

W. TAKEUCHI LAB.

Monitoring global environmental changes and international collaborations



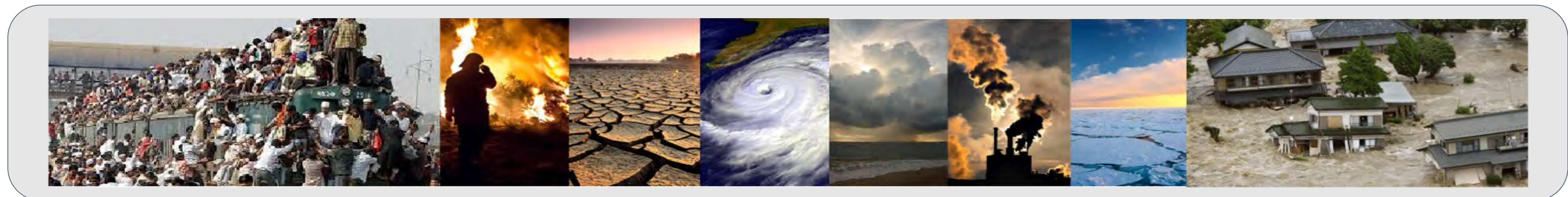
Department of Humans and Social Systems

Department of Civil Engineering, Graduate School of Engineering
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Remote Sensing of Environment and Disaster

<https://wtlab.iis.u-tokyo.ac.jp/>

Developing remote sensing based methodologies for measuring anthropogenic environmental changes



Solution oriented research and technology collaborated with Asian countries



<p>Air pollution in Dhaka Air quality estimation from satellite</p>	<p>Evaluating air pollution and the effect of policies</p>	<p>Paddy with water (inundation) / Paddy without water (non-inundation) Double bounce / Single scattering Field sensors + Satellite image integration</p>	<p>Methane (CH₄) emission monitoring from rice paddies</p>
<p>SAR Image Acquisition Subsidence estimation Building damage estimation</p>	<p>Infrastructure health monitoring & damage assessment</p>	<p>Ground truth Prediction using 6m and 25 m resolution PALSAR-2 image</p>	<p>Environmental restoration in Indonesian peatland</p>
<p>Population density distribution map Pavement 3D scanning</p>	<p>Assessment of livability & walkability of cities</p>	<p>Disease detection Plantation blueprint</p>	<p>Oil palm plantations disease & productivity enhancement</p>
<p>Solar panel mapping by machine learning and land use land cover change assessment</p>	<p>Quantifying solar panel installation and its environmental impacts</p>	<p>Human-bear conflicts Tapir conservation</p>	<p>Human-wildlife conflicts and wildlife conservation</p>
<p>Original Data / Proposed Method Imputation and Correction methods</p>	<p>Data enhancement for Nighttime Light Imagery</p>	<p>True color and SAR backscattering of fish cages</p>	<p>Marine aquaculture monitoring in Vietnam</p>
<p>Geological map Corner detection</p>	<p>Automated image processing of historical geological maps for GIS</p>		<p>One Health, One World research initiative</p>