

Corrosion reliability of Electronics Devices



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Corrosion reliability of electronic products is of great importance and the demand today is sustainable electronics for various climatic conditions. The miniaturization and explosive increase in the use of electronics has increased the demand for climatically reliable electronics. Problems are compounded by the fact that electronic systems are built by multi-material combinations and additional accelerating factors such as corrosion causing process related residues, bias voltage, and unpredictable user environment.

Both industrial electronics and consumer electronics suffer from reliability issues due to corrosion, 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 as number of remedial measures could be taken with proper understanding of corrosion principles.

This work shop at Eurocorr 2015 aims to provide a platform bringing together academics and industry people on various aspects of electronic corrosion issues. Work shop aims to focus on the following topics and more:

- Failure modes and mechanisms
- Process cleanliness, design aspects, and humidity
- Corrosion mitigation strategies
- Suitable devices and sensors for corrosion prediction
- Specific corrosion issues related to material in electronics and components
- Importance of enclosure design and packaging

Prospective industrial sectors include:

- Power electronics and control systems
- Electronics for offshore applications
- Automotive electronics
- Consumer electronics
- Medical electronics

Papers covering these aspects are invited for abstract submission.