

## Civil and Environmental Engineering Program (M, D)

Department: Civil and Environmental Engineering, Graduate School of Engineering

Research group	Supervisor	Research theme
		E-mail address
Structural Engineering, Materials, and Informatics	Prof. Junji Kato	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 junjikato@nagoya-u.jp
	Prof. Kazuo Tateishi	Steel bridge engineering, Maintenance of steel structures, Fatigue and fracture of steel bridges, Mechanics of steel-concrete composite structures tateishi@civil.nagoya-u.ac.jp
	Prof. Hikaru Nakamura	Concrete structure, Seismic design of concrete structure, Maintenance and durability of concrete structure, Nonlinear analysis of concrete structure, Nondestructive test of concrete hikaru@cc.nagoya-u.ac.jp
	Assoc. prof. Takeshi Hanji	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 hanji@civil.nagoya-u.ac.jp
	Assoc. prof. Taito Miura	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 dispersibility t.miura@civil.nagoya-u.ac.jp
	Lecturer Koji Nishiguchi	Numerical simulation of structural dynamics, nonlinear materials, and fluid-structure interaction problems, High-performance computing kojinishiguchi@civil.nagoya-u.ac.jp
Hydraulics, Hydrology, Coastal, and Ocean Engineering	Prof. Norimi Mizutani	Stability of coastal structures, Wave deformation due to coastal and offshore structures and wave forces, Tsunami disaster and mitigation, Sediment transport and beach deformation mizutani@civil.nagoya-u.ac.jp
	Prof. Yuji Toda	River engineering, Fluvial hydraulics with riparian vegetation, Eco-hydraulics, Numerical modeling of river eco-system ytoda@cc.nagoya-u.ac.jp
	Assoc. prof. Tomoaki Nakamura	Stability of coastal structures and their foundation considering dynamic interaction between waves, structure motion, sediment transport, and seabed response; Tsunami-induced topographic change tnakamura@nagoya-u.jp

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Hydraulics, Hydrology, Coastal, and Ocean Engineering	Assoc. prof. Ryota Tsubaki	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 rtsubaki@civil.nagoya-u.ac.jp
	Lecturer Yonghwan Cho	Stability against waves and topographical change characteristics of mixed sediments along the coast, High efficiency of wave power generation, Stability evaluation of coastal structures yhcho@civil.nagoya-u.ac.jp
Geotechnical Engineering	Prof. Masaki Nakano	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 nakano@civil.nagoya-u.ac.jp
	Prof. Toshihiro Noda	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 noda@civil.nagoya-u.ac.jp
	Assoc. prof. Kentaro Nakai	Comprehension of dynamic/static behavior of various soils and their elasto-plastic description, Seismic response analysis of ground-structure interaction systems, Influence of stratum irregularity on subsurface seismic damage nakai@civil.nagoya-u.ac.jp
Transportation, Infrastructure, and Environmental Planning	Prof. Toshiyuki Yamamoto	Vehicle ownership and use, Travel behavior analysis, Environmentally sustainable transport (EST), Intelligent transport system (ITS), Traffic safety yamamoto@civil.nagoya-u.ac.jp
	Assoc. prof. Tomio Miwa	Transportation planning, Travel behavior analysis, Intelligent transport systems, Traffic assignment models and traffic simulators miwa@nagoya-u.jp
Environmental Engineering and Environmental System Engineering	Prof. Kiichiro Hayashi	Renewable energy, Biodiversity and ecosystem service assessment, Environmental assessment, Environmental policy, International environmental cooperation maruhaya98--@nagoya-u.jp
Land and Infrastructure Design	Prof. Takashi Tomita	Critical infrastructure planning and regional potential development for sustainable and resilient society, Tsunami and storm surge disaster risk reduction tomita.takashi@nagoya-u.jp
	Assoc. prof. Shinichiro Nakamura	Climate change adaptation in developing country, Land design on river basin, Green infrastructure design shinichiro@civil.nagoya-u.ac.jp

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Department: Environmental Engineering and Architecture, Graduate School of Environmental Studies

Research group	Supervisor	Research theme
		E-mail address
Transportation, Infrastructure, and Environmental Planning	Prof. Takayuki Morikawa	Transportation planning, Travel behavior analysis, Intelligent transportation systems (ITS)
		morikawa@nagoya-u.jp
	Prof. Hideki Nakamura	Traffic Engineering, Urban transport policy, Road geometric design, Traffic operation, Traffic safety, User behavior modeling, Traffic simulation model, ITS
		nakamura@genv.nagoya-u.ac.jp
	Prof. Hirokazu Kato	Low carbon & sustainable transport system, Environmental life cycle assessment of social stock, Resilient national & urban design, Region revitalization strategies
		kato@genv.nagoya-u.ac.jp
Assoc. prof. Miho Iryo	Traffic flow and safety analysis of vehicles and pedestrians, Road design for multimodal transport, Traffic simulation development	
	iryo@nagoya-u.jp	
Lecturer Xin Zhang	Evaluation of junction design and traffic signal control, Road user maneuver modeling, Traffic simulation	
	zhang@genv.nagoya-u.ac.jp	
Environmental Engineering and Environmental System Engineering	Prof. Hiroki Tanikawa	Environmental system analysis, Resource and Energy Flow for Sustainable Cities, Material Stock and Flow analysis, Weight of cities overtime with 4d-GIS, Socio economical metabolism, Industrial Ecology
		tanikawa@nagoya-u.jp
	Prof. Takashi Hibino	Electricity and hydrogen generation technology, Municipal solid waste treatment, Multifunctional cementitious materials design
		hibino@urban.env.nagoya-u.ac.jp
	Assoc. prof. Hiroaki Shirakawa	Analysis for economic and environmental interdependency among countries in the world, Evaluation of efficiency of urban environmental management, Economic evaluation of environmental policy
		sirakawa@urban.env.nagoya-u.ac.jp
Assoc. prof. Nagahisa Hirayama	Disaster prevention & preparedness in water system, Business continuity planning & risk communication for water utility, Redesign for water distribution system, Disaster debris management system	
	hirayama.nagahisa@nagoya-u.jp	
Assoc. prof. Sho-ichi Iwamatsu	Transformation technologies for organic substances, Greener synthetic methodologies of artificial materials. Sustainable utilization of materials.	
	iwmt@urban.env.nagoya-u.ac.jp	
Assoc. prof. Anatoly Zinchenko	Functional materials from biomass and plastic waste, Environmental pollution cleaning, Nanomaterials and environmental nanotechnologies, Sustainable chemical processes and materials upcycling technologies	
	zinchenko@urban.env.nagoya-u.ac.jp	