

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@nagoya-u.jp |
| Hydraulics, Hydrology, Coastal, and Ocean Engineering | 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 |

Continued on the following page

| | | |
|--|-------------------------------------|--|
| 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 rsubaki@civil.nagoya-u.ac.jp |
| | Lecturer Makiko Obana | Development of river ecosystem evaluation method considering climate change, Fluvial hydraulics and sediment transport with vegetation, Utilizing the renewable energy of the river, River engineering mobana@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@nagoya-u.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 | Environmental policy, Environmental assessment, Biodiversity and ecosystem service assessment, International environmental cooperation maruhaya98--@nagoya-u.jp |
| Land and Infrastructure Design | Assoc. prof. Shinichiro Nakamura | Climate change adaptation in developing country, Land design on river basin, Green infrastructure design shinichiro@civil.nagoya-u.ac.jp |

Continued on the following page

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 |
| 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 |
| 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@urban.env.nagoya-u.ac.jp |