

PRELIMINARY PROGRAM

Program subjected to change Ver.1.1.

Tuesday 9th September 2025

Workshop & CNA Tour

13:00-14:00 **Workshop I. Passive Components Technologies Update; Design Review of EMI filter for Power Electronics – How Components Influence the Performance;** Speaker: Frank Puhane, Würth Elektronik eiSos GmbH & Co. KG

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14:30-15:50 **Workshop II. Key Aspects of Selection, Procurement, and Testing of Passive EEE Components for Harsh Environment Applications;** ALTER TECHNOLOGY; Speaker: Manuel Sánchez, ALTER Technology, EEE Parts Engineer

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16:10-17:30 **Centro Nacional de Aceleradores tour;** Tour through university accelerator centre (registration required, no fee)

Wednesday 10th September 2025

Conference & Networking

9:00-9:30 **Welcome** University of Seville, ALTER TECHNOLOGY and EPCIA

9:30-9:55 **Keynote I. European Passive Components Market;** EPCIA European Passive Components Industry Association
Speaker: Luca Primavesi; Itecond president and EPCIA member

9:55-10:00 **EPCIA Student Awards Ceremony;** EPCIA

10:00-10:30 **Speakers Introduction**

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11:00-12:00 **TPI Technical Product Introduction Flash Presentations** - 5min short commercial presentations from manufacturers to introduce its hot product / news or invitations to exhibition booth

12:00-12:30 **Keynote II Quality Challenges and Risk Mitigation for Passive Components in Harsh Environments;**
Speaker: Antonio Rodriguez Arenas, ALTER TECHNOLOGY

----- FINGER PICK LUNCH AT EXHIBITION FLOOR -----

13:20-14:35 **Session I. HARSH APPLICATIONS;** Chairman:

- 1.1. **Thermoset Polymer Dielectric Capacitors for Harsh Environment Applications;** Angelo Yializis; Polycharge Inc.; USA
- 1.2. **Tantalum Capacitors Technologies for Harsh Environments;** Michel Bouvier; Vishay Tantalum Division; France
- 1.3. **Murata's Silicon Capacitors: Reliable Performance in Extreme Conditions;** Enzo Darcy; Murata Europe; France

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15:05-15:35 **Keynote III. Advances in the Environmental Performance of Polymer Capacitors;**
Philip Lessner; Philip Lessner Consulting; USA

15:35-17:15 **Session II. QUALITY & RELIABILITY;** Chairman:

- 2.1. **Enhancing E-Textile Reliability: A Comparative Study of SMD-Ribbon Joints Protections Against Sweat;** Martin Hirman; University of West Bohemia, Pilsen, Czech Republic
- 2.2. **New Generation of Metallized Film Capacitors Based on EPN for Solving Upcoming High Temperature and High Power Density Requirements;** Manuel Gómez; TDK Malaga, Spain
- 2.3. **Protecting the Quality & Reliability of Passive (and Active) Components: the J-STD-075 PSL Classification & Labeling;** Arnaud Grivon; Thales Global Services, Meudon, France
- 2.4. **Lifetime Assessment for Capacitors in EPS Application;** Krzysztof Ptak; Nexteer Automotive, Poland

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17:35-19:15 **Session II. QUALITY & RELIABILITY (cont.);** Chairman:

- 2.5. **Development and Validation of the New IRCA S.p.A.'s Pure-Polyimide Flexible Heater for High-Reliability and High-Performance Markets;** Alessandra Marcer; IRCA s.p.a. Zoppas Industries; Italy
- 2.6. **Assessment of a Graphene-Based Supercapacitor: Environmental Hotspots and End-of-Life Strategies for Sustainable Energy Storage;** Gianmarco Gottardo; Politecnico di Milano, Italy
- 2.7. **Capacitor Degradation and Failure Mechanisms: Exploring Different Causes Across Technologies;** Frank Puhane; Würth Elektronik eiSos GmbH & Co. KG; Germany
- 2.8. **Beyond 85/85: Towards Realistic Lifetime Estimation of Polypropylene Film Capacitors in Humid Environments;** Massimo Totaro; KEMET YAGEO Group; Italy

19:15-21:00 ----- YAGEO Welcome Drink -----

Thursday 11th September 2025 Panel Discussion & Sessions

9:00-10:30 **Special Session. AI and its Consequences;** Chairman: Tomas Zednicek, EPCI

AI.1 Revolutionizing the Defect Detection during the Cross-Sectional analysis for Electronics with Computer Vision; Mari Carmen López López; ALTER TECHNOLOGY, Spain

AI.2 Passive Components in AI Systems; Slavomír Pala; KYOCERA AVX, Lanskrone, Czech Republic

AI.3 AI Hardware Development and Its Consequences for Passive Electronic Components; Tomas Zednicek; EPCI; Czech Republic

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11:00-12:30 **Hot Topic Panel Discussion: AI and its Consequences to Passive Components**

Panelists: passive component manufacturers & end users experts

----- lunch -----

13:20-13:50 **Keynote IV. Space Evaluation Testing on SAW Filter Based on POI Technology);** Kaoutar Zeljami; ALTER TECHNOLOGY, Spain

13:50-15:30 **Session III. NEW DEVELOPMENT;** Chairman:

3.1 Textile-Based Antennas; Tomas Blecha; University of West Bohemia, Pilsen, Czech Republic

3.2 New Construction and Packaging Process for Highest Voltage Aluminium Polymer Electrolytic Capacitor; Tim Kruse, PhD student; Syddansk Universitet Sønderborg; Denmark

3.3 A New Approach to the Design of High Precision Integrated Resistive Voltage Dividers; Stephen Oxley; TT Electronics; UK

3.4 Revolutionizing High Frequency Applications: 3-Terminal XG3 Eulex Gap Capacitor; Colin McClennan; Quantic Eulex; USA

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16:00-17:40 **Session IV. MATERIALS & PROCESSES;** Chairman:

4.1 Flaked Tantalum Powders: High Capacitance Powders for High Reliable Tantalum Capacitors; Gordon Smith; Global Advanced Metals; USA

4.2 Reliability of E-Textile Conductive Paths and Passive Component Interfaces; Julie Hladikova; University of West Bohemia, Pilsen, Czech Republic

4.3 Layer-by-Layer Fabrication of Thin Polypropylene-based Dielectrics; Bartosz Gackowski; CIE, SDU; Denmark

4.4 Development and Prototyping of Nitrogen-Doped Graphene Supercapacitors; Veronika Šedajová; Palacký University Olomouc, Czech Republic

---- move by walk to ALTER TECHNOLOGY facility ----

18:00-19:30 --- **ALTER TECHNOLOGY Test Facility Tour** (bus coach to Gala Dinner leaves ALTER TECHNOLOGY at 19:30) -----

20:00-23:00 ----- **Murata Gala Dinner** (individual leave from Gala Dinner restaurant in the city center) -----

Friday 12th September 2025 Sessions & Closing

9:00-10:40 **Session V. APPLICATIONS;** Chairman:

4.1. High-Performance Component Strategies to Address Thermal and Frequency Challenges in Base Stations; Che Wei Hsu; Murata Europe; Netherlands

4.2. Automotive Polymer Tantalum Capacitors with capabilities beyond AEC-Q200 - Guidelines for usage on LEO Satellite Industry; Cristina Caetano; KEMET, a YAGEO Company, Portugal

4.3. Improving Switched-Mode Power Supplies Performance with Modified Thermal Interface Material; Victor Solera; University of Valencia; Spain

4.4. Resonant Capacitors in High-Power Resonant Circuits; Moaz ElGhazali; Murata Europe; Germany

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11:10-12:50 **Session V. DESIGN & CONSTRUCTION;** Chairman:

5.1. Qualification of Commercial Off-The-Shelf Supercapacitors; David Latif; EGGO Space, Lanskrone; Czech Republic

5.2. Experimental Evaluation of Wear Failures in SMD Inductors; Masaaki Tsujii; Murata Manufacturing Co., Ltd.; Japan

5.3. How to Manage Leakage Current and Self Discharge of EDLC Capacitors; Gerald Tatschl; Vishay; Austria

5.4. Advancements in Flexible End Terminations for High-Reliability Passive Components in Electrified Vehicles; Dean Buzby; Heraeus Electronics; USA

12:50-13:00 **Best Paper Awards & Closing Ceremony**

----- 13:00 lunch -----