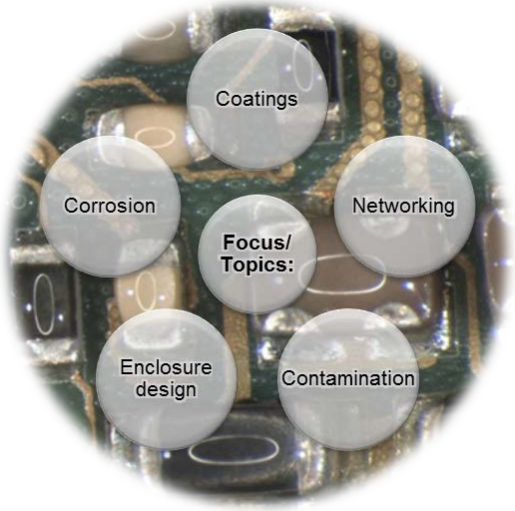
A full day seminar on

Climatic reliability of Electronics: Global challenges and Perspectives



28th January 2016

Technical University of Denmark
DK 2800 Kgs. Lyngby, Denmark
DK 2800 Kgs. Lyngby, Denmark, Building 101, Room S09

www.inspe.mek.dtu.dk
www.Celcorr.com

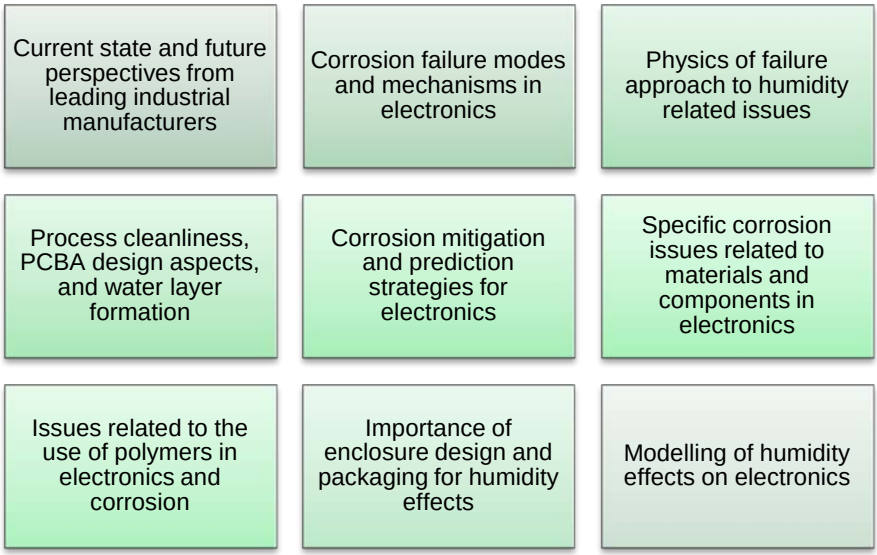
Who should attend?

- Reliability engineers
- Technology forecasters
- Corrosion engineers and specialists
- Researchers and academics

Climatic reliability is a serious issue today for electronic devices, components, and bare printed circuit boards (PCBs) due to number of factors. Therefore the protection of interior parts from external conditions is a critical factor. Interaction of humidity with internal parts such as Printed Circuit Board Assembly (PCBA) can cause several functionality issues due to corrosion. Humidity related problems in electronics is a combination of material, corrosion, and electrical issues, which leads to reduced life span of the products and heavy economic loss due to failures. The miniaturization and explosive increase in the use of electronics has increased the demand for climatically reliable electronics.

Both industrial electronics and consumer electronics suffer from climatic reliability issues, which includes application such as in humid and harsh environments. Therefore, incorporating enhanced corrosion performance in the design is relevant for all, which needs interaction between electronics, electrical, and corrosion specialists.

The seminar will address the following important issues:



The seminar will end with an open buffet and opportunities for networking / pre-booked with other delegates.

Seminar attracts delegates from academia and industry. We are delighted to invite you to attend this important seminar.

Seminar programme

08:30 – 09:00	Registration and coffee	
09:00 – 09:15	Introduction to the seminar	**Rajan Ambat** Professor, CELCORR, DTU
09:15 – 09:45	Overview of humidity driven failures in automotive electronics	**Rolf Becker** Senior Expert reliability, Bosch, Germany
09:45 – 10:15	High power electronic devices for renewable energy and reliability issues	**Jerome Azemar** Senior Analyst, Yole, France
10:15 – 10:45	Coffee break	
10:45 – 11:15	Reliability of electrics and electronics in an automotive corrosion context– Issues, testing challenges and guidelines	**Mats Strom** Technical leader, Volvo, Sweden
11:15 – 11:45	Assembly Cleaning and Processes Control	**Helmut Schweigart** Head of Technology Development, Zestron, Germany
11:45 – 12:15	Electrochemical migration mechanisms and failures	**Medgyes Bálint** Assistant Professor, BME, Budapest
12:15 – 13:15	Lunch	
13:15 – 13:45	On vapour phase conformal coating for Improving Electronics Reliability	**Yang Yun** VP of R&D, HzO, USA
13:45 – 14:15	Materials and process influences on conductive anodic filamentation	**David Humby** OEM Marketing manager, ISOLA, Europe
Overview of CreCon and IN SPE activities – Selected presentations		
14:15 – 14:30	Basic physics to understand climate effect on electronics	**Jens Peter** Consultant, Grundfos
14:30 – 14:45	Water film formation on PCBAs under humid conditions	**Kamila Piotrowska** PhD student, CELCORR , DTU-MEK
14:45 – 15:00	Humidity, water layer formation, and electrical effects on PCBA surface	**Vadimas Verdingovas** Post-doc, CELCORR, DTU-MEK
15:00 – 15:30	Coffee break	
15:30 – 15:45	Humidity build up inside enclosure: An empirical approach	**Helene Conseil** PhD student, CELCORR, DTU-MEK

15:45 – 16:00	CFD Modeling of Local Climate Inside Electronic Enclosures	**Parizad Shojaee Nasirabadi** MPP, DTU-MEK
16:00 – 16:15	Experimental simulation of geometrical arrangements inside electronic device and humidity build up	**Salil Joshy** CELCORR, DTU-MEK
16:15 – 16:30	Humidity build up inside electronic enclosure by RC modelling	**Zygimantas Staliulionis** MPP, DTU-MEK
16:30 – 16:55	New approach to device level testing and analysis	**Kim Schmidt** DELTA and **Morten Jellesen**, CELCORR, DTU-MEK
16:55 – 17:10	Summary and conclusions	**Daniel Minzari**, IPU
17:45 – 20.45	Food, drinks and bilateral meetings / matchmaking event	Enterprise Europe Network

Organizers:
Professor Rajan Ambat, CELCORR, DTU
Dr. Morten Jellesen, CELCORR, DTU
Dr. Daniel Minzari, IPU

Expected Fee for attentees:
Members of ATV-SEMAPP: DKK: 2500; Others: DKK: 3000. The fee covers food and conference materials.

Registration:
Please use the following link: **www.b2match.eu/in-spe-2016**

The full day seminar on "Climatic reliability of electronics: Global challenges and perspectives" is organized as part of the INSPE Consortium and 5th Anniversary of the CreCon industrial consortium at DTU[1]. Event is also a part of the activity under the EFC Task Force on "Corrosion Reliability of Electronics."

[1] INSPE - Innovation consortium for sustainable performance in electronics
Partners: DTU, DELTA, IPU, Danfoss, Grundfos, Vestas, Eltek, Velux
CreCon - Industrial consortium for corrosion reliable electronics, Center for Electronic Corrosion, DTU (www.celcorr.com)