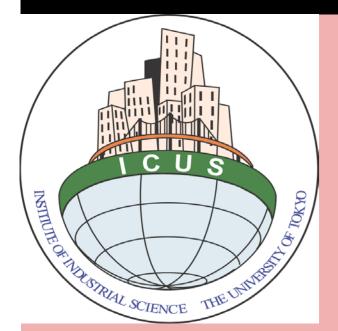
### International Center for Urban Safety Engineering (ICUS)



# International Center Urban Safety Engineering (ICUS) **Institute of Industrial Science** http://icus.iis.u-tokyo.ac.jp Urban Safety & Disaster Mitigation Division **Environment Informatics Division Social Infrastructure Management Division**

Based upon the past activities, "promotion of advanced research," "construction of networks," and "information collection and dissemination" will be set as the main activities towards

## developing the safety of cities by university researchers from an international viewpoint.

#### **Promotion of Advanced Research**

#### **Urban Safety & Disaster Mitigation Division**

- urban safety and disaster mitigation strategy
- development of temporal-spatial disaster process model
- implementation of earthquake safer masonry structures
- development of a proper disaster broadcast model by mass-media
- development of support for the establishment of a regional disaster management plan and its implementation
- development of an assessment method of vulnerability and fragility to natural hazards
- restructure of urban disaster mitigation planning theory
- post-disaster recovery and rehabilitation planning

#### **Environment Informatics Division**

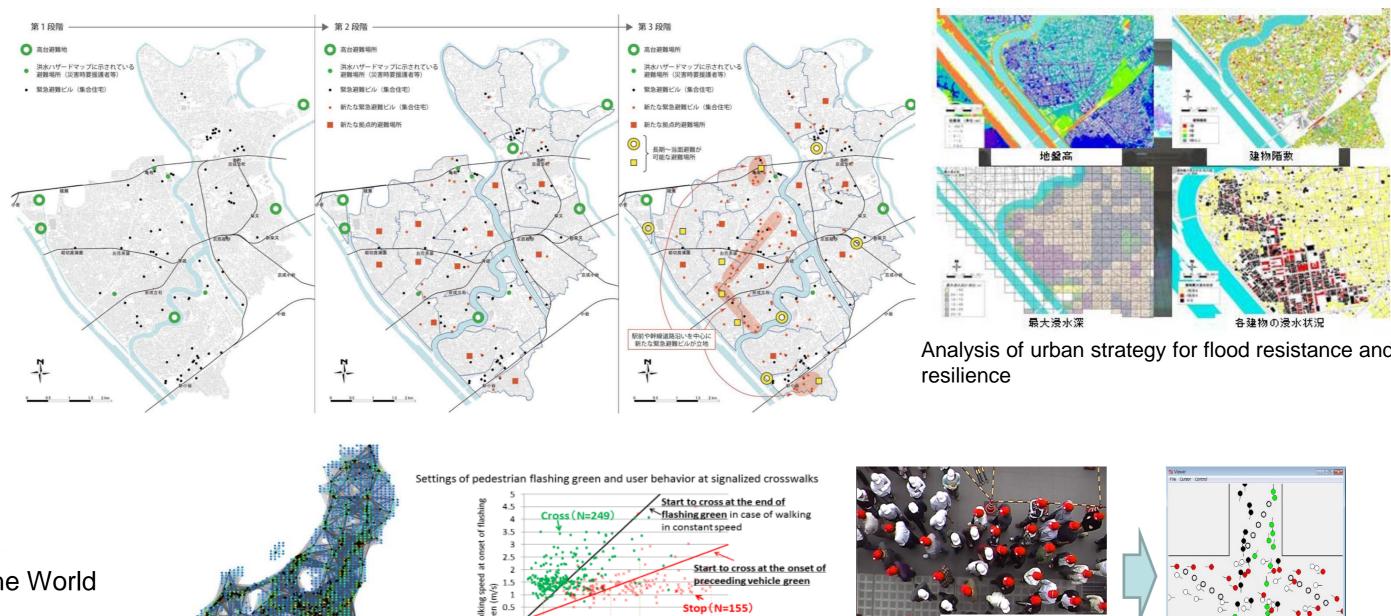
- impact assessments on global risks
- real-time estimates of water-related natural disasters in the World
- design and control of safer signalized intersections
- bottleneck performance analysis of pedestrian flow for evacuation planning
- traffic flow model for disaster evacuation guidance
- urban space design for aging society with fewer children

#### Social Infrastructure Management Division

- development of shield tunnel enlargement method
- Advanced inspection and deterioration diagnosis
- ground maintenance and sustainability
- ground improvement

**ICUS Project** 

Seamless system of infrastructure management

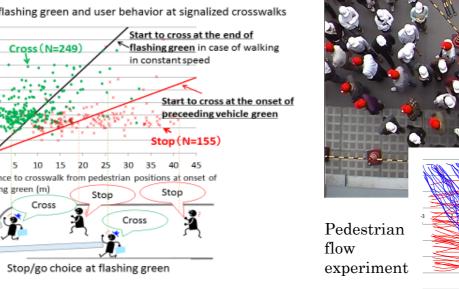


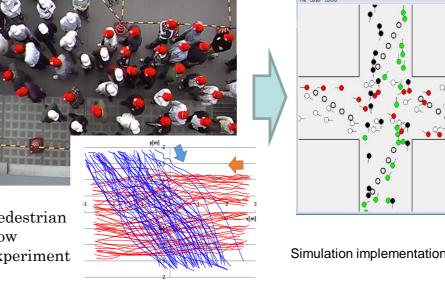


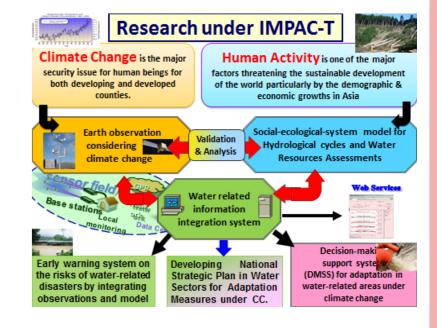


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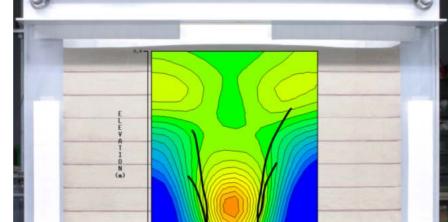
Development of effective retrofitting technology considering economical conditions and of social system for its propagation

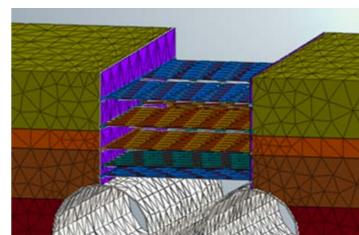


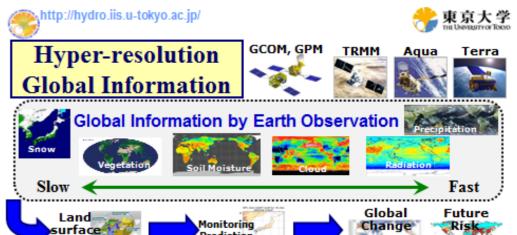




EV routing network in Japan Island



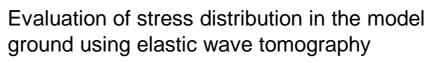






Evaluation of loosened ground due to internal erosion





SATREPS 2014~

Evaluation of action and the

interaction with the ground

Peta Computer Global environmental information all over the continents by 1km grid spacing, daily time scale for Past 150 years + Future 100 years BCP development, disaster risk management, resource security, assessing renewable energy, food production, and ecosystem services, ... by NICAM

#### **Research Committee 81**

The objective of RC81 is to develop; on improved and secured urban technology package to prepare for the coming mega flood in mega-cities.

#### **Construction of networks**

#### **Collaborative research Projects**

#### **RNUS**

#### (Regional Network Office for Urban Safety)

RNUS was established at the School of Civil Engineering, Asian Institute of Technology (Bangkok, Thailand) in 2002.

#### **BNUS**

(Bangladesh Network Office for Urban Safety) BNUS was established at the Bangladesh University of Engineering and Technology (Dhaka, Bangladesh) in 2006.

#### Information collectionand dissemination

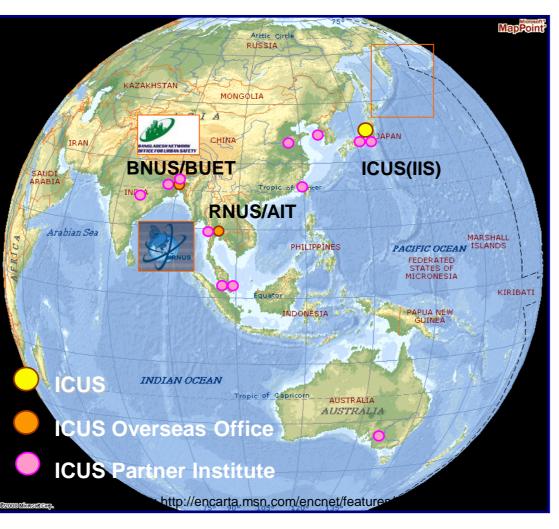
**ICUS Open Lecture** 



#### International Symposium (USMCA)



#### **Exchange of MOU for Collaboration**



• Dept. of Civil Engineering, Bangladesh University of Engineering and Technology, Bangladesh (BNUS)

Bangladesh Earthquake Society, Bangladesh

- •National Centre for Earthquake Engineering, Bangladesh
- Dept. of Civil Engineering, National University of Singapore, Singapore •LCM Research Center, The Port and Airport Research Institute, Japan •Siridorn International Institute of Technology, Tammasat University, Thailand •Dept. of Civil Engineering, Shibaura Institute of Technology, Japan •Global U-City Construction & Information Hub, Dept. of Civil Engineering, Han Yang University, Korea
- •Dept. of Construction Engineering, National Kaohsiung First University of Science and Technology, Chinese Taipei
- •Center for Public Safety Research, Tsinghua University, P.R. China •School of Applied Sciences and Engineering, Monash University, Australia •NSET, the National Society for Earthquake Technology, Nepal •National Urban Disaster Prevention Research Center, Korea

#### **Newsletters and Technical Reports**

ICUS issues the "ICUS Newsletter," a periodical English publication (4 issues every year), as well as ICUS Reports, which cover various research topics, to over 1100 people in more than 70 countries, including researchers, research organizations and government-related organizations.



#### Project for development of a comprehensive disaster resilience system and collaboration platform in Myanmar

Asian Institute of Technology, Thailand (RNUS)

#### 29<sup>th</sup> ICUS Open Lecture on 9/3





