

**Keynote speaker:****Name:** Klaus-Juergen Wolter**Job position:** Senior Professor**Company:** TU Dresden**e-mail:** klaus-juergen.wolter@tu-dresden.de**Title of the Presentation:****ROBUST ELECTRONICS FOR AUTOMOTIVE APPLICATIONS INCLUDING AUTONOMOUS DRIVING****Short CV:**

Prof. Klaus Wolter's research interests have embraced many aspects of microelectronics packaging, including substrate technologies, assembly technologies, photonic packaging, MEMS, joining technologies, reliability of electronic packages, and non-destructive test methods. He is well known as co-author of six textbooks, co-editor of three book series with a total of 39 books, author and co-author of more than 200 papers. He is a senior member of IEEE-EPS. Prof. Wolter was the Director of the Electronic Packaging Lab at TU Dresden from 2003 to 2014. Currently he is a senior professor at TU Dresden.

Short abstract:

Autonomous driving demands highly robust surround-sensing of the entire vehicle. New packaging technologies have to be qualified for the reliability and safety of automotive standards. E-mobility increases the today's life time requirements of automotive electronics. Additional to the driving time the charging operations have to be considered. To meet this new life time requirements the qualification of electronics module is changing from the detection of defects to the robustness validation. This approach to qualification is based on knowledge of physics of failure mechanisms relates to specific mission profiles. Based on broad practical experience along complete supply chain examples of robustness validation will be demonstrated.