



**NANYANG  
TECHNOLOGICAL  
UNIVERSITY**  
SINGAPORE



**French Chamber  
Singapore**

You are cordially invited to the seminar organised by Protective Technology Research Centre (PTRC) and the French Chamber of Commerce in Singapore.

## **Seminar on How to Make Infrastructures and Cities Resilient towards Climate Change**

### **Abstract:**

In emerging economies, climate change threatens the development role of infrastructures. Climate change is affecting all types of infrastructures, such as energy, transport, water and more generally buildings. Rising temperatures, increasing flood risks, and other climate hazards are already stressing reliable and efficient operations of these networks, thus leading to large economic and social impacts. Roads, airports, water systems, and power plants are vulnerable to weather changes. Severe storms and major droughts can disrupt economic activity.

Infrastructure projects are more and more managed through public-private partnerships that involve a diversified set of stakeholders (public and private sector, investors, and civil society). They are now urged to address climate change risks and uncertainty when planning, building and operating these projects. Nevertheless, such a challenge can be addressed through innovative tools and approaches. Adopting a resiliency lens leads to improved design, site selection and operations of infrastructures. It ensures territories and cities anticipate and adapt to climate change.

Our lecture will provide a technical action framework towards policymakers, that is encompassing insurance, normalisation, and finance. Such construction engineering tools and methodologies ensure that existing and future infrastructures will become more resilient to climate change. The lecture will introduce the global context of resilience (stakes, institutional framework and stakeholders), define the engineering of resilience, and provide international best practices.

### **Speaker:**

**Dr Karim SELOUANE** has founded and is leading the RESALLIANCE design office since 2018, which originates from the LEONARD my VINCI intrapreneur program. RESALLIANCE is dedicated to adapting cities, territories, infrastructures and their use to climate change. <http://www.resalliance.com>

Dr Selouane has 15 years of experience in the industry (ADPS-ONHYM, VEOLIA, Spie Oil & Gas), consulting (SOFRECO) and academia, with responsibilities covering engineering, project management, innovation, research and teaching. For 4 years (2002 to 2006), Dr Selouane provided support to Western Saharan states on management strategies and associated climate risks within the "Observatory (ad hoc) of African Urban Environments".

Dr Selouane is a Doctor and Engineer from the École des Mines de Paris. His doctoral thesis was on "Climatic and Morpho-Sedimentary Dynamics of the Atlantic Sahara in the Face of the Vulnerability of Developments and Infrastructure." He also holds a Geomatics Engineering degree ("Geographical Information Sciences") from the École Nationale des Sciences Géographiques.

**Date:** 25 Oct 2018 (Thursday)

**Time:** 9.30am to 11.30am

**Venue:** CEE Seminar Room A, Block N1, Level B1, N1-B1b-06

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