

**Nepal Engineers' Day 2011**  
Nepal Engineers' Association Japan Center (NEA-JC) Symposium  
**“Utilizing Lessons Learnt from the Study of Japanese Technologies  
for the Development of Nepal”**  
Kyoto University, Yoshida Campus, 17 July 2011, Kyoto

**PROGRAM OUTLINE IN KYOTO**

To commemorate the establishment of the Nepal Engineers Association (NEA) 49 years ago, the Event Management Committee (EMC) of NEA-JC 6<sup>th</sup> Executive Committee is celebrating the “NEA Day” by organizing a one-day symposium on **“Utilizing Lessons Learnt from the Study of Japanese Technologies for the Development of Nepal”** in Tokyo and Kyoto on 17 July, 2011 (Sunday). Nepalese (and non-Nepalese) academics, researchers, experts and students from various engineering, natural science and social science disciplines are cordially invited to participate in the program.

**13:00 – 13:05 Welcome and Opening:** by *Er. Kshitij Charan Shrestha*, Coordinator of Organizing Committee in Kyoto

**13:05 – 13:45 Session I;** *Chair: Dr. Badri Bhakta Shrestha*

13:05 – 13:20 **Speaker:** *Lata Shakya (PhD Student, Department of Architecture and Architectural Engineering, Graduate School of Engineering, Kyoto University)*

**Title:** Ownership of Courtyard Space of Patan Old Residential Area

13:20 – 13:25 Q&A

13:25 – 13:40 **Speaker:** *Giri Prasad Joshi (PhD Student, Graduate School of Agriculture, Kyoto University)*

**Title:** Cytological mapping in the Triticeae

13:40 – 13:45 Q&A

**13:45 – 14:15 Break**

**14:15 – 14:55 Session II;** *Chair: Dr. Surendra Tamrakar*

14:15 – 14:30 **Speaker:** *Badri Bhakta Shrestha (GCOE Researcher, Global COE-ARS, Disaster Prevention Research Institute, Kyoto University)*

**Title:** Potential outburst floods from Tsho Rolpa Glacial Lake, Nepal

14:30 – 14:35 Q&A

14:35 – 14:50 **Speaker:** *Ishwor Khatri (Department of Frontier Materials, Nagoya Institute of Technology)*

**Title:** Low cost solar materials for the development of Nepal

14:50 – 14:55 Q&A

**14:55 – 15:05 Closing Remarks:** by *Dr. Madhusudan Kayestha*, Secretary, NEA-JC, 6<sup>th</sup> EXCOM

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## **PRESENTATION SUMMARIES AND SPEAKERS' PROFILES**

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**Title:** Ownership of Courtyard Space of Patan Old Residential Area

**Speaker:** Ms. Lata Shakya

**Summary:** Study on ownership allocation of the courtyard space in historical city, Patan has been studied with detail data acquisition. Research showed presence of numerous privately owned courtyard spaces in contrary to general understanding of only public owned spaces. Detail study has been done with differences existing between the public and private owned courtyard spaces.

**Speaker's profile:** Ms. Shakya is currently a doctoral student at Department of Urban Environmental Engineering, Kyoto University. She completed her Bachelor in Faculty of "Sciences of Living" (Department of "Environmental Design for Special Needs") from Mimasaka University in 2004. In 2007 she completed Masters (M. Ph.) in Faculty of "Human Environmental Science" (Department of "Human Life and Environmental Science) from Kyoto Prefectural University. She has also engaged as part time Lecturer in Kyoto Seibo College from 2007 to 2009. She also served as a JSPS research fellow from 2009-2011 during her PhD study. She is currently involved in research work for Urban Planning of Patan Traditional Town by considering traditional spatial structure, and its space management system.

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**Title:** Cytological mapping in the Triticeae

**Speaker:** Mr. Giri Prasad Joshi

**Summary:** Triticeae is a grass family including agronomically important cereal crops such as common wheat, barley and rye. Among these three plants, common wheat is a hexaploid species and has the largest genome size (~17,000 Mbp). However, barley and rye both are diploids with genome size about one third of the common wheat. Cytological mapping is one of the best techniques to construct the chromosome map for species having large sized genemone. This presentation mainly covers the process of developing deletion stocks and their uses in cytological mapping.

**Speaker's profile:** Mr. Giri Prasad Joshi completed his Masters in Botany from Central Department of Botany, Tribhuvan University, Nepal. He is an employee of Amrit Science College, Tribhuvan University (now in study leave), and serves more than 12 years in a position of Assistant lecturer and then Lecturer. He is currently doctoral student at Laboratory of Plant Genetics, Graduate School of Agriculture, Kyoto University. His research areas are ecology and molecular cytogenetics. His current research is focused on the Cytological mapping of Barley chromosome 2H in the genetic background of common wheat.

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**Title:** Potential outburst floods from Tsho Rolpa Glacial Lake, Nepal

**Speaker:** Dr. Badri Bhakta Shrestha

**Summary** In recent years, flood and sediment disasters are frequently occurred in the glacier regions of the world due to moraine dam failure of glacial lakes. The Tsho Rolpa Glacial Lake is the largest and most potentially dangerous glacial lake in Nepal. If the moraine dam of Tsho Rolpa Lake will breach, the resulting flood from the lake outburst may cause serious damage for 100km or more downstream, threatening as many as 6000 lives, hydroelectric projects and other infrastructures. The current risk of a failure is considered to be high and increasing rapidly. In this context, a numerical model was developed to predict the potential outburst floods from glacial lake due to moraine dam failure by seepage and water overtopping. By using developed numerical model, the potential outburst floods from Tsho Rolpa Glacial Lake of Nepal have been predicted and have been analyzed with various multi-scenarios. Tsho Rolpa Glacial Lake is located at an altitude 4555m in the Rolwaling valley. The lake has been developed only in the last 50 years, as the glacier feeding it has begun to melt rapidly. Due to temperature rising, the trakarding glacier above the lake is retreating at a rate 20m/year. The lake is 3.45km long and 0.5km wide, and 1.53km<sup>2</sup> surface area and

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contained 85.94 million m<sup>3</sup> water. The lake is considered one of the most dangerous glacial lakes in Nepal. To examine the potential outburst of the lake, the field investigation at the lake was also carried out in August 2010.

**Speaker's profile:** Dr. Badri Bhakta Shrestha has been working as GCOE Researcher with Global COE-ARS Program at Disaster Prevention Research Institute, Kyoto University from October 2009. He completed his PhD (Eng.) from Kyoto University, MSc and BE from Tribhuvan University, Nepal. His professional experiences also include tasks performed as Energy Development Officer at Rural Energy Development Programme, UN, Civil Engineer at SASCON Pvt. Ltd., Lecturer at Kathmandu Institute of Technology and Civil Engineer at Hari Hari Nirman Sewa. His high quality research capabilities are highlighted through numerous research grants and best paper awards. His current research works are concentrated on flood/sediment disasters caused by glacial lake outburst floods (GLOFs) in the Himalaya of South Asian countries, development of flood inundation/hazard mapping due to GLOF events and their preventive measures.

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**Title:** Low cost solar materials for the development of Nepal

**Speaker:** Mr. Ishwor Khatri

**Summary:** Modern technologies are being developing to make lives easier. However, such innovations have created problems of global warming and energy crisis. To address these issues, solar cells are expected as noble solution. For developing country like Nepal, it has special importance because of its mobile properties and difficulties to construct infrastructure in high Himalayas. In this talk, I shall like to discuss on the fabrication process of solar cell from low cost materials. Since the required materials and technical skills are simple and inexpensive, there are large opportunities to reproduce the cells at anywhere. Furthermore, possible aspects to establish such research center in Nepal will be also discussed.

**Speaker's profile:** Mr. Khatri is presently a doctoral student in Department of Frontier Materials, Nagoya Institute of Technology. His research works involves nanomaterials for solar cell application.

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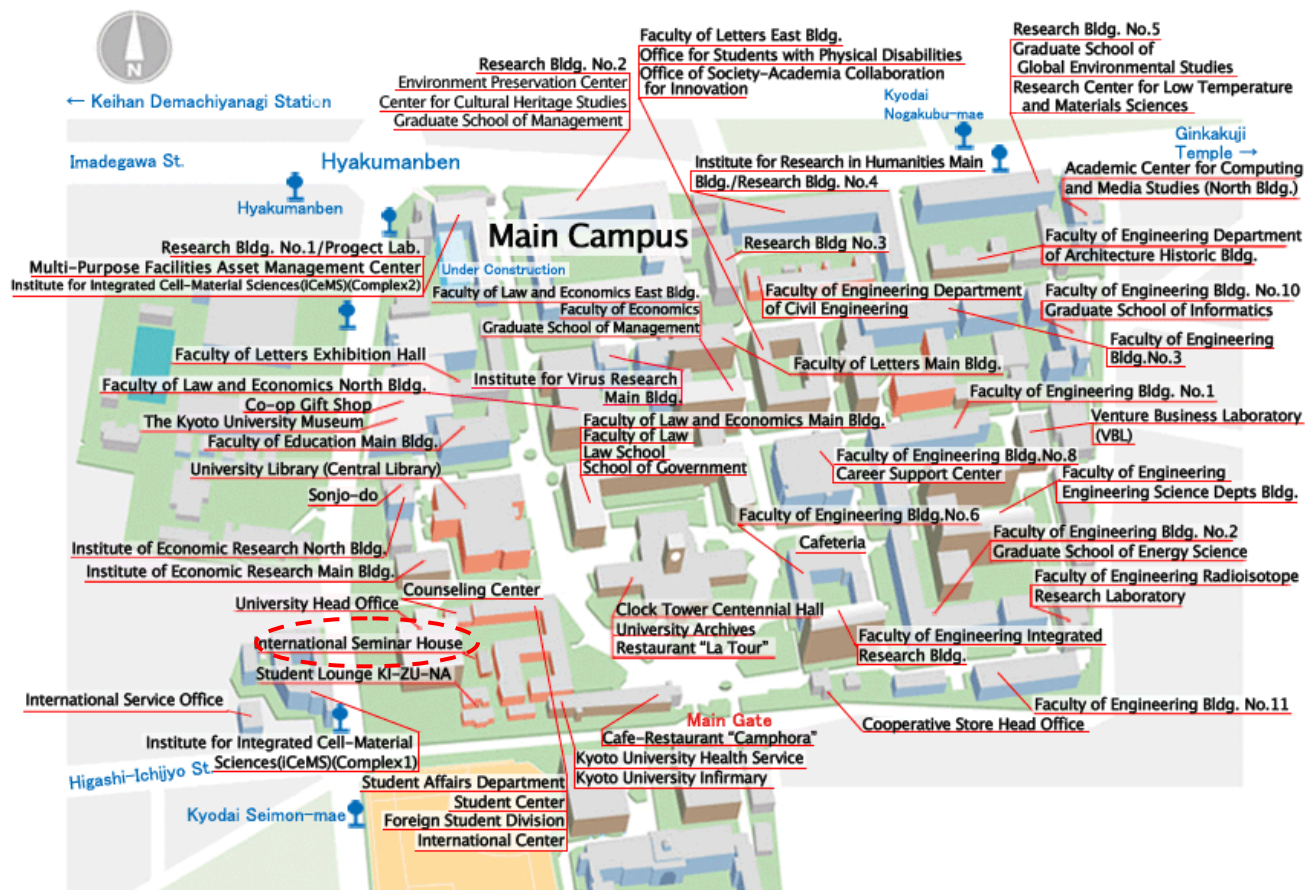
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## PROGRAM VENUE

Foreign Student Division, J-POD (International Seminar House), Yoshida Campus, Kyoto University

**Contact phone:** Kshitij Charana Shrestha (090-6552-5456), Giri Prasad Joshi (080-3802-1625)

**Visit:** <http://www.kyoto-u.ac.jp/en/access> (for more details about the access to venue).



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