

ReACTIVE Too

Reliable Electronics for Tomorrow's Active Systems

The School of Engineering, Faculty of Science and Engineering will be hosting the launch event of the new Horizon 2020 RiSE Project – ReACTIVE Too – on 18th & 19th of February at Telford Innovation Campus.

Reactive Too is a research-focused project, which started on 1st February this year, which brings together a unique team of academic and industrial members that aim to develop a tight confederation tackling challenging aspects of reliability and future developments in electronic systems.

ReACTIVE Too will carry out research into design for reliability of electronics-based systems. The team will develop novel tools for agile design, testing, analysing and improving the reliability of new devices in various demanding applications and environments (such as in automotive user experience, active safety applications and active and assisted living). This will help manufacturers identify and mitigate failure risks during the design stage; consequently helping to optimise reliability in all applications, moreover realise substantial design time efficiencies and cost savings.

Exemplar systems from partner companies in Automotive and Healthcare will be used to validate the ideas.

Twelve partner organisations including six universities; 2 from UK (University of Wolverhampton and Liverpool John Moore University), 2 from Finland (Tampere University and SAMK University), 1 from France (University of Burgundy – Franche-Comte) and 1 from Poland (Silesian University of Technology) and 6 industrial partners (APTIV (Poland), Ensor City (UK), JUNET (Finland) CEDRAT and ANNEALSYS (France) and JHTSS (China).

The UK partners have a track record in Electronics Assembly and Interconnections Reliability, Design for Reliability and Sensor Systems. The Finnish partners who have a track record in wearable electronics will bring their research in smart textiles to the team. Innovation in terms of design and integration of these smart textiles into the challenging environments of automotive and care homes will enhance driver information and ambient assisted living.

The project team is very privileged to have French partners doing world-leading research and production of unique devices in energy harvesting. Further innovation in ReACTIVE Too will bring novel flexible energy harvesters for integration into many sensors.

Industrially leading work is planned to be led by Polish partners to investigate the possibilities of applying AI, deep learning and prognostics to future electronics systems. These innovations should allow a unique assessment of long term reliability and shorten development cycle times, saving energy and money.

The team will be developed through a series of workshops and secondments. Future plans will be developed during these interactions to target new research and innovation topics and more intense interactions by making future joint funding proposals.

The 4 year project, which is led by Professor Ndy Ekere (a Professor of Manufacturing Engineering with the School of Engineering) has received funding from the European Union's Horizon 2020 research and innovation programme under the Marie Skłodowska-Curie Grant agreement No 871163.