Symposium on

"Future of post-disaster assessment for buildings"

Hosted by National Graduate Institute for Policy Studies (GRIPS) and Building Research Institute (BRI)

Post-earthquake quick inspection of damaged buildings aims to prevent secondary disasters by inspecting the buildings hit by large earthquakes and evaluating the risks including building collapse, fall of exterior walls and window glass and the overturn of building equipment that may be caused by aftershocks. In the symposium, presentation will be made on the lessons from the past disasters and relevant R&D both within and outside Japan, and issues on future of post-disaster assessment for buildings will be explored.

Date and time: **Wednesday, February 5, 2020 1:30pm – 5:00pm Open from 1:00pm**
Venue: **Sokairo Hall, 1st Floor of GRIPS (See map below) (Max. 300 persons)**
Language: Japanese/English (simultaneous translation provided)
Hosted by: National Graduate Institute for Policy Studies, Building Research Institute
Supported by (tentative): National Institute for Land and Infrastructure Management of the Ministry of Land, Infrastructure, Transport and Tourism, The Japan Building Disaster Prevention Association, Japan Council for Quick Inspection of Earthquake Damaged Buildings, Japan Federation of Architects & Building Engineers Association, Japan Association of Architectural Firms, The Japan Institute of Architects, Japan Structural Consultants Association, Japan Federation of Construction Contractors, Condominium Management Companies Association, Urban Renaissance Agency, Japan Housing Finance Agency, Architectural Institute of Japan, Japan Academic Network of Disaster Reduction, Consortium for Building Research & Development, United Nations Educational, Scientific and Cultural Organization (UNESCO)

Program:

MC: **Masaru SUGAHARA** (Professor, GRIPS)

1:30-1:40pm Introductory Remarks
Yasuo OKUDA (Director, Dept. of Structural Engineering, BRI)

1:40-5:00pm Presentation and Panel Discussion
Moderator: **Yoshiaki NAKANO** (Professor, The University of Tokyo)

1:40-3:50pm Presentation

1. **Practices and issues on post-earthquake quick inspection of buildings in Japan**
   Wataru GOJO (Senior Technical Counselor, Japan Building Disaster Prevention Association)
   "History of Japan's system and future options for improving it"
   Suguru HIRAYAMA (Chief Examiner, Building Disaster Prevention Section, Osaka Prefectural Government)
   "Practices and issues on post-earthquake quick inspection of buildings in Osaka"

2. **Practices and issues on post-earthquake quick inspection of buildings in various countries**

   Tatsuya AZUHATA (Chief Research Engineer, IISEE, BRI)
   "Technical Support Examples for Post-Earthquake Quick Inspection Methods to Developing Countries from Japan "

   Eduardo Orlando HURTADO GAJARDO (Head of Engineering and Construction Department, Public Building Division, National Directorate of Architecture, Ministry of Public Works, Chile)
   "Quick Inspection Method of Buildings Damaged by Earthquakes in Chile"

   Lap-Loi CHUNG (Deputy Director General, National Center for Research on Earthquake Engineering, and Professor, National Taiwan University, Taiwan)
   "Technology and mechanism on post-earthquake emergent evaluation of damaged buildings in Taiwan "

   Dave BRUNSDON (Director, Kestrel Group, New Zealand)
   "Rapid post-earthquake structural and geotechnical assessments in New Zealand"

3. **Trend of R&D relevant to post-earthquake quick inspection of buildings**

   Tomohisa MUKAI (Senior Research Engineer, Dept. of Structural Engineering, BRI)
   "Overview on damage evaluation for buildings subjected to severe earthquake using some 3D laser scanners"

   Koichi KUSUNOKI (Professor, The University of Tokyo)
   "Development and implementation of new technologies for the rapid inspection method"

Break 3:50-4:00pm

4:00-5:00pm Panel Discussion: Future of post-disaster assessment for buildings
- Efficient methods for data collection and analysis on damages in case of wide area earthquake -

5:00pm Closing

Access to GRIPS
7-22-1 Roppongi, Minato-ku, Tokyo

Free of charge (Pre-registration required)
Please resister from the link below or QR code by 3rd February, 2020
https://forms.gle/STUfDkkUKNQ62szD6
Contact: GRIPS E-mail: grips.dms@gmail.com

Profile of Moderator and Presenters

Yoshiaki NAKANO

Professor, The University of Tokyo

Yoshiaki Nakano, Ph.D., is professor of the Institute of Industrial Science, The University of Tokyo. His expertise is structural performance evaluation and its upgrading, post-earthquake/tsunami damage assessment, especially of reinforced concrete and masonry infilled buildings. He is currently serving as a Vice President of International Association of Earthquake Engineering (IAEE) and the President of JAEE.

Wataru GOJO

Senior Technical Counselor, Japan Building Disaster Prevention Association

Dr. Wataru Gojo (PhD in engineering) started his career in 1980 at Ministry of Construction, and joined Building Research Institute (BRI) and National Institute for Land and Infrastructure Management (NILIN) in 1996 to research structural safety of building and performance-based standard for more than 20 years.

Suguru HIRAYAMA

Chief Examiner, Building Disaster Prevention Section, Osaka Prefectural Government

Entered Osaka Prefectural Government in 1994, mainly responsible for the Building Standard Law related works (Building Regulation Conformity Inspectors). Responsible for the headquarters of post-earthquake quick inspection of damaged buildings after the Northern Osaka Prefecture Earthquake.

Tatsuya AZUHATA

Chief Research Engineer, IISEE, BRI

Ph.D. in Earthquake Engineering at Chiba University, in 1993. Entered Ministry of Construction in 1993. After working at the Housing Bureau, National Institute for Land and Infrastructure Management, etc., he has been engaging in the international training program at the International Institute of Seismology and Earthquake Engineering (IISEE, BRI) since 2014.

Eduardo Orlando HURTADO GAJARDO

Head of Engineering and Construction Department, Public Building Division, National Directorate of Architecture, Ministry of Public Works, Chile

Civil Engineer, Pontifical Catholic University of Chile, in 1998, and Diploma in energy efficiency and solar energy thermal in public building, University of Chile. After working in construction building, design and construction of pavement and concrete industry at private sector at the beginning, next as Academic Coordinator and Professor in Courses Structure, Construction Management and Highway Design at the Central University of Chile, has worked since 2008 as Fiscal Structures Inspector and since 2012 Head of Department of Engineering and Construction, at National Directorate of Ministry of Public Works.

Lap-Loi CHUNG

Deputy Director General, National Center for Research on Earthquake Engineering, and Professor, National Taiwan University, Taiwan

Lap-Loi Chung got the B.S. degree in Civil Engineering from National Taiwan University, and M.S. and Ph.D. degrees from State University of New York at Buffalo. He joined National Center for Research on Earthquake Engineering in 1992 and dedicated to mitigation of earthquake disasters. His research interests include seismic design, seismic evaluation, seismic retrofit and vibration control.

Dave BRUNSDON

Director, Kestrel Group, New Zealand

1984 Master of Engineering from the University of Canterbury; Distinguished Fellow of Engineering New Zealand; Life Member of the NZ Society for Earthquake Engineering and the Structural Engineering Society of NZ; Principal Engineering Adviser to a range of government agencies and local authorities.

Tomohisa MUKAI

Senior Research Engineer, Dept. of Structural Engineering, BRI

Dr. Mukai received his Ph.D. in Faculty of Science and Engineering from Tokyo University of Science in 2003, M.S. from Tokyo University of Science in 1999. His research focus on performance based seismic design for buildings, especially damage evaluation of RC structure.

Koichi KUSUNOKI

Professor, The University of Tokyo

1999: Doctor (Engineering) from the University of Tokyo (UoT), research associate of the Institute of the Industrial Science, UoT , 2002: Researcher of Building Research Institute(BRI), 2003: Senior Researcher of BRI, 2006: Associate Professor of Yokohama National University, 2014: Associate Professor of Earthquake Research Institute (ERI), UoT, and 2018: Professor of ERI.