



## Previous ESReDA SEMINARS

### The 55<sup>th</sup> ESReDA Seminar



Vali Patrascu  
AGIFER, Romania



Mircea Nicolescu  
AGIFER, Romania



Sever Paul  
AGIFER, Romania

### 55<sup>th</sup> ESReDA Seminar on Accident Investigation and Learning to Improve Safety Management in Complex System: Remaining Challenges

9-10 October 2018, Bucharest, Romania

The 55<sup>th</sup> ESReDA Seminar took place in Bucharest, Romania, 9-10 October 2018, hosted by the [Romanian Railway Investigating Agency \(AGIFER\)](#).



This seminar was opened by Mr. Luís Andrade Ferreira, ESReDA president and Vasile Belibou, the AGIFER General Manager. For the first time for ESReDA, the State Secretary in the Ministry of Transports, Mr. Călin Cristian Fort, introduced on Romanian Railways evolutions.

The programme proposed 22 papers within 7 sessions: "Past, present, future"; "Organizations and human aspects"; "Methodological aspects"; "Lessons learned and historical perspectives"; "Methods"; "Case studies" and "Going across sectors". About 80 participants from 15 countries (France, Germany, Lithuania, Norway, Portugal, Italy, Brazil, The Netherlands, Finland, Czech Republic, Belgium, Sweden, United Kingdom, Israel and Romania) contributed through their presentations, discussions and expertise in establishing the state-of-the-art in the field.

The technical programme included three keynote lectures: from Dan Serbanescu from Romanian Academy of science, about "*Similitudes and interconnections in accidents investigation and learning processes in various lifecycle phases and socio political environments for systems using different technologies*"; from Teodor Gradinariu, Senior Technical Advisor, at International Union of Railways, France that addressed "*Cyber security in railways, threats and challenges*" (results of UIC project ARGUS). In addition, the seminar had the privilege to listen to Mr. Raed Arafat, State Secretary at Romanian Internal Affairs Ministry, who explained how he challenged the emergency situations management for the Bucharest metro network with a public and private interface.

For the first time in an ESReDA seminar, the Technical Program Committee (TPC) organized one hour workshop "*Debate about the Remaining Challenges of Accident Investigation and Potential Innovative Breakthroughs*" (9<sup>th</sup> October 2018) to increase the Experts debate time which is the essence of ESReDA community. The participants were divided (by the TPC) into 8 groups (4 in English language, 4 in Romanian language) and they had to identify problems and solutions regarding the four phases of accident investigation (organizational issues, fact-finding, analysis/recommendations, follow up). The results and ideas were presented within a reflection session to all participants the second day.

**Full programme of the 55<sup>th</sup> ESReDA Seminar** is available at [ESReDA website](#). Few photos of the seminar were captured and now being displayed in the [Gallery](#) section of the website.

The **final proceedings of the 55<sup>th</sup> ESReDA Seminar** will soon be available for public consultation and free downloading in compliance with ESReDA politics of free dissemination of scientific and technical knowledge.

## Forthcoming ESReDA SEMINARS

### The 56<sup>th</sup> ESReDA Seminar



Dmitry Efrosinin  
JKU Linz, Austria



Mohamed Eid  
CEA, France

### The 56<sup>th</sup> ESReDA Seminar on Critical Services continuity, Resilience and Security

23-24 May 2019, Linz, Austria

Critical services continuity is a major societal security issue in modern society. They vital for the society and supplied thanks to a large variety of Critical Infrastructures (CIs). Some services disruptions may endanger the security of the citizen, the safety of the strategic assets and even the governance stability.

The CIs are more and more connected thanks to the information technology (IT) and supply services in every aspect in man's daily-life. The continuous progress in the IT fields pushes modern systems and infrastructures to be more and more: intelligent, distributed and proactive. That increases not only the operational complexity of the CI's but their vulnerability. The more complex a system is, the more vulnerable it will be and the more numerous the threats that can impact on it. The loss of operability of critical infrastructures may result in major disruption in some vital services supply leading to severe crises.

To counterbalance the increasing vulnerability of the systems, engineers, designers and operators should enhance the system preparedness and resilience facing different threats. That requires a supported continuous effort in many corresponding fields. One of them is "Modelling, Simulation & Analysis (SM&A)" of the CI in order to enhance the CIs' preparedness & resilience.

ESReDA as one of the most active EU networks in the field has initiated a project group (CI-PR/MS&A-Data) on the "Critical Infrastructure/Modelling, Simulation and Analysis - Data". The main focus of the project group is to report on the state of progress in MS&A of the CIs preparedness & resilience with a specific focus on the corresponding data availability and relevance.

In order to report on the most recent developments in the field of the CIs preparedness & resilience MS&A and the availability of the relevant data, ESReDA will hold its 56<sup>th</sup> Seminar on the following thematic: "Critical Services continuity, Resilience and Security".

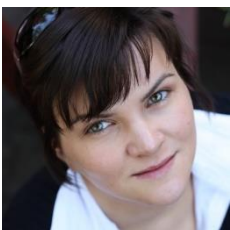
The 56<sup>th</sup> ESReDA seminar will be held on 23-24 May 2019, hosted by [Johannes Kepler University \(Institute for Stochastics and Linz Center of Mechatronics\)](#) Linz, Austria. The **Call for Papers** is online at [ESReDA website](#). **Deadline for draft papers** is the **13<sup>th</sup> January 2019**.

## New ESReDA PROJECT GROUPS

### PG on Creating Safe and Resilient Supply Chain



Tomasz Nowakowski  
Wrocław University of Technology, Poland



Agnieszka Tubis  
Wrocław University of Technology, Poland

The project group "**Creating Safe and Resilient Supply Chain**" was created in 2018. The project group is working on a development of the new method for supply chain creating and its monitoring in the context of the measurement systems that are focused on safety and resilience of performed logistic processes. Recent works are focused on a comprehensive literature review on supply chain, supply chain management, as well as on safety, resilience, and vulnerability concepts. The ESReDA works will be ended by publishing a comprehensive scientific study of the carried out research in the form of a monograph submitted to the Springer publishing house, which covers 3 years of group activity.

The second meeting of the Project Group is planned to be held during 56<sup>th</sup> ESReDA Seminar (22 May 2019, Linz, Austria). The scope of the meeting is to present research results regarding:

- the literature review on the resilience and safety areas (regarding to supply chain performance) in order to e.g. sort out these terms,
- overview of measurement systems in order to provide the classification of the known measures, methods, models, and indexes used for supply chain resilience and safety performance assessment.

Leaders of the PG: Prof Tomasz Nowakowski and Dr Agnieszka Tubis ([email](#)).

**All experts concerned in the field are welcome to join the project group meeting, for the purpose please contact** Dr Sylwia Werbińska-Wojciechowska ([email](#)).

## PG on Resilience Engineering and Modelling of Networked Infrastructure



John Andrews  
University of Nottingham,  
UK



Rasa Remenyte-Prescott  
University of Nottingham,  
UK

The Project Group on **Resilience Engineering and Modelling of Networked Infrastructure** was launched on the 8th October 2018 in Bucharest, Romania. This PG is led by Dr Rasa Remenyte-Prescott ([email](#)) and Prof John Andrews ([email](#)) in the [Resilience Engineering Research Group](#) at the University of Nottingham in the UK.

Many of the critical infrastructure systems on which modern society is so dependent are networks. These include transport networks (rail, metro, highway, air traffic and shipping routes), utilities (electricity, gas, water) and communications (mobile phone, land line phones, internet). The disruption of such systems can have a big impact on the communities that they serve. The nature of the threats to these systems is also changing and includes failures, especially of aging infrastructure, natural disasters, the effects of climate change and deliberate acts such as terrorism. Such critical systems need to be resilient.

This PG will focus on the transport and utilities networks. For these sectors it will look at the characteristics of each of the networks and the methods which exist to model their resilience and identify the weaknesses where the most effort should be expended to protect the performance of the network. It will produce a technical reference text which will document the current state-of-the-art along with the advances made over the duration of the project, in the aspects of Resilience Engineering that have been the focus of the work. It will also hold an ESReDA seminar in May 2021 in Grenoble, France.

The current membership includes academic colleagues from Grenoble, ETH, Eindhoven, Arkansas, Wroclaw Politechnika, Loughborough, Edinburgh universities, and industrial partners, such as CEA in France, EU JRC in Ispra, Italy, LEI (Lithuanian Energy Institute) and BGS (British Geological Survey).

**NEW MEMBERS are invited to join this PG, please get in touch ([email](#)).**

The next PG meeting is planned for 22nd May 2019 in Linz, Austria, before the 56<sup>th</sup> ESReDA seminar 23-24 May 2019.

## Forthcoming Conferences & Seminars

### Other Conferences and Seminars

**IESMA 2018 – The conference and industrial exhibition “Innovative Energy Solutions for Military Applications”**

14-16 November 2018, Vilnius, Lithuania. Event organized by NATO Energy Security Centre of Excellence in cooperation with State Military Scientific Technical Center "DELTA" of the Ministry of Defence of Georgia. More information at the [IESMA 2018 website](#).

**CYSENI 2019 – the 16<sup>th</sup> Annual International Conference of Young Scientists on Energy Issues**

23-24 May 2019, Kaunas, Lithuania. Call for papers at the [CYSENI website](#).

**ESREL 2019 – the 29<sup>th</sup> Annual European Safety and Reliability Conference**

22-26 September 2019, Hannover, Germany. Call for papers at the [ESREL 2019 website](#).

ESReDA Members, you are kindly invited to contribute to the ESReDA newsletter sharing news, announcement of events, your experiences, ideas, etc. You are supposed to elaborate proposals to create new Project Groups, host ESReDA Seminars or initiate collaborative activities.

### ESReDA: European Safety, Reliability & Data Association

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