

SSARS 2009

3rd Summer Safety and Reliability Seminars
July 19-25, 2009, Gdańsk/Sopot-Jelitkowo, Poland

PROGRAMME

Organisers and Sponsors

European Safety and Reliability Association (ESRA)
Polish Safety and Reliability Association (PSRA)
Gdynia Maritime University (GMU)
Polytechnic of Milan (PM)
Poland's Ministry of Science and Higher Education (PMSHE)

Secretariat

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Location

Dwór Prawdzica Hotel
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Invited Professors & Seminar Session Chairmen (Topics)

Grigore Albeanu, Spiru Harlet University, Romania, (Internet Applications in Reliability and Safety)
Heinz-Peter Berg, Bundesamt für Strahlenschutz, Germany, (Managing and Predicting Risk, Safety and Stability)
Radim Bris, University of Ostrava, Czech Republic, (Safety and Reliability Modelling of Complex Systems and Processes)
Romney Duffey, Atomic Energy of Canada Limited, Canada, (Managing and Predicting Risk, Safety and Stability)
Franciszek Grabski, Gdynia Naval Academy, Poland, (Safety and Reliability Modelling of Complex Systems and Processes)
Mohd Salahuddin Habibullah, Institute of High Performance Computing, Singapore, (Safety and Reliability Data Mining)
Napat Harnpornchai, Chiang Mai University, Thailand, (Managing and Predicting Risk, Safety and Stability)
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Krzysztof Kołowrocki, Gdynia Maritime University, Poland, (Safety and Reliability Modelling of Complex Systems and Processes)
Kazimierz Kosmowski, Gdansk University of Technology, Poland, (Human Factors in Safety and Reliability)
Nikias Nikitakos, University of Aegean, Greece, (Maintenance Modelling and Optimization)
Nowakowski Tomasz, Wrocław University of Technology, Poland, (Maintenance Modelling and Optimization)
Wojciech Zamojski, Wrocław University of Technology, Poland, (Safety and Reliability Modelling of Complex Systems and Processes)

Educational & Training Course Lecturers (Topics)

Heinz-Peter Berg, Bundesamt für Strahlenschutz, Germany, (Human Factors in Safety and Reliability – Course I)
Franciszek Grabski, Gdynia Naval Academy, Poland, (Applications of Semi-Markov Processes in Safety and Reliability Analysis – Course II)
Krzysztof Kołowrocki, Gdynia Maritime University, Poland, (Estimating Unknown Parameters of Operation Processes and Reliability Models of Complex Technical Systems - Course III)

Organising Board

Sambor Guze
Joanna Soszyńska - Chairman

Seminar Rooms [Responsible Persons]

Knight's Room [Sambor Guze]
Hunter's Room [Sambor Guze]

SEMINAR PROGRAMME

Sunday, 19.07.2009

Time	Seminar Events
12 ⁰⁰ - 17 ⁰⁰	Arrival (Hotel "Dwór Prawdzica")
17 ⁰⁰ - 19 ⁰⁰	Registration (Seminar Desk)
19 ⁰⁰ - 21 ⁰⁰	Welcome Party (Hotel Restaurant)

Monday, 20.07.2009

Time	Seminar Events
	Opening Ceremony (Hunter's Room)
7 ⁰⁰ – 8 ⁴⁰	Breakfast (Hotel Restaurant)
8 ⁴⁰ - 9 ⁰⁰	Welcome (<i>Kołowrocki Krzysztof</i> – Chairman) Technical Information (<i>Joanna Soszyńska</i> – Organising Chairman)
	Plenary Sessions (Hunter's Room) (Lecture Presentations including 10 minutes for Discussion)
9 ⁰⁰ - 9 ⁵⁰	Title: Models of logistic support systems <i>Speaker: Nowakowski Tomasz, Werbińska-Wojciechowska Sylwia</i> <i>Chair: Kołowrocki Krzysztof</i>
9 ⁵⁰ - 10 ⁴⁰	Title: Dependability of services networks <i>Speaker: Zamojski Wojciech</i> <i>Chair: Berg Heinz-Peter</i>
10 ⁴⁰ - 11 ⁰⁰	Coffee/Tea Break (Hotel Restaurant)
	Seminar Sessions (Hunter's Room) (Paper Presentations including 5 minutes for Discussion)
	<i>Chair: Duffey Romney, Pntanali Claudio</i>
11 ⁰⁰ - 11 ²⁰	Title: An integrated framework for safety management and uncertainty management in petroleum operations <i>Speaker: Abrahamsen Eirik Bjorheim, Aven Terje, Iversen Rune Saeboe</i>
11 ²⁰ - 11 ⁴⁰	Title: A new visualizing tool for communicating cost-effectiveness of safety measures <i>Speaker: Abrahamsen Eirik Bjorheim, Aven Terje, Røed Willy</i>
11 ⁴⁰ - 12 ⁰⁰	Title: Corrosion mechanisms and their consequences for nuclear power plants <i>Speaker: Berg Heinz-Peter</i>
12 ⁰⁰ - 12 ²⁰	Title: Proposal for estimating leak and break frequencies of piping systems in probabilistic safety assessment <i>Speaker: Berg, Heinz-Peter, Gersinska Rainer, Sievers Jürgen</i>
12 ²⁰ – 13 ²⁰	Lunch (Hotel Restaurant)
	Seminar Sessions (Hunter's Room) (Paper Presentations including 5 minutes for Discussion)
	<i>Chair: Nikitakos Nikitas, Werbińska-Wojciechowska Sylwia</i>
13 ²⁰ – 13 ⁴⁰	Title: Particle filtering for the estimation of system mode of operation <i>Speaker: Cadini Francesco, Avram Diana, Zio Enrico</i>
13 ⁴⁰ – 14 ⁰⁰	Title: Multi-objective genetic algorithms for the reliability analysis and optimization of electrical transmission networks <i>Cadini Francesco, Zio Enrico, Goela Lucia R., Petrescu Cristina A.</i>
14 ⁰⁰ – 14 ²⁰	Title: Physical and reliability aspects of failure in mechanical objects <i>Speaker: Młynczak Marek</i>

14 ²⁰ – 14 ⁴⁰	Title: Random fuzzy Poisson processes <i>Speaker: Guo Renkuan, Nyirenda Juwa, Guo Danni</i>
14 ⁴⁰ – 15 ⁰⁰	Coffee/Tea Break (Hotel Restaurant)
	Educational & Training Course I (Hunter's Room)
15 ⁰⁰ – 16 ⁰⁰	Title: Application of semi-markov processes in safety and reliability analysis <i>Lecturer: Grabski Franciszek</i>
	Educational & Training Course II (Hunter's Room)
16 ⁰⁰ – 17 ⁰⁰	Title: Human factors in safety and reliability <i>Lecturere: Berg Heinz-Peter</i>
17 ⁰⁰ - 23 ⁰⁰	Participants Individual Meetings and Discussions Free Time

Meeting of Polish Safety and Reliability Association Management Board (12²⁰ – 13²⁰, Hotel Restaurant)

Tuesday, 21.07.2009

Time	Seminar Events
	Seminar on the "Stena Baltica" Ferry Board
6 ³⁰ - 7 ⁰⁰	Breakfast (Hotel Restaurant)
7 ⁰⁰ - 7 ³⁰	Leaving the Hotel and going by bus to Gdynia Terminal
7 ³⁰ - 9 ⁰⁰	Boarding the ferry and occupying the cabins
9 ⁰⁰ - 9 ³⁰	Leaving and sightseeing the port of Gdynia
	Plenary Sessions (Ferry's Conference Room) (Lecture Presentations including 10 minutes for Discussion)
9 ³⁰ - 10 ¹⁰	Title: Safety and risk evaluation of Stena Baltica ferry in variable operation conditions <i>Speaker: Kotowrocki Krzysztof, Soszyńska Joanna</i> <i>Chair: Jurdziński Mirosław</i>
10 ¹⁰ - 10 ⁵⁰	Coffee/Tea Break (Area next to Conference Room)
10 ⁵⁰ - 11 ⁴⁰	Title: Managing and Predicting Risk, Safety and Stability in a Challenging World <i>Speaker: Duffey Romney</i> <i>Chair: Grabski Franciszek</i>
11 ⁴⁰ - 12 ³⁰	Title: Towards web applications reliability engineering <i>Speaker: Albeanu Grigore, Averian Alexandru, Duda Iordan</i> <i>Chair: Nowakowski Tomasz</i>
12 ³⁰ - 14 ³⁰	Lunch (Globetrotter Restaurant) Free Time
14 ³⁰ - 17 ⁰⁰	Events organized by the ferry staff: Bingo, Barman Show, Music Quiz
17 ⁰⁰ - 19 ³⁰	Teatime in Metropolitan Restaurant Free Time
19 ³⁰ - 20 ³⁰	Arriving and sightseeing the port of Karlskrone Free Time
20 ³⁰ -	Seminar Dinner (Metropolitan Restaurant)
21 ⁰⁰ -	Leaving the port of Karlskrone
22 ³⁰ -	Disco
7 ³⁰ - 8 ³⁰	Arriving the port of Gdynia and coming back by bus to the Hotel

During the cruise there are open: Wellness Centre, Restaurants, Bar, Casino, Shop
Meeting of Polish Safety and Reliability Association Management Board (12³⁰ - 14³⁰, Globetrotter Restaurant)

Wednesday, 22.07.2009

Time	Seminar Events
7 ⁰⁰ – 8 ⁴⁰	Breakfast (Hotel Restaurant)
8 ⁴⁰ - 9 ⁰⁰	Organizational Details and Advertisements (Hunter's Room)
	Plenary Sessions (Hunter's Room) (Lecture Presentations including 10 minutes for Discussion)
9 ⁰⁰ - 9 ⁵⁰	Title: Genetic algorithms-aided reliability analysis <i>Speaker: Harnpornchai Napat</i> <i>Chair: Zamojski Wojciech</i>
9 ⁵⁰ - 10 ⁴⁰	Title: Confidence bounds for the reliability of a system from subsystem data <i>Hryniewicz Olgierd</i> <i>Chair: Briš Radim</i>
10 ⁴⁰ - 11 ⁰⁰	Coffee/Tea Break (Hotel Restaurant)
	Seminar Sessions (Hunter's Room) (Paper Presentations including 5 minutes for Discussion)
	<i>Chair: Tanguy Christian, Valis David</i>
11 ⁰⁰ - 11 ²⁰	Title: On a general standby system and its optimization <i>Speaker: Cha Ji Hwan, Yun Won Young:</i>
11 ²⁰ - 11 ⁴⁰	Title: Bootstrap methods for the censored data in empirical Bayes estimation of the reliability parameters <i>Speaker: Grabski Franciszek, Załęska- Fornal Agata</i>
11 ⁴⁰ - 12 ⁰⁰	Title: Modelling the ship safety on waterway according to navigational signs reliability <i>Speaker: Guze Sambor, Smolarek Leszek</i>
12 ⁰⁰ - 12 ²⁰	Title: Time differences in operation stages on ferry "Stena Baltica" during passage the open water areas <i>Peaker: Jurdziński Mirosław, Guze Sambor, Kamiński Piotr</i>
12 ²⁰ – 13 ²⁰	Lunch (Hotel Restaurant)
	Seminar Sessions (Hunter's Room) (Paper Presentations including 5 minutes for Discussion)
	<i>Chair: Harnpornchai Napat, Milazzo Maria Francesco</i>
13 ²⁰ – 13 ⁴⁰	Title: Analysis of transportation system with the use of Petri nets <i>Speaker: Kowalski Marcin, Magott Jan, Nowakowski Tomasz, Werbińska-Wojciechowska Sylwia</i>
13 ⁴⁰ – 14 ⁰⁰	Title: Selected approaches for reliability comparison of highly reliable items <i>Speaker: Valis David, Vintr Zdenek, Koucky Miroslav</i>
14 ⁰⁰ – 14 ²⁰	Title: Fundamental risk assessment in reduced data conditions in particular example <i>Speaker: Zajac Mateusz, Valis David</i>
14 ²⁰ – 14 ⁴⁰	Title: Quantitative OHS evaluation: RATE procedure compared with traditional reliability methodologies <i>Speaker: Pantanali Claudio, Bianco Cristina</i>

14 ⁴⁰ – 15 ⁰⁰	Title: Random fuzzy continuous-time Markov chains <i>Speaker: Guo Renkuan, Nyirenda Juwa, Dunne Tim, Guo Danni</i>
15 ⁰⁰ – 15 ²⁰	Coffee/Tea Break (Hotel Restaurant)
	Poland-Singapore Joint Project Workshop (Hunter's Room) (Paper Presentations including 5 minutes for Discussion)
	<i>Chair: Kołowrocki Krzysztof, Mohamed Salahuddin Habibullah</i>
15 ²⁰ – 15 ⁴⁰	Title: Reliability, risk and availability based optimization of complex technical systems operation processes. Part 1. Theoretical backgrounds <i>Kołowrocki Krzysztof, Soszyńska Joanna</i>
15 ⁴⁰ – 16 ⁰⁰	Title: Reliability, risk and availability based optimization of complex technical systems operation processes. Part 2. Application in port transportation <i>Speaker: Kołowrocki Krzysztof, Soszyńska Joanna</i>
16 ⁰⁰ – 16 ²⁰	Title: Preliminary reliability, risk and availability analysis and evaluation of bulk cargo transportation system in variable operation conditions <i>Speaker: Kołowrocki Krzysztof, Kwiatkowska-Sarnecka Bożena, Soszyńska Joanna</i>
16 ²⁰ – 16 ⁴⁰	Title: Models of reliability and availability improvement of series and parallel systems related to their operation processes <i>Speaker: Kwiatkowska-Sarnecka Bożena</i>
16 ⁴⁰ - 23 ⁰⁰	Participants Individual Meetings and Discussions Free Time

Thursday, 23.07.2009

Time	Seminar Events
7 ⁰⁰ – 8 ⁴⁰	Breakfast (Hotel Restaurant)
8 ⁴⁰ - 9 ⁰⁰	Organizational Details and Advertisements (Hunter's Room)
	Plenary Sessions (Hunter's Room) (Lecture Presentations including 10 minutes for Discussion)
9 ⁰⁰ - 9 ⁵⁰	<i>Title: Direct unavailability calculations of highly reliable systems</i> <i>Speaker: Briš Radim</i> <i>Chair: Hryniewicz Olgierd</i>
9 ⁵⁰ - 10 ⁴⁰	<i>Title: Ship's diesel electrical system availability modeling</i> <i>Speaker: Mennis Evangelos, Platis Agapios, Nikitakos Nikitas</i> <i>Chair: Kosmowski Kazimierz</i>
10 ⁴⁰ - 11 ⁰⁰	Coffee/Tea Break (Hotel Restaurant)
	Visit to Kashubian Region (by bus)
11 ⁰⁰ – 12 ⁰⁰	Leaving the Hotel and going by bus to Kashubian Region
12 ⁰⁰ - 14 ⁰⁰	Visiting the Kashubia Region Education and Promotion Centre in Szymbark, shopping regional souvenirs, tasting regional simple food
14 ⁰⁰ – 16 ⁰⁰	Driving by a cart (or by bus) to Wieżycza peak, climbing watchtower and sightseeing surroundings
16 ⁰⁰ – 22 ⁰⁰	Kashubian Feast
22 ⁰⁰ – 23 ⁰⁰	Leaving the Kashubia Region and coming back by bus to the Hotel

Friday, 24.07.2009

Time	Seminar Events
7 ⁰⁰ – 8 ⁴⁰	Breakfast (Hotel Restaurant)
8 ⁴⁰ - 9 ⁰⁰	Organizational Details and Advertisements (Hunter's Room)
	Plenary Sessions (Hunter's Room) (Lecture Presentations including 10 minutes for Discussion)
9 ⁰⁰ - 9 ⁵⁰	Title: Functional safety analysis including human factors <i>Speaker: Kosmowski Kazimierz</i> <i>Chair: Albeanu Grigore</i>
9 ⁵⁰ - 10 ⁴⁰	Title: <i>Methods and algorithms for evaluating unknown parameters of operation processes of complex technical systems (Training Course III)</i> <i>Speaker: Kołowrocki Krzysztof, Soszyńska Joanna</i> <i>Chair: Mohamed Salahuddin Habibullah</i>
10 ⁴⁰ - 11 ⁰⁰	Coffee/Tea Break (Hotel Restaurant)
	Poland-Singapore Joint Project Workshop (Hunter's Room) (Paper Presentations including 5 minutes for Discussion) <i>Chair: Kołowrocki Krzysztof, Mohamed Salahuddin Habibullah</i>
11 ⁰⁰ - 11 ²⁰	Title: The computer program to verify the hypothesizes and to predict of the parameters for operational process (<i>Training Course III</i>) <i>Speaker: Guze Sambor, Kwiatkowska-Sarnecka Bożena, Soszyńska Joanna</i>
11 ²⁰ - 11 ⁴⁰	Title: <i>Methods and algorithms for evaluating unknown parameters of components reliability of complex technical systems (Training Course III)</i> <i>Speaker: Kołowrocki Krzysztof, Soszyńska Joanna</i>
11 ⁴⁰ - 12 ⁰⁰	Title: Reliability and availability of a ground ship-rope transporter in variable operation conditions (<i>Training Course III</i>) <i>Speaker: Blokus-Roszkowska Agnieszka, Kołowrocki Krzysztof</i>
12 ⁰⁰ - 12 ²⁰	Title: Statistical identification and prediction of the port oil pipeline system's operation process and its reliability evaluation (<i>Training Course III</i>) <i>Speaker: Kołowrocki Krzysztof, Soszyńska Joanna</i>
12 ²⁰ – 13 ²⁰	Lunch (Hotel Restaurant)
	Seminar Sessions (Hunter's Room) (Paper Presentations including 5 minutes for Discussion) <i>Chair: Cha Ji Hwan, Mbyńczak Marek</i>
13 ²⁰ – 13 ⁴⁰	Title: Quantitative assessment of explosion risk in workplaces <i>Speaker: Lisi Roberto, Milazzo Maria Francesco, Maschio Giuseppe</i>
13 ⁴⁰ – 14 ⁰⁰	Title: Contribution to reliability analysis of highly reliable items <i>Speaker: Valis David, Vitr Zdenek, Koucky Miroslav</i>
14 ⁰⁰ – 14 ²⁰	Title: The 5C model: a new approach to asset integrity management <i>Speaker: Rahim Yousif, Refsdal Ingbjørn, Kenett Ron</i>
14 ²⁰ – 14 ⁴⁰	Title: Mean time to failure for periodic failure rates <i>Speaker: Tanguy Christian</i>

14 ⁴⁰ – 15 ⁰⁰	Title: Examples of series-“m out of k” systems and their limit reliability functions <i>Speaker: Milczek Beata</i>
15 ⁰⁰ – 15 ²⁰	Coffee/Tea Break (Hotel Restaurant)
	Educational & Training Course I (Hunter’s Room)
15 ²⁰ – 16 ²⁰	Title: Application of semi-markov processes in safety and reliability analysis <i>Lecturer: Grabski Franciszek</i>
	Educational & Training Course II (Hunter’s Room)
16 ²⁰ – 17 ²⁰	Title: Human factors in safety and reliability <i>Lecturer: Berg Heinz-Peter</i>
17 ²⁰ - 19 ⁰⁰	Sightseeing Tri City (individually)
19 ⁰⁰ - 23 ⁰⁰	Farewell Dinner (Rucola Restaurant in Crooked House, Sopot, Monte Casino street)

Saturday, 25.07.2009

Time	Seminar Events
7 ⁰⁰ – 8 ⁴⁰	Breakfast (Hotel Restaurant)
8 ⁴⁰ - 9 ⁰⁰	Organizational Details and Advertisements (Hunter's Room)
	Poland-Singapore Joint Project Workshop (Hunter's Room) (Paper Presentations including 5 minutes for Discussion)
	<i>Chair: Kołowrocki Krzysztof, Mohamed Salahuddin Habibullah</i>
9 ⁰⁰ – 9 ²⁰	Title: Reliability and availability of a shipyard ship-rope elevator in variable operation conditions <i>Speaker: Blokus-Roszkowska Agnieszka, Kołowrocki Krzysztof</i>
9 ²⁰ – 9 ⁴⁰	Title: A computational tool for general model of industrial systems operation processes <i>Speaker: Lumanpauw Ernest, Mohamed Salahuddin Habibullah, Kołowrocki Krzysztof, Soszynska Joanna, Xie Min</i>
	Seminar Summary Session (Hunter's Room)
9 ⁴⁰ – 10 ⁰⁰	Lectures and papers preliminary selection for possible publication in selected scientific journals <i>Chair: Kołowrocki Krzysztof</i>
10 ⁰⁰ – 10 ²⁰	Recommendation for selected scientific journals <i>Speaker: Kołowrocki Krzysztof</i>
10 ²⁰ – 10 ⁴⁰	SSARS 2010 in Zakopane (the Heart of Poland's Mountains) ? <i>Speaker: Joanna Soszyńska</i>
10 ⁴⁰ - 11 ⁰⁰	Coffee/Tea Break (Hotel Restaurant)
11 ⁰⁰ – 12 ⁴⁰	SSARS 2009 Participants Departure

Krzysztof Kołowrocki & Joanna Soszyńska

Gdynia, 19.07.2009.