

Elena Troubitsyna

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Elena Troubitsyna is an Adjunct Professor at Åbo Akademi University Finland. She is an Academy Research Fellow at Academy of Finland. Her research focuses on methods and tools for design and verification of dependable systems. Elena has done a pioneering work on formal state-based modelling of fault tolerant systems. She is actively involved in creating tools and techniques for correct-by-construction system development, design and verification of safety-critical systems, development and verification of fault tolerant systems and probabilistic verification. Other important strands of Troubitsyna's research include model-driven approaches to development of service-oriented systems and services, integrated approaches to requirements engineering and formal architectural-level reasoning. Elena is also actively involved into the development of formal techniques for quantitative reasoning about safety and reliability.

Elena Troubitsyna is the author of more than 50 peer-reviewed papers. She has co-edited four books on such topics as formal modelling, fault tolerance and dependability. Elena has been a leader of several national projects funded by Academy of Finland. She has been involved in a number of EU projects including FP5 project *MATISSE: Methods and Tools for Industrial Strength System Engineering*, FP6 project *RODIN: Rigorous Open Development Environment for Complex Systems and* FP7 integrated project *Deploy: Industrial deployment of system engineering methods providing high dependability and productivity*. Elena is frequently serving in program committees of international conferences in the area of formal methods and dependability. In 2011 Elena was a Program Committee Chair of SERENE 2011 -- Workshop on Software Engineering for Resilient Systems

Elena Troubitsyna has been actively involved in IARIA conferences over the last five years. She has participated in program committee of such conferences as ICONS, CTRQ, ICSEA. Elena's paper "Formal Specification of Fault Tolerant Distributed Systems in the Action Systems Formalism" presented at CTRQ 2010 received the Best paper award. Elena Troubitsyna is actively involved in various IARIA activities: reviewing publications for IARIA journals, speaking at conferences and panel. Elena is the author (or co-author) of the following IARIA publications

- Elena Troubitsyna. Elicitation and Specification of Safety Requirements. In Proc. of The Third International Conference on Systems ICONS'08, April 2008.
- Elena Troubitsyna. Formal Specification of Fault Tolerant Distributed Systems in the Action Systems Formalism. In Proc. of Third International Conference on Communication Theory, Reliability, and Quality of Service –CTRQ 2010, June 2010.
- Anton Tarasyuk, Elena Troubitsyna and Linas Laibinis. From Formal Specification in Event-B to Probabilistic Reliability Assessment. In *Proceedings of the 3rd International Conference on Dependability -- DEPEND 2010*, July 2010.
- Elena Troubitsyna. Developing Fault Tolerant Distributed Systems by Refinement. In Proc. of Firth International Conference on Software Engineering Advances -- ICSEA 2010. August 2010.
- Elena Troubitsyna. Failure Modes and Effect Analysis of Use Cases: A Structured Approach to Engineering Fault Tolerance Requirements. . In *Proceedings of the 4th International Conference on Dependability -- DEPEND 2011*, August 2011.