

## Special Session Proposal

**Title:**

**Climate Change and Extreme Weather Events Impacts on Critical Infrastructure Risk and Resilience**

**Organizer(s):**

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**Motivation:**

Economic and social consequences of natural disasters such as surface flooding, river flooding, landslide, heat wave, wildfire, hurricanes, droughts, coastal flooding, have gained significant national and international attention in the last decades, due to their increasing frequency and intensity, driven by climate change. Understanding and managing the risk of disasters has become a priority, and in particular, building more resilient critical infrastructures providing essential services, such as transport, energy, water. However, assessing the resilience of spatially-distributed critical infrastructures in the context of climate change is a complex and challenging task due to the uncertainties associated with extreme climate hazards, critical infrastructures exposure, performance of response and recovery measures, interdependencies and complexities of the critical infrastructures.

**Objective:**

The aim of this Special Session is to provide an opportunity for researchers and practitioners to exchange knowledge and experience in fields relevant to the risk and resilience assessment of critical infrastructures, taking into account climate change. Related topics are:

- 1) Natural hazards as stressors of critical infrastructures;
- 2) Natural hazards risk and susceptibility maps;
- 3) Spatial/temporal modelling and simulation of extreme climate events;
- 4) Climate change and its impact on critical infrastructure resilience;
- 5) System-of-system approach to risk and resilience assessment of interdependent critical infrastructures;
- 6) Climate change adaptation for resilient infrastructures;
- 7) Disaster response and recovery strategies for critical infrastructures;
- 8) Infrastructure planning and climate projections;
- 9) Risk and vulnerability assessment of urban areas to climate-induced hazards;
- 10) Resilient societies and community-based approaches to resilience management.