

## Nuclear Technology Public Seminar

# Recent Severe Accident Research and Development in Europe



Date: 27 October 2016 (Thursday)

Time: 6:00pm– 7:45 pm

Venue: Room B5211, 5/F, Academic 1 Building, City University of Hong Kong

Registration: On-line free registration is via,

<http://www.hkarms.org/Registration/EventRegister.php?Event=74>  
on a first-come-first-served basis.

For enquiries, please contact Dr Louis Liu, [info@hkns.hk](mailto:info@hkns.hk)

### Talk 1: Overview of LWR Severe Accident Research Activities at the Karlsruhe Institute of Technology

**Dr. Alexei Miassoedov,**

Group Leader, Accident Analysis (UNA), Institute for Nuclear and Energy Technologies (IKET), Karlsruhe Institute of Technology (KIT), Karlsruhe, Germany

### Talk 2: Severe Accident Facilities for European Safety Targets (SAFEST) Project Roadmap Activities and Overview of CEA Severe Accident Research

**Dr. Christophe Journeau,**

International Expert, Severe Accident Physics and Modelling Laboratory (SMTA/LPMA), Atomic Energy and Alternative Energies Commission (CEA), Cadarache, France

Attendance/CPD Certificate will be provided

Supporting Organisations:

# **Nuclear Technology Public Seminar**

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### **Talk 1: Overview of LWR Severe Accident Research Activities at the Karlsruhe Institute of Technology**

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Group Leader, Accident Analysis (UNA), Institute for Nuclear and Energy Technologies (IKET), Karlsruhe Institute of Technology (KIT), Karlsruhe, Germany

#### **Abstract**

The research activities in the light water reactor (LWR) severe accidents domain at Karlsruhe Institute of Technology (KIT) are concentrated on the in- and ex-vessel core melt behavior. The overall objective is to investigate the core melt scenarios from the beginning of core degradation to melt formation and relocation in the vessel, possible melt dispersion to the reactor cavity and to the containment, corium concrete interaction and corium coolability in the reactor cavity, and hydrogen behaviour in reactor systems. The results of the experiments contribute to a better understanding of the core melt sequences and thus improve safety of existing and, in the long-term, of future reactors by severe accident mitigation measures and by safety installations where required. This presentation describes the experimental facilities used at KIT for severe accident research and gives an overview of the main directions and objectives of the R&D work.

## **Talk 2: Severe Accident Facilities for European Safety Targets (SAFEST) Project Roadmap Activities and Overview of CEA Severe Accident Research**

**Dr. Christophe Journeau,**

International Expert, Severe Accident Physics and Modelling Laboratory (SMTA/LPMA), Atomic Energy and Alternative Energies Commission (CEA), Cadarache, France

### **Abstract**

Severe accident with core meltdown is a threat to the containment integrity, and is the focus of considerable research involving substantial human and financial resources worldwide due to many challenging phenomena, complicated by high temperatures and presence of radioactive materials. The unique SAFEST Project Integrates European severe accident research facilities into a pan-European laboratory for severe accident and corium studies, and provides resources to other European partners for better understanding of possible accident scenarios and phenomena, in order to improve safety of existing and, in the long-term, of future reactors. The SAFEST Project will be able to address and resolve the variety of the remaining severe accident issues related to accident analysis and corium behavior. It will be a valuable asset for the fulfilment of the severe accident R&D programs that are being set up after Fukushima and the subsequent European stress tests. The knowledge obtained in SAFEST shall lead to improved severe accident management measures, which are essential for reactor safety - In addition it will offer competitive advantages for the nuclear industry and contribute to the long-term sustainability of nuclear energy. Dr. Journeau will also have an overview of severe accident research activities in Atomic Energy and Alternative Energies Commission (CEA).

## Campus Map

[Getting to CityU](#)
[Department](#)
[Building](#)
[Venue](#)
[Useful Links](#)

### Building

Academic 1

#### Academic 1

Address:- Tat Chee Avenue,  
Kowloon, Hong Kong SAR

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### How to get to Academic 1 -

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Arrived at Pedestrian Subway	Arrived at University Circle
<ol style="list-style-type: none"> <li>When you get off the MTR, look for Festival Walk exit.</li> <li>In Festival Walk, on Level LG1, there is a Pedestrian Subway which will lead you to CityU campus.</li> <li>After walking through the Pedestrian Subway, go straight and you will see the Academic 1 in front of you.</li> </ol>	<ol style="list-style-type: none"> <li>When you drop off at the University Circle, go along the covered walkway which will lead you to the Academic 1.</li> <li>Walk through the red doors, you will be on the 4th floor of Academic 1.</li> </ol>