

# Laboratory List

## Civil and Environmental Engineering, Graduate School of Engineering

Graduate School	Department	Research Group	Research Area	Job title	Name	Research Interests
Engineering	Civil and Environmental Engineering	Structural Engineering, Materials, and Informatics	Structural Analysis	Professor	<a href="#">Junji Kato</a>	Numerical simulation and optimal design for structures; Topology optimization for advanced material design; Finite element method for material/kinematic nonlinearity and dynamics; Innovative design and manufacturing with 3D printer; Reduced order-based data science
Engineering	Civil and Environmental Engineering	Structural Engineering, Materials, and Informatics	Infrastructure System Design	Professor	<a href="#">Kazuo Tateishi</a>	Steel bridge engineering; Maintenance of steel structures; Fatigue and fracture of steel bridges; Mechanics of steel-concrete composite structures
Engineering	Civil and Environmental Engineering	Structural Engineering, Materials, and Informatics	Infrastructure System Design	Assoc. prof.	<a href="#">Takeshi Hanji</a>	Steel structures; Fatigue and fracture of steel structures; Repair and retrofitting technique for cracked steel members; Seismic assessment and rehabilitation of steel bridges; Applications of image technique to infrastructures; Welding
Engineering	Civil and Environmental Engineering	Structural Engineering, Materials, and Informatics	Concrete Materials and Structures	Professor	<a href="#">Hikaru Nakamura</a>	Concrete structure; Seismic design of concrete structure; Maintenance and durability of concrete structure; Nonlinear analysis of concrete structure; Nondestructive test of concrete
Engineering	Civil and Environmental Engineering	Structural Engineering, Materials, and Informatics	Concrete Materials and Structures	Assoc. prof.	<a href="#">Taito Miura</a>	Multi-scale mechanical modelling for cementitious materials; Mesoscale chemo-mechanical analysis for chemical deterioration and fracture of cementitious materials; Expansion cracking mechanism due to ASR/DEF Reduction mechanism of compressive behaviors of concrete due to cracks with different directionality and discernibility.
Engineering	Civil and Environmental Engineering	Structural Engineering, Materials, and Informatics	Steel Structures	Assoc. prof.	<a href="#">Koji Nishiguchi</a>	Numerical simulation of structural dynamics, nonlinear materials, and fluid-structure interaction problems; High-performance computing
Engineering	Civil and Environmental Engineering	Hydraulics, Hydrology, Coastal, and Ocean Engineering	Coastal and Ocean Engineering	Professor	<a href="#">Norimi Mizutani</a>	Stability of coastal structures; Wave deformation due to coastal and offshore structures and wave forces; Tsunami disaster and mitigation; Sediment transport and beach deformation
Engineering	Civil and Environmental Engineering	Hydraulics, Hydrology, Coastal, and Ocean Engineering	Coastal and Ocean Engineering	Assoc. prof.	<a href="#">Tomoaki Nakamura</a>	Stability of coastal structures and their foundation considering dynamic interaction between waves, structure motion, sediment transport, and seabed response; Tsunami-induced topographic change
Engineering	Civil and Environmental Engineering	Hydraulics, Hydrology, Coastal, and Ocean Engineering	River Engineering	Professor	<a href="#">Yuji Toda</a>	River engineering; Fluvial hydraulics with riparian vegetation; Ecohydraulics; Numerical modeling of river eco-system
Engineering	Civil and Environmental Engineering	Hydraulics, Hydrology, Coastal, and Ocean Engineering	River Engineering	Assoc. prof.	<a href="#">Ryota Tsubaki</a>	Advanced field monitoring of fluid flow and sediment transport; Development of river channel morphology control approach; High resolution inundation flow simulation and its application to mitigate physical and environmental risks

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Engineering	Civil and Environmental Engineering	Geotechnical Engineering	Geomaterials and Geotechnical Engineering	Professor	<a href="#">Masaki Nakano</a>	Mechanical evaluation and quality certification for natural and artificial soil materials based on soil skeleton structure concept; Interpretation of the soil strengthening methods such as solidification, compaction etc. of various soil materials; Constitution of "sediment circulation system" considering utilization of soil materials at ordinary times as well as disaster periods
Engineering	Civil and Environmental Engineering	Geotechnical Engineering	Geomechanics	Professor	<a href="#">Toshihiro Noda</a>	Soil-water-air coupled finite deformation analysis of saturated/unsaturated soils taking into consideration inertial forces; Interpretation/development of the countermeasure principles of ground improvements, Seismic response analysis of natural deposited and artificial grounds, Numerical replication of natural deposited grounds
Engineering	Civil and Environmental Engineering	Geotechnical Engineering	Geo-Disaster Prevention Engineering	Assoc. prof.	<a href="#">Kentaro Nakaj</a>	Comprehension of dynamic/static behavior of various soils and their elasto-plastic description, Seismic response analysis of groundstructure interaction systems, Influence of stratum irregularity on subsurface seismic damage
Engineering	Civil and Environmental Engineering	Transportation, Infrastructure, and Environmental Planning	Network Systems	Professor	<a href="#">Toshiyuki Yamamoto</a>	Vehicle ownership and use, Travel behavior analysis, Environmentally sustainable transport (EST), Intelligent transport system (ITS), Traffic safety
Engineering	Civil and Environmental Engineering	Environmental Engineering and Environmental System Engineering	Environmental and Energy Biosystems	Professor	<a href="#">Kiichiro Hayashi</a>	Renewable energy; Biodiversity and ecosystem service assessment; Environmental assessment, Environmental policy; International environmental cooperation
Engineering	Civil and Environmental Engineering	Land and Infrastructure Design	Land and Infrastructure Design	Professor	<a href="#">Takashi Tomita</a>	Disaster risk estimation; Disaster risk management methodology; Development of disaster resilient ports; Regional potential development for sustainable and resilient society; Tsunamis, Storm surges
Engineering	Civil and Environmental Engineering	Land and Infrastructure Design	Land and Infrastructure Design	Assoc. prof.	<a href="#">Shinichiro Nakamura</a>	Climate change adaptation in developing country; Land design on river basin; Green infrastructure design
Engineering	Civil and Environmental Engineering	Land and Infrastructure Design	Land and Infrastructure Design	Lecturer	<a href="#">Mutsumi Tashiro</a>	Road design on soft ground; Traffic management; Mobility services