

Clarion Congress Centre						
AQUARIUS	TAURUS	ZENIT	LEO	VIRGO	NADIR	
MONDAY, 7 SEPTEMBER 2009						
Registration 8h00						
Opening and Plenary Sessions 9h00 – 11h00 (ZENIT + NADIR)						
11h30-12h30	Risk and Hazard Analysis I	Maintenance Modelling and Optim. I	System Reliability Analysis I	Offshore Oil and Gas I	Critical Infrastructures I	Biotechnology and Food Industry
14h00-15h40	Risk and Hazard Analysis II	Maintenance Modelling and Optim. II	System Reliability Analysis II	Offshore Oil and Gas II	Critical Infrastructures II	Health and Medicine
16h10-17h50	Risk and Hazard Analysis III	Maintenance Modelling and Optim. III	System Reliability Analysis III	Safety Management Systems	Aeronautics and Aerospace	Accident and Incident Investigation
TUESDAY, 8 SEPTEMBER 2009						
08h40-10h20	Risk and Hazard Analysis IV	Maintenance Modelling and Optim. IV	System Reliability Analysis IV	MC Methods in System Safety and Reliability	Nuclear Engineering I	
10h50-12h30	Risk and Hazard Analysis V	Maintenance Modelling and Optim. V	System Reliability Analysis V	Information Technology and Telecom. I	Waterborne Transportation and Marine Industry	
14h00-15h20	Risk and Hazard Analysis VI	Dynamic Reliability	System Reliability Analysis VI	Information Technology and Telecom. II	Nuclear Engineering II	
15h50-17h30	Risk Control in Complex Environments	Natural Hazards	System Rel. Analysis VII	Software Reliability	Energy Production and Distribution	
WEDNESDAY, 9 SEPTEMBER 2009						
08h40-10h20	Integrated Risk Management and Risk-Informed Decision-making I	Structural Reliability and Design Codes I	Human Factors I	Surface Transportation - Road and Train I	Bayesian methods	
10h50-12h30	Integrated Risk Management and Risk-Informed Decision-making II	Structural Reliability and Design Codes II	Human Factors II	Surface Transportation - Road and Train II	Reliability and Safety Data Collection and Analysis I	
14h00-15h40	Integrated Risk Management and Risk-Informed Decision-making III	Structural Reliability and Design Codes III	Human Factors III	Organizational Learning I	Reliability and Safety Data Collection and Analysis II	
16h10-17h50	Integrated Risk Management and Risk-Informed Decision-making IV	Uncertainty and Sensitivity Analysis I	Human Factors IV	Organizational Learning II	Reliability and Safety Data Collection and Analysis III	

Clarion Congress Centre

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THURSDAY, 10 SEPTEMBER 2009

Plenary Session 8h40 – 9h30 (ZENIT + NADIR)

10h00-11h40	Fault Identification and Diagnostics I	Uncertainty and Sensitivity Analysis II	Decision Support Systems and Software Tools for Safety and Reliability I	Occupational Safety I	Risk Perception and Communication	Manufacturing
13h00-14h40	Fault Identification and Diagnostics II	Uncertainty and Sensitivity Analysis III	Decision Support Systems and Software Tools for Safety and Reliability II	Occupational Safety II	Safety Culture	Security and Protection

Conference Closing 15h10-16h00 (ZENIT + NADIR)

MONDAY, 7 SEPTEMBER 2009	
Registration starts at 8h00 at the Clarion Congress Centre	
Opening and Plenary Sessions 9h00 – 11h00 (Room ZENIT + NADIR)	
Coffee break 11h00-11h30	
Parallel Sessions 11h30 – 12h30 (Clarion Congress Centre)	
Session: Risk and Hazard Analysis I (Room AQUARIUS)	Chair: M. Cepin
<p>Quantitative Risk Analysis for Underground Oil Transmission Pipelines <i>A.A.C. van Vliet, G.M.H. Laheij, R.J. Hansler</i></p> <p>Risk Assessments for High Integrity Pressure Protection System by Using Layer of Protection Analysis <i>K.P. Chang, K.I. Nam, S.H. Jung, D.H. Lee</i></p> <p>Responsibility Modelling for Risk Analysis <i>R. Lock, T. Storer, I. Sommerville & G. Baxter</i></p>	
Session: Maintenance Modelling and Optimization I (Room TAURUS)	Chair: A.Grall
<p>Condition-based Maintenance of Engineering Systems with Periodic Inspection <i>J.A.M. van der Weide, M.D. Pandey</i></p> <p>Modelling Condition Monitoring and Dynamic Grouping of Maintenance Actions with Extended Coloured Stochastic Petri Nets <i>S. Nebel, A. Dieter, B. Bertsche</i></p> <p>Semi-Markov decision processes for determining multiobjective optimal condition-based replacement policies <i>M.C. Moura, I.D. Lins, P.R. Firmino, E.L. Drogue & C.M. Jacinto</i></p>	
Session: System Reliability Analysis I (Room ZENIT)	Chair: K. Kołowrocki
<p>A Practical Markovian Model of the Availability and Reliability of a Mass Transport Service with Non-Exponential Repair Times <i>A. Colini, P. Erto, M. Giorgio, A. Testa</i></p> <p>A proposed methodology for decision support on ageing systems <i>S. L. Isaksen</i></p> <p>A k-out-of-n system with components following Weibull distributions: An algorithmic approach <i>M.C. Olvera-Porcel, R. Pérez-Ocón & M.C. Segovia</i></p>	
Session: Offshore Oil and Gas I (Room LEO)	Chair: J.E. Vinnem
<p>Assessment of Reliability and Residual Lifetime of Flexible Risers Subjected to Time-varying Corrosive Environments <i>B. J. Leira</i></p> <p>Defined Situations of Hazard and Accident related to Integrated Operations on the Norwegian Continental Shelf <i>C. K. Tveiten, E. Albrechtsen, A. B. Skjerve</i></p> <p>Risk Regulation in the Norwegian Petroleum Industry: Robustness and Changing Methods of Operation <i>Preben H. Lindøe, Geir Sverre Braut</i></p>	
Session: Critical Infrastructures I (Room VIRGO)	Chair: E. Zio
<p>“System of systems” approach for interdependent critical infrastructures <i>I. Eusgeld, S. Dietz</i></p> <p>A Multiple-Objective approach for the vulnerability assessment of infrastructure networks <i>Claudio M. Rocco S., J.E. Ramirez-Marquez, Daniel E. Salazar A.</i></p> <p>Risk Analysis of underground infrastructures in urban areas: time-dependent interoperability analysis <i>E. Cagno, M. De Ambroggi, O. Grande, P. Trucco</i></p>	

Session: Biotechnology and Food Industry (Room NADIR)	Chair: S. Martorell
<p>Aggregation of alarms to guarantee quality of pasteurized honey <i>E. Doménech, I. Escriche, S. Martorell</i></p> <p>Combining predictive modelling and event tree analysis technique for a better food safety management <i>E. Doménech, I. Escriche, S. Martorell</i></p> <p>How institutional contexts affect conditions for risk expertise <i>H. Merksel</i></p>	
Lunch 12h30 – 14h00	

MONDAY, 7 SEPTEMBER 2009	
Parallel Sessions 14h00 – 15h40 (Clarion Congress Centre)	
Session: Risk and Hazard Analysis II (Room AQUARIUS)	Chair: B.J.M. Ale
<p>Self-rescue and safety measures in quantitative risk analysis, modelling and case studies for accidental toxic releases <i>I.J.M. Trijssenaar-Buhre, R.P. Sterkenburg</i></p> <p>Risk Analysis Procedures for Explosives Manufacturing <i>A. N. Haddad, E. B. F. Galante</i></p> <p>Parameterization of consequences of explosions <i>T. Aschmoneit, C. Richter, G. Gürke, B. Brombacher, J. Ziehm, I. Häring</i></p> <p>Possibilities to evaluate technical measures in a Quantitative Risk Assessment method for land use planning <i>P.A.M. Uijt de Haag, S. Mahesh, E.S. Kooi, L. Gooijer, M.A.M. Heijne</i></p> <p>On the limitations of the maximum expected utility principle as a basis for rational risk decisions <i>M.T.Todinov</i></p>	
Session: Maintenance Modelling and Optimization II (Room TAURUS)	Chair: C. Berenguer
<p>Imperfect condition-based maintenance on a finite time span for a gradually deteriorating system <i>A. Ponchet, M. Fouladirad, A. Grall</i></p> <p>On line condition-based maintenance for time dependent deteriorating systems <i>M. Fouladirad, A. Grall</i></p> <p>A risk management approach to a maintenance decision for an ageing system <i>T.E. Nøkland, R. Flage, T. Aven</i></p> <p>Employing Key Performance Indicators for improving processes within maintenance <i>O. Meland</i></p> <p>Superposition of renewal processes for modelling imperfect maintenance <i>M.J. Kallen, R.P. Nicolai & S.S. Farahani</i></p>	

Session: System Reliability Analysis II (Room ZENIT)	Chair: I. Frenkel
<p>Strategies for handling common cause failures in complex safety instrumented systems – an example to illustrate different methods <i>T. Lilleheier</i></p> <p>A location-specific CCF model for supporting the system design process <i>A. Zitrou, T. Bedford</i></p> <p>A solvable common-cause failure model for coherent systems <i>C. Tanguy</i></p> <p>Safety system reliability calculation - when are advanced formulas and calculation techniques necessary <i>L. F. Oliveira & S. Eisinger</i></p> <p>SysML modelling of safety critical multi-technological systems <i>U. Siebold, M. Larisch, I. Häring</i></p>	
Session: Offshore Oil and Gas II (Room LEO)	Chair: B.J. Leira
<p>Risk influence factors related to evacuation from offshore installations <i>Jon Espen Skogdalen, J. E. Vinnem</i></p> <p>Fire loads for realistic risk assessment applications in petrochemical industry <i>P. Praks, S. Medonos, R. Raman</i></p> <p>How shared situational awareness influence organizational accident risk in the offshore oil industry <i>T.O. Grøtan, K. Skarholt, E. Albrechtsen</i></p> <p>Analysis of risk indicators for major accidents on offshore installations <i>J.E. Vinnem</i></p> <p>Life extension of machinery in the oil and gas industry <i>P. Vaidya, M. Rausand</i></p>	
Session: Critical Infrastructures II (Room VIRGO)	Chair: C. Rocco
<p>Indicators of component criticality for failure cascade process in network systems <i>E. Zio & G. Sansavini</i></p> <p>A structured approach to modeling interdependencies in risk analysis of critical infrastructures <i>I. B. Utne, P. Hokstad, J. Vatn</i></p> <p>Modelling interdependencies amongst technical systems <i>J.R. Santos-Reyes</i></p> <p>Security analysis of Network Access Control implementations <i>F. Cetin, T. Dagonnier, P. Oechslin</i></p> <p>Critical infrastructure safety management <i>D. Prochazkova</i></p>	
Session: Health and Medicine (Room NADIR)	Chair: H. Merkelsen
<p>A hybrid technique to model dynamic aspects of risk in healthcare settings <i>R. Kazemi, M. Dierks, A. Mosleh</i></p> <p>Design of an incident report analysis system for healthcare <i>Y. Asada, K. Furuta, T. Kanno</i></p> <p>Modified logistic regression as a tool for discrimination <i>M. Rabasová, R. Briš & P. Kuráňová</i></p>	
Coffee break 15h40-16h10	

MONDAY, 7 SEPTEMBER 2009**Parallel Sessions 16h10 – 17h50 (Clarion Congress Centre)****Session: Risk and Hazard Analysis III (Room AQUARIUS) | Chair: E. Galante**

Comparison of different models for risk analysis to estimate the manpower in the case of roughly defined project's tasks

S. Mehicic Eberhardt, M. Missler-Behr

Comparison of two cost-benefit type of analyses to support a safety related decision under large uncertainties: A case of use of wireless technology in schools

R. Steen, T. Aven

Improving safety in delayed coking units using HAZOP and LOPA methodologies

G. P. Monteiro, F. C. C. Barros, E. R. Marins, M. T. Halasz

Probit functions: derivation, evaluation and use in risk analysis

R.J. Hansler, P.M.J. Bos, P.A.M. Uijt de Haag, J.H.E. Arts, P.J.M.G. Frijns, W.H. Könemann, H. Muijser

The potential of Risk Assessment based on statistical approach

A. Giorgetti, M. Delogu

Session: Maintenance Modelling and Optimization III (TAURUS) | Chair: M. Fouladirad

A model of imperfect preventive maintenance efficiency based on the concepts of elasticity and effective age

J. Clavareau, P.-E. Labeau

A maintenance policy for passive components submitted to stress corrosion cracking

I.T. Castro, A. Barros, A. Grall

A novel approach to model the degradation of components in electrical production plants

P. Baraldi, M. Compare, G. Rossetti, E. Zio, A. Despujols

A two-phase inspection policy for a single component preparedness system with a mixed time to failure distribution

C. Cavalcante, P. Scarf, Adiel de Almeida, A.T. Cosmo de Silva

Uncertainty factors in deterioration modelling of process equipment

T. Monsås & J. Vatn

Session: System Reliability Analysis III (Room ZENIT) | Chair: D. Valis

Markov Reward Model for Performance Deficiency Calculation of Refrigeration System

I. Frenkel, L. Khvatskin & A. Lisnianski

A faster numerical procedure for solving non-homogeneous semi-Markov processes

M. C. Moura & E. L. Droguett

On the impact of deferred repair on the expected number of system failures - a stochastic model

M. Bretschneider

Importance Analysis of Multi-State System by tools of Differential Logical Calculus

E. Zaitseva

Models of availability maximization applied to "k-out-of-n" structures for power systems

I. Felea, S. Dziřac, F. Popenřiu & I. Dziřac

Session: Safety Management Systems (Room LEO) | Chair: H. Kortner

A multi-objective approach for risk-management to implement an integrated management system: Quality, Security, Environment

Ahmed Badreddine, Taieb Ben Romdhane, Nahla Ben Amor

A study of railway ERTMS safety with Colored Petri Nets

P. Barger, W. Schön, M. Bouali

Exploring safety critical decision-making

F. Størseth, R. Rosness, G. Guttormsen

The use of safety management systems within the Norwegian tanker industry – do they really improve safety?

H.A. Oltedal

Improving Assignment and Qualification of safety manager at construction sites

Ki Sang Son, Won Mo Gal, Jae Nam Choi

Session: Aeronautics and Aerospace (Room VIRGO)

Chair: J.Andrews

Risk Informed Oversight in Air Transport Using CATS

B.J.M. Ale, L.J. Bellamy, J. Cooper, D. Ababei, D. Kurowicka, O. Morales, J. Spouge

Cognitive Model of Team Cooperation in En-Route Air Traffic Control

K. Furuta, Y. Soraji, T. Kanno, H. Aoyama, S. Inoue, D. Karikawa, M. Takahashi

Team Cognitive Process Analysis of Air Traffic Controllers as Distributed Cognition

S. Inoue, H. Aoyama, Y. Soraji, T. Kanno, K. Furuta, K. Nakata

Risk Influence Modeling of Recent Developments in Helicopter Safety on the Norwegian Continental Shelf

T. Kråkenes, S. Håbrekke, I.A. Herrera

Methods applied to identify causes of air events

J. Žurek, Z. Smalko, M. Zieja

Session: Accident and Incident Investigation (Room NADIR)

Chair: I. Papazoglou

Are industrial accidents foreseeable?

S. Pierlot, Y.Dien & M. Llory

Incident Cause Levels: An Integrated Approach to the Incident Investigation

M. Ferjencik

Learning from accidents (incidents) – theoretical perspectives on investigation reports as educational tools

G. S. Braut, O. Njå

Suggested proactive indicators to be used in oil and gas industry based on a survey of accidents in the industry

S.O. Johnsen

The innovative tools for prevention of accidents in a post-socialist country

M. Jarvis, K. Reinhold, P. Tint

End of day

ESRA General Assembly meeting

TUESDAY, 8 SEPTEMBER 2009**Parallel Sessions 8h40 – 10h20 (Clarion Congress Centre)****Session: Risk and Hazard Analysis IV (Room AQUARIUS) | Chair: T.Aven**

A new fire compartment system in tunnel. – The case of the Gran Sasso National Laboratory

A. Basti, D. Franciotti, G. Bucciarelli, G. Panella

Evaluation of safety measures in road tunnels based on cost-effectiveness analysis

W. Røed, E.B. Abrahamsen, A.K. Midtgaard, K. Haver, H.S. Wiencke

Fluid Bearing Reliability Evaluation using a Numerical Design of Experiments

A. Charki, R. Laronde, D. Bigaud, F. Guérin

Evacuation analysis: comparison between NFPA 130 and a micro-simulation model

A. Raffetti, B. Faragona, F. Vaccaro, L. Pedemonte

The branching model of successive events

G. Dohnal

Session: Maintenance Modelling and Optimization IV (Room TAURUS) | Chair: A. Grall

Dynamic maintenance optimization method for commercial heavy vehicles.

K. Bouvard, S. Artus, C. Bérenguer, V. Cocquempot

Interest of a global optimization tool for reliability models adjustment and systems optimization

A. Cabarbaye, J. Faure & R. Laulherent

Maintenance management and optimization of FPSOs

E. Okstad, J. Vatn, R. Bye

A comparison between different uncertainty propagation methods in multivariate analysis

R. Mullor, S. Martorell, A. Sánchez, N. Martínez-Alzamora

A new maintenance management model expressed in UML

M. A. López Campos, J.F. Gómez Fernández, V. González Díaz, A. Crespo Márquez

Session: System Reliability Analysis IV (Room ZENIT) | Chair: I. Frenkel

Identification of betweenness-central groups of components in a complex network infrastructure by genetic algorithms

E. Zio, L.R. Golea

Reliability assessment of network-based safety-related systems

Y. Langeron, A. Barros, A. Grall, C. Berenguer

Multiobjective Optimization of Fault-Tolerant Aircraft Systems Considering System Degradation

Christian Raksch, Frank Thielecke

Safety and reliability optimization of complex industrial systems and processes

K. Kolowrocki, J. Soszynska

Optimization of system component reliability characteristics at early design stage with economically reasonable uncertainty level

A. Kazeminia, M. Junglas, D. Söffker

Session: MC Methods in System Safety and Reliability (LEO) | Chair: B.Fechner

A framework for the Monte Carlo simulation of degradation and failure processes in the assessment of maintenance programs performance

V. Zille, A. Despujols, P. Baraldi, G. Rossetti, E. Zio

Advanced discrete simulation methods applied to repairable multistate systems

A. B. Huseby, B. Natvig

Component importance measures to identify contributions to system failure for aircraft which dispatch with known faults

D.R. Prescott, J.D. Andrews

Comparative cost and utility analysis of monolith and fractionated spacecraft using failure and replacement Markov models

G. F. Dubos, J. H. Saleh

Subset Simulation and Line Sampling for Advanced Monte Carlo Reliability Analysis

E. Zio, N. Pedroni

Session: Nuclear Engineering I (Room VIRGO)

Chair: S.Martorell

Fire PSA for a German BWR - enhanced results and potential plant specific improvements

H. P. Berg, W. Frey, M. Röwekamp, M. Türschmann

Model uncertainties in a PSA for a nuclear power plant

M. Kloos, J. Peschke

Nuclear power plant maintenance optimization

A. Volkanovski, M. Čepin, B. Mavko

Multiobjective optimization of test policies for GRP-modeled aging systems

V.C. Damaso, P.A.A. Garcia, M.C. Sant'Ana, P.F. Frutuoso e Melo

Reliability aspects of a stochastic non-stationary process

L. Burgazzi

Coffee break 10h20-10h50

TUESDAY, 8 SEPTEMBER 2009

Parallel Sessions 10h50 – 12h30 (Clarion Congress Centre)

Session: Risk and Hazard Analysis V (Room AQUARIUS)

Chair: V.Cozzani

Impacts of the system technology on the Safety – Availability relationship

M. Voirin & J.A. Stoop

Formal Vulnerability Assessment: A methodology for assessing and mitigating strategic vulnerabilities in maritime supply chains

Ø. Berle & B. E. Asbjørnslett

Key performance indicators for the inherent safety assessment of hydrogen production and distribution system

G. Landucci, A. Tugnoli, V. Cozzani

A comparative study on the application of simulation techniques for shipboard fire safety analysis

B. Dutta & A. Kar

Power system regularity challenges connected to electrification of large scale offshore installations form land

A. B. Svendsen, T. Digernes, Y. Aabø, J. Eman, C. Hernandez

Session: Maintenance Modelling and Optimization V (Room TAURUS)

Chair: D.Prescot

A bivariate optimum maintenance policy for a system under revealed and unrevealed failures

F.G. Badía, M.D. Berrade

Network maintenance contribution in quality terms on distribution network services providers

J.F. Gómez Fernández, M. López Campos, V. González Díaz, A. Crespo Márquez

Increasing availability through maintainability growth using partial Multi Criteria Decision Making

J. Sobral, L.A. Ferreira

Integrating reliability centered maintenance and spare parts stock control

W. Jaarsveld & R. Dekker

Condition-based maintenance optimization for a binary monotone system using a counting process approach

R. Flage & T. Aven

Session: System Reliability Analysis V (Room ZENIT)

Chair: K. Kołowrocki

Design of complex safety-related systems in accordance with IEC 61508

F. Brissaud, D. Charpentier, A. Barros, C. Bérenguer

Comparison of the failure behaviour of the same function in different systems

D. Althaus, A. Braasch, M. Schlummer, A. Meyna

Updating failure rates and test intervals in the operational phase: A practical implementation of IEC 61511 and IEC 61508

S. Hauge, M. A. Lundteigen, M. Rausand

Reliability Quantification of Equipment without Operational Experience

H. Kortner, S.L. Isaksen, H. Brandt

A comparison of safety analysis techniques: Analytical Calculations versus MC Simulations

J. R. Müller, T. Ständer & E. Schnieder

Session: Information Technology and Telecommunications I (LEO)

Chair: U.K.Rakowsky

Guttman Scaling in the FMEA of IT Security Objectives in Enterprises

R. Mock, E. Kollmann, C. Ballhaus, H. Straumann

Modeling Resource Availability and Optimal Fee for Priority Classes in a Website

V.P. Koutras, A.N. Platis

Reliability Analysis of Next Generation Mobile Networks

M. Guida, M. Longo, F. Postiglione

Rollback and Roll-forward of Architecturally Fixed and Non-Fixed States

B. Fechner

Using virtualisation and simulation – the way to ensuring more reliable and effective teaching and testing process IT technology

I. J. Jozwiak, A. Szleszynski

Session: Waterborne Transportation and Marine Industry (VIRGO)

Chair: E. Vanem

Fire Safety Assessment of Hazardous Material Transporting Ship using Fire Simulation

B. Park, J. Choi, H. Kang, D. Lee

Risk estimation of the sea-going ship casualty as the consequence of propulsion loss

A. Brandowski, W. Frackowiak, H. Nguyen, A. Podsiadlo

The concept of navigational safety management on coastal areas

L. Gucma

Quantitative analysis of maritime security assessment in ISPS

Z.L. Yang & J. Wang

Risk assessment in process of LNG terminal design

M. Gucma

Lunch 12h30 – 14h00

TUESDAY, 8 SEPTEMBER 2009**Parallel Sessions 14h00 – 15h20 (Clarion Congress Centre)****Session: Risk and Hazard Analysis VI (Room AQUARIUS) | Chair: Z.Vintr**

Assessment of major accidents triggered by lightning

E. Renni, G. Antonioni, V. Cozzani, E. Krausmann, A. M. Cruz

The Impact of Climate Change on the Need for a Probabilistic Assessment of Harsh Weather Conditions in Germany

G. Thuma, E. Hartwig-Thurat, M. Krauß

Measures for reducing the probability of ruptures of high pressure natural gas pipelines

G.M.H. Laheij, A.A.C. van Vliet

What you should remember when reading psychometric studies of risk perception

*C. Kermisch, P.-E. Labeau***Session: Dynamic Reliability (Room TAURUS)****Chair: E.Zio**

An Approach to Calculate Multi-System Failure Coincidence Probabilities

U. K. Rakowsky

LARES —A Novel Approach for Describing System Reconfigurability in Dependability Models of Fault-Tolerant Systems

M. Walter, A. Gouberman, M. Riedl, J. Schuster & M. Siegle

PAMOS and PAROS Parallel Addition of Multiple or Redundant Operands in a Single Word

*K. Echte, B. Fechner, J. Keller***Session: System Reliability Analysis VI (Room ZENIT)****Chair: H.Kortner**

Reliability and risk analysis of a ground ship-rope transporter in variable operation conditions

A.Blokus-Roszkowska, K. Kołowrocki

Reliability, risk and availability evaluation of port oil pipeline transportation system

J. Soszynska

Determining reliability parameters for a tree-structured commodity transfer system with non-independent components

J. Malinowski

Research on fuel cells reliability in order to use in accumulation systems of electric energy

*R. Šebesta, Z. Hradílek, P. Moldřík***Session: Information Technology and Telecommunications II (LEO)****Chair: R.Mock**

UML-based Fault Injection for Software Model Testing

J. Mendizabal-Samper, A. Salterain, S. Urcelayeta, J. M. Blanco, A. Galarza

Application of Linear Logic to Backward Reachability Analysis of Colored Petri Nets

M. Boulali, J. Rocheteau, P. Barger

Safety analysis of the on-board front-end transceiver of the Balise Transmission Module

*J. del Portillo, I. Adin, A. Villaro, U. Alvarado, J. Mendizabal***Session: Nuclear Engineering II (Room VIRGO)****Chair: H.P. Berg**

Augmenting the Traditional Defense-in-Depth Strategy with the Concept of a Diagnosable Safety Architecture

E. Bakolas, J. H. Saleh

Monte Carlo Simulation for the Estimation of External Explosion Event Probability

J. Hauschild, M. Andernacht

Database and Simulator Supported Accident Management Strategies for the Postulated Core Damage Scenarios

S. Y. Park, K. R. Kim, K. I. Ahn, Y. Choi

A Comparative Study of Two Quantification Algorithms to Find Cable Importance in a Fire PRA Model

K.Y. Kim, S.H Han, D.I. Kang

Coffee break 15h20-15h50

TUESDAY, 8 SEPTEMBER 2009

Parallel Sessions 15h50 – 17h30 (Clarion Congress Centre)

Risk Control in Complex Environments (AQUARIUS)

Chair: A.P-J Thunem, P. Fuchs

An assessment of gaps and technical risks in sophisticated technology implementation efforts in complex operations: A case from an integrated production monitoring environment

Jawad Raza, Jayantha P. Liyanage

On the Use of Expert Judgment Elicitation for Autonomous Underwater Vehicle Risk Prediction and Management

M.P. Brito, G. Griffiths

Lifecycle Physical Hazards of Polymer Foam Board

T. Nakarai, A. Miyake, Y. Oka, A. Kimura, S. Managaki, Y. Yokoyama, H. Hondo, S. Masunaga, T. Kobayashi

Risks of Polyaromatic Hydrocarbons in Military Training Areas

J. Kellner, J. Navratil, F. Bozek, A. Bumbova, J. Dvorak

Evaluation of acute toxicity limits for purposes of risk analysis in the Czech Republic

B. Baudisova, P. Danihelka, D. Micek

Session: Natural Hazards (Room TAURUS)

Chair: P. Praks

The potential use of individual and societal risk criteria within the Dutch flood safety policy (part 1): basic principles

R.B. Jongejan, S.N. Jonkman, B. Maaskant

The use of individual and societal risk criteria within the Dutch flood safety policy (part 2): estimation of the individual and societal risk for the dike rings in the Netherlands

B. Maaskant, S.N. Jonkman, R.B. Jongejan

Vulnerability of mid-high rise commercial-residential buildings in the Florida Public Hurricane Loss Model

G. L. Pita, J.-P. Pinelli, K. Gurley, J. Weekes, C.S. Subramanian, S. Hamid

EC Conformity of an Avalanche Release System

B. Lanternier, J.-M. Neuville

Learning from natural disasters: the case of Tabasco's flooding

J.R. Santos-Reyes, R. Alvarado-Corona

Session: System Reliability Analysis VII (Room ZENIT)	Chair: J.Malinowski
<p>A practical approach for determination of reliability-oriented system topology in mechatronic systems <i>M.Junglas, A.Kazeminia, R.Eick, D.Soffker</i></p> <p>Mechatronic System Reliability Evaluation using Petri Networks and PHI2 Method <i>A. Charki, A. Demri, F. Guérin, D. Bigaud</i></p> <p>The Bayesian Reliability Growth Models Based on a New Dirichlet Prior Distribution <i>J. Tao, Z. Ming, X. Chen</i></p> <p>Discrete simulation of reliability and availability systems <i>A. Chovanec, Z. Zviasova</i></p> <p>Mission completion probability of cycle rate system <i>J. Famfulík, J. Míková, R. Krzyžanek</i></p>	
Session: Software Reliability (Room LEO)	Chair: E. Zaitseva
<p>Failure analysis of software for displaying safety-relevant information <i>B. Hulin, T. Schulze</i></p> <p>On the influence of software vulnerabilities on software reliability: The case of open source component based software <i>G. Albeanu, H. Madsen, A. Averian</i></p> <p>Principles of the AOP 52 draft on software safety for the ammunition domain <i>M. Larisch, U. Siebold, I. Häring</i></p> <p>The Use of Metrics to Assess Software Component Dependencies <i>M. Kristiansen, R. Winther, M. van der Meulen & M. A. Revilla</i></p> <p>Identifying the Most Important Component Dependencies in Compound Software: An Experimental Study <i>M. Kristiansen, R. Winther & J. E. Simensen</i></p>	
Session: Energy Production and Distribution (Room VIRGO)	Chair: A. Volkanovski
<p>Increasing the reliability of outdoor MV network by means of remote- controlled elements <i>J. Gurecký, P. Moldřík</i></p> <p>Modelling of energy supply disturbances in network systems <i>J.Augutis, R.Krikštolaitis, K.Šidlauskas, L.Martišauskas, V.Matuzienė</i></p> <p>Multi-objective genetic algorithm optimization of electrical power transmission networks <i>F. Cadini, E. Zio, C. A. Petrescu</i></p> <p>Practical application of MCA8 software for improving reliability of energy supply <i>R. Šebesta, P. Moldřík, J. Gurecký</i></p> <p>Reliability analysis of electric distribution grid by Monte Carlo method <i>A.T. Sikora, S. Rusek, V. Král, R. Goňo</i></p>	
End of day	
Conference Dinner	

WEDNESDAY, 9 SEPTEMBER 2009

Parallel Sessions 8h40 – 10h20 (Clarion Congress Centre)	
Session: Integrated Risk Management and Risk-Informed Decision-making I (Room AQUARIUS)	Chair: C.Vivalda
<p>Review and discussion of basic concepts and principles in integrated risk management <i>B. Ale, T. Aven, R. Jongejan</i></p> <p>Adapted Principles of Risk-Informed Decision-Making for New Nuclear Power Plants <i>M. Čepin</i></p> <p>Addressing uncertainties in risk-informed decision-making of changes to NPP Technical Specifications <i>S. Martorell, M. Villamizar, J.F. Villanueva, V. Serradell, A.I. Sánchez</i></p> <p>Theoretical aspects of using diversity for decreasing of nuclear power plant operation risk <i>J. Holy</i></p> <p>An integrated approach for risk management based on systems availability <i>V.C. Damaso, R.M. Okamoto, P.A.M. Cabral</i></p>	
Session: Structural Reliability and Design Codes I (Room TAURUS)	Chair: C.G. Soares
<p>Probabilistic Assessment of Crack Width for Existing Bridges <i>J. Marková, M. Holický</i></p> <p>Models of Thermal Actions for Bridges <i>J. Marková</i></p> <p>Assessment of Deteriorating Reinforced Concrete Road Bridges <i>M. Holicky, J. Markova & M. Sykora</i></p> <p>A RSM Method for Probabilistic Nonlinear Analysis of Reinforced Concrete Bubbler Tower Structure Integrity <i>J. Králik</i></p> <p>Using the Direct Determined Fully Probabilistic Method (DDFPM) for determination of failure <i>A. P. Janas, M. Krejsa, V. Krejsa</i></p>	
Session: Human Factors I (Room ZENIT)	Chair: E. Zio
<p>Investigating situational characteristics in the contextual human information processing model for warning citizens <i>S. Sillem, J.W.F. Wiersma, B.J.M. Ale</i></p> <p>A review of Decision Tree models for assessing Human Reliability Analysis dependence <i>L. Podofillini, V.N. Dang, P. Baraldi, M. Conti, E. Zio</i></p> <p>Use of ATHEANA to review emergency operating procedures at nuclear power plants <i>T. Ruiz-Sánchez & P. F. Nelson</i></p> <p>How to deal with commission and omission errors in HRA <i>P. Le Bot, H. Pesme</i></p> <p>A Proposal for Aviation Maintenance Safety Monitoring Process <i>H.S. Rashid, G.R. Braithwaite, C.S. Place</i></p>	
Session: Surface Transportation- Road and Train I (Room LEO)	Chair: T. Nowakowski
<p>Quantitative Risk Assessment for Railway Tunnels: an integrated method and tool to support the fulfillment of the most recent normative requirements <i>G. F. D'Addio, A. Raffetti, L. Ginevri, S. Corona</i></p> <p>Reliability and safety of railway signalling and interlocking devices <i>T. Krenželok, R. Briš, P. Klátil, V. Stýskala</i></p> <p>Simulation approaches to evaluate dependability of satellite-based positioning services in railway transportation applications</p>	

<i>J. Beugin, J. Marais, A. Filip</i>	
Design of a testing bench for simulating tightened-up operating conditions of train's passenger access <i>F. Turgis, R. Copin, P. Loslever, L. Cauffriez, N. Caouder</i>	
RAM performance monitoring and MTBF demonstration on the SBB SA-NBS project <i>B.B. Stamenković, X. Villers, P. Dersin</i>	
Session: Bayesian methods (Room VIRGO)	Chair: S.Tarantola
A numerical procedure for handling mixed Bayesian networks <i>P. R. Firmino & E. L. Droguett</i>	
Contributions to Bayesian Network Model Design for Operational Risk in the Financial Industry <i>L. B. Andersen, D. Häger</i>	
Data-informed calibration of experts in Bayesian framework <i>C. H. Shirazi, A. Mosleh</i>	
Empirical Bayes Testing with Random Censoring <i>T. Liang, W.T. Huang</i>	
Bayesian identification of the reliability states <i>F. Grabski</i>	
Coffee break 10h20-10h50	

WEDNESDAY, 9 SEPTEMBER 2009	
Parallel Sessions 10h50 – 12h30 (Clarion Congress Centre)	
Session: Integrated Risk Management and Risk-Informed Decision-making II (AQUARIUS)	Chair: M.Čepin
Scientific foundations of risk in complex and dynamic environments <i>T.O. Grøtan, F. Størseth, E. Albrechtsen</i>	
Risk assessment methods applied to electricity distribution system asset management <i>D.E. Nordgård, K. Sand, I. Wangensteen</i>	
Incorporating risk analysis and multi-criteria decision making in electricity distribution system asset management <i>Maria D. Catrinu, Dag Eirik Nordgård</i>	
Establishing risk-based maintenance strategies for electricity distribution companies <i>D.E. Nordgård, K. Samdal</i>	
Asset Integrity Management Paradigm for Carbon Dioxide Underground Sequestration <i>C. Vivalda</i>	
Session: Structural Reliability and Design Codes II (Room TAURUS)	Chair: Z. Sadovsky
Probabilistic safety redesign of existing structures <i>P. Bulota, A. Kudzys</i>	
Structural safety analysis from design to manufacture <i>C. Elegbede</i>	
Control system design with dependability criterion using structural analysis <i>B. Conrard, V. Cocquempot, M. Bayart</i>	

<p>Updating the safety level of concrete elements after conformity control <i>R. Caspeele, L. Taerwe</i></p> <p>Probabilistic approaches in the safety analysis of road piers of annular cross-section <i>A. Kudzys & R. Kliukas</i></p>	
Session: Human Factors II (Room ZENIT)	Chair: L. Podofillini
<p>Characteristics of the maintenance human errors involved in unplanned reactor trips <i>J. Kim, J. Park, W. Jung</i></p> <p>A Data-Informed Model of Performance Shaping Factors and Their Interdependencies for Use in Human Reliability Analysis <i>K.M. Groth, A. Mosleh</i></p> <p>Critical features of emergency procedures: Empirical insights from simulations of nuclear power plant operation <i>S. Massaiu</i></p> <p>Accident Reporting Deficiencies related to Human and Organizational Factors in Engine Room Fires on Board Ships <i>J.-U. Schröder, M. Baldauf, K. T. Ghirxi</i></p> <p>Chaotic Voice Analysis Method for Human Performance Monitoring <i>K. Shiomi</i></p>	
Session: Surface Transportation- Road and Train II (Room LEO)	Chair: G. Spadoni
<p>Application of safety principles for a guidance system in public transport <i>H. Schäbe, H. Vis, R. Bouwman</i></p> <p>Logistic system modeling using Fault Trees with Time Dependencies – example of tram network <i>J. Magott, T. Nowakowski, P. Skrobanek, S. Werbinska</i></p> <p>Reliability analysis of an ERTMS on-board balise transmission equipment <i>J. F. Sevillano, J. Mendizabal, I. Sancho, J. R. Martín, J. Meléndez</i></p> <p>Evaluation of Pressure Load on Platform Screen Doors in a Metro System <i>A. Raffetti, B. Faragona, L. Caddeo, A. Chiappini</i></p> <p>Exposure zones assessment of dangerous object transport <i>T. Saska, J. Novák</i></p>	
Session: Reliability and Safety Data Collection and Analysis I (Room VIRGO)	Chair: Z. VINTR
<p>Analysis of Accelerated Life Testing under Competing Failure Modes with Initial Failures <i>Yuanyuan Tan, Chunhua Zhang, Xun Chen, Yashun Wang</i></p> <p>The Superposition Principle to Develop the Concept of Accelerated Degradation Testing <i>S. Hossein Mohammadian, D. Ait-Kadi, F. Routhier</i></p> <p>Satellite and satellite subsystems reliability: statistical data analysis and modeling <i>J-F. Castet, J. H. Saleh</i></p> <p>On the MTTR demonstration by using MIL-HDBK-470A, Appendix B.4.2, Test Method 1, Test A <i>B.B. Stamenković</i></p> <p>Some Optimal Life Testing for Exponential Distribution <i>Wen-Tao Huang, Hui-Hsin Huang, Kun-Cheng Yang</i></p>	
Lunch 12h30 – 14h00	

WEDNESDAY, 9 SEPTEMBER 2009

Parallel Sessions 14h00 – 15h40 (Clarion Congress Centre)	
Session: Integrated Risk Management and Risk-Informed Decision-making III (AQUARIUS)	Chair: V. Cozzani
<p>Multicriteria risk analysis application in a distribution gas pipeline system in Sergipe <i>T.V. Garcez, A.T. de Almeida-Filho, A.T. de Almeida, M.H. Alencar</i></p> <p>Multiple dimension risk evaluation framework <i>A.T. de Almeida-Filho, A.T. de Almeida</i></p> <p>Priorities Assignment for Actions in a Transport System Based on a Multicriteria Decision Model <i>M. H. Alencar, C. A. V. Cavalcante, A.T. de Almeida, C. E. S. Neto</i></p> <p>A risk-based cost-benefit analysis of LPG tank vehicles passive fire protection <i>N. Paltrinieri, S. Bonvicini, V. Cozzani, G. Landucci</i></p> <p>Risk based design of coastal flood defences- A Vietnam case <i>C. Mai Van, P.H.A.J.M. van Gelder, J.K. Vrijling</i></p>	
Session: Structural Reliability and Design Codes III(Room TAURUS)	Chair: J. Markova
<p>Artificial neural network in probabilistic assessment of strength of thin imperfect plates <i>Z. Sadovsky, C. Guedes Soares</i></p> <p>Investigation of parameter influences in wind induced structural reaction analysis due to structural model dimensions changes <i>E. Bombasaro</i></p> <p>Deterministic and Probabilistic Analysis of Nonsymmetrical Wind Effects to Symmetrical High Rise Buildings <i>J. Králik & J. Králik, jr.</i></p> <p>Probabilistic solution and reliability assessment of the hard rock disintegration process <i>K. Frydryšek, P. Marek</i></p> <p>Partial Factors for Light-Weight Roofs Exposed to Snow Load <i>M. Holicky & M. Sykora</i></p>	
Session: Human Factors III (Room ZENIT)	Chair: L. Podofillini
<p>Modeling nuclear power plant operator knowledge and procedural adherence in the ADS-IDAC simulation model <i>K. Coyne, A. Mosleh</i></p> <p>The Development of a method and a tool for dynamic task representation as part of a Virtual Reality Application <i>M.C. Leva, F. Mattei, A. Kay, S. Cromie, M. De Ambroggi, T. Kontogiannis</i></p> <p>An Overview of Experience Gained in Long Term Applications of HRA in PSA Projects for WWER Reactors <i>J. Holy, J. Kubicek</i></p> <p>Small steps towards big accidents <i>O. A. Engen, O. E. Olsen</i></p> <p>Modeling crew time variability in dynamic event trees <i>D. Mercurio & V.N. Dang</i></p>	
Session: Organizational Learning I (Room LEO)	Chair: G.M. Lamvik
<p>Decision processes and improved HSE. Training as a contribution to organizational learning and development <i>T.M. Stene, M. Hermundsgård & B.-E. Madsen</i></p> <p>Assessment of HSE aspects by employees' participation in organizational development processes: "What you ask is what you get".</p>	

M. Hermundsgård & L. Hansson

A Survey of Organization Studies Relevant to Safety and Dependability

Atoosa P-J Thunem

Job satisfaction and extensive participation processes in organizational development – a case study from the Norwegian petroleum industry

T. Korsvold, L. Hansson, A. D. Lauvsnes

Disintegration and revival of tripartite collaboration on HSE in the Norwegian petroleum industry

A. Moen, H. C. Blakstad, U. Forseth, R. Rosness

Session: Reliability and Safety Data Collection and Analysis II
(Room VIRGO)

Chair: D. Prescott

Importance of regarding the field failure behaviour of automotive components

A. Braasch, D. Althaus, J.-J. Baek, A. Meyna

Homogeneity and Scale Testing for small samples with censored and missing data

M. Stehlik

Data mining for identification and prediction of safety and reliability characteristics of complex industrial systems and processes

K. Kolowrocki, J. Soszynska

Identification of significant Effects of Altering the Testing Process with Regard to Reliability Growth Management

D. Vesenmaier, P. Jäger

Used cars data processing and TÜV reliability statistics modification

J. Zajicek

Coffee break 15h40-16h10

WEDNESDAY, 9 SEPTEMBER 2009	
Parallel Sessions 16h10 – 17h50 (Clarion Congress Centre)	
Session: Integrated Risk Management and Risk-Informed Decision-making IV (AQUARIUS)	Chair: T.Aven
<p>Rethinking Sociological Perspectives on Risk for the Possibility to Analyse and Manage Security Risks <i>K. Pettersen, O. A. Engen, T. Aven</i></p> <p>Impact of event duration on operational risk in financial institutions: A control based approach <i>D. Häger, L. B. Andersen</i></p> <p>Integrating risk management into strategic planning in SMEs <i>E. Kupi, J. Keränen, M. Mikkola, T. Uusitalo</i></p> <p>The impact of risk aversion on optimal economic decisions <i>B. Kuijper & M.J. Kallen</i></p> <p>Social Vulnerability to Natural and Technological Hazards: The Relevance of Scale <i>J.M. Mendes, A.O. Tavares, S. Freiria, L. Cunha</i></p>	
Session: Uncertainty and Sensitivity Analysis I (Room TAURUS)	Chair: E. Plischke
<p>Uncertainty in reliability estimation: when do you know everything you know? <i>M.J.H.A. Houben, P.J.M. Sonnemans & M.J. Newby</i></p> <p>A Dempster-Shafer theory of Evidence approach to model uncertainty analysis <i>P. Baraldi, E. Zio</i></p> <p>Some useful features of the Bayesian setting while dealing with uncertainties in industrial practice <i>A. Pasanisi, E. de Rocquigny, N. Bousquet, E. Parent</i></p> <p>Uncertainty assessments in a semi-quantitative risk analysis, with application to health care <i>K. Eidesen, T. Aven</i></p> <p>Estimating uncertainties in maximum entropy distribution parameters from small-sample observations <i>T. Most</i></p>	
Session: Human Factors IV (Room ZENIT)	Chair: J. Holy
<p>A Fuzzy Bayesian Belief Net approach to HRA in Onshore Oil Well Operations <i>P. A. A. Garcia, C. M. C. Jacinto</i></p> <p>Human Reliability Analysis for reducing risk in an LPG treatment and storage plant <i>M. Konstandinidou, Z. Nivolianitou, E. Plot, F. Camus, A. Monferini, Ch. Leva, T. Kontogiannis, P. Kafka</i></p> <p>Experiences with Human Factors in Norwegian petroleum Control Centre Design and suggestions to handle an increasingly complex future <i>A.L. Aas, S.O. Johnsen, T. Skramstad</i></p> <p>Human factors in the layer of protection analysis with emphasis on alarm system management <i>P. Kacprzak, K. T. Kosmowski</i></p> <p>A Bayesian Network Model for Dependence Assessment in Human Reliability Analysis <i>P. Baraldi, M. Conti, M. Librizzi, E. Zio, L. Podofillini, V.N. Dang</i></p>	
Session: Organizational Learning II (Room LEO)	Chair: A.P-J Thunem
<p>Building Safety by resilient organization – a case specific approach <i>F. Størseth, R.K. Tinmannsvik, K. Øien</i></p> <p>Resilient Organizations and Resilient Praxis – a Review of Current Status Related to Safety <i>S.O. Johnsen</i></p> <p>Professional Culture, Work Practice and Reliable Operations in Shipping <i>G.M. Lamvik, A.M. Wahl, M. Pettersen Buvik</i></p>	

Resilience and vulnerability: a complementary approach in order to diagnose the level of safety of an organisation

S. Pierlot, Y. Dien & M. Llory

Risks and engineering design across cultures

J. Harvey, K.F. Pearce, R. Jamieson

Session: Reliability and Safety Data Collection and Analysis III
(Room VIRGO)

Chair: D. Valis

Data Farming Quality, Improving the WSN Safety

J.C.A. Cansado, J.R. Almeida Jr., S. Viana, J. Pavon

An extended Bayesian updating approach to support product selection based on performance testing – a drilling jar case

J. T. Selvik, T. Aven

Contributions to the modelling of previsionsal reliability of hydroelectric plants

I. Felea & D. Meianu

Chi-Square Test of Goodness of Fit for Normal and Lognormal Distribution with Applications

N. Popoviciu & F. Baicu

Assessment of economical lifetime of heavy-duty machines. Case study

A. Jodejko-Pietruczuk, M. Mlynczak & M. Zajac

End of day

THURSDAY, 10 SEPTEMBER 2009	
Plenary Session 8h40 – 9h30 (ZENIT + NADIR)	
Coffee break 9h30-10h00	
Parallel Sessions 10h00 – 11h40 (Clarion Congress Centre)	
Session: Fault Identification and Diagnostics I (AQUARIUS)	Chair: P. Baraldi, S. Bracke
<p>An application of squared prediction errors of time domain averaging across all scales on gearbox fault detection based on vibration signals <i>R. J. P. Ferreira, W. Wang, M. J. Zuo, A. T. Almeida</i></p> <p>Application of a Dynamic Fault Diagnostic Method using Bayesian Belief Networks on a Fuel Rig System <i>M. Lampis, J. D. Andrews</i></p> <p>FMECA of a turntable: A Fuzzy Assessment <i>F. Costantino, M. De Minicis, G. Di Gravio & M. Tronci</i></p> <p>Fault Detection on Textiles by Adapted Biorthogonal Wavelets <i>V. Finěk, D. Černá</i></p> <p>Wear prognosis based on identified damage accumulation models <i>K.-U. Dettmann, D. Soffker</i></p>	
Session: Uncertainty and Sensitivity Analysis II (Room TAURUS)	Chair: C. Rocco
<p>Lessons learnt from studies on sensitivity analysis techniques in the EU project PAMINA: A benchmark study <i>K.-J. Röhlig, E. Plischke, R. Bolado Lavín, D.-A. Becker, P.-A. Ekström, S. Hotzel</i></p> <p>Lessons learnt from studies on sensitivity analysis techniques in the EU project PAMINA: Sensitivity analysis applied to different HLW PA models <i>R. Bolado, A. Badea, D.A. Becker, S. Spießl, K. Fischer-Appelt, J.L. Cormenzana, M.A. Cuñado, T.J. Schröder, J. Hart, J. Grupa, E. Rosca-Bocancea, R. Ávila, G. Pepin, F. Plas, K.-J. Röhlig, E. Plischke</i></p> <p>Reliable design verification of nuclear turbosets using sensitivity analysis on exceedance probabilities <i>I. Zentner, S. Tarantola, E. de Rocquigny</i></p> <p>An Effective Algorithm for Variance-Based Sensitivity Indices <i>E. Plischke</i></p> <p>Differential Importance Measure of Markov Models Using Perturbation Analysis <i>P. Do Van, A. Barros, C. Bérenguer</i></p>	
Session: Decision Support Systems and Software Tools for Safety and Reliability I (Room ZENIT)	Chair: I. Frenkel
<p>A Decision support system to evaluate gas pipeline risk in multiple dimensions <i>Y.G. Lopes, A. T. de Almeida, M. H. Alencar, L. A. F. Wolmer Filho & G. B. A. Siqueira</i></p> <p>Automating the synthesis of AltaRica Data-Flow models from SysML <i>P. David, V. Idasiak & F. Kratz</i></p> <p>Supportive software for the multi-criteria decision making <i>J. Gurecký, P. Moldřík, J. Dvorský & R. Šebesta</i></p> <p>TRACE: A Generic Tool for Dependable Requirements Engineering <i>Harald P-J Thunem</i></p> <p>Analysis and optimization of repairable networks with merging flows <i>M.T.Todinov</i></p>	
Session: Manufacturing (Room NADIR)	Chair: B.J.M. Ale
<p>RAMS modeling for maintenance audits <i>D. Galar, L. Berges, J. Royo</i></p>	

The quality of graphical data display

J. Nedbalek

Tools for Monitoring and Evaluating of Warranty Costs Development

Z. Vintr, M. Vintr

Warranty Cost Models State-of-Art: A practical review to the framework of warranty cost management

V. González Díaz, M. López Campos, J.F. Gómez Fernández, A. Crespo Márquez

Cultural differences in design perceptions of consumer products: a Kansei engineering approach

K. Pearce, J. Harvey, R. Jamieson

Session: Occupational Safety I (Room LEO)

Chair: C. Pantanali

Applying the Safe Place, Safe Person, Safe Systems framework: Case study findings across multiple industry sectors

A.-M. Makin, C. Winder

The effect of organizational size and structure on the management of OHS risk: A review of two case studies in the chemical manufacturing industry

A.-M. Makin, C. Winder

Occupational Risk Management for Contact with moving parts of machines

I.A. Papazoglou, O. N. Aneziris, M. Konstandinidou, M. Mud, M. Damen, J. Kuiper, H. Baksteen, L.J. Bellamy, J.G. Post, J. Oh

Occupational Risk Management for Electricity Hazard

O. N. Aneziris, I.A. Papazoglou, M. Konstandinidou, M. Damen, J. Kuiper, L.J. Bellamy, M. Mud, H. Baksteen, J. Oh

The impact of the occupational safety control programs on the overall safety level in an industrial cluster

P.A. Bragatto, P. Agnello, M.G. Gnoni, G. Lettera, F. A. Sciancalepore

Session: Risk Perception and Communication (Room VIRGO)

Chair: C. Vivalda

Issues related to localization of an LNG facility

J. Vatn

Driver boredom and preferred driving speed

S. Heslop, J. Harvey, N. Thorpe, C. Mulley

Risk perception, extreme events and institutional trust: a local survey in Portugal

A.O. Tavares, J.M. Mendes, E. Basto, L. Cunha

Safety Risk Requirements for Combat Pistol and its Ammunition

R. Jankovych, J. Majtanik

The prevention of the professional poisoning caused by lead – case study

L. Sikorova, P. Danihelka, D. Micek

Lunch 11h40 – 13h00

THURSDAY, 10 SEPTEMBER 2009

Parallel Sessions 13h00 – 14h40 (Clarion Congress Centre)

Session: Fault Identification and Diagnostics II (AQUARIUS) | Chairs: J. Andrews

Analysing multiple damage causes of complex products using DCD algorithm and WCF approach
S. Bracke, S. Haller

Aggregation of randomized model ensemble outcomes for reconstructing nuclear signals from faulty sensors

P. Baraldi, E. Zio, G. Gola, D. Roverso, M. Hoffmann

Estimation of monitoring indicators using regression methods Application to turbofan start sequence
A. Ausloos, J.R. Masse, E. Grall-Maës, P. Beuseroy, A. Grall

A short study on rebooting safe computers and the impact on safety
E.N. Rosenberg, H. Schäbe, I.B. Shubinsky

System health monitoring through Bayesian networks
O. Borgia & F. De Carlo

Session: Uncertainty and Sensitivity Analysis III (Room TAURUS) | Chair: S. Tarantola

Composite Indicators for Security of Energy Supply in Europe using Ordered Weighted Averaging
Claudio M. Rocco S., Stefano Tarantola, Anca Costescu Badea, Ricardo Bolado

Exploring uncertainty in quantitative risk assessment used for decision support in electricity distribution system asset management
D.E. Nordgård

Multi-reservoir production optimization under uncertainty
Arne B. Huseby, Nils F. Haavardsson

Handling epistemic uncertainties in fault tree analysis by probabilistic and possibilistic approaches
R. Flage, P. Baraldi, F. Ameruso, E. Zio & T. Aven

Session: Decision Support Systems and Software Tools for Safety and Reliability II (Room ZENIT) | Chair: M. Ferjencik

Software critical for safety in reliability models
J. Sedlák

A knowledge-based approach for functional safety management
T. Barnert, K.T. Kosmowski, M. Śliwiński

Demand Optimization Model In Aeronautical Infrastructure to Maintain The Safety Integrity Level
Jamil Kalil Naufal Jr., João Batista Camargo Jr.

Simulation Model for Availability Assessment of Airspace Control Systems
W. N. Pizzo, P. S. Cugnasca

Session: Occupational Safety II (Room LEO) | Chair: O. Aneziris

Matching RATE analysis for SMEs with European Agencies data
C. Pantanali & C. Bianco

A Guide Line for a Strategic Occupational Safety Management Based on Statistical Analysis in Jordan
M.A. Mansour & I. M. Muslih

Crash Pulse Analysis Using Wavelets
D. Černá, V. Finěk

Radars and Health Risk Assessment
F. Bozek, J. Navratil, A. Bumbova, J. Kellner, A. Langerova, L. Kubicek

Session: Security and Protection (Room NADIR)	Chair: J. Kim
<p>Pool homogenisation for empirical Bayes models <i>G. Hardman, T. Bedford, J. Quigley & L. Walls</i></p> <p>Terrorism risk as a change stimulus to the Norwegian society <i>S.H. Jore & O. Njå</i></p> <p>Reliability analysis of the electronic protection systems with mixed – three branches reliability structure <i>A. Rosiński</i></p> <p>Is the “k out of n” system really the best? <i>J. Kamenicky</i></p> <p>Landfills and Risk Identification <i>A. Bumbova, F. Bozek</i></p>	
Session: Safety Culture (Room VIRGO)	Chair: M. Hermundsgard
<p>Evidence-Based Development of Safety Culture at the Estonian Enterprises <i>M. Järvis, P. Tint</i></p> <p>The Industrial Relations of Safety – differences in tripartite collaboration in Norwegian industries <i>L. Øyum, K. Skarholt, J. E. Ravn and T. Nilssen</i></p> <p>Trust and Safety Culture: The Importance of Trust Relations in Integrated Operations in the Norwegian Oil Industry <i>K. Skarholt, H. Torvatn</i></p>	
Coffee break 14h40-15h10	
Conference Closing 15h10-16h00 (ZENIT + NADIR)	