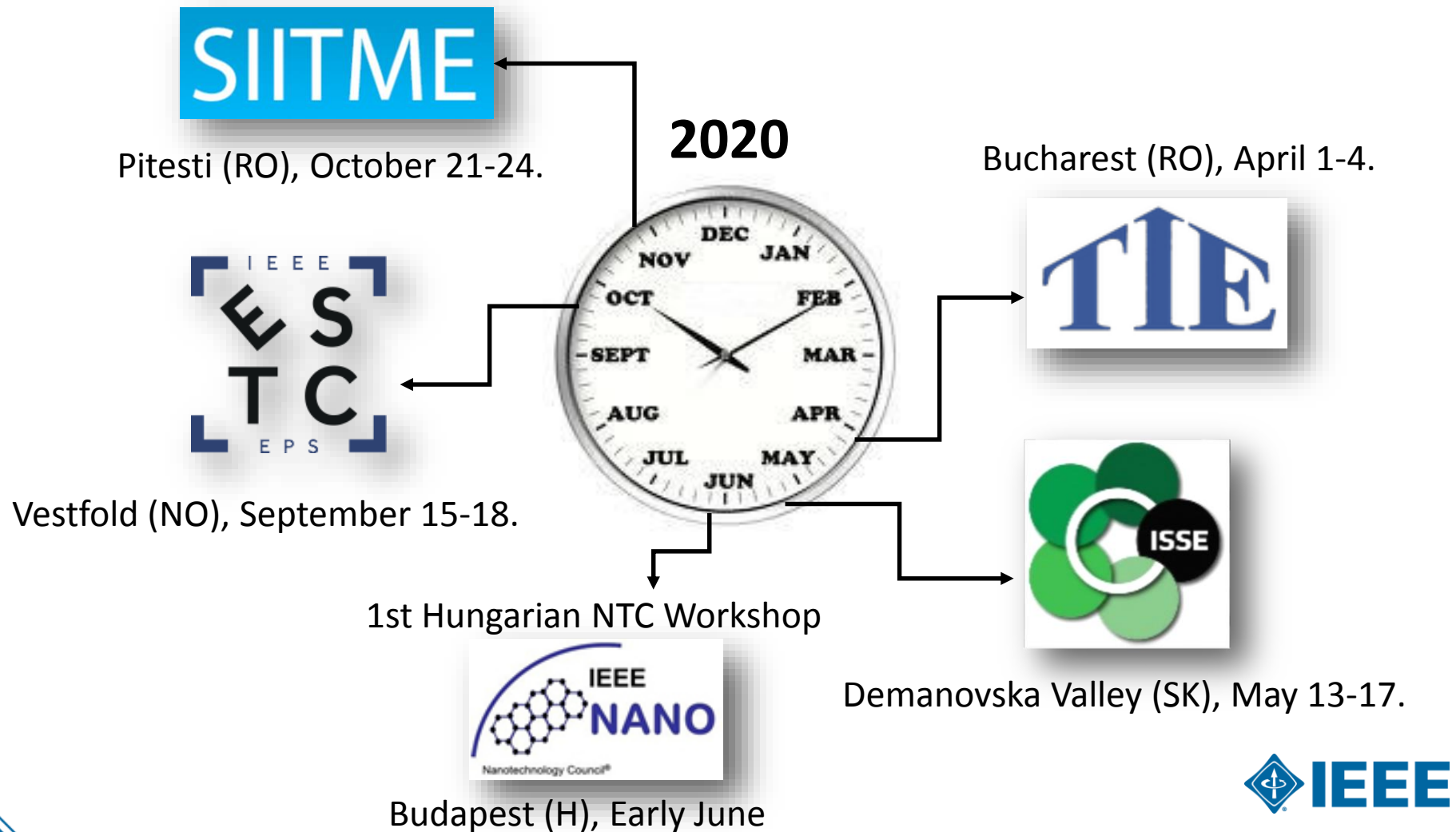
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DATE	NAME	LOCATION	ORGANIZER	DESCRIPTION	STATUS
May 21, 2014	New paradigms for IC: Can Unpaved Roads Become	BUCHAREST, ROMANIA	IEEE SSCS Romania	Speaker: Sorin Cotofana (Netherlands)	CLOSED

# Chapter Annual Event Clock





# TIE and TIE plus



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The poster for the TIE plus 5th Edition event features a dark blue background with circuit board patterns. At the top left is the University Politehnica of Bucharest (UPB) logo. Next to it is a logo for ETI (Electronic Technology Institute) with the text '1100010' and 'ETI'. To the right is the Continental logo. Further right are the ANSYS and CST logos. The main title 'TIE plus' is in large white and orange letters. Below it, a grey box contains the text: '2nd of April 2020', 'University Politehnica Bucharest', and '→ Central Library ←'. At the bottom left, a grey box says '5th Edition'. At the bottom center, the website 'www.tie.ro/tie-plus/concept' is listed. At the bottom right, the text 'TIEPLUS CONCEPT' is above a colorful, abstract graphic. A small circuit board image is also visible in the bottom right area.

5<sup>th</sup> Edition

[www.tie.ro/tie-plus/concept](http://www.tie.ro/tie-plus/concept)

TIEPLUS CONCEPT



# IEEE - ISSE

43<sup>rd</sup> International Spring Seminar on Electronics Technology

Trends in Microelectronics Packaging and Interconnection Technology

May 13 – **17, 2020**

Demanovska Valley - Slovakia, **Hotel Grand Jasna**

## Chapter involvement:

Joint keynote presentation regarding the **establishment of the Hu&Ro EPS&NTC chapter** and more generally about the **connections between electronics packaging and nanotechnology**.



## Presenters:

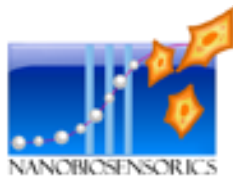
Jim Morris (NTC President)

Attila Bonyár (Chapter Chair)



# 1st Hungarian NTC Workshop

- ▶ The aim of the Workshop would be to **connect** and **organize** Hungarian academic institutions working on the field of nanotechnology, primarily to facilitate **national and regional cooperation**.
- ▶ The 1st workshop would be national to clearly define the goals of this part of the chapter. The event would be raised to an international level from the second year.
- ▶ Already a large number of institutions/researchers reacted very positively to this initiative.



# IEEE – ESTC: R8 „flagship” of EPS

- ▶ Since 2006 ESTC has been organized biannually by a different hosting institution in different parts of Europe

- ▶ ESTCs in the past:

- 2006, Dresden, Germany
- 2008, Greenwich, the UK
- 2010, Berlin, Germany
- 2012, Amsterdam, the Netherlands
- 2014, Helsinki, Finland
- 2016, Grenoble, France
- 2018, Dresden, Germany

- ▶ Upcoming editions:

- 2020, Vestfold, Norway

- 2022, Sibiu, Romania

- 2024, tbc



**Chapter involvement**



# IEEE – SIITME: „flagship” of our Chapter





# IEEE – SIITME: „flagship” of our Chapter



## TOPICS

- A. Emerging Topics in Advanced Packaging;
- B. New Components and Manufacturing Technologies;
- C. Printed Electronics, Smart Textiles and Healthcare;
- D. Sensors, Actuators and Microsystems;
- E. Nanomaterials, Nanoelectronics and Nanotechnology;**
- F. Embedded Systems, Robotics and Artificial Intelligence;
- G. Power Electronics and Thermal Management;
- H. Smart Grid and Renewable Energy;
- I. Virtual Prototyping and System Validation;
- J. Quality Management, Applied Reliability, Characterization and Testing Failure Diagnosis;
- K. Challenges in Global Education for Electronics.

- ▶ Since last year SIITME has a „**nano-track**”.
- ▶ Papers are published on **IEEE Explore**.

# DLC and invited lecturer options for SIITME

- ▶ Primarily considering the promotion of nanotechnology
- ▶ 2020 list is not yet available (expected to be released in February).
- ▶ IEEE Nanotechnology Council (NTC) Distinguished Lectures for 2019
- ▶ (From: <https://ieeenano.org/dl-program/distinguished-lecturers-2019/>)
- ▶ **Dominique Baillargeat**, University of Limoges, France
- ▶ **Distinguished Lecturer Talk Title:** 3D Radio-Frequency to millimeter wave heterogeneous system integration: Emerging nanotechnology for RF nanopackaging, the link between nanoscopic and macroscopic worlds?
- ▶ **Xiaoning Jiang**, North Carolina State University, Raleigh, NC USA
- ▶ **Distinguished Lecturer Talk Title:** Nanoacoustics: Materials, Devices and Applications

# DLC and invited lecturer options for SIITME

- ▶ **Chenzhong Li**, National Science Foundation, Alexandria, VA, USA
- ▶ **Distinguished Lecturer Talk Title(s):**
  - ▶ Biomedical Devices for Nano-Theranostics
  - ▶ Bioelectronic and Biosensors-From Cell on a Chip to Point of Care Testings
  - ▶ NanoBiosensing Research-Challenges, Opportunities, and Perspectives From USA National Science Foundations
- ▶ **Prof. Ved Ram Singh**, National Physical Laboratory (NPL), New Delhi, India
- ▶ **Distinguished Lecturer Talk Title(s):**
  - ▶ 1: Nano-sensor technology with IoT
  - ▶ 2: Advanced nanosensors and systems for u-health care
  - ▶ 3: Nano-Cancer Technology: New Diagnostic and Therapeutic Devices

# DLC and invited lecturer options for SIITME

- ▶ **IEEE Electronics Packaging Society**
- ▶ (From: <https://eps.ieee.org/education/distinguished-lecturer-program.html> )
- ▶ **Mervi Paulasto-Kröckel**, Ph.D., Aalto University, Helsinki, Finland
- ▶ **Topics:** MEMS, electronics reliability, automotive components and packaging, implantable electronics, dissimilar materials & interfaces

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## HUNGARY/ROMANIA SECTION JT. CHAPTER EP21/NANO42, CHAPTER KICK-OFF MEETING

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On the 6<sup>th</sup> of December, 2019 the IEEE directors approved our petition to add the Nanotechnology

### Agenda

- 9:00-11:00: morning program at Continental Automotive Timisoara
- 11:00-11:30: refreshments (lunch break), gathering, informal discussion etc.
- 11:30-15:00: main session:
- Opening of the meeting: Attila Bonyár, chapter chair.
  - Welcome speech: Cristian Negrescu, Romania Section chair
  - Welcome speech: Levente Kovács, Hungary Section chair
  - Report on the EPS&NTC merging, plans for the future: Attila Bonyár, chapter chair
  - Short Technical presentations on nanotechnology applications in electronics:
    - >Traian Cornel Cucu, Alpha Assembly Solutions, USA: "Next Generation Assembly Challenges".
    - >Carmen Moldovan, IMT-Bucharest, Romania: "Nanotechnology for sensors and energy harvesting solutions".
    - >Péter Petrik, HAS Centre for Energy Research - Photonics Department, Hungary: "Development of non-destructive material characterization methods".
- 15:00-16:00: Visit at the R&D (reliability) of Continental Automotive Timisoara.





# Plans for the joint EPS&NTC chapter

- ▶ Expanding the Hu&Ro Chapter with Nanotechnology related academic experts and industrial members.
- ▶ Invite **new members** to join the IEEE and EPS / NTC. (No IEEE membership is required to join the NTC).
  - Cooperation with the recently established Romanian NTC Chapter.
  - Invite Romanian industrial members related to Nanotechnology.
  - Invite Hungarian academic/industrial members. Organize NTC in Hungary.
- ▶ **Expand the topics** of existing professional events with nanotechnology (where applicable). Organize new, yearly workshops related to NTC in Hungary and in Romania.

# Thank You for Attending

*IEEE Hu&Ro EPS&NTC Chapter Meeting*

*13.02.2020*

