東北大学
災害科学国際研究所
International Research Institute of Disaster Science
Tohoku University
The Tohoku Spirit: Working with People on the Ground to Turn Ideas into Action

Fumihiko Imamura
Director and Professor of IRIDeS, Tohoku University

The International Research Institute of Disaster Science (IRIDeS) was founded about one year after the Great East Japan Earthquake as Tohoku University’s newest research institution. The 2011 Off the Pacific Coast of Tohoku Earthquake on March 11 and the accompanying tsunami devastated East Japan. About twenty thousand people died, and the magnitude of the tragedy was amplified by an accident at Fukushima Daiichi Nuclear Power Plant. The Great East Japan Earthquake became an unprecedented compound disaster on a scale hitherto never experienced in human history.

Since 2007, Tohoku University had organized the Research Group on Disaster Prevention and Management where researchers gathered to conduct multidisciplinary disaster prevention studies, considering especially the countermeasures for an earthquake off the coast of Miyagi Prefecture which was foreseen to occur in the near future. However, the reality of the 2011 disaster far exceeded all predictions and the Group was unable to respond adequately. Tohoku University undertook a major expansion of the Group to learn lessons from the disaster, resulting in the establishment of IRIDeS in April 2012. Currently, about 100 researchers in fields in the humanities, sciences, engineering, and medicine, endeavor to invent a deeper Disaster Science and more practical research on disaster risk reduction. Measurable results of IRIDeS to date include clarifying the 2011 disaster damages, exploring large-scale earthquake and tsunami mechanisms, and constructing a disaster digital archive. Moreover, making efforts in forging links with industry, government, academia, and citizens in Japan as well as abroad, IRIDeS aims at both the revival of Tohoku disaster areas and the reduction of disasters worldwide.

As society’s concerns toward the disaster continue to evolve, IRIDeS continues to spearhead original initiatives true to the Tohoku spirit, working with people on the ground to turn ideas into actions. We have also created a Project Area and Unit System which fuses research fields further, to obtain a clearer picture of local needs and to contribute to society in a more hands-on manner. As befits an outward-looking research institute, IRIDeS holds regular forums and guided tours for the general public. We would appreciate your continuous support in the future.

IRIDeS History

<table>
<thead>
<tr>
<th>Date</th>
<th>Event</th>
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<tbody>
<tr>
<td>April 2012</td>
<td>IRIDeS was established at Tohoku University, with Prof. Arata Hirakawa as its first Director</td>
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<td>April 2013</td>
<td>Satellite office was established in Kesennuma City, Miyagi Prefecture</td>
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<td>April 2014</td>
<td>Prof. Fumihiko Imamura became the second Director of IRIDeS</td>
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<td>November 2014</td>
<td>The IRIDeS building was opened in the Aobayama New Campus</td>
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<td>March 2015</td>
<td>The Third UN World Conference on Disaster Risk Reduction was held in Sendai City</td>
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<td>Sendai Framework for Disaster Risk Reduction 2015-2030 was adopted</td>
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<td>April 2015</td>
<td>IRIDeS and United Nations Development Programme (UNDP) established the Global Centre for Disaster Statistics</td>
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<td>April 2016</td>
<td>Project Area and Unit System started</td>
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<td>2017-</td>
<td>The “World Bosoal Forum/ International Disaster Risk Conference” starts to be held in Sendai City every two years</td>
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IRIDeS Divisions and Research Fields

- **Hazard and Risk Evaluation Research Division**
  - Earthquake Engineering
  - Tsunami Engineering
  - Disaster Potential Study
  - Remote Sensing and Geoinformatics for Disaster Management
  - Technology for Optimum Mitigation
  - Science and Technology for Low-frequency Risk Evaluation
  - Technology for Global Disaster Risk

- **Regional and Urban Reconstruction Research Division**
  - Planning Technology for Urban Revitalization
  - Radiational Disinfection and Contamination Science
  - Regional Safety Engineering
  - Disaster Robotics
  - International Strategy for Disaster Mitigation

- **Disaster Medical Science Division**
  - International Cooperation for Disaster Medicine
  - Disaster-related Infectious Disease
  - Radiation Disaster Medicine
  - Disaster Psychiatry
  - Disaster Obstetrics and Gynecology
  - Disaster-related Public Health
  - Disaster Medical Informatics
  - Disaster-related Oral Health

- **Endowed Research Division**
  - Earthquake-induced Tsunami Risk Evaluation
    (Tokio Marine and Nichido Fire Insurance)

- **Human and Social Response Research Division**
  - Disaster-related Cognitive Science
  - Disaster Area Support
  - Preservation of Historical Materials
  - Social Systems for Disaster Management
  - Disaster Legislation
  - Japanese Disaster Culture
  - International Disaster Resilience

- **Disaster Science Division**
  - Marine Geology
  - Seismic Hazard
  - Volcanic Hazard
  - Geologic Hazard
  - Atmospheric and Oceanic Disaster
  - Space Environment Disaster
  - Natural Disaster

- **Disaster Information Management and Public Collaboration Division**
  - Disaster Digital Archive
  - Disaster Reconstruction Design and Management
  - International and Domestic Liaison Office

**IRIDeS Emergency Investigation**

Following major disasters, IRIDeS researchers have taken immediate actions, conducting investigations and analyses, and have released their findings.

These disasters include:

- Typhoon Haiyan, Philippines, 2013
- Goroka Earthquake, Nepal, 2015
- Kanto-Tohoku Heavy Rainfall Disaster, Japan, 2015
- Kumamoto Earthquake, Japan, 2016
IRIDeS Promoting Domestic and International Cooperation

Bridging Tohoku and the world through IRIDeS research activities and practices

**International Cooperation**

- Supported the Third UN World Conference on Disaster Risk Reduction, held in Sendai in March, 2015 as a disaster research institute, advancing cooperation among academia, industry, government and citizens
- Established the Global Centre for Disaster Statistics with UNDP to advance world disaster risk reduction
- Collaborates with international academic organizations on disaster risk reduction, including those in Germany, Indonesia, Philippines, UK, USA and Taiwan
- Participates in Multi-Hazard Program of Association of Pacific Rim Universities (APRU)

**Domestic / Local Cooperation**

- Established a satellite office in Kesennuma, Miyagi
- Has concluded comprehensive partnership agreements with 9 municipalities affected by the 2011 disaster and the National Institute of Technology, Fukushima College, and Miyagi Prefectural Tagajo High School
- Contributes to disaster risk reduction in Tohoku through public participation projects “The Power to Live” and “Disaster Prevention Notebook for Everyone”
IRIDeS Tour

IRIDeS has an exhibition space to introduce our research activities to the public. It is also equipped with the largest screen for 3D projection among Japanese research institutes. Upon request, IRIDeS screens the 3D documentary film "The Great Tsunami in Japan: reflecting on the 2011 disaster" (80min/25min, Japanese/English). The film was created by NHK Media Technology and supervised by IRIDeS Director and Professor Fumihiko Imamura, to pass on memories and experiences of the Great East Japan Earthquake and Tsunami.

Visitor Information

Take the Sendai Subway Touzai Line from Sendai Station to Aobayama Station. It is 3 minutes walk from South 1 Exit.

Contact

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