



## European Reliability Research Roadmap Workshop

### Challenges and Future Directions

Wednesday 15<sup>th</sup> May 2019, University of Bradford

We are witnessing remarkable transformations across the transportation industries driven by technology advancements and proliferation across the systems scales and boundaries. Technologies to support increased levels of autonomy as well as user centric service innovation are already commonplace in vehicle architectures. From a product development organisation viewpoint, handling the explosion of complexity induced by the pervasive heterogeneous nature of systems is a significant challenge, further compounded by the pressure to develop systems in an environmental and cost conscious manner, with uncompromised or improved levels of safety and dependability demonstrated against diverse, global usage scenarios. While technology development has been the prime focus of research and innovation effort, we have seen only limited advances on methodologies and methods to address the reliability and resilience challenges emerging with increasingly complex systems and environments.

This workshop will bring together industry and academia thought leaders to explore jointly the key reliability modelling issues arising from these developments, identify the gaps in knowledge and methods, and propose directions for fundamental and applied research activities. The workshop proposes a highly interactive format, combining panel sessions with small group round table discussions, and agenda setting activities.

The outcomes from the workshop will be compiled into a published report\* outlining outstanding challenges and a prioritised roadmap for reliability research and methodology development.

\*The results of the analysis will be anonymized and comments will not be attributable to individuals or organisations. A report targeted at industry and academia will only be published after review by workshop participants.

Co-hosted by



**Prof. Felician Campean**  
Automotive Reliability Engineering  
Director Automotive Research Centre



**Prof. David Delaux**  
Head, Valeo Corporate Reliability  
Past President EU Reliability  
Environmental Commission



**Dr. Sanjiv Sharma**  
Airbus Expert for Modelling &  
Simulation methods and tools

Event sponsored by



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## Outline Programme

- 09.00-10.00 Welcome, Opening address and Agenda setting keynotes
- 10.00-12.00 **Theme 1: Technology Development & Innovation**  
What are the reliability challenges stemming from the accelerated introduction of new technologies?
- 12.00-13.00 Networking lunch
- 13.00-14.50 **Theme 2: Right First Time Through Design**  
What reliability methodologies and methods are needed to better support Product Development?
- 14.50-15.10 Networking coffee break
- 15.10-17.00 **Theme 3: Intelligent Vehicle Health Management**  
What challenges need to be overcome for Machine Learning and AI based reliability to consistently underpin effective systems lifecycle management?
- 17.00-18.00 Summary, Roadmap & Action Planning



If you are interested in attending or for further enquiries please contact Ms. Yvonne Western by email (Y.Western@Bradford.ac.uk) or telephone +44-1274-235401

<https://www.brad.ac.uk/automotive-research-centre/reliability-workshop-may19/>

## Collaborative Partners

- SAFI Consortium partners – Airbus, Renault, PSA, IAV and the University of Bradford
- CEEES – Confederation of European Environmental Engineering Societies
- SIA – Société des Ingénieurs de L'Automobile



We can't  
predict your  
**future**  
but we can  
**help shape it**