International Training Workshop on Disaster Risk Reduction Knowledge Service in China-Pakistan Economic Corridor

Workshop Programme

9 Nov - 11 Nov, 2020
Beijing, China (On-line)

China-Pakistan Joint Research Center on Earth Sciences
Overview:

With the globalization and internationalization of the current world, the competition and cooperation among countries and regions in energy, resources, science and technology, economy, etc. are being constantly strengthened. Bordering the "Silk Road Economic Belt" to the north and the "21st Century Maritime Silk Road" to the south, the "China-Pakistan Economic Corridor" is the pilot area and “flagship project” of "the Belt and Road" initiative, involving cooperation in transportation, energy, optical cable and ocean. Influenced by geological, topographic, geomorphological, climatic and hydrological conditions, the natural disasters in the China-Pakistan Economic Corridor are very heavy with ecological environment being extremely fragile, and the carrying capacity of resources extremely limited, which seriously threatens regional sustainable development.

The International Training Workshop on Disaster Risk Reduction Knowledge Service in China-Pakistan Economic Corridor is planned for November 9 - 11, 2020 on-line.

This training program aims to enhance the knowledge and ability of disaster risk reduction, provide a batch of basic data resources, optimize the mechanism and improve the efficiency of data sharing services in the region, promote the international cooperation along the China-Pakistan Economic Corridor and support its green development.

Sponsors

Chinese Academy of Sciences (CAS)
Higher Education Commission of Pakistan (HEC)

Organizers

China-Pakistan Joint Research Center on Earth Sciences (CPJRC)
Institute of Geographic Sciences and Natural Resources Research, CAS
Institute of Mountain Hazards and Environment, CAS
Department of Earth Sciences, Quaid-i-Azam University, Pakistan
Co-hosts

International Knowledge Centre for Engineering Sciences and Technology under the Auspices of UNESCO (IKCEST)

Integrated Research on Disaster Risk International Programme Office (IRDR IPO)

Alliance of International Science Organizations (ANSO)

National Earth System Science Data Center

Venue (on line)

VooV meeting

Test: 06 November (1-5pm UTC+8) ID: 831 225 332

09 November ID: 411558449

10 November ID: 207843813

11 November ID: 118892039

VooV tools download: https://voovmeeting.com/

Note: The maximum number of VooV Meeting is 300.

Contact information

Fenghuan Su E-mail: fhsu@imde.ac.cn

Fangwei Yu E-mail: fwyu@imde.ac.cn

Yuelei Yuan E-mail: yuanyl@lreis.ac.cn, Tel: +86 13693170987

Agenda and registration

Participants are invited to register through the link or QR code below by 8 November 2020.


(Agenda) (Registration)
## Specific Programme

### 09 Nov. On-line (Beijing time UTC+8)

<table>
<thead>
<tr>
<th>Time</th>
<th>Event</th>
<th>Presenter</th>
<th>Institute</th>
</tr>
</thead>
<tbody>
<tr>
<td>14:00 - 15:00</td>
<td>Opening Ceremony</td>
<td>Prof. Qunli HAN</td>
<td>The Integrated Research on Disaster Risk (IRDR-IPO)</td>
</tr>
<tr>
<td>15:00 - 15:50</td>
<td>Integrated Research on Disaster Risk and development safety</td>
<td>Prof. Qunli HAN</td>
<td>Institute of Geographic Sciences and Natural Resources Research, Chinese Academy of Sciences</td>
</tr>
<tr>
<td>15:50 - 17:00</td>
<td>Short break</td>
<td></td>
<td></td>
</tr>
<tr>
<td>17:00-17:50</td>
<td>Earth science big data and knowledge discovery in the Belt and Road Economic Corridor</td>
<td>Prof. Juanle WANG</td>
<td>Aerospace Information Research Institute , Chinese Academy of Sciences (AIR-CAS)</td>
</tr>
<tr>
<td>18:00 - 18:50</td>
<td>Monitoring and Assessment of Desert Locust in Africa and Asia</td>
<td>Prof. Wenjiang HUANG</td>
<td>Aerospace Information Research Institute , Chinese Academy of Sciences (AIR-CAS)</td>
</tr>
<tr>
<td>19:00 - 19:50</td>
<td>Infrared geothermal retrieval of China-Pakistan Economic Corridor</td>
<td>Prof. Qing DONG</td>
<td>Aerospace Information Research Institute , Chinese Academy of Sciences (AIR-CAS)</td>
</tr>
</tbody>
</table>

### 10 Nov. On-line (Beijing time UTC+8)

<table>
<thead>
<tr>
<th>Time</th>
<th>Event</th>
<th>Presenter</th>
<th>Institute</th>
</tr>
</thead>
<tbody>
<tr>
<td>13:00 - 13:50</td>
<td>Assessment of Heat wave risk and its impact on agricultural phenology along the Belt and Road</td>
<td>Associate Prof. Fei YANG</td>
<td>Institute of Geographic Sciences and Natural Resources Research, Chinese Academy of Sciences</td>
</tr>
<tr>
<td>14:00 - 14:50</td>
<td>Risk assessment of geo-hazards</td>
<td>Associate Prof. Fenghuan SU</td>
<td>Institute of Mountain Hazards and Environment, Chinese Academy of Sciences</td>
</tr>
<tr>
<td>15:00 - 15:50</td>
<td>Current status and development of debris flow</td>
<td>Prof. Jiangang CHEN</td>
<td>Institute of Mountain Hazards and Environment, Chinese Academy of Sciences</td>
</tr>
<tr>
<td>Time</td>
<td>Session</td>
<td>Speaker</td>
<td>Institution</td>
</tr>
<tr>
<td>------------</td>
<td>-------------------------------------------------------------------------</td>
<td>-------------------------------------------------</td>
<td>------------------------------------------------</td>
</tr>
<tr>
<td>15:50 - 17:00</td>
<td>Short break</td>
<td></td>
<td></td>
</tr>
<tr>
<td>17:00-17:50</td>
<td>Debris flow formation, monitoring, early warning and forecasting</td>
<td>Associate Prof. Xiaojun GUO</td>
<td>Institute of Mountain Hazards and Environment, Chinese Academy of Sciences</td>
</tr>
<tr>
<td>18:00 - 18:50</td>
<td>Land Degradation Neutrality Assessment with EO Data</td>
<td>Prof. Xiaosong LI</td>
<td>Aerospace Information Research Institute, Chinese Academy of Sciences</td>
</tr>
<tr>
<td>19:00 - 19:50</td>
<td>Detection and application of high-temperature heat sources on the surface</td>
<td>Dr. Caihong MA</td>
<td>Aerospace Information Research Institute, Chinese Academy of Sciences</td>
</tr>
<tr>
<td><strong>11 Nov. On-line (Beijing time UTC+8)</strong></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>13:00 - 13:50</td>
<td>Current Practices of the International Knowledge Centre for Engineering Sciences and Technology under the Auspices of UNESCO</td>
<td>Prof. Chang LIU</td>
<td>Chinese Academy of Engineering</td>
</tr>
<tr>
<td>14:00 - 14:50</td>
<td>Disaster Risk Reduction Knowledge Service System and its application</td>
<td>Prof. Juanle WANG</td>
<td>Institute of Geographic Sciences and Natural Resources Research, Chinese Academy of Sciences</td>
</tr>
<tr>
<td>15:00 - 15:50</td>
<td>Development and construction of the information platform of the China-Pakistan Economic Corridor</td>
<td>Dr. Kun BU / Senior Engineer</td>
<td>Northeast Institute of Geography and Agroecology, Chinese Academy of Sciences</td>
</tr>
<tr>
<td>15:50 - 17:00</td>
<td>Short break</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Time</td>
<td>Session</td>
<td>Presenter(s)</td>
<td>Institution</td>
</tr>
<tr>
<td>--------------</td>
<td>-------------------------------------------------------------------------</td>
<td>---------------------------------------------------------</td>
<td>-----------------------------------------------------------------------------</td>
</tr>
<tr>
<td>17:00-17:50</td>
<td><em>Spatiotemporal analysis of public response to COVID-19 based on social media data</em></td>
<td>Dr. Xuehua HAN</td>
<td>Institute of Geographic Sciences and Natural Resources Research, Chinese Academy of Sciences</td>
</tr>
</tbody>
</table>
| 18:00-19:00  | 1. Questionnaire  
2. Online examination                                         | Ms. Yulei YUAN, Ms. Yujie WANG                         | Institute of Geographic Sciences and Natural Resources Research, Chinese Academy of Sciences |
| 19:00-19:30  | *Summary & Closing Ceremony*                                           |                                                        |                                                                             |
Short introduction of speakers:

**Qunli HAN**, is currently the Executive Director of the Integrated Research on Disaster Risk (IRDR-IPO). He was a former staff member of UNESCO (1990-2017) and served at different positions, including Programme Specialist on environmental sciences, Deputy Director of Asia-Pacific Science Bureau, Director of Tehran Cluster Office (Afghanistan, Iran, Pakistan and Turkmenistan), Director of Executive Office UNESCO’s Natural Science Sector. His last duty in UNESCO was the Director of the Division of Ecological and Earth Sciences and the Secretary of the Man and the Biosphere (MAB) Programme (2013-2017), during which he was responsible for the development of UNESCO’s MAB Strategy 2015-2025 and the Lima Action for the World Network of Biosphere Reserves (WNBR) 2016-2025. Since May 2017, he has been the Chair of GPC/IPL of the International Landslides Consortium (ICL). He started the current position in IRDR in September 2017.

**Juanle WANG**, received a Ph.D. degree in 2005 from University of Chinese Academy of Sciences and a B.S and a Master degree from China University of Mining and Technology. He is currently a professor and deputy director of department of Geodata Science and sharing at Institute of Geographic Sciences and Natural Resources Research, Chinese Academy of Sciences, director of World Data Center for Renewable Resources and Environment in World Data System of the International Science Council, executive director of sub center of Knowledge Service for Disaster Risk Reduction in IKCEST of UNESCO, member of national expert group of “Man and the Biosphere” in China, editorial board of “Data Science Journal” (CODATA), “Data” (MDPI), “Regional Problem” (RUSSIA), “China Science & Technology Resources Review” (CHINA) and “China Scientific Data”(CHINA). His recent main research interests are data sharing of resource and environment science, spatial information system of One Belt One Road and disaster risk reduction knowledge service. He published more than 100 papers, 4 monographs and 2 atlases nearly 5 years. He was awarded the Second prize of National Science and Technology Progress Award of China in 2014, and the Third prize of outstanding map award of China in 2018.
Wenjiang HUANG, Dr.& Professor, Director for Key Laboratory of Digital Earth Science, Director of SINO-UK Crop Pest and Disease Forecasting & Management Joint Laboratory, working in Aerospace Information Research Institute, Chinese Academy of Sciences (AIR-CAS), Ph.D. in Physical Geography, he was acting as PI for more than 40 major scientific fundings from Global Earth Observation (GEO), Food and Agriculture Organization (FAO), Ministry of Science and Technology (MOST), National Science Foundation of China (NSFC), Ministry of Agriculture and Rural Affairs (MARA) and Chinese Academy of Sciences (CAS). His research interests cover Quantitative and remote sensing for agriculture especially on crops; Data fusion (multi-scale, multi-sensor, multi-temporal) for precision agricultural applications; Monitoring crop diseases using remote sensing technology. He has published for more than 200 SCI journal papers focused on remote sensing for crop biophysical and biochemical variables inversion and remote sensing for crop pest and disease monitoring. He has awarded more than 10 science and technology award including National Science and Technology Progress Award and so on. For more details please visit the website (http://www.rscropmap.com).

Qing DONG, received the B.S. degree in Mineral Exploration from Jilin University, Changchun, China, in 1988, the M.S. degree in Mathematical Geology from Jilin University, Changchun, China, in 1995, and the Ph.D. degree in geography and geographical information system from the Institute of Remote Sensing Applications, Chinese Academy of Sciences, Beijing, China, in 2000.

He has joined the Institute of Remote Sensing and Digital Earth, Chinese Academy of Sciences since 2002. His research interests are mainly in the remote sensing information extraction and multidisciplinary integrated applications, Global change and ocean remote sensing. In the last five years, his Research Projects mainly includes (1) Research on the Changes of Marine Environmental Parameters in the Indo-Pacific Warm Pool in the Past 30 Years Based on Remote Sensing Data, 2019.01-2022.12 (2) Global Ocean Salinity and spatial-temporal recognition of ocean water color, 2017.07-2021.12 (3) Research on the follow-up project of the Eastern Route of the South-to-North Water Diversion Project, 2018.11-2019.12 (4) Parametric model study of long-term sequence remote sensing data in the Pacific,
Fei YANG is an associate professor at Institute of Geographic Sciences and Natural Resources Research of Chinese Academy of Sciences. He mainly engaged in remote sensing (RS) and geographic information system (GIS) technology and method research, and its application in intelligent spatial monitoring and inspection of land resources, ecology and environment protection, natural disasters risk assessment, geoscience big data mining and geospatial analysis. In recent years, his research works focused on the quantitative research of remote sensing big data products to evaluate the time and space risks of typical extreme weather events in the key areas of the Belt and Road, and to produce relevant data products, for proposing countermeasures. Based on remote sensing and geographic information technology, he studied the spatial and temporal changes of ecosystem resilience and vulnerability and diagnose the critical transforming threshold of the key parameters. For the first time, he studied the potential risk of the main agricultural non-point source pollution in China by 1km2 grid pixel scale. He has published more than 50 scientific papers till now, which includes 20 SCI papers.

Jiangang CHEN, is a Professor of Institute of Mountain Hazards and Environment, Chinese Academy of Sciences. He received Ph.D. from the Sichuan University in 2012 and he is an expert in mountain hazards and disaster risk reduction especially in debris-flow hazard mitigation. His research interests are “Integrated debris-flow hazard mitigation with ecological- and geotechnical- engineering” and “Glacial-related hazard mitigation”.

About 30 papers have been published and granted as well as Seven Chinese Invention Patents and Two US Patents. He is the First-prize winner of Science and Technology Progress of Sichuan Province (Rank 4).
Xiaojun GUO, serves for the Institute of Mountain Hazards and Environment, CAS. He is interested in hydrology and geomorphology, especially mountainous hazards. His research focuses on the hydrological processes related to the debris flow formation. He is an expert on debris flow formation process, monitoring and early warning, and very experienced with field investigation.

He devoted himself to the institute debris flow real-time monitoring in the mountainous catchments for many years, and won the “Excellent doctoral thesis of Chinese Academy of Sciences”. He has more than 20 publications in the international journals, which have been cited more than 150 times. He is also the secretary of Asian Network on Debris Flow, the convener of EGU-Debris flow, and reviewer of more than 10 international journals.

Xiaosong LI, currently a research professor at Aerospace Information Research Institute, Chinese Academy of Sciences. His main research interests are remote sensing and applications on dryland ecosystems, with ongoing research focused on land degradation monitoring and assessment, sparse vegetation information retrieval in desertified regions, benefits evaluation of ecological restoration project.

He received the Ph.D. degrees in forest remote sensing from Chinese Academy of Forestry. He was a Visiting Scholar at University of Maryland, USA, and has been with RADI since 2008, where he has been a research professor since 2011. He was the UNCCD LDN-TSP Consultant.

Caihong MA, Doctor, Engineer in Institute of aerospace information innovation, Chinese Academy of Sciences. Her main research areas are remote sensing image intelligent processing, retrieval, data service and global heat source heavy industry identification. Her projects has get supported by 5 different funds institutions. She has published 28 related scientific research papers, including 22 first author papers indexing by SCI/EI/CSCD. There are 9 papers published on international journals indexing by SCI. And, she is also popular as one popular science. Some of her paper was read more than 10000 times. She is one member of the youth Promotion Association in Chinese Academy of Sciences, honored for "star of Science
Popularization" in 2019. She was also a reviewer of IEEE access and big earth data.

Chang LIU, Deputy Director of the Division of Information Infrastructure and Resources, General Administration Department, Chinese Academy of Engineering, Director of Division of International Cooperation, IKCEST. With doctor's degree in applied linguistics, she served as an associate professor in the Department of Foreign Languages of Huazhong University of Sciences and Technology (HUST), Wuhan, China. She then worked with the Beijing-based Chinese Academy of Engineering (CAE), with her main job responsibility lying with the management of a category-2 centre under UNESCO, namely, the International Knowledge Centre for Engineering Sciences and Technology under the Auspices of UNESCO (IKCEST). Her publications include two books and a number of journal articles.

Kun BU, undergraduate study at the School of Population Resources and Environment of Shandong Normal University, majoring in geosciences, and got the bachelor's degree. Graduated at the University of Chinese Academy of Sciences, specializing in cartography and geographic information systems, and received the doctorate degree. Working at Northeast Institute of Geography and Agroecology (Changchun, Jilin), Chinese Academy of Sciences. The research direction is geographic information science and land use/land cover science. Mainly work including open source GIS application and industrialization, geographic data visualization, design and development of WebGIS and GIS cloud computing system, and science data sharing in geographic information. Published more than 10 academic papers and got more than 10 intellectual property licenses of software. Developed open source CMS framework named TorCMS based on Python and Tornado. Build the system for scanned map showing and geographic data on line editing with open source GIS and cloud computing technology, which advanced the data sharing work. In charge of OSGeo China Chapter, and wetlands data center of China. Working for the development of IKCEST Disaster Risk Reduction Knowledge Service System now.
Xuehua HAN, a Ph.D, is working at Institute of Geographic Sciences and Natural Resources Research, Chinese Academy of Sciences, majoring cartography and geographic information systems. She received a bachelor's degree from China University of Geosciences (Wuhan). Her main research interests include natural disaster social media data mining, public behavior analysis during natural disasters, disaster information extraction based on Web text. She published 5 papers in ISPRS International Journal of Geo-Information, Journal of Geo-information Science and China Science & Technology Resources Review. She participates in a number of scientific research projects, including the 13th Five-year Information Plan of the Chinese Academy of Sciences, the Construction Project of China Knowledge Centre for Engineering Sciences. She was awarded the second prize for excellent paper of the 20th Cross-strait Symposium on Environment, Resources and Ecological Conservation, the excellent paper award of the 10th China Geographic Graduate Academic Conference and the sixth “Sharing Cup” Innovation Competition of Science and Technology Resources Sharing Service for College Student in 2019.
International Training Workshop on Disaster Risk Reduction Knowledge Service in China-Pakistan Economic Corridor

Workshop Programme

9 Nov - 11 Nov, 2020
Beijing, China (On-line)

China-Pakistan Joint Research Center on Earth Sciences