





# 8th/9th March // Ingolstadt

AGENDA

# **Reliability Testing and Protection**

# Day 1 // 8th March

Dr. Helmut Schweigart ZESTRON Academy	<ul><li><b>13.30 // Welcome</b></li><li>Introduction of the agenda, ZESTRON and GfKORR</li><li>Introduction of participants</li></ul>
Dr. Stefan Schoemaker Quality Department Osram AG	<ul> <li>14.00 // Reliability testing demands of LEDs for automotive and outdoor applications</li> <li>Corrosive environments</li> </ul>
Bálint Medgyes Assistant Professor Electronics Technology University of Technology and Economics (BME)	<ul> <li>14.45 // Electrochemical migration (ECM) in the electronics</li> <li>Types and sources of (ionic) contaminants</li> <li>ECM protection, test methods and models</li> <li>Scientific results and future works</li> </ul>
	15 20 // Coffee Breek

## 15.30 // Coffee Break

Laboratory

### Martin Wickham 16.00 // Surface Insulation Resistance and Condensation Testing for NPL National Physical Electronic Assemblies

- Surface insulation resistance testing of printed circuit boards

- Conductive anodic filament testing of printed circuit boards
- Condensation testing to assess conformal coated assemblies

## 16.45 // End of the first day

#### Sightseeing & Dinner

#### 18.30 // City Tour

Meeting point at Taschenturmtor in Ingolstadt (duration approx. 1 ¼ hours)

#### 19.45 // Dinner

Exchange of experiences during a joint dinner in the restaurant "Schanzer Rutschn", Kanalstraße 1a







AGENDA

# Reliability Testing and Protection

## Day 2 // 9th March

Dr. Helmut Schweigart Head of Technology Department ZESTRON Europe	09.00 // Summary of day 1
Dr. Phil Kinner Technical Director – Coating Devision Electrolube	<ul> <li>09.15 // Selection of Conformal Coating</li> <li>Material selection based on end use considerations (with data)</li> <li>Potential failure mechanisms to be aware of</li> <li>Application methods with advantages and disadvantages</li> </ul>
Rajan Ambat Department Mechanical Engineering Technical University of Denmark	<ul> <li>10.00 // Hygroscopic residues on PCBA and humidity interaction</li> <li>Hygroscopic potential from manufacturing process residues</li> <li>Electronic applications interact with humidity</li> <li>Water film formation depending from nature of (no clean) residues</li> <li>Influence on corrosion reliability of PCBA</li> </ul>
Takahiro Horie Staff Researcher Encapsulation Department Hitachi Chemical Co.,Ltd. Japan	<ul> <li>10.45 // Coffee Break</li> <li>11.15 // Molding compound for power device <ul> <li>Molding materials proposal for Requirement and Packaging type in Power Electronics</li> <li>Development Concepts of Molding Materials to meet Cu wire and High reliability of Power Electronics</li> <li>Hitachi Chemical Research and internal evaluation result</li> </ul> </li> </ul>

12.00 // Lunch

13.00 // End