



## Previous ESReDA SEMINARS

### The 57<sup>th</sup> ESReDA Seminar



Luís Andrade Ferreira  
University of Porto,  
Portugal



Bernardo Vicente  
Tormos Martinez  
Universitat Politècnica de  
València,  
Spain

### The 57<sup>th</sup> ESReDA Seminar on Advances in Reliability, Risk and Safety Analysis with Big Data 23-24 October 2019, Valencia, Spain

The 57<sup>th</sup> ESReDA seminar was held on 23<sup>rd</sup>-24<sup>th</sup> October 2019, hosted by the Technical University of Valencia and supported by the research and educational center [C-Motores Termicos](#). There were eight paper presentations and three keynote speeches by Prof. Olga Fink (ETH Zurich), Prof. Sebastián Martorell (U. Politècnica de València) and Prof. Marco Riani (U. de Parma). Also, in a round table, it was discussed by Henk Wells and Mohammad Raza the problems dealing with the application of digital concepts to Risk Based Inspections.

In general, the presentations were of very high quality and dealt with the problems related with the application of Artificial Intelligence to Safety, Reliability and Data Analysis. The proceedings of the Seminar will be published as soon as possible on the ESReDA web site.

The Seminar had the support of the local host, Prof. Bernardo Tormos, that made possible to organize it in the very nice city of València, Spain. Also, it was possible to have a technical visit to the Laboratories for research and development of the C-Motores Termicos research center.

On the 22<sup>nd</sup> October the PG on Resilience Engineering and Modelling of Networked Infrastructure, chaired by Rasa Remenyte-Prescott (U. of Nottingham), held a meeting for the follow up of their ongoing work.



During the Seminar it was announced that the PG on Reliability, Risk and Safety Analysis with Big Data will be chaired by Siegfried Eisinger ([Siegfried.Eisinger@dnvgl.com](mailto:Siegfried.Eisinger@dnvgl.com)). Those interested in participating in this PG must contact him.

The last part of the day 1 of the seminar on 23<sup>rd</sup> October had a panel session on a very interesting topic "Risk based inspection using big data analytics—Do we have a clear path way?". This was chaired by Luis Ferreira and the panellist was Henk Wels, retired expert from DEKRA and DNV GL and author of his latest book "Failures and Forced Unavailability of Power Plants" and Mohammad Raza, Safety and Reliability expert from GE and member of the board of Directors of ESReDA.

The discussion was around the focus areas of how big data analytics development could influence the routine inspection methodologies in industries both in positive and negative way. The robustness of the predictive analytics will influence the conditional monitoring methods positively to a more accurate way to determine the lifetime consumption, hence optimising the useful life. But at the same time physics behind certain parameters like wear are still lagging in terms of understanding and this will take immense effort to come to a state that it can be fully predicted.



Luis Ferreira was sharing his experience on application of risk-based inspections in Oil and gas industry while Henk presented few learnings from his power plants assessments in the past. As Mohammad Raza has been keenly working on analytics development, deployment and converting the data into outcome-based guarantees, He presented how the industry is embracing the change and how disruptive technocrats are coming out with unique solutions with a fast track implementation time frame. His prediction on the job market dynamics due to IIOT in the coming years and the great divide the world will see in the future, with legal norms lacking was appreciated by the audience with some surprising facts sheets.

The field examples shared during the discussion was interesting for the audience which comprised of experts and few young master's students from the University attending this session. The interactive session with the audience was fruitful for one and all.



On the 23<sup>rd</sup> evening, on the Gala Dinner it was possible to network in a very nice and informal way, in a very good restaurant down town València.

## Forthcoming ESReDA SEMINARS

### The 58<sup>th</sup> ESReDA Seminar



Kaisa Simola  
EC JRC  
Petten, The Netherlands



Zdenko Simic  
EC JRC  
Petten, The Netherlands

### The 58<sup>th</sup> ESReDA Seminar on Using Knowledge to Manage Risks and Threats: Practices and Challenges

9-10 June 2020, Alkmaar, The Netherlands

will be held on the 9<sup>th</sup>-10<sup>th</sup> June 2020, hosted by [European Commission Joint Research Centre](#) (EC JRC), Taqa Theater De Vest, Alkmaar, the Netherlands.

The 58<sup>th</sup> ESReDA seminar will be a forum that aims to discuss theories, concepts, and experiences of enhancing the use of knowledge for better risk management and governance. This seminar will bring together researchers, practitioners, specialists and decision-makers to discuss strategies and practical experiences.

Papers for the seminar are invited from various stakeholders, from practitioners to researchers (industrialists, regulators, safety boards, universities, R&D organisations, engineering contractors and consultants, training specialists).

Submission of **abstracts: before the 12<sup>th</sup> of December 2019** at [EasyChair](#).

The **call for papers** is available on the [ESReDA website](#).

The registration will open in mid-February 2020 till the 15<sup>th</sup> of May 2020. A registration form and information package for the venue will be made available on the [ESReDA website](#).



### The 59<sup>th</sup> ESReDA Seminar



Agnieszka Tubis  
Wrocław University of  
Science and Technology,  
Poland

### The 59<sup>th</sup> ESReDA Seminar on Reliable Logistics Systems

29-30 September 2020, Wrocław, Poland

will be held on the 29-30 September 2020, hosted by Wrocław University of Science and Technology (Wrocław, Poland).

The issues of reliable and resilient logistics systems constitute the competitive advantage of operating supply chains. Current enterprises implement their processes in a variable and uncertain environment. These conditions significantly affect the accuracy and effectiveness of decisions. For this reason, the issues to be raised during the 59<sup>th</sup> ESReDA seminar on Reliable Logistics Systems are important not only for scientific but also utilitarian reasons. The seminar is to be aimed at discussing theories, concepts, and experiences of enhancing the use of knowledge for better reliability, resilience and risk management. The presented research results, operational proposals and case studies will respond to current problems encountered by the managerial staff of enterprises throughout Europe. Thus, this seminar will bring together researchers, practitioners, specialists and decision-makers to discuss strategies and practical experiences in the given field of science.

Topics include (but are not limited to):

- Designing reliable logistics networks;
- Design and optimization in transport and logistics;
- Modelling and simulation of logistics and transport processes;
- Planning and management of logistics and transport processes;
- Efficiency and sustainability of supply chains;
- Costs in transport and logistics;
- Risk assessment and decision theory in transport and logistics systems;
- Safety and quality in transport and logistics;
- Computation procedures in analysis and optimization;
- Failure consequences on human lives, activities and environmental damage;
- Organizational and societal modelling;
- Sustainable transport development;
- Operation and maintenance of logistic systems;
- Industrial case studies in Logistics and Transportation.

The call for papers will be available on the ESReDA website soon.



## Recent Publications



Henk C. Wels  
DEKRA (retired)  
The Netherlands

New book publication: Failures and Forced Unavailability of Power Plants by Henk C. Wels

Power plants are not functioning to the fullest 100 % of the time. Maintenance and inspection of some components require them to be off-line. Unplanned outages due to failures or external conditions may cause surprises and can lead to situations in which the demand is not satisfied at short term at large costs. In this book unavailability is modelled both qualitatively and quantitatively.

The book is derived from earlier papers presented at ESReDA, PGMON, VGB working groups and other committees and projects when working with KEMA and its legacy companies and departments NRG, DNV GL and DEKRA.

The book contains a small failure rate & repair time database as well as a description of E-planning in the Netherlands from the 60-ties until now.

Available at [VGB website](#).

## Forthcoming Conferences & Seminars



Rasa Remenyte-Prescott  
Chair  
University of  
Nottingham, UK

### 11<sup>th</sup> IMA International Conference on Modelling in Industrial Maintenance and Reliability

14-16 July 2020, Nottingham, UK

The 11<sup>th</sup> International Conference on Modelling in Industrial Maintenance and Reliability (MIMAR) will take place in Nottingham, UK from 14 – 16 July 2020. This event is the premier maintenance and reliability modelling conference in the UK and builds upon a very successful series of previous conferences. It is an excellent international forum for disseminating information on the state-of-the-art research, theories and practices in maintenance and reliability modelling and offers a platform for connecting researchers and practitioners from around the world.

The submission deadlines for abstracts and the optional full paper for inclusion in the Conference Proceedings are listed below. All submissions are subject to rigorous review before an acceptance decision is made.

Conference Proceedings: authors are invited to submit their paper for publication in the proceedings. All submissions will be peer reviewed and accepted papers will appear in the conference proceedings. The conference proceedings will be indexed by DOI system.

Special Issue: delegates are invited to submit papers to a Special Issue on “Advanced Maintenance Modelling for Industrial Systems” of Journal of Risk and Reliability: Proceedings of the Institute of Mechanical Engineers Part O, guest edited by the conference chairs. Papers will be subject to the standard peer review processes of the journal. A paper submitted to the Special Issue cannot be the same as a paper published in the conference proceedings.

**Abstracts** of 100-200 words via <https://my.ima.org.uk> by **2 March 2020**.

For further information on the conference, including instructions for authors, please visit the [conference webpage](#).

**We hope you can attend and we will provide a warm welcome in Nottingham in 2020.**



Phuc Do  
Co-Chair  
University of Lorraine,  
France



## Other Conferences and Seminars

**ESREL 2020 & PSAM 15 – 30th European Safety and Reliability Conference and the 15th Probabilistic Safety Assessment and Management Conference**

21-26 June 2020, Palazzo del Cinema, Venice, Italy. Call for papers at [ESREL 2020 & PSAM 15 website](#).

**CYSENI 2020 – the 17<sup>th</sup> Annual International Conference of Young Scientists on Energy Issues**

21-22 May 2019, Kaunas, Lithuania. Call for papers at the [CYSENI website](#).