# Large-scale fluvial hydraulics experiments

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**Presenters**
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**Description**

**Body**
**Maximum words: 1,000 including headings**
1) Short Description
This special session is a place to share experiment-based research achievements in the fluvial hydraulics field as well as some works performed using a real-scale experiment channel. These include research results derived from flow-vegetation interactions and flow resistance, hydraulic instrumentation using the latest technologies, physical model studies and full-scale levee failure experiments.

2) Objectives
The latest research results conducted in lab- and real-scale river experiments are to be presented. They will contribute to expand knowledge on fluvial hydraulics and can be transferred via field experiences to river engineering and management.

3) Justifications
The lab- and real-scale channel/fluvial/hydraulic experiments can be usefully used in river hydraulics research as a scientific and engineering tool. Especially real-scale experiments can solve the scale effect and limitation that most of the model or lab-scale experimental study has. The lab- and real-scale experiments are to be used mutually with field investigation to bridge the gap between theory and practices to real rivers.

4) Projected outcomes
The latest research results conducted in lab- and full-scale river experiments are presented, raising the need for international cooperation for large-scale experimental research in the field of river hydraulics.

5) Alignment with Congress
Since most of the world's population lives near rivers, flood and riverine landscape changes due to vegetation have a direct impact on water disaster management and are one of the major areas of water management.

6) Titles of talks
a. Introduction of KICT-REC and its recent experimental studies

b. Hydrolytic Erosion in Overtopping Breach of Cohesive Embankments
c. A full-scale Test on Levee Breach due to Overtopping in REC
d. Brief Introduction of the Ujigawa Open Laboratory, Kyoto University – its unique research and outreach activities –
e. Field test and validation of an image-based surface velocimetry along a large-scale experiment facility
f. A Study on the Spatial Distribution of Suspended Sediment Considering Channel Flow Characteristics