IRALL SCHOOL 2017 15TH-27TH OCTOBER 2017 CHENGDU. CHINA



iRALL School 2017

"Field data collection, monitoring and modelling of large landslides"

15th-27th October 2017, Chengdu, China

"iRALL" The International Research Association on Large Landslides, is an international non-governmental, non-political, non-profit-making and unaffiliated institution for the promotion of knowledge about large landslides founded on 11th November 2015. The scientific committee consists of international experts in the field of large landslides. The secretariat of iRALL is located at the State Key Laboratory of Geohazard Prevention and Geoenvironment Protection (SKLGP), Chengdu University of Technology, Chengdu, China.

The objectives of iRALL are to promote:

- Cooperation and exchange of knowledge among scientists and engineers working on large landslides
- The dissemination of scientific knowledge of large landslides
- The mitigation of risks associated with large landslides and their consequences

iRALL Chairman:

Dr. Runqiu HUANG, Chengdu University of Technology, China <u>Vice Chairmen:</u> Dr. Mauri MCSAVENEY, GNS Science, New Zealand Dr. Alexander STROM, Geodynamics Research Center, JSC "Hydroproject Institute", Russia Dr. David PETLEY, University of Sheffield, UK Dr. Gonghui WANG, Kyoto University, Japan <u>Secretaries</u> Dr. Wei HU, Chengdu University of Technology, China Dr. Xuanmei FAN, Chengdu University of Technology, China

iRALL offers annually a 2 weeks high-level course, the "iRALL School", focusing on investigation, analysis, and management of large landslides for Ph.D students and postdocs from all over the world, with international experts on the research of large landslides as teaching staff.

The <u>iRALL School 2017</u> focuses on "Field data collection, monitoring and modelling of large landslides" and will be organized from 15th-27th October 2017, in Chengdu, China

Hosting Institution for the iRALL School 2017

State Key Laboratory of Geohazard Prevention and Geoenvironment Protection (SKLGP) of the Chengdu University of Technology (CDUT), Chengdu, Prov. Sichuan, China. CDUT has excellent facilities, including lecture rooms, computer rooms, laboratories, and a guesthouse. Most part of the program of the iRALL School 2017 will be conducted in the new conference center in the nearby New Beichuan area where 60 000 landslides were generated during the great 2008 Wenchuan earthquake.

Topics taught in the 2017 iRALL School:

- 1. Occurrence of large/giant landslides:
 - Types (rock avalanches, large rockslides, debris avalanches, etc.)
 - Identification criteria
 - Geological context (morpho-structural setting, lithology, etc.).
- 2. Investigation and mapping of large landslides
 - Characterization and mapping
 - Surface and subsurface data collection
 - Monitoring (in-situ, remote) of movement
- 3. Initiation and movement mechanism of large landslides
 - Initiation mechanisms
 - Triggers
 - Runout analysis and modeling
- 4. Monitoring and early-warning of large landslides
- 5. Mitigation, prevention and protection strategies for large landslides
 - Hazard and risk analysis
 - Risk scenarios
 - Risk prevention and mitigation
 - Early warning
- 6. Disaster-chain effects

During 3 days of fieldwork, each with a different theme, and supervised by the teaching staff of the iRALL School 2017, the participants can apply in a small group the acquired knowledge in the area hit by the 2008 Great Wenchuan Earthquake.

Theme 1: Field inventory and mapping of a very large landslide

Theme 2: A giant landslide from the inside

Theme 3: Resonance seismic delineation of a large landslide body

Teaching staff of the iRALL School 2017

Dr. Wei HU, Chengdu University of Technology, China (Course director)

Dr. Xuanmei FAN, Chengdu University of Technology, China (Course director)

Dr. Hans-Balder HAVENITH, University of Liege, Belgium

Dr. Runqiu HUANG, Chengdu University of Technology, China

Dr. Hengxin LAN, Academy of Sciences, Beijing, China

Dr. Vaughan GRIFFITHS, Colorado School of Mines, USA

Dr. Mauri MCSAVENEY, GNS Science, New Zealand (Emeritus)

Dr. Niek RENGERS, ITC, University of Twente, the Netherlands (retired)

Dr. Theo VAN ASCH, University of Utrecht, the Netherlands (retired)

Dr. Cees VAN WESTEN, ITC, University of Twente, the Netherlands

Dr. Gonghui WANG, Kyoto University, Japan

- Dr. Yunsheng WANG, Chengdu University of Technology, China
- Dr. Janusz WASOWSKI, CNR, IRPI, Bari, Italy
- Dr. Qiang XU, Chengdu University of Technology, China
- Dr. Xiujun DONG., Chengdu University of Technology, China

Application and registration:

The iRALL School is intended for 20 Ph.D students that are carrying out research in the field of landslide hazards, risks and related fields and a maximum of 10 doctors/postdocs who have obtained their Ph.D degree not earlier than 2012. The participants should have a solid background in one of the following fields: Geology, Engineering Geology, Geotechnical Engineering, Geography, Civil Engineering, Environmental Engineering, Engineering Geology or related Earth science disciplines. Participants must have a good working knowledge of the English language as the iRALL School will be conducted in English.

The costs for participants of the iRALL School of 2017 are as follows:

- No registration fee.
- Ph.D students will have to pay their own travel to Chengdu, China. Cost of accommodation (sharing twin rooms) and field trips will be fully covered by the organizing institute SKLGP.
- Doctors/postdocs will have to pay their own travel to Chengdu, China. They will also have to pay the cost of accommodation (sharing twin rooms) during two weeks (which will be an estimated total amount of 270 US \$ or 250 Euro). Cost of field trips will be fully covered by the organizing institute SKLGP

Application procedure for PhD students and postdocs:

The school is open to 20 Ph.D students and 10 doctors/postdocs, which will be selected after an international call. Applications should be made by sending an application form and by providing a CV (max 2 pages) and 1 or more letters of recommendation.

<u>The deadline for applications is August 1st, 2017</u> and selection of participants will be announced by August 15th, 2017. For information, you can send an email to <u>sklgp_cdut@126.com</u>.

iRALL School website: http://irall.sklgp.com/en/index.html

Attachments: IRALL 2017 application form-phd students.xls IRALL 2017 application form-doctors or postdocs.xls

Brief Summary of the iRALL School 2016

From October 16th to 28th, 2016, 31 doctoral students and young PhD graduates from 10 countries: Austria, Pakistan, India, Belgium, Italy, the Netherlands, New Zealand, Russia, Japan and China (including Hongkong), participated in the International iRALL School 2016. In the two-weeks course (one week in SKLGP, Chengdu and 1 week in the new conference center in the nearby New Beichuan area), participants were taught by experts in the field of landslide disaster prevention and control, from the United States, Italy, New Zealand, the Netherlands, China and Belgium. The course included more than 20 topics, involving theory, case history analysis and field practice, focusing on advanced concepts and techniques in the field of large-scale landslide mechanisms, engineering geological investigation, geophysical exploration and landslide risk assessment. All topics were developed to improve the participants' ability to deal with actual landslide hazards and risks.

For a nicely documented and illustrated report by one of the iRALL School 2016 participants see:

http://paleoseismicity.org/the-great-wenchuan-earthquake-eight-years-on-earthquake-damage-and-coseismiclandslides/



Group photo of the students and teachers in the Beichuan Center



Field trips to the Wenchuan earthquake area



Lectures in the Beichuan center

The main source fault of the Wenchuan earthquake



Landslide investigation



UAV monitoring and analysis

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Attachments:

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- IRALL 2017 application form for Doctors or Postdocs.xls