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Education Information

Doctorate, Istanbul Technical University, Fen Bilimleri Enstitüsü, Turkey 2012 - 2015

Postgraduate, State University of Nem York-Maritime College, United States Of America 2007 - 2008

Undergraduate, Istanbul Technical University, Turkey 2001 - 2005

Research Areas

Marine Sciences and Technology

Academic Titles / Tasks

Associate Professor, Istanbul Technical University, 2018 - Continues

Published journal articles indexed by SCI, SSCI, and AHCI

I. **Prediction of human-machine interface (HMI) operational errors for maritime autonomous surface ships (MASS)**

Liu J., AYDIN M., Akyüz E., Arslan Ö., Uflaz E., Kurt R. E., Turan O.

JOURNAL OF MARINE SCIENCE AND TECHNOLOGY, vol.27, no.1, pp.293-306, 2022 (SCI-Expanded)

II. **A fuzzy best-worst method (BWM) to assess the potential environmental impacts of the process of ship recycling**

Söner Ö., Celik E., Akyüz E.

MARITIME POLICY & MANAGEMENT, vol.49, pp.396-409, 2022 (SSCI)

III. **Application of data-mining techniques to predict and rank maritime non-conformities in tanker shipping companies using accident inspection reports**

Navas de Maya B., Arslan Ö., Akyüz E., Kurt R. E., Turan O.

SHIPS AND OFFSHORE STRUCTURES, vol.17, no.3, pp.687-694, 2022 (SCI-Expanded)

IV. **Validation of risk analysis for ship collision in narrow waters by using fuzzy Bayesian networks approach**

AYDIN M., Akyüz E., Turan O., Arslan Ö.

OCEAN ENGINEERING, vol.231, 2021 (SCI-Expanded)

V. An interval type-2 fuzzy SLIM approach to predict human error in maritime transportation
Erdem P., Akyüz E.
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VI. Analyzing human error contributions to maritime environmental risk in oil/chemical tanker ship
AYDIN M., Camliyurt G., Akyüz E., Arslan Ö.
HUMAN AND ECOLOGICAL RISK ASSESSMENT, vol.27, pp.1838-1859, 2021 (SCI-Expanded)

VII. Application of fuzzy bow-tie risk analysis to maritime transportation: The case of ship collision during the STS operation
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OCEAN ENGINEERING, vol.217, 2020 (SCI-Expanded)

VIII. Application of fuzzy logic to fault tree and event tree analysis of the risk for cargo liquefaction on board ship
Akyüz E., Arslan Ö., Turan O.
APPLIED OCEAN RESEARCH, vol.101, 2020 (SCI-Expanded)

IX. Analysis of performance influence factors on shipboard drills to improve ship emergency preparedness at sea
Tac B. O., Akyüz E., Çelik M.
INTERNATIONAL JOURNAL OF SHIPPING AND TRANSPORT LOGISTICS, vol.12, pp.92-116, 2020 (SSCI)

X. An interval type-2 fuzzy QUALIFLEX approach to measure performance effectiveness of ballast water treatment (BWT) system on-board ship
DEMİREL H., Akyüz E., ÇELİK E., ALARÇİN F.
SHIPS AND OFFSHORE STRUCTURES, vol.14, no.7, pp.675-683, 2019 (SCI-Expanded)

XI. Application of human reliability analysis to repair & maintenance operations on-board ships: The case of HFO purifier overhauling
Kandemir Ç., Çelik M., Akyüz E., Aydin O.
APPLIED OCEAN RESEARCH, vol.88, pp.317-325, 2019 (SCI-Expanded)

XII. Statistical modelling of ship operational performance monitoring problem
Söner Ö., Akyüz E., Çelik M.
JOURNAL OF MARINE SCIENCE AND TECHNOLOGY, vol.24, no.2, pp.543-552, 2019 (SCI-Expanded)

XIII. Application of Fuzzy Fault Tree Analysis (FFTA) to maritime industry: A risk analysing of ship mooring operation
Kuzu A. C., Akyüz E., Arslan Ö.
OCEAN ENGINEERING, vol.179, pp.128-134, 2019 (SCI-Expanded)

XIV. Prediction of human error probabilities in a critical marine engineering operation on-board chemical tanker ship: The case of ship bunkering
Akyüz E., Çelik M., Akgun I., Çiçek K.
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XV. A quantitative risk analysis by using interval type-2 fuzzy FMEA approach: the case of oil spill
Akyüz E., ÇELİK E.
MARITIME POLICY & MANAGEMENT, vol.45, no.8, pp.979-994, 2018 (SSCI)

XVI. Use of tree based methods in ship performance monitoring under operating conditions
Söner Ö., Akyüz E., Çelik M.
OCEAN ENGINEERING, vol.166, pp.302-310, 2018 (SCI-Expanded)

XVII. An interval type-2 fuzzy AHP and TOPSIS methods for decision-making problems in maritime transportation engineering: The case of ship loader
ÇELİK E., Akyüz E.
OCEAN ENGINEERING, vol.155, pp.371-381, 2018 (SCI-Expanded)

XVIII. APPLICATIONS OF MARPOL RELATED WITH OIL SPILL IN TURKEY
Akyüz E., Arslan Ö., İNCAZ S.
OIL SPILL ALONG THE TURKISH STRAITS SEA AREA; ACCIDENTS, ENVIRONMENTAL POLLUTION, SOCIO-

ECONOMIC IMPACTS AND PROTECTION, vol.47, pp.356-362, 2018 (SCI-Expanded)

XIX. **INTERNATIONAL CONVENTION FOR THE PREVENTION OF POLLUTION OF THE SEA BY OIL (OILPOL), 1954 AND ITS SITUATION RELATED WITH TURKEY**
Akyüz E., Çelik M., Söner Ö.
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Articles Published in Other Journals

I. **A Comparative Research of Machine Learning Impact to Future of Maritime Transportation**
AKYÜZ E., ÇİÇEK K., ÇELİK M.
Procedia Computer Science, vol.158, pp.275-280, 2019 (Scopus)

II. **Gemi Operasyonlarında Acil Durum Yönetimi Etkinliğini Değerlendirme ve İyileştirme Üzerine Uygulamalı Bir Araştırma Yaklaşımı Önerisi**
ÖZTÜRK TAÇ B., AKYÜZ E., ÇELİK M.
Journal of Transportation and Logistics, vol.3, pp.93-108, 2018 (Peer-Reviewed Journal)

Books & Book Chapters

I. **International convention for the prevention of pollution of the sea by oil (OILPOL), 1954 and its situation related with Turkey**
AKYÜZ E., ÇELİK M., SÖNER Ö.
in: Oil spill along the Turkish straits sea area: accidents, environmental pollution, Ünlü, S., Alpar, B., Öztürk, B., Editor, Turkish Marine Research Foundation, pp.334-341, 2018

II. **Maritime Environmental Disaster ManagementUsing Intelligent Techniques.**
AKYÜZ E., İLBAHAR E., ÇEBİ S., ÇELİK M.
in: Intelligence Systemsin EnvironmentalManagement Theoryand Applications, Kahraman, C., Ucal, Sarı, I. , Editor, Springer, pp.135-159, 2016

Refereed Congress / Symposium Publications in Proceedings

I. **Future Skills Requirements Analysis in Maritime Industry**
ÇİÇEK K., AKYÜZ E., ÇELİK M.
3rd World Conference on Technology, Innovation and Entrepreneurship (WOCTINE), İstanbul, Turkey, 21 - 23 June 2019, pp.270-274

II. **A Comparative Research of Machine Learning Impact to Future of Maritime Transportation**
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III. **Using Weka Data-Mining Analysis To Determine Ship EmergencyPreparedness Level In Case Of Fire**
Ozturk Tac B., ÇELİK M., AKYÜZ E.
Future Learning 2018 (7th International Conference on "Innovations in Learning for the Future": Digital Transformation inEducation), İstanbul, Turkey, 11 September 2019 - 24 September 2018

IV. **Using WEKA data-mining analysis to determine ship emergency preperedness in case of fire**
ÖZTÜRK TAÇ B., ÇELİK M., AKYÜZ E.
7th International Conference on Innovations in Learning for the Future 2018: Digital Transformation in Education, 11 - 14 September 2018

V. **Developing a maritime course on human reliability assessment in shipboard operations via problem-**

based gaming practices.
AKYÜZ E., ÇELİK M., ÇİÇEK K.
International Congresses on Education 2018, 28 June - 01 July 2018

VI. **A continuing professional development program on designated person ashore (DPA) position in ship management companies.**
AKYÜZ E., ÇİÇEK K., ÇELİK M.
International Congresses on Education 2018, 28 June - 01 July 2018

VII. **Investigation the availability of large-scale data sets in existing ships to conduct performance analysis under operational conditions, April 23-25, 2018, Istanbul, Turkey.**
SÖNER Ö., AKYÜZ E., ÇELİK M.
3rd International symposium on naval architecture and maritime (INT-NAM 2018), 23 - 25 April 2018

VIII. **Investigation the Availability of Large-Scale Data Sets in Existing Ships to Conduct Performance Analysis Under Operational Conditions.**
SÖNER Ö., AKYÜZ E., ÇELİK M.
INT-NAM 2018 (3rd International Naval Architectureand Maritime Symposium), İstanbul, Turkey, 24 - 25 April 2018

IX. **Gemi İşletmeciliğinde Acil Durum Yönetimi Etkinliğini Değerlendirme Ve İyileştirme Üzerine Uygulamalı Bir Araştırma Yaklaşımı Önerisi**
TAC B., AKYÜZ E., ÇELİK M.
Ulaştırma ve Lojistik Ulusal Kongresi, Turkey, 26 - 27 October 2017, pp.31

X. **A Fuzzy SLIM Based Quantitative Risk Analysis in Maritime Transportation Engineering**
ÇELİK E., AKYÜZ E.
The 5th International Fuzzy System Symposium (FUZZYSS'17), Ankara, Turkey, 14 - 15 October 2017, pp.29

XI. **An artificial neural network (ANN) model to predict fresh water consumption on-board ship in maritime transportation.**
ÇELİK E., AKYÜZ E.
12th International Silk Road Scientific Conference, Georgia, 19 - 20 May 2017

XII. **Reviewing of seafarers' rights by adopting cognitive mapping approach under Maritime Labour Convention.**
AKYÜZ E.
12th International Silk Road Scientific Conference, Georgia, 19 - 20 May 2017

XIII. **User interfaces design to introduce a risk based approach in maritime transportation**
Orhan C., AKYÜZ E.
11th Silk Road International Conference Innovationsin Business, Education and Science, Tbilisi, Georgia, 20 May - 21 September 2016

XIV. **An analytic assessment of ship energy efficiency in maritime transportation engineering**
AKYÜZ E.
ICAT 16: International Conference on Advanced Technology & Sciences, Konya, Turkey, 1 - 03 September 2016, pp.258-265

XV. **Analytic hierarchy process extended with internal type 2 fuzzy sets to assess potential environmental impacts of ship recycling process**
ÇELİK E., AKYÜZ E.
2nd International Conference on Engineering and Natural Sciences (ICENS 2016), Sarajevo, Bosnia And Herzegovina, 24 - 28 May 2016

XVI. **An integrated approach for shiploader selection during dry bulk cargo terminal installation in maritime transportation engineering**
AKYÜZ E., ÇELİK E.
International Conference on Modern Trends in Engineering & Technology (MTET-16), İstanbul, Turkey, 18 - 19 April 2016, pp.129-133

XVII. **Fuzzy based human reliability assessment upon cargo discharging operation on board chemical tanker ship**

AKYÜZ E., ÇELİK E.

The 4th International Fuzzy Systems Symposium (FUZZYSS'15), İstanbul, Turkey, 5 - 06 November 2015, pp.178-184

XVIII. **Risk Assessment of Hydraulic Hatch Covers On Board Dry Bulk Cargo Ships by Using FMEA Technique**

AKYÜZ E.

The 5th Multidisciplinary Academic Conference in Prague 2015 (The 5thMAC in Prague 2015), Prag, Czech Republic, 16 - 17 October 2015, pp.1-9

Metrics

Publication: 82
Citation (WoS): 1200
Citation (Scopus): 1250
H-Index (WoS): 23
H-Index (Scopus): 25

Non Academic Experience

Bulk Atlantik Inc.
Transatlantik Denizcilik
Metropole Denizcilik
SBB Shipping
Arkas Denizcilik
ZIM Line
İnce Denizcilik