



## **CV Tenured scientific personnel**

Name: Stein Haugen  
Born: 1959  
Nationality: Norwegian  
Present position: Professor (full)  
Degrees: PhD, MSc

Department of Marine Technology  
Norwegian University of Science and Technology (NTNU)  
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### **Work experience:**

2015-	Professor, Department of Marine Technology, NTNU
2010-2014	Professor, Department of Production and Quality Engineering, NTNU
2000-2010	Adjunct Professor, Dept of Production and Quality Engineering, NTNU
2000-2010	Research and Development Manager, Safetec Nordic, Trondheim
1993-1999	Managing Director, Safetec Nordic, Trondheim
1991-1993	Department Manager, Safetec Analysis Ltd, Aberdeen, UK
1988-1991	PhD scholarship, Department of Marine Structures, NTNU
1985-1988	Safety Engineer, Safetec Nordic, Trondheim

### **Fields of interests and present research activities:**

My main field of interest is major accident risk, in particular understanding and modeling how and why major accidents occur. Among the specific areas which I am focusing on are:

- Risk Analysis Methods
- Accident models
- Modeling causes of major accidents
- Major Accident Risk Indicators
- Decision-making concerning major accident risk
- Human, organizational and operational factors influence on risk
- Safety Culture
- Operational Risk Analysis

### **Conferences**

- Chairman of SRA conference in Trondheim in 2013
- Chariman of ESREL conference in Trondheim in 2018



### **Membership in academic and professional committees**

- Chairman of the standardization committee “SN/K 239 Risk” (responsible for developing a new revision of the Norwegian standard “Requirements to Risk Assessment” (NS5814), published in 2008)
- Former board member of ESRA (European Safety and Reliability Association) for two years. Responsible for the publication of “ESRA News”, published quarterly.
- Member of nine PhD committees
- Member of 2 professor evaluation committees
- Board member of ESRA Norge Skinnegående sikkerhetsforum (Railway Safety Forum) for 5 years, 2 of those as chairman
- Member of the ESREL Technical Programme Committee for a number of years
- Member of committee evaluating new master program in “Demanding Marine Operations” at Høgskolen i Ålesund

### **PhDs Supervised last five years**

Main supervisor:

Peter Okoh, HyungJu Kim, Xue Yang, Sizarta Sarshar, Sverre Kvalheim,

Co-supervisor/Part time:

Jinfen Zhang (exchange from Wuhan University of Technology), Ingunn Holmen (co-supervisor), Xiaoyan Guo (exchange from China University of Petroleum, Beijing)

### **Publications last five years**

**Kim, HyungJu; Haugen, Stein; Utne, Ingrid Bouwer**

Assessment of accident theories for major accidents focusing on the MV SEWOL disaster: Similarities, differences, and discussion for a combined approach. *Safety Science* 2016; Volume 82. s. 410-420

**Kim, HyungJu; Haugen, Stein; Utne, Ingrid Bouwer**

Reliability analysis of the IMO regulation - safe return to port. *Ships and Offshore Structures* 2016; Volume 11.(5) s. 461-470

**Sarshar, Sizarta; Haugen, Stein; Skjerve, Ann Britt M**

Challenges and proposals for managing major accident risk through the planning process. *Journal of Loss Prevention in the Process Industries* 2016; Volume 39. s. 93-105

**Vinnem, Jan Erik; Haugen, Stein; Okoh, Peter**

Maintenance of petroleum process plant systems as a source of major accidents? *Journal of Loss Prevention in the Process Industries* 2016; Volume 40. s. 348-356

**Yang, Xue; Haugen, Stein**

Risk information for operational decision-making in the offshore oil and gas industry. *Safety Science* 2016; Volume 86. s. 98-109



**Haugen, Stein**

Sikringsrisikoanalyser - hvor mye er nytt? *Sikkerhet* 2015; Volume 61.(2) s. 50-52

**Haugen, Stein; Albrechtsen, Eirik**

Society for Risk Analysis Europe 22nd Annual Meeting, Trondheim, Safe societies - Coping with complexity and major risk. *Journal of Risk Research* 2015; Volum 18.(7) s. 807

**Haugen, Stein; Vinnem, Jan Erik**

Perspectives on risk and the unforeseen. *Reliability Engineering & System Safety* 2015; Volume 137. s. 1-5

**Haugen, Stein; Vinnem, Jan Erik; Brautaset, Olav; Bye, Rolf Johan; Nyheim, Ole Magnus; Seljelid, Jorunn; Wagnild, Beate Riise**

Risk information for operational decision making in oil and gas operations. *ESREL 2015, Zürich, Switzerland, September 2015*

**Jens Christen, Rolfsen; Haugen, Stein; Vinnem, Jan Erik; Antonsen, Stian; Heggland, Jon Erling; Lootz, Elisabeth**

Soft Causes with Hard Consequences: The role of organisational factors in the creation of structural integrity. *Safety Science Monitor* 2015; Volume 19.(2) Suppl. art. 1 s.

**Kim, HyungJu; Haugen, Stein**

Titanic viewed from different perspectives on major accidents. I: *ESREL 2014, Poland, September 2014*

**Kongsvik, Trond; Almklov, Petter; Haavik, Torgeir K; Haugen, Stein; Vinnem, Jan Erik; Schiefloe, Per Morten**

Decisions and decision support for major accident prevention in the process industries. *Journal of Loss Prevention in the Process Industries* 2015; Volume 35. s. 85-94

**Kvalheim, Sverre Andreas; Haugen, Stein**

Enhancing the basis for Crew Resource Management (CRM) training for well operations crews: Risk Influencing Factors in Offshore Drilling. *ESREL 2014, Poland, September 2014*

**Nyvlt, Ondrej; Haugen, Stein; Ferkl, Lukas**

Complex accident scenarios modelled and analysed by Stochastic Petri Nets. *Reliability Engineering & System Safety* 2015; Volume 142. s. 539-555

**Okoh, Peter; Haugen, Stein**

Improving the Robustness and Resilience Properties of Maintenance. *Process Safety and Environmental Protection* 2015; Volume 94.(C) s. 212-226

**Sarshar, Sizarta; Haugen, Stein; Skjerve, Ann Britt**

Factors in offshore planning that affect the risk for major accidents. *Journal of Loss Prevention in the Process Industries* 2015; Volume 33. s. 188-199



**Yang, Xue; Haugen, Stein**

Classification of risk to support decision-making in hazardous processes. *Safety Science* 2015; Volume 80. s. 115-126

**Zhang, Jinfen; Zhang, Di; Yan, Xinping; Haugen, Stein; Guedes Soares, C.**

A distributed anti-collision decision support formulation in multi-ship encounter situations under COLREGs. *Ocean Engineering* 2015; Volume 105. s. 336-348

**Albrechtsen, Eirik; Grøtan, Tor Olav; Haugen, Stein**

Improving proactive major accident prevention by new technology and work processes. *ESREL 2013, Amsterdam, the Netherlands, September 2013*

**Kim, HyungJu; Haugen, Stein; Utne, Ingrid Bouwer**

Reliability Analysis Including External Failures for Low Demand Marine Systems. *PSAM12; Hawaii, USA, June 2014*

**Kvalheim, Sverre Andreas; Haugen, Stein**

Lessons from aviation: Applying threat and error management framework to cases from the offshore drilling industry, *ESREL 2013, Amsterdam, the Netherlands, September 2013*

**Nyvt, Ondrej; Ferkl, Lukas; Haugen, Stein**

Stochastic Coloured Petri Nets as a modelling language for complex Event Trees. *ESREL 2013, Amsterdam, the Netherlands, September 2013*

**Okoh, Peter; Haugen, Stein**

A study of maintenance-related major accident cases in the 21st century. *Process Safety and Environmental Protection* 2014; Volume 92.(4) s. 346-356

**Okoh, Peter; Haugen, Stein**

Application of Inherent Safety to Maintenance-related Major Accident Prevention on Offshore Installations. *Chemical Engineering Transactions* 2014; Volume 36. s. 175-180

**Okoh, Peter; Haugen, Stein**

The implication of maintenance in major accident causation. *Loss Prevention Bulletin* 2014 (236)

**Sarshar, Sizarta; Skjerve, Ann Britt M; Haugen, Stein**

Towards an understanding of information needed when planning offshore activities. *ESREL 2013, Amsterdam, the Netherlands, September 2013*

**Utne, Ingrid Bouwer; Schjølberg, Ingrid; Vinnem, Jan Erik; Haugen, Stein**

Verktøy mot utblåsninger. *Dagens næringsliv* 2014 s. 35-35

**Yang, Xue; Haugen, Stein**

A fresh look at barriers from alternative perspectives on risk. *PSAM12; Hawaii, USA, June 2014*



**Zhang, J F; Yan, X P; Zhang, D; Haugen, Stein**

Study on the effect of ship-ship communication on anti-collision performance. *ESREL 2013, Amsterdam, the Netherlands, September 2013*

**Zhang, J F; Yan, Xiping; Zhang, Di; Haugen, Stein; Yang, Xue**

Safety management performance assessment for Maritime Safety Administration (MSA) by using generalized belief rule base methodology. *Safety Science* 2014; Volume 63.(March) s. 157-167

**Kim, HyungJu; Haugen, Stein; Utne, Ingrid Bouwer**

Conflict between environmental performance and human safety. *ICTIS 2013, Wuhan, China, June 2013*

**Okoh, Peter; Haugen, Stein**

Maintenance-related major accidents: Classification of causes and case study. *Journal of Loss Prevention in the Process Industries* 2013; Volum 26.(6) s. 1060-1070

**Okoh, Peter; Haugen, Stein**

The Influence of Maintenance on Some Selected Major Accidents. *Chemical Engineering Transactions* 2013; Volume 31. s. 493-498

**Vatn, Jørn; Haugen, Stein**

On the Usefulness of Risk Analysis in the Light of Deepwater Horizon and Gullfaks C. I: *Oil and Gas, Technology and Humans*. Ashgate 2013 ISBN 9781409456001. s. 81-102

**Yang, Xue; Haugen, Stein**

Modelling point-in-time risk A decision support tool based on work activities and risk influencing events. *ESREL 2013, Amsterdam, the Netherlands, September 2013*

**Zhang, J F; Yan, X P; Zhang, D; Haugen, Stein**

Ship Trajectory Control Optimization in Anti-collision Maneuvering. *TransNav, International Journal on Marine Navigation and Safety of Sea Transportation* 2013; Volume 7.(1) s. 89-93

**Ali, Mohammed Seid; Haugen, Stein**

Collision between offshore supply vessels and offshore installations. *PSAM11/ESREL 2012, June 2012, Helsinki, Finland*

**Drottz Sjøberg, Britt-Marie; Haugen, Stein**

Er ekspertene ansvarlige? Katastrofer: Bør noen kunne bli dømt for ikke å ha forutsett at noe kunne skje? *Aftenposten (morgenutg.: trykt utg.)* 2012

**Haugen, Stein; Nyheim, Ole Magnus**

Incident data from decommissioning and removal of offshore installations. *PSAM11/ESREL 2012, June 2012, Helsinki, Finland*



**Haugen, Stein; Seljelid, Jorunn; Nyheim, Ole Magnus; Sklet, Snorre; Jahnsen, Elise.**

A generic method for identifying major accident risk indicators. *PSAM11/ESREL 2012, June 2012, Helsinki, Finland*

**Jin, Hui; Rausand, Marvin; Mosleh, Ali; Haugen, Stein.**

Quantification of Organizational Influences on Failure Rate: A Bayesian Approach. *IEEE IEEM Conference, Hong Kong; Des 2012*

**Okoh, Peter; Haugen, Stein.**

The Effect of Maintenance Seen From Different Perspectives on Major Accident Risk. . *IEEE IEEM Conference, Hong Kong; Des 2012*

**Sarshar, Sizarta; Gran, Bjørn Axel; Haugen, Stein; Skjerve, Ann Britt M.**

Visualisation of risk for hydrocarbon leakages in the planning of maintenance and modification activities on offshore petroleum installations. *PSAM11/ESREL 2012, June 2012, Helsinki, Finland*

**Stillaug Johansen, Trond; Pettersen, Erik; Nyheim, Ole Magnus; Haugen, Stein; Seljelid, Jorunn; Kvalheim, Sverre Andreas.**

Validation and testing of a multi-layer risk model for hydrocarbon leaks in the offshore petroleum industry. *PSAM11/ESREL 2012, June 2012, Helsinki, Finland*