

**WEBINAR****"Intelligent Reliability with Electronics and Sensing"****Prof. Dr. Robert Ross****TU Delft & IWO (Institute for Science and Development, Ede, NL)****PRESENTIAL & ONLINE** **ONLINE INSCRIPTION**FECHA IMPARTICIÓN: **30 de MAYO 2022**HORARIO: **13:00 a 14:30**LUGAR: **Salón de Actos de la ETSII, edificio 5F de la  
Universitat Politècnica de València****Contents of the webinar**

- Introduction to EU projects Power2Power and iReliability4.0:
  - Statistical reliability,
  - Material science and
  - Condition assessment by sensors
- Balance reliability demand, efforts and maintenance type. Resilience.
- Benefits and Requirements for Asset Management.
  - Periodic replacement
  - Condition-based replacement and underlying knowledge rules about predictions
  - Reliability-based replacement based on Redundancy and Response rate
- Examples applied to power electronics:
  - Development of statistics in R&D experiments and testing
  - Development of sensors for PD detection
- Conclusions and questions

**Short Biography Robert Ross**

Rob Ross worked on the electrical energy sector for over 35 years. He worked at Utrecht University, KEMA, National Institute of Materials & Chemical Research (Tsukuba, Japan), Institute for Science & Development (IWO), Netherlands Defence Academy (NLDA), TenneT TSO, HAN University of Applied Sciences and TU Delft. IWO, TUD and TenneT are active affiliations.

He conducted projects in Europe, Asia, Africa and USA. One of his most successful project was the ITM-project that investigated the aspects sustainability, reliability and socio-economy of large-scale smart charging of electric vehicles. This project gave an important impulse to the Dutch electricity sector in the field of electric vehicles.

The spectrum of subjects comprises: reliability and availability of electrical energy and components; applied superconductivity; forensic investigations after failure; decision-making based on small data sets; diagnostic techniques; sustainable energy. His work led to 4 patent applications on materials or superconductivity. A book on Reliability Analysis is published with Wiley/IEEE (ISBN 9781119125174).

He received the 2004 SenterNovem Annual Award for Best invention in the category Energy & Environment (NL) and was nominated by the World Technology Network (USA) in the category Best Researcher Energy in 2006. He has built up a network in the electricity sector and the maritime sector through Cigré, IEC, IEE, IEEE, ENTSOe, Maritime Knowledge Centre and the IWO Foundation.

