



# Coping with the Flood Damage of Buildings

In recent years, countermeasures against flood disasters of buildings have become important in Japan, by the increase of severe flood disasters. For example, in Typhoon 19 (Hagibis) in 2019, due to flooding of a super high-rise condominium's power receiving and transforming facilities, its elevators and water supply facilities became unusable, and in July 2020, extensive flooding inundation of facilities for the elderly and urban areas caused extensive human and building damage. In this symposium, we will exchange information on domestic and international efforts and technological trends, and consider issues that need to be addressed in the future.

## Program

Facilitator: **Masaru Sugahara Prof.** (National Graduate Institute for Policy Studies)

### 13:30 - Introduction:

**Yorinobu Eda** (Building Research Institute)

### 13:40 - Lectures and Panel Discussion

Moderator: **Nozomu Kiuchi Dr.** (Building Research Institute)

#### ◇ Keynote Lecture (13:40 -)

**Edward Barsley** (The Environmental Design Studio)  
Retrofitting for Flood Resilience

#### ◇ Lectures (14:20 -)

- Flood Resistant Buildings; Japanese Circumstances, Necessities and Possibilities  
**Nozomu Kiuchi Dr.** (Building Research Institute)
- Recent Flood Damages to Buildings and Challenges for Flood Resistant Buildings  
**Kazuo Tamura Dr.** (Aseismic Urban Building Institute)
- Challenges for Post-disaster Measures of Wooden Detached Housings at Actual Flood Disaster Sites  
**Jun'ichi Hasegawa** (Architectural Restoration Support Network (ARSN))
- Flood Countermeasures and Issues in Buildings from the Perspective of Business Continuity Plan and Life Continuity Plan  
**Toshihiro Sankai** (Nat. Inst. for Land & Infrastructure Management)
- Expectations for Building Measures in the River Basin Management Policy  
**Kentaro Taki Dr.** (The University of Shiga Prefecture)
- Recent Challenges to Reduce the Flood Damage in the Field of Building and Housing  
**Takashi Imamura** (Ministry of Land, Infrastructure, Transport & Tourism)

#### ◇ Panel Discussion (16:00 -)

Steps towards Flood Resistant Building Measures

#### ◇ Closing (17:00 -)

#### Supported by (to be confirmed);

National Institute for Land and Infrastructure Management, MLIT  
 Urban Renaissance Agency  
 Japan Housing Finance Agency  
 Japan Federation of Architects & Building Engineers Association  
 The Japan Institute of Architects  
 Japan Association of Architectural Firms  
 Japan Structural Consultants Association  
 Japan Federation of Construction Contractors  
 Condominium Management Companies Association

Japan Federation of Housing Organizations  
 Architectural Institute of Japan  
 The Japan Building Disaster Prevention Association, Japan  
 Center for Better Living  
 Council for Quick Inspection of Earthquake Damaged Buildings  
 Consortium for Building Research & Development  
 Japan Academic Network of Disaster Reduction  
 United Nations Educational, Scientific and Cultural Organization (UNESCO)



# Profile of Moderator and Lecturers



**Edward Barsley**

Founder and Director, The Environmental Design Studio

A specialist in environmental design in architecture, with a particular interest in developing strategies to improve the resilience of communities and the built environment. He speaks regularly at flood conferences and events worldwide, and in 2018 ran the RIBA's (Royal Institute of British Architects) nationwide core CPD lecture series on flooding, with the seminar 'Designing for Flood Resilience'. Alongside his practice, he has been involved with a number of Research Council-funded studies, including the PhD, he has been working at the University of Cambridge on flood-resilient architecture and the communication of risk. Over the past four years he has been writing a book, published this year entitled; 'Retrofitting for Flood Resilience: A Guide to Building and Community Design'



**Nozomu Kiuchi Dr.**

Research Fellow, Dept. of Housing & Urban Planning, Building Research Institute

As a specialist in urban land-use planning, he belonged mainly at Building Research Institute and National Institute for Land and Infrastructure Management. His recent research mainly concentrates on flood risk evaluation and mitigation through urban planning. Some of such research is included in NILIM Technical Note No.1080 'Study on a Strategy for Risk Reduction of Flood Disaster in Urban Areas to Cope with Climate Change'. Member of MLIT 'Study Group on Ideal Approaches to Measures against Flood Disasters at Electricity Facilities in Buildings', 'Panel on Co-ordination of Flood Damage Countermeasures and Urban Planning', etc..



**Kazuo Tamura Dr.**

Seismic Design Laboratory, Former Professor of Chiba Institute of Technology

A specialist in structural engineering of building structures. Worked for Shimizu Corporation and Ohsaki Research Institute, mainly engaged in research and development of new structural systems such as seismic isolation and vibration control systems. He visited various damaged places by recent floods, and studies on flood damage countermeasures. He was a member of the special investigative committee of climate disasters in AIJ which submitted a proposal on efforts of measures against flood damages. He is a cooperation member of Science Council of Japan, and a Managing Director of Japan Academic Network for Disaster Reduction.



**Jun'ichi Hasegawa**

President of the Sumai-Kuukan Kenkyusho Institute, Representative of Architectural Restoration Support Network

He has served as a volunteer housing counselor for the areas which has been affected by the 2015 Kanto-Tohoku Torrential Rains, the 2019 Typhoon Hagibis, and the 2020 July Torrential Rains through conducting workshops of relief measure and restoration of post-disaster architectures. He has conducted more than 100 on-site surveys of water-damaged houses, and consulted and advised on post-disaster restoration. He has also been dispatched as a member of a mission commissioned to support restoration of damaged World Cultural Heritage Architecture (2011-16, UNESCO). A member of the Niigata Architects & Building Engineers Associations.



**Toshihiro Sankai Dr.**

Senior Fellow, National Institute for Land & Infrastructure Management, MLIT

He is engaged in research and studies on technologies to improve the resilience of buildings, of mainly building equipment. He published the results of his research on disaster countermeasures for building equipment in the 'Guidelines Building Design of Disaster Prevention Centers (Draft)' (NILIM) and also participated as a specialist in building equipment to the 'Investigative Committee for Guidelines for Function Continuity of Existing Buildings as Disaster Prevention Centers, etc.' and the 'Study Group on Ideal Approaches to Measures against Flood Disasters at Electricity Facilities in Buildings' (Housing Bureau, MLIT).



**Kentaro Taki Dr.**

Associate Professor, The University of Shiga Prefecture

After completing a graduate school at Kyoto University, he worked for a private company before joining the Shiga Prefectural Government (for 18 years). He was in charge of the river planning and river basin flood control for many years. Through various encounters with many rivers and people, he is fascinated by rivers and also believes that the river that is loved by the community is the "good river". Focusing on the interaction between watershed water circulation and social systems, he is currently conducting research on policies and plans for a sustainable watershed society towards systematizing this area academic study.



**Takashi Imamura**

Director of Building Disaster Prevention Office, Housing Bureau, Ministry of Land, Infrastructure, Transport & Tourism

After joining the Ministry of Construction in 1992, he worked in the Building Guidance Division and Housing Production Division of the Housing Bureau, the Urban Redevelopment Division and Urban Planning Division of the City Bureau, as well as the Secretariat for Regional Development Promotion, Cabinet Office, and the Office for the Promotion of the Inscription of Industrial Heritage on the World Heritage List, Cabinet Secretariat. During this time, he was seconded to Takarazuka City Hall as Director of the Urban Development Department and as a Program Specialist (in charge of disaster management) in the UNESCO.

## How to Register to Participate

This symposium will be held online via ZOOM (webinar) and can be viewed on PCs, tablets and smartphones (please install the ZOOM application in advance).

If you would like to view the webinar, please register by February 16, 2021 via the form below or the QR code.

Application to: [https://zoom.us/webinar/register/WN\\_D4pYx8PIRdur2r4fMn-bZg](https://zoom.us/webinar/register/WN_D4pYx8PIRdur2r4fMn-bZg)

Free of charge

Please note that applications will be closed when capacity is reached.

Contact: National Graduate Institute for Policy Studies (e-mail: [grips.dms@gmail.com](mailto:grips.dms@gmail.com))

Subject to JSCA building structural engineer renewal evaluation points



※ Source of pictures on the front page: The 5th and 6th from the top right-hand are of Park Hills Musashikosugi SFC Condominium Management Association, and the seventh is from "Retrofitting for Flood Resilience". Background picture at the bottom is "Oblique Aerial Photo" by Geospatial Information Authority. All modified.