



Professor Giovanni Sansavini

«Find out what attracts you and what you're good at. Embrace failure and be resilient. You will find your success.»

Reliability and Risk Engineering Laboratory

Institute of Energy Technology

My lab's research aims to develop fundamental understanding, techno-economic models and hybrid analytical and computational tools for addressing the societal and technical challenge of a safe transition to renewable and sustainable energy systems.

Focus

- Resilient electric and gas networks for increasing renewables
- Power-to-gas and network seasonal storage of green fuels
- Water-energy nexus mitigation for electr. energy conversion
- Impact of cyber interdependencies in energy systems

Tools and methods

Physics-based energy networks and systems modelling/ simulation; stochastic and risk modelling; Monte Carlo simulation; mathematical optimization; heuristics; code development; numerical methods; data-driven modelling

Further details online:

www.rre.ethz.ch

