Igor Kozin - DTU Orbit (09/11/2017)

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Department of Management Engineering - Senior Researcher

Engineering Systems

Publications:

**Computing interval-valued reliability measures: application of optimal control methods**
Publication: Research - peer-review › Journal article – Annual report year: 2017

**Risk Management Challenges in Large-scale Energy PSS**
Publication: Research - peer-review › Article in proceedings – Annual report year: 2017

**Safe manning of merchant ships: an approach and computer tool**
Alapetite, A. & Kozin, I. 2017 In : Maritime Policy and Management. 44, 3, p. 323-335
Publication: Research - peer-review › Journal article – Annual report year: 2017

**Project risk management: potential in the field and the NUSAP scheme**
Tegeltija, M. & Kozin, I. 14 Nov 2016
Publication: Research - peer-review › Conference abstract for conference – Annual report year: 2017

**Afværgeforanstaltninger og monitörering**
Hansen, S. F. & Kozin, I. 2016 Videnskabelig udredning af international viden om skifergas relatet til en dansk kontekst: DTU, GEUS, DCE. Aarhus Universitet, GEUS og Danmarks Tekniske Universitet, Ch. 1.4, p. 25-30
Publication: Commissioned › Report chapter – Annual report year: 2016

**Emergency Management involving Critical Infrastructure Disruptions: operationalizing the deployment of resilience capabilities**
Publication: Research › Article in proceedings – Annual report year: 2017

**Identification of risks stemming from new communication technologies**
Lessis, V., Taylor, J. R. & Kozin, I. 2016
Publication: Research - peer-review › Paper – Annual report year: 2016

**Operational implications of accepting and denying whether a true value of risk exists**
Kozin, I. 2016
Publication: Research - peer-review › Conference abstract for conference – Annual report year: 2016

**Overordnet beskrivelse /screening af risici og farer ved indvinding af skifergas**
Hansen, S. F. & Kozin, I. 2016 Videnskabelig udredning af international viden om skifergas relatet til en dansk kontekst: DTU, GEUS, DCE. Aarhus Universitet, GEUS og Danmarks Tekniske Universitet, Ch. 1.3, p. 13-25
Publication: Commissioned › Report chapter – Annual report year: 2016

**Post-Probabilistic Uncertainty Quantification: Discussion of Potential Use in Product Development Risk Management**
Publication: Research - peer-review › Article in proceedings – Annual report year: 2016
Prediction of Repair Work Duration for Gas Transport Systems Based on Small Data Samples
Publication: Research - peer-review › Journal article – Annual report year: 2016

Process Risk Assessment using Dynamic Simulation of Scenarios
Publication: Research - peer-review › Article in proceedings – Annual report year: 2016

Videnskabelig udredning af international viden om skifergas relateret til en dansk kontekst: DTU, GEUS, DCE
Publication: Commissioned › Report – Annual report year: 2016

Building Critical Infrastructure resilience capacities into the Emergency Management set-up: a reference framework
Trucco, P., Petrenj, B., Kozine, I. & Andersen, H. B. 2015
Publication: Research - peer-review › Conference abstract for conference – Annual report year: 2016

Creating Resilience Capability against Critical Infrastructure Disruptions: Foundations, Practices and Challenges
Kozine, I. 2015
Publication: Research › Sound/Visual production (digital) – Annual report year: 2015

Dynamic versus static modelling of safety-critical systems for risk assessment
Markert, F. & Kozine, I. 2015
Publication: Research › Sound/Visual production (digital) – Annual report year: 2015

Integration of resilience capabilities for Critical Infrastructures into the Emergency Management set-up
Publication: Research - peer-review › Article in proceedings – Annual report year: 2015

Unforeseen Accidents: Improving Risk Management Practices and Predictability
Publication: Research - peer-review › Conference abstract in proceedings – Annual report year: 2015

A novel risk assessment method using dynamic simulation of fire and egress scenarios on off-shore platforms
Markert, F., Duijm, N. J. & Kozine, I. 2014
Publication: Research - peer-review › Conference abstract for conference – Annual report year: 2014

A novel risk assessment method using dynamic simulation of fire and egress scenarios on off-shore platforms
Markert, F., Duijm, N. J. & Kozine, I. 2014
Publication: Research › Sound/Visual production (digital) – Annual report year: 2014

Cognitive modelling of train drivers for improving safety
Kozine, I., Duijm, N. J. & Thommesen, J. 2014
Publication: Research - peer-review › Conference abstract for conference – Annual report year: 2015

Epistemic risks: challenges in assessment and decision making
Kozine, I. 2014
Publication: Research › Conference abstract for conference – Annual report year: 2015
Is the ALARP principle rational?
Publication: Research - peer-review › Conference abstract in proceedings – Annual report year: 2015

Offshore Platform Hydrocarbon Risk Assessment – OPHRA: Feasibility
Publication: Research › Report – Annual report year: 2014

Information about robustness, reliability and safety in early design phases
Publication: Research › Ph.D. thesis – Annual report year: 2013

An interval-valued reliability model with bounded failure rates
Publication: Research - peer-review › Journal article – Annual report year: 2012

Computer simulation for risk management: Hydrogen refueling stations and water supply of a large region
Publication: Research - peer-review › Article in proceedings – Annual report year: 2012

Powering stochastic reliability models by discrete event simulation
Publication: Research - peer-review › Article in proceedings – Annual report year: 2012

Safe manning of safety-critical systems
Publication: Communication › Journal article – Annual report year: 2012

Estimation of Uncertainty for emerging Technologies and Implications to Risk Management
Markert, F. & Kozine, I. 2011
Publication: Research › Poster – Annual report year: 2011

Estimation of Uncertainty in Risk Assessment of Hydrogen Applications
Markert, F., Krymsky, V. & Kozine, I. 2011 International Conference on Hydrogen. p. 194
Publication: Research - peer-review › Article in proceedings – Annual report year: 2011

On Models of Apportionment of Safety Targets Accounting for Human Error, Organisational Factors and Uncertainty
Publication: Research › Report – Annual report year: 2011

Overcoming some limitations of imprecise reliability models
Publication: Research - peer-review › Article in proceedings – Annual report year: 2011

Application of safety and reliability approaches in the power sector: Inside-sectoral overview
Publication: Research - peer-review › Book chapter – Annual report year: 2011
Discrete event simulation versus conventional system reliability analysis approaches
Publication: Research - peer-review › Article in proceedings – Annual report year: 2010

On new cautious structural reliability models in the framework of imprecise probabilities
Utkin, L. & Kozine, I. 2010 In : Structural Safety. 32, p. 411-416
Publication: Research - peer-review › Journal article – Annual report year: 2010

On New Cautious Structural Reliability Models in the Framework of imprecise Probabilities
Publication: Research - peer-review › Article in proceedings – Annual report year: 2009

Bounded Densities and Their Derivatives: Extension to Other Domains
Kozine, I. & Krymsky, V. 2009 In : Journal of Statistical Theory and Practice. 3, 1, p. 25-38
Publication: Research › Journal article – Annual report year: 2009

Bounded Densities and Their Derivatives: Extension to Other Domains
Publication: Research - peer-review › Book chapter – Annual report year: 2009

Computing interval-valued statistical characteristics: What is the stumbling block for reliability applications?
Publication: Research - peer-review › Journal article – Annual report year: 2009

Discrete event simulation as a versatile analysis tool for safety-critical systems
Publication: Research › Conference abstract in proceedings – Annual report year: 2009

Discrete event simulation in support to hydrogen supply reliability
Publication: Research - peer-review › Conference abstract in proceedings – Annual report year: 2009

Lecture for postgraduate diploma in safe transport, storage and usage og hydrogen: Risk Assessement
Markert, F., Kozine, I. & Duijm, N. J. 2009
Publication: Education › Compendium/lecture notes – Annual report year: 2009

Risk analysis and assessment: Discrete event simulation as a versatile analysis tool for safety-critical systems
Kozine, I. 2009
Publication: Research › Conference abstract for conference – Annual report year: 2009

Uncertainty modeling with imprecise statistical reasoning and the precautionary principle in decision making
Publication: Research - peer-review › Book chapter – Annual report year: 2008

Kozine, I. 2007 In : Studia Logica. 85, p. 411-412
Publication: Communication › Journal article – Annual report year: 2007

Enhancement of natural extension
Publication: Research - peer-review › Article in proceedings – Annual report year: 2007
Simulation of human multitask performance
Publication: Research - peer-review › Article in proceedings – Annual report year: 2007

Simulation of human performance in time-pressured scenarios
Publication: Research - peer-review › Journal article – Annual report year: 2007

Updating probability intervals with the beta-Bernoulli model
Publication: Research - peer-review › Article in proceedings – Annual report year: 2007

On imprecise statistical reasoning
Publication: Research › Book chapter – Annual report year: 2006

Simulation of human performance in a discrete event environment
Publication: Research - peer-review › Article in proceedings – Annual report year: 2006

Uncertainty modelling in probabilistic risk assessment
Kozine, I. 2006
Publication: Research › Conference abstract for conference – Annual report year: 2006

Computing interval-valued reliability characteristics: Where is the stumbling block for applications?
Kozine, I. 2005
Publication: Research › Conference abstract for conference – Annual report year: 2005

Computing system reliability given interval-valued characteristics of the components
Utkin, L. V. & Kozine, I. 2005 In : Reliable Computing. 11, p. 19-34
Publication: Research - peer-review › Journal article – Annual report year: 2005

Constructing imprecise probability distributions
Publication: Research - peer-review › Journal article – Annual report year: 2005

Modelling human performance in a discrete event simulation environment
Publication: Research › Article in proceedings – Annual report year: 2005

Optimised and balanced structural and system reliability of offshore wind turbines. An account
Tarp-Johansen, N. J., Kozine, I., Rademakers, L., Sørensen, J. D. & Ronold, K. 2005 85 p. (Denmark. Forskningscenter Risoe. Risoe-R; No. 1420(EN)).
Publication: Research › Report – Annual report year: 2005

A hierarchical uncertainty model, combination rules and uncertainty propagation
Publication: Research › Article in proceedings – Annual report year: 2004
Kozine, I. 2002
Publication: Research › Conference abstract for conference – Annual report year: 2002

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Publication: Research › Conference abstract for conference – Annual report year: 2002

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Publication: Research › Conference abstract for conference – Annual report year: 2002

Interval-valued finite Markov chains
Kozine, I. & Utkin, L. V. 2002 In : Reliable Computing. 8, p. 97-113
Publication: Research - peer-review › Journal article – Annual report year: 2002

Processing unreliable judgements with an imprecise hierarchical model
Publication: Research - peer-review › Journal article – Annual report year: 2002

Stress-strength reliability models under incomplete information
Publication: Research - peer-review › Journal article – Annual report year: 2002

Structural reliability modelling under partial source information
Publication: Research - peer-review › Article in proceedings – Annual report year: 2002

The process of performing a risk analysis, measures of risk (individual risk, societal risk, ways of presenting the risks). Uncertainties in risk analysis
Kozine, I. 2002
Publication: Research › Conference abstract for conference – Annual report year: 2002

The process of performing a risk analysis, measures of risk (individual risk, societal risk, ways of presenting the risks). Uncertainties in risk analysis
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Publication: Research › Conference abstract for conference – Annual report year: 2002

The process of performing a risk analysis, measures of risk (individual risk, societal risk, ways of presenting the risks). Uncertainties in risk analysis
Kozine, I. 2002
Publication: Research › Conference abstract for conference – Annual report year: 2002

Assessing the incertainties in the process of risk analysis of chemical establishments: Part 1
Publication: Research › Article in proceedings – Annual report year: 2001

Assessing the incertainties in the process of risk analysis of chemical establishments: Part 2
Kozine, I. 2001 In : Risk, Decision and Policy. 6, p. 207
Publication: Research - peer-review › Journal article – Annual report year: 2001

Computing the reliability of complex systems
Publication: Research - peer-review › Article in proceedings – Annual report year: 2001

Constructing coherent interval statistical models from unreliable judgements
Publication: Research › Article in proceedings – Annual report year: 2001

Different faces of the natural extension
Publication: Research - peer-review › Article in proceedings – Annual report year: 2001

EU advances in identifying sources of uncertainty in risk analyses
Publication: Research - peer-review › Article in proceedings – Annual report year: 2001

Implications of the uncertainties present in risk assessment of chemical installations to risk-informed decision making: The case of land-use planning
Publication: Research › Article in proceedings – Annual report year: 2001

Imprecise statistical reasoning. Reliability application
Publication: Research › Article in proceedings – Annual report year: 2001

Imprecise system reliability
Publication: Research - peer-review › Journal article – Annual report year: 2001

Prior reliability assessments based on coherent imprecise probabilities
Publication: Research - peer-review › Journal article – Annual report year: 2001

Safety- and risk analysis activities in chemical industry in Europe
Publication: Research - peer-review › Article in proceedings – Annual report year: 2001

Safety- and risk analysis activities in other areas than the nuclear industry
Publication: Research › Report – Annual report year: 2001
Sources and magnitudes of uncertainties in risk analysis of chemical establishments. First insights from an European benchmark study
Publication: Research - peer-review › Article in proceedings – Annual report year: 2001

The Seveso II directive and Danish activities supporting its application in some Eastern European countries
Publication: Research - peer-review › Article in proceedings – Annual report year: 2001

Uncertainties in risk analysis of chemical establishments - the ASSURANCE project
Publication: Research › Article in proceedings – Annual report year: 2001

ASSURANCE: Assessment of uncertainties in risk analysis of chemical establishments
Publication: Research - peer-review › Article in proceedings – Annual report year: 2000

Publication: Research - peer-review › Journal article – Annual report year: 2000

Conditional previsions in imprecise reliability
Publication: Research › Article in proceedings – Annual report year: 2000

Failure database and tools for wind turbine availability and reliability analyses. The application of reliability data for selected wind turbines
Kozine, I., Christensen, P. & Winther-Jensen, M. 2000 47 p. (Denmark. Forskningscenter Risoe. Risoe-R; No. 1200(EN)).
Publication: Research › Report – Annual report year: 2000

Generalizing Markov chains to imprecise previsions
Publication: Research - peer-review › Article in proceedings – Annual report year: 2000

Imprecise discrete Markov chains
Publication: Research › Conference abstract in proceedings – Annual report year: 2000

Imprecise reliabilities: Experiences and advances
Kozine, I. & Filimonov, Y. V. 2000 In : Reliability Engineering & System Safety. 67, p. 75-83
Publication: Research - peer-review › Journal article – Annual report year: 1999

Constructing imprecise probabilities on failure data
Publication: Research › Article in proceedings – Annual report year: 1999
Imprecise probabilities relating to prior reliability assessments
Publication: Research › Article in proceedings – Annual report year: 1999

Analogical reasoning for reliability analysis based on generic data
Kozine, I. 1996 In : Reliability Engineering & System Safety. 54, p. 59-64
Publication: Research - peer-review › Journal article – Annual report year: 1996

Developing a data base for supporting decision making on wind turbine performance
Kozine, I., Christensen, P. & Kongsoe, H. 1996 Rotating machinery performance. Chamonix: ESReDA. Electricité de France
Publication: Research › Article in proceedings – Annual report year: 1996

The EFP-94 project on safety systems for wind turbines. Method for evaluation of failure modes and reliability. Appendix 3: Database objects
Publication: Research › Report – Annual report year: 1996

Projects:

Identification of Safety and Security Cascading Risks in Cyber-Physical Systems
Carreras Guzman, N. H., Kozin, I., Lundteigen, M. A. & Taylor, J.
01/11/2017 → 31/10/2020
Project: PhD

Visual communication design for decision making during emergency situations
Andersen, E., Maier, A., Kozin, I. & Strand, S.
01/12/2015 → 30/11/2018
Project: PhD

Assessing the Capabilities of Advanced Risk Methods for Engineering Systems Management
Tegeltija, M., Oehmen, J. & Kozin, I.
01/02/2015 → 31/01/2018
Project: PhD

OPHRA - Offshore Platform Hydrocarbon Risk Analysis – Feasibility study
Duijm, N. J., Kozin, I. & Markert, F.
01/12/2012 → 31/07/2014
Project

Allocation of quantitative safety targets to the railway sector infrastructure
Khaliq, A., Kozin, I., Duijm, N. J. & Funch, L.
01/04/2012 → 31/03/2013
Project: PhD

Safe manning simulation tool
Kozin, I., Alapetite, A. & Weber, S.
01/02/2008 → 29/09/2010
Project

Traceability of Layout Design of Agricultural Machinery
01/09/2007 → 25/06/2013
Project: PhD
Activities:

ACCIDENT MANAGEMENT AND OPERATION
Kozin, I. (Participant)
21 May 2015
Activity: Attending an event › Participating in or organising workshops, courses, seminars etc.