Stein Ove Erikstad

Name:	Stein Ove Erikstad
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Date of birth:	May 14 1965
Nationality:	Norwegian
Education:	Dr.ing. Marine Systems Design, NTNU Norwegian University for Science and Technology
Present position:	CTO Fedem Technology, Trondheim, Norway Professor, NTNU, Department of Marine Technology

Education and employment history:

Oct 2016 – July 2018	CTO, Fedem Technology, part of the SAP, Responsible for digital twin development, physics and technology
Jan 2008 – Oct 2016	Professor in Marine Systems Design, Department of Marine Technology, NTNU, 80% leave of absence Oct 2016-August 2018
Apr 2015 – Sept 2016	Vice Dean for Education at the Faculty for Engineering Science, NTNU
July 2012 - July 2013	Visiting Research Scholar, Systems Engineering Advancement research initiative, Engineering Systems Division, Massachusetts Institute of Technology, Cambridge, MA, USA
Jan 2002 – Dec 2007	CTO/Senior Engineer and co-founder of proNavis, (later acquired by Det Norske Veritas to become DNV proNavis), ICT related consulting and system development, primarily towards the maritime industry
July 2003 – Dec 2007	Adjunct Professor , Marine Systems Design, Department for Marine Technology, NTNU
Aug 1998 – Dec 2001	Senior Engineer, MARINTEK AS, Section for Ship Production and ICT Development. Project leader for several R&D projects, primarily focused on the application of ICT and e-business solutions in the maritime industries. Hired consultant in the ShipyardXchange portal development, from prototype to industrial implementation.
Feb 1995 - July 1998	Senior Knowledge Engineer at Computas Expert Systems. Primarily involved in the Nauticus project at Det norske Veritas, aimed at

	developing a complete product model for the ship classification domain, with a corresponding set of tools and services
Jan 1991 - Feb 1995	Dr.Ing. (Ph.D.) studies at the Department of Marine Systems Design, Norwegian Institute of Technology (NTNU), supported by a scholarship from the Royal Norwegian Society for Scientific and Industrial Research (NTNF). Project title: "Decision Support Systems for Marine Design".
Jan 1992 - Jan 1993	Visiting Researcher at the Systems Design Laboratory, University of Houston, USA, supported by a NATO Science Fellowship. Project participation and course work
Aug 1989 - Jan 1991	Research/teaching assistant, Department of Marine Systems Design, NTH
Jan 1990 - Dec 1990	Studies in Economics at the College of Arts and Science, The University of Trondheim
Jun 1989 - Aug 1989	IAESTE internship, Pendik Shipyard, Istanbul, Turkey
Aug 1985 - Apr 1990	Siv.ing. (MSc) studies, Marine Technology, NTNU.

Publications 2015-2017

1. Choi, Minjoo; Rehn, Carl Fredrik; Erikstad, Stein Ove (2018), "A hybrid method for a module configuration problem in modular adaptable ship design", *Ships and Offshore Structures*, vol. 13.(4) p. 343-351

2. Pettersen, Sigurd Solheim; Asbjørnslett, Bjørn Egil; Erikstad, Stein Ove (2018), "Designing Resilience into Service Supply Chains: A Conceptual Methodology", I: Supply Chain Risk Management: Advanced Tools, Models, and Developments. Springer 2018 ISBN 978-981-10-4105-1. p. 253-269

3. Pettersen, Sigurd Solheim; Rehn, Carl Fredrik; Garcia Agis, Jose Jorge; Erikstad, Stein Ove; Brett, Per Olaf; Asbjørnslett, Bjørn Egil; Ross, Adam M.; Rhodes, Donna (2018), "Ill-Structured Commercial Ship Design Problems: The Responsive System Comparison Method on an Offshore Vessel Case", *Journal of Ship Production and Design*, vol 34.(1) p. 72-83

4. Rehn, Carl Fredrik; Pettersen, Sigurd Solheim; Erikstad, Stein Ove; Asbjørnslett, Bjørn Egil (2018), "Investigating tradeoffs between performance, cost and flexibility for reconfigurable offshore ships", *Ocean Engineering* vol. 147, p. 546-555

5. Bergström, Martin Vilhelm; Erikstad, Stein Ove; Ehlers, Sören (2017), "The Influence of model fidelity and uncertainties in the conceptual design of Arctic maritime transport systems", *Ship Technology Research* vol. 64.(1) p. 40-64

6. Choi, Minjoo; Erikstad, S. O. (2017), ”A module configuration and valuation model for operational flexibility in ship design using contract scenarios”, *Ships and Offshore Structures*

7. Erikstad, Stein Ove (2017), “Merging Physics, Big Data Analytics and Simulation for the Next-Generation Digital Twins”, HIPER 2017, High-Performance Marine Vehicles, Zevenwacht, South-Africa, 11-13 September 2017

8. Patricksson, Øyvind S.; Erikstad, Stein Ove (2017), ”A two-stage optimization approach for sulphur emission regulation compliance”, *Maritime Policy & Management*, vol. 44.(1) p. 94-111

9. Pettersen, Sigurd Solheim; Erikstad, Stein Ove (2017), ”Assessing flexible offshore construction vessel designs combining real options and epoch-era analysis”, *Ship Technology Research*, vol. 64.(2) p. 76-86

10. Pettersen, Sigurd Solheim; Rehn, C. F.; Garcia Agis, J. J.; Erikstad, S.O.; Brett, P.O.; Asbjørnslett, B.E.; Ross, A..; Rhodes, D. (2017), “Ill-Structured Commercial Ship Design Problems: The Responsive System Comparison Method on an Offshore Vessel Case”, *Journal of Ship Production and Design* p. 1-12

11. Rehn, Carl Fredrik; Haugsdal, Annette; Erikstad, Stein Ove (2016), “Flexible strategies for maritime sulphur emission regulation compliance”, *Proceedings of the 13th International Symposium on PRActical Design of Ships and Other Floating Structures (PRADS' 2016)*. Danmarks Tekniske Universitet, DTU 2016 ISBN 978-87-7475-473-2

12. Bergström, Martin Vilhelm; Erikstad, Stein Ove; Ehlers, Sören (2016) “Assessment of the applicability of goal- and risk-based design on Arctic sea transport systems”, *Ocean Engineering*, vol. 128. p. 183-198

13. Gaspar, Henrique Murilo; Hagen, Arnulf; Erikstad, Stein Ove (2016), ”On designing a ship for complex value robustness”, *Ship Technology Research*, vol. 63.(1) p. 14-25

14. Rehn, Carl Fredrik; Pettersen, Sigurd Solheim; Erikstad, Stein Ove; Asbjørnslett, Bjørn Egil (2016), ”Investigating feasibility of flexible ship concepts using tradespace network formulations”, *Proceedings of the 13th International Symposium on PRActical Design of Ships and Other Floating Structures (PRADS' 2016)*. Danmarks Tekniske Universitet, DTU 2016 ISBN 978-87-7475-473-2

15. Zhu, Wenting; Nowak, Matthias P.; Erikstad, Stein Ove (2016) Emission allocation issues in repositioning transportation, *International Journal of Sustainable Transportation* 2016 ;Volum 10.(4) s. 365-375

16. Bergström, Martin Vilhelm; Erikstad, Stein Ove; Ehlers, Sören (2016), “A simulation-based probabilistic design method for arctic sea transport systems”, *Journal of Marine Science and Application*, vol. 15.(4) p. 349-369

17. Andrews, David; Erikstad, Stein Ove (2015), ”The design methodology state of the art report”, IMDC 2015 – The International Marine Design Conference

18. Balland, Ocean; Girard, Cecilia; Erikstad, Stein Ove; Fagerholt, Kjetil (2015), "Optimized selection of vessel air emission controls—moving beyond cost-efficiency" Maritime Policy & Management, Volum 42.(4)

19. Bergström, Martin Vilhelm; Erikstad, Stein Ove; Ehlers, Sören (2015), "Applying risk-based design to arctic ships" I: Proceedings ASME 34th International Conference on Ocean, Offshore and Arctic Engineering Volume 8: Ian Jordaan Honoring Symposium on Ice Engineering. ASME Press

20. Bergström, Martin Vilhelm; Erikstad, Stein Ove; Ehlers, Sören (2015), "Assessment of the effect of uncertainties in design parameters on the design of arctic ships" Proceedings of the 12th International Marine Design Conference (IMDC 2015) - Volume 2. Tokyo, Japan: The Japan Society of Naval Architects and Ocean Engineers

21. Choi, Minjoo; Erikstad, Stein Ove; Ehlers, Sören (2015), Mission Based Ship Design Under Uncertain Arctic Sea Ice Conditions. I: Proceedings ASME 2015 34th International Conference on Ocean, Offshore and Arctic Engineering Volume 8: Ian Jordaan Honoring Symposium on Ice Engineering. ASME Press

22. Erikstad, Stein Ove; Grimstad, Audun; Johnsen, Trond Andreas Vikan; Borgen, Henning (2015), "VISTA (Virtual sea trial by simulating complex marine operations): Assessing vessel operability at the design stage. IMDC 2015 – The International Marine Design Conference

23. Erikstad, Stein Ove; Rehn, Carl Fredrik (2015), "Handling uncertainty in marine systems design - state-of-the-art and need for research", Proceedings of the 12th International Marine Design Conference (IMDC 2015) - Volume 2. Tokyo, Japan: The Japan Society of Naval Architects and Ocean Engineers

24. Gaspar, Henrique Murilo; Balland, Oceane; Aspen, Dina Margrethe; Ross, Adam; Erikstad, Stein Ove (2015), "Assessing air emissions for uncertain life-cycle scenarios via responsive systems comparison method". Journal of Engineering for the Maritime Environment (Part M) 2015 ;Volum 229.(4) s.350-364

25. Gaspar, Henrique Murilo; Brett, Per Olaf; Erikstad, Stein Ove; Ross, Adam M. (2015), "Quantifying value robustness of OSV designs taking into consideration medium to long term stakeholders' expectations", Proceedings of the 12th International Marine Design Conference (IMDC 2015) - Volume 2. Tokyo, Japan: The Japan Society of Naval Architects and Ocean Engineers 2015

26. Solem, Siri; Fagerholt, Kjetil; Erikstad, Stein Ove; Patricksson, Øyvind Selnes (2015), "Optimization of diesel electric machinery system configuration in conceptual ship design", Journal of Marine Science and Technology 2015 ;Volum 20.(3)

27. Zhu, Wenting; Erikstad, Stein Ove (2015), "Rational scheme designs for emission allocation in container shipping", WMU Journal of Maritime Affairs (JoMA), Volum 14.(1)