

FINAL PROGRAMME

2nd PCNS Passive Components Networking Symposium

September 10-13th 2019, Bucharest, Romania

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Pre-Event Day 10th September 2019

13:00-17:00h **Passive Components Mounting Guidelines Workshop**

17:00-19:00h **Politehnica Bucharest University Tour**

Main Conference & Networking Day 11th September 2019

9:00-9:15 **Welcome Speech**

9:15-10:45 **Keynote Presentations**; Chairman: Tomas Zednicek; EPCI

- **Passive Components - Keys to enabling Advanced Future System Designs**;
Ron Demcko; Technical Sales Group Manager; AVX fellow
- **Design Challenges of Capacitors – What about downsizing, robustness and energy density for future applications?**;
Stephan Menzel; Product Development Manager Capacitors; Würth Elektronik eiSos
- **Shortage of Products - Market Mechanisms and How to avoid Fake-Products**;
Rüdiger Scheel; VP Automotive, Murata Electronics Europe

10:45-11:00 ----- *Coffee Break* -----

11:00-11:30 **Keynote Presentations (cont.)**; Chairman: Tomas Zednicek; EPCI

- **Passive Components – Teaching and Learning**;
Paul Svasta, Emeritus Professor; Politehnica University of Bucharest

11:30-13:00h **Speakers Introduction and Organisations Flash Presentations**

5min flash presentations to introduce speakers, universities and companies and its hot subjects

13:00-14:00 ----- *Lunch Break* -----

14:00-17:50h **Advanced Passive Components Workshop**



- 14:00 - 14:40 **Würth Elektronik**: How to choose the best Inductor for DC/DC converter and EMI
- 14:40 - 15:20 **KOA Europe**: Space saving by high power resistors; Shunt resistor technical notes
- 15:20 – 16:00 **Murata**: 3-terminal ceramic capacitors, Common mode choke coils, Ferrite beads

16:00-16:30 ----- *Coffee Break* -----

- 16:30-17:10 **AVX**: Supercapacitors, ESD protection and multilayer varistors
- 17:10-17:50 **Kemet**: Tantalum capacitor advances, Commercialisation of space and ceramic capacitors

18:00 – 19:30 **Welcome Drink** at event location

Panel Discussion & Sessions Day 12th September 2019

9:00-11:00h **Hot Topic Panel Discussion MLCC Class II DC BIAS & Ageing Capacitance Loss**

tutorial paper and facilitation by: Tomas Zednicek; EPCI

- Manufacturers and end users discussion on definition/reference conditions on MLCC class II capacitors capacitance loss with DC BIAS
- Panelists (Tentative List): AVX, Continental, Kemet, Murata, Valeo

11:00-11:20 ----- Coffee Break ----- 

11:20-12:20 **Session 1 NEW DEVELOPMENT**; Chairman: Ron Demcko; AVX Corporation

- 1.1. A Disruptive Nano-laminate Polymer Capacitor Technology for Electric Drive Applications**; Angelo Yializis; POLYCharge America Inc; United States
- 1.2. Integrated and discrete capacitors based on carbon nanostructures with capacitance densities in excess of 200nF/mm²**; Sascha Krause; Smoltek AB; Sweden
- 1.3. Advances in Film Resistor Technology**; Stephen Oxley; TT Electronics; United Kingdom

12:20-13:20 ----- Lunch Break -----

13:20-14:40 **Session 2 TECHNOLOGY & ROADMAPS**; Chairman: Vlad Bande; TU of Cluj

- 2.1. Energy Harvesting is not Fiction anymore**; Lorandt Fölkel; Würth Elektronik eiSos; Germany
- 2.2. Analysis of Multi-Layer Ceramic Capacitors used in Power Distribution Networks**; Marcel Manofu; Continental; Romania
- 2.3. Guidelines How to Downsize MLCCs Efficiently**; Yuki Nagoshi; Murata; Germany
- 2.4. Capacitor Trends and Challenges**; Martin Barta; TTI; Germany

14:40-15:00 ----- Coffee Break ----- 

15:00-16:30 **Session 3 QUALITY & RELIABILITY**; Chairman: Alexander Teverovsky; NASA/GSFC

- 3.1. COTS procurement for space mission**; Denis Lacombe; ESA ESTEC; Netherlands
- 3.2. Most Reliable, Most Efficient and Price Effective Solid Tantalum Capacitors**; Yuri Freeman; Ed Jones; Kemet; USA
- 3.3. Real Environment Aluminium Electrolytic Capacitor LifeTime Evaluation and Modelling**; Luca Primavesi; ItelCond and Univeristy of Milano; Italy
- 3.4. Supercapacitor Degradation and Life-time**; Vlasta Sedláková; Brno University of Technology; Czech Republic

16:30  **Gala Dinner** (bus coach to country restaurant)

Sessions Day & Closing 13th September 2019

9:00-10:40 **Session 4. MATERIALS & PROCESSES**; Chairman: Lorandt Fölkel, Würth Elektronik eiSos

- 4.1. High Bs ferrite material development for high power applications**; JC Sun; Bs&T Frankfurt am Main GmbH; Germany
- 4.2. High efficient new Hybrid magnetic EMI filter design for Low Voltage DC distribution**; Thomas Ebel; Wai Keung Mo; Centre for Industrial Electronics, University of Southern Denmark; Denmark
- 4.3. Conductive hybrid threads and their applications**; Tomas Blecha; University of West Bohemia; Czech Republic
- 4.4. Tin Whisker or not Whisker**; Jean Edmond Le Calvé; Valeo; France
- 4.5. Stable and reliable tantalum supply chain**; Roland Chavasse; T.I.C.; Belgium

10:40-11:00 ----- Coffee Break & Sandwiches to Go ----- 

11:00-12:00 **Session 5. MEASUREMENT & TEST**; Chairman: Luca Primavesi; Itelcond

- 5.1. Degradation of ESR in Polymer Tantalum Capacitors during High Temperature Storage**; Alexander Teverovsky; NASA/GSFC; United States
- 5.2. Investigation and Experimental Comparison of Magnetic Core Loss for High-Saturation Ferrite Material**; Chang Wang; JC Sun; TU of Denmark; Denmark
- 5.3. Evaluation of Active Balancing Circuits for Supercapacitors**; Ciprian Ionescu; Politehnica University of Bucharest

12:00-12:20 **Best Paper Awards & Closing Ceremony**