

Sima Rastayesh

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Have been in Denmark from May 2016



SUMMARY

My strong theoretical skills in complex systems calculations coupled with powerful analytical mind in the field of Reliability, condition monitoring and maintenance have now blended with my research background, made me a high qualified engineer in the field of risk assessment. As a person, I am a team player with good communication skill. I have already demonstrated my technical skills with a positive and proactive approach, and I am capable of keeping perspective in hectic situations with having a sense of humor.

EDUCATION & ACADEMIC BACKGROUND

M.Sc. Degree in Nuclear Engineering Branch Reactor Engineering (Sep. 2011-Sep. 2013)
Science and Research Branch, Islamic Azad University, Tehran, Iran
Average: **17 out of 20** Thesis Grade: **19.90 out of 20**

B.Sc. Degree in Nuclear Engineering (Sep. 2007- Sep. 2011)
Science and Research Branch, Islamic Azad University, Tehran, Iran
Average: **15.60 out of 20** Thesis Grade: **20 out of 20**

AWARD/ SCHOLARSHIP

- 3rd ranking on average in M.Sc. program among 26 students, Nuclear Engineering Department, Science and Research Branch, Islamic Azad University
- 5th ranking on average in B.Sc. program among 113 students, Nuclear Engineering Department, Science and Research Branch, Islamic Azad University
- Eligible for research based PhD in Science and Research Branch Islamic Azad University of Tehran in nuclear energy engineering (100% Scholarship)

MASTER THESIS DETAIL

Thesis Topic: Thesis on Dynamic Reliability Assessment for Bushehr Nuclear Power Plant Emergency Diesel Generators 2013
Supervisors: Dr. Mohammad Pourgol-Mohammad and Dr. Kamran Sepanloo
Advisor: Dr. Masoud Mansouri

WORK EXPERIENCE

- Science and Research Branch Islamic Azad University of Tehran
Technical Assistant of Dr. Dariush Sardari Sep. 2011-Sep. 2012
- Daneshestan Institute of Higher Education
Technical Assistant of Dr. Kamran Sepanloo (Head of institute) Sep.2012-Sep.2015

RESEARCH & PUBLICATION

❖ Books:

- ✓ Title: *Probabilistic Safety Assessment* (book in Persian)
Publisher: Nuclear Science & Technology Research Institute
Authors: Kamran Sepanloo, Sajjad Bahrebar, Sima Rastayesh
Forthcoming Publication in 2017
- ✓ Title: *Lessons Learned from Fukushima Accident* (book in Persian)
Publisher: Nuclear Science & Technology Research Institute
Authors: Kamran Sepanloo, Ehsan Zarifi, Sajjad Bahrebar, Sima Rastayesh
Forthcoming Publication in 2017

❖ ISI paper:

- ✓ Articles were accepted and published in **Indian Journal of Scientific Research:**
 - Time Dependent Reliability of Emergency Diesel Generator Station
 - Dynamic Availability Assessment on Tehran Research Reactor Water Cooling System
 - Analysis of Reliability of Cooling System of Tehran Nuclear Research Reactor by Determination of Importance and Sensitivity
- ✓ Articles were accepted and published in **International Journal of Current Life Sciences:**
 - Importance Analysis of a Typical Diesel Generator using Dynamic Fault Tree
 - Management of the Risk of Human Error on Critical Accidents in Tehran Research Reactor
- ✓ Article was accepted and published in **International Journal of Current Engineering and Technology:**
 - Engineering Learning in the Assessment of Human Error Probability

❖ ISC paper:

- ✓ Article was accepted and published in **International Journal of Industrial Engineering & Production Research:**
 - Assessment of Human Error and Impact of Learning Theory on Reliability of Tehran Research Reactor Cooling System

CONFERENCE

- ✚ Oral presentation at the **6th International Conference on Integrated Natural Disaster Management, Mashhad, Iran, February 15th-16th, 2015:**
 - Performance Assessment of Disaster Management in Fukushima Accident and Lessons from the Safety Analysis of Accident
- ✚ Oral presentations at the **3rd International Reliability Engineering Conference (IREC2014), Amirkabir University of Technology, Tehran, Iran, held on February 4th, 2014:**

- Ageing Effect on Availability of a Typical Emergency Diesel Generators using Dynamic Reliability Block Diagram
- Human Error Risk Assessment of Cooling System Tehran Research Reactor Using HEART Method and Implementation of RELAB Code
- ✚ Oral presentations at **5th national safety and management engineering HSE conference, Sharif University of Technology, Tehran, Iran**, March 4-6, 2014
 - Analysis of Human Error Factors on Important Accidents of Tehran Research Reactor
 - Dynamic Availability Assessment and Importance analysis in safety of cooling system of Tehran Research Reactor
- ✚ Oral presentation at the **10rd International Industrial Engineering Conference (IIEC2014), University of Tehran, Iran**, held on January 27th and 28th, 2014:
 - Learning Theory Investigation of Human error in Tehran research reactor
- ✚ Oral presentation at the **5th International Conference on Integrated Natural Disaster Management, Tehran, Iran**, February 23th-24th, 2014:
 - Risk Management of Human Error Using Learning Assessment in Critical Accidents of Tehran Research Reactor
- ✚ Oral presentations at **1st national conference of Iran mechanical engineering, Shiraz, Iran**, February 27th, 2014:
 - Time Dependent Reliability of Emergency Diesel Generator Station
 - Importance Analysis of a Typical Diesel Generator using Dynamic Fault Tree
 - Dynamic Availability Assessment on Tehran Research Reactor Water Cooling System
 - Analysis of Reliability of Cooling System of Tehran Nuclear Research Reactor by Determination of Importance and Sensitivity
- ✚ Oral presentation at **International Conference on Energy, Environment, Sustainable Development, World Academy of Science, Engineering and Technology, Bangkok, Thailand**, March 29-31, 2011:
 - The Comparative Investigation and calculation of Thermo-Neutronic parameters on Two Gens II and III Nuclear Reactors with Same Powers
- ✚ Oral presentation at **International Conference on ASME 2014 International Mechanical Engineering Congress & Exposition, Montreal, Canada**, November 14-20, 2014.
 - Assessment of the Impact of Human Error on the Availability of Emergency Diesel Generator of a VVER1000 Using Dynamic Method
- ✚ Oral presentation at **3rd Comprehensive Conference on Disaster Management & HSE, University of Tehran, Iran**, 16-17 May, 2016:
 - Analysis and the Role of HSE Management of Japan's Nuclear Accident

POSTER

- ✚ Poster at **ASME 2013 International Mechanical Engineering Congress & Exposition, USA**, November 15-21, 2013;
 - Dynamic Reliability Modeling for Nuclear Power Plant Emergency Diesel Generators
- ✚ Poster at **5th national safety and management engineering HSE conference Sharif University of Technology, Tehran, Iran**, 4th to 6th, March, 2014:
 - Comparative Investigation of Dynamic and Classic Reliability to Enhance Safety on Cooling System of Tehran Research Reactor Using BLOCKSIM Software
- ✚ Poster at the **International Conference on Management, Economical and Industrial Engineering, Tehran, Iran**, June 16th, 2015:

- Management Lessons Learned from Fukushima Accident in Risk Management of World Nuclear Power Plants
- ✚ Poster presentation at the 4th **International Reliability Engineering Conference (IREC2016), Sahand University of Technology, Tabriz, Iran, 2-4 May, 2016:**
 - Risk Management Analysis Using Probabilistic Safety Assessment

PROFESSIONAL WORKSHOP

- Complex System Reliability and Safety Assessment: Methods, Models & Open Issues, 2016.
- Workshop on Introduction Probabilistic Safety Assessment, 2013.
- **Workshops at University of Tehran, Iran, 2014:**
 - Workshop on modern approaches of safety management, job and environmental health
 - Workshop on general body knowledge of business processes Management
 - Workshop on introduction to business continuity management system based on the standard series ISO-22300
 - Workshop on review of energy management system based on international standards ISO50001:2011
 - Workshop on business continuity on information security based on standard series ISO/IEC 27000
 - Workshop on exact solution approach; an approach for solving industrial engineering mathematical models
- Workshop on Advanced Monte Carlo N-Particle Transport Code (MCNP); 2013.
- Workshop on Direction and physics of low power research reactors; 2012.
- Workshop on Introduction to RELAP 5 Code; 2011.
- Workshop on Monte Carlo N-Particle Transport Code (MCNP); 2011.
- Workshop on Introduction to Simulation Software Package of FLUKA; 2011.
- Workshop on review articles
- Workshop on Advanced Excel
- Workshop on End note
- Workshop on SPSS

COMPUTER SKILL

- Expert in Microsoft office (Excel, Outlook, PowerPoint, Word)
- Working knowledge of MATLAB, End note
- Familiar with Monte Carlo simulation
- BlockSim(professional)
- SAPHIRE(professional)
- RELAB(professional)

REVIEWER

- ✓ **21st International Conference on Nuclear Engineering**
Title: Reliability analysis for power supply system in a typical reprocessing facility based on GO methodology
- ✓ **22nd International Conference on Nuclear Engineering**
Title: Methodology to Evaluate Nuclear Power Plant Vulnerability to Events in the Transmission Grid
Title: Preparing for the Extended Loss of AC (ELAP) Event in the USA

- ✓ **ASME 2014 International Mechanical Engineering Congress & Exposition**
Title: Reliability Analysis of Repairable System with Multiple Fault Modes Based on GO Methodology
Title: Risk Assessment of Emergency Diesel Generator Subject to Design Basis Earthquake Shaking
- ✓ **ASME 2015 International Mechanical Engineering Congress & Exposition**
Title: Kriging-based Reliability Analysis and Variance-based Sensitivity Analysis for an Idler Shaft
- ✓ **Forth International Reliability Engineering Conference 2016**
Title: Dynamic gates safety evaluation using Monte Carlo Simulation
Title: System Reliability when components share loadings and associated Bayes factors for model acceptance
Title: Determining The Optimal Time for Overhaul of Industrial Pumps Using Performance and Economic Analysis

LANGUAGE

English (Fluent)

Persian (native)

Danish (Basic)

AFFILIATION

Member of Young Researchers and Elite Club of Islamic Azad University.

REFEREES

➤ **Mohammad Pourgol-Mohammad**

Assistant Professor, Mechanical Engineering Department Sahand University of Technology, Tabriz, Iran
E-mail: pourgolmohammad@sut.ac.ir

➤ **Kamran Sepanloo**

Associate Professor, Director, National Nuclear Safety Department of AEOI.
E-mail: ksepanloo@aeoi.org.ir

➤ **Mohammad Ali Azarm**

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Email: mazarm@iesscorp.com