



**Institute of Industrial and Systems Engineers  
Quality Control & Reliability Engineering (QCRE) Division  
2021-2022 Webinar Series**

IISE Quality Control & Reliability Engineering (QCRE) division would like to invite you to attend our webinar on Monday, November 29, 1-2 p.m., Eastern Time.

**Zoom Link:** <https://tamu.zoom.us/j/98044774950>

**Meeting ID:** 980 4477 4950

**Time:** Nov. 29, Monday, 1-2 p.m., Eastern Time.

Click to add this event to your [Google calendar](#)

**Title: Intelligent Risk Management by Artificial Intelligence**

**Presenter:** Dr. Enrico Zio

Professor of MINES ParisTech, PSL Research University, CRC, Sophia Antipolis, France.  
Professor of the Energy Department, Politecnico di Milano, Milan, Italy.

**Abstract:** In this lecture, I will dare to state how risk assessment and management can become even more intelligent than it currently is, and underline the main characteristics that the approaches must have to make risk assessment and management intelligent. I will, then, address some research and development directions that are emerging in the area of risk assessment and management supported by knowledge management and intelligence development.

**Biography:** Professor Enrico Zio received the MSc degree in nuclear engineering from Politecnico di Milano in 1991 and in mechanical engineering from UCLA in 1995, and the Ph.D. degree in nuclear engineering from Politecnico di Milano and in probabilistic risk assessment at MIT in 1996 and 1998, respectively. He is currently full professor at the Centre for research on Risk and Crises (CRC) of Ecole de Mines, ParisTech, PSL University, France, full professor and President of the Alumni Association at Politecnico di Milano, Italy, eminent scholar at Kyung Hee University, Republic of Korea, distinguished guest professor at Tsinghua University, Beijing, China, adjunct professor at City University of Hong Kong, Beihang University and Wuhan University.



In 2020, he has been awarded the prestigious Humboldt Research Award from the Alexander von Humboldt Foundation, one of the world's most prestigious research awards across all scientific disciplines. The Award has been granted for being a World leading scientist in Risk and Resilience Assessment, Safety Analysis and Reliability Engineering of complex systems and infrastructures, in particular for energy applications. He has been one of the pioneers in using artificial intelligence and evolutionary algorithms in reliability engineering and risk assessment, solving key problems related to the safety and reliability of critical systems such as those used in the nuclear, oil and gas, transportation industries.



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## QUALITY CONTROL & RELIABILITY ENGINEERING DIVISION

In 2021, he has been nominated Ambassador of the 4TU Centre for Resilience Engineering (4TU RE), the knowledge centre in Resilience Engineering of the four universities of technology in the Netherlands (Delft University of Technology, Eindhoven University of Technology, University of Twente and Wageningen University and Research).

Still in 2021, he has been named Fellow of the of the Prognostics & Health Management Society a world recognized scientist in the area of reliability centered, condition based and predictive maintenance.

His research focuses on the modeling of the failure-repair-maintenance behavior of components and complex systems, for the analysis of their reliability, maintainability, prognostics, safety, vulnerability, resilience and security characteristics, and on the development and use of Monte Carlo simulation methods, artificial intelligence techniques and optimization heuristics. He is author and co-author of seven books and more than 500 papers on international journals, Chairman and Co-Chairman of several international Conferences, associate editor of several international journals and referee of more than 20.

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