

# NEW INTERNATIONAL ERGONOMICS ASSOCIATION (IEA) TECHNICAL COMMITTEE ON RESILIENCE ENGINEERING



## Announcement

The IEA announced the establishment of a new technical committee on Resilience Engineering in its IEA NewsBriefs, January 2022. Examples of some of the topics of interest for this Technical Committee include resilient performance, Safety II, RE and safety management, measuring and modelling complex sociotechnical systems, and the design and management of resilient procedures, policies and rules.

## Background

Socio-technical systems have grown larger and more interconnected, implying higher levels of complexity that challenge existing theories and methods based on linear thinking. Resilient performance, which is the systems property that enables adaptation and survival in face of both expected and unexpected circumstances, is paramount under high complexity conditions. Resilient performance is emergent, partly arising from the self-organization of people who fill out gaps in work system design and partly from resources designed ahead of time. These two dimensions of RP interact with each other as well as with several performance dimensions of socio-technical systems such as safety, productivity, quality, sustainability, and reliability.

Resilience engineering is a thriving field concerned with understanding and influencing RP in a variety of sectors such as healthcare, aviation, maritime, software engineering, manufacturing, and construction, among others. For that purpose, RE has developed new theories and methods, often re-interpreting existing human factors and ergonomics approaches. In line with core human factors and ergonomics values, RE is systems-oriented and regards variability as an inevitable portion of everyday work, which is responsible for both desired and undesired outcomes.

## Technical Committee's Objectives

- Contribute to IEA conferences and other relevant conferences with special sessions, workshops, papers, and group meetings on resilience engineering
- Collect and share educational materials (e.g., lectures, videos, serious games) on resilience engineering.
- Foster the dialogue of resilience engineering practitioners and academics with the broader human factors and ergonomics community.
- Support international collaboration on resilience engineering, ideally with funded research projects with participants from multiple countries.

## Global Network

The technical committee is presently comprised of ten professionals from six countries: Australia, Brazil, Canada, India, Spain, and UK. Dr. Sanjram Premjit Khanganba is working on human error and safety related issues from the perspective of applied cognition. In the committee's forthcoming inaugural meeting, the committee will discuss activities for 2022 and beyond.

## IEA and URLs

The International Ergonomics Association is a global federation of human factors/ergonomics societies, registered as a nonprofit organization in Geneva, Switzerland.

- <https://iea.cc/>
- <https://iea.cc/member/resilienceengineering/>