

Laboratory List

Automotive Engineering (Electrical Engineering)					
Research Group	Research Area	Job title	Name	Email	Research Interests
Electric Energy	Electric Energy Storage Engineering	Professor	Tomokazu Fukutsuka	fukutsuka <at> nuee.nagoya-u.ac.jp	Fundamental study and materials development of innovative rechargeable batteries for the carbon-neutral society. Targets are lithium-ion batteries, sodium-ion batteries, fluoride shuttle batteries, all-solid-state lithium secondary batteries, water-based secondary batteries, and so on.
Electric Energy	Energy Control Engineering (S)	Professor	Yasunobu Yokomizu	yokomizu <at> nuee.nagoya-u.ac.jp	Research on (i) high current phenomena and interruption, (ii) contriving measurement method and next-generation equipment and (iii) AC and DC electrical-distribution systems with dispersed generation.
Electric Energy	Energy Control Engineering (S)	Assoc. prof.	Akimori Tabata	tabata <at> nuee.nagoya-u.ac.jp	Study on amorphous and nanocrystalline silicon-based semiconductor materials from hot-wire CVD and sputtering techniques and their electronic device applications.
Electric Energy	Electric Power Apparatus and Energy Transmission Engineering	Professor	Naoki Hayakawa	nhayakaw <at> nuee.nagoya-u.ac.jp	Development and optimization of environment-benign electric energy system with superconducting power apparatus, renewable energy and energy storage system.
Electric Energy	Electric Power Apparatus and Energy Transmission Engineering	Assoc. prof.	Hiroki Kojima	kojima <at> nuee.nagoya-u.ac.jp	Development and optimization of environment-benign electric energy system with superconducting power apparatus, renewable energy and energy storage system.
Electric Energy	Electric Power Apparatus and Energy Transmission Engineering (S)	Assoc. prof.	Muneaki Kurimoto	kurimoto.muneaki.t6 <at> f.mail.nagoya-u.ac.jp	Studies on high-withstand-voltage solid dielectrics (nanocomposite, etc.), energy harvesting, 3D printing and topology optimization in power generation apparatus, transportation and mobility.
Electric Energy	Energy Systems Engineering (Institute of Materials and Systems for Sustainability)	Professor	Takeyoshi Kato	tkato <at> nuee.nagoya-u.ac.jp	Optimum introduction and control of distributed generators, e.g. cogeneration, PV systems, etc. Improvement of performance and reliability of power apparatuses and their materials for environmentally friendly energy system.
Electric Energy	Power Electronics (Institute of Materials and Systems for Sustainability)	Professor	Masayoshi Yamamoto	m.yamamoto <at> imass.nagoya-u.ac.jp	Optimum introduction and control of distributed generators, e.g. cogeneration, PV systems, etc. Improvement of performance and reliability of power apparatuses and their materials for environmentally friendly energy system.

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Electric Energy	Power Electronics (Institute of Materials and Systems for Sustainability)	Assoc. prof.	Jun Imaoka	imaoka <at> nuee.nagoya-u.ac.jp	Optimum introduction and control of distributed generators, e.g. cogeneration, PV systems, etc. Improvement of performance and reliability of power apparatuses and their materials for environmentally friendly energy system.
Advanced Energy	Plasma Energy Engineering	Professor	Noriyasu Ohno	ohno <at> ees.nagoya-u.ac.jp	Extensive research on control of high heat flux plasma, plasma-material surface interactions, atomic and molecular processes in edge plasmas of nuclear fusion devices, and pioneering new fields of plasma science, such as dusty plasmas, high pressure RF plasma.
Advanced Energy	Plasma Energy Engineering	Assoc. prof.	Hirohiko Tanaka	h-tanaka <at> ees.nagoya-u.ac.jp	Extensive research on control of high heat flux plasma, plasma-material surface interactions, atomic and molecular processes in edge plasmas of nuclear fusion devices, and pioneering new fields of plasma science, such as dusty plasmas, high pressure RF plasma.
Advanced Energy	Functional and Energy Materials Engineering	Professor	Yutaka Yoshida	yutaka.yoshida <at> ees.nagoya-u.ac.jp	Studies on thin film processes of superconductors, oxide dielectric materials, thermoelectric materials and their applications to devices.
Advanced Energy	Functional and Energy Materials Engineering	Assoc. prof.	Tomoya Horide	horide <at> nuee.nagoya-u.ac.jp	Studies on thin film processes of superconductors, oxide dielectric materials, thermoelectric materials and their applications to devices.
Space Electromagnetic Environment	Space Observation (Insutitute for Space-Earth Environmental Research)	Professor	Kazuo Shiokawa	shiokawa <at> nagoya-u.jp	Studies on electromagnetic environment in the ionosphere and magnetosphere through observations using radars, GPS radio waves and optical equipment.
Space Electromagnetic Environment	Space Observation (Insutitute for Space-Earth Environmental Research)	Assoc. prof.	Nozomu Nishitani	nisitani <at> isee.nagoya-u.ac.jp	Studies on electromagnetic environment in the ionosphere and magnetosphere through observations using radars, GPS radio waves and optical equipment.
Space Electromagnetic Environment	Space Observation (Insutitute for Space-Earth Environmental Research)	Assoc. prof.	Yuichi Otsuka	otsuka <at> stelab.nagoya-u.ac.jp	Studies on electromagnetic environment in the ionosphere and magnetosphere through observations using radars, GPS radio waves and optical equipment.
Space Electromagnetic Environment	Space Observation (Insutitute for Space-Earth Environmental Research)	Assoc. prof.	Claudia Martinez		Studies on electromagnetic environment in the ionosphere and magnetosphere through observations using radars, GPS radio waves and optical equipment.
Space Electromagnetic Environment	Space Information Engineering (Data analysis and Computer Simulation on Sun and Space Environment)	Professor	Yoshizumi Miyoshi	miyoshi <at> isee.nagoya-u.ac.jp	Study the transport of plasmas and relationships in the sun-earth system by using information technology such as computer simulation and data processing.

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Space Electromagnetic Environment	Space Information Engineering (Data analysis and Computer Simulation on Sun and Space Environment)	Assoc. prof.	Takayuki Umeda	taka.umed@nagoya-u.jp	Study the transport of plasmas and relationships in the sun-earth system by using information technology such as computer simulation and data processing.
Future Electronics Creation	Plasma Electronics	Professor	Hirotaaka Toyoda	toyoda@nuee.nagoya-u.ac.jp	Discharge plasma physics and chemistry are basically studied with applications to thin films processing and to wall conditioning of fusion reactors.
Future Electronics Creation	Plasma Electronics	Lecturer	Haruka Suzuki	hsuzuki@nuee.nagoya-u.ac.jp	Discharge plasma physics and chemistry are basically studied with applications to thin films processing and to wall conditioning of fusion reactors.
Future Electronics Creation	Plasma Nanoprocess Science	Professor	Kenji Ishikawa	ishikawa@plasma.engg.nagoya-u.ac.jp	
Future Electronics Creation	Plasma Nanoprocess Science	Assoc. prof.	Hiroki Kondo	hkondo@nagoya-u.jp	Smart nano-processing is studied with the fabrication of nano-structures for new nano-device and the measurement and operation of atoms, molecules and radicals. Discharge plasma physics and chemistry are basically studied with applications to thin films processing and to wall conditioning of fusion reactors.
Future Electronics Creation	Plasma Nanoprocess Science	Lecturer	Takayoshi Tsutsumi	tsutsumi@nuee.nagoya-u.ac.jp	Smart nano-processing is studied with the fabrication of nano-structures for new nano-device and the measurement and operation of atoms, molecules and radicals. Discharge plasma physics and chemistry are basically studied with applications to thin films processing and to wall conditioning of fusion reactors.
Future Electronics Creation	Life Electronics	Professor	Hiromasa Tanaka	htanaka@plasma.engg.nagoya-u.ac.jp	
Future Electronics Creation	Life Electronics	Assoc. prof.	Tsuyoshi Uchiyama	tutyama@nuee.nagoya-u.ac.jp	Amorphous Wire & CMOS Based Sensitive Micro Magnetic Sensors (MI Sensors) and Applications to Intelligent Sensing. Bio-magnetic Field Measurement Using GMI Sensor for the Purpose of Medical Diagnosis.
Information Device Engineering	Nano-Bio Sensing	Professor	Yasufumi Takahashi	yasufumi@nuee.nagoya-u.ac.jp	Development and imaging of scanning probe microscopes for biological sensing, catalytic activity, and storage material characterization.
Information Device Engineering	Nano-Bio Sensing	Lecturer	Hiroki Ida	ida.hiroki.r9@f.mail.nagoya-u.ac.jp	Development and imaging of scanning probe microscopes for biological sensing, catalytic activity, and storage material characterization.
Information Device Engineering	Semiconductor Engineering and Integration Science	Professor	Seiichi Miyazaki	miyazaki@nuee.nagoya-u.ac.jp	Silicon-based novel functional devices with quantum structures. Materials and process integration for new generation nanoscale electron devices

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Information Device Engineering	Semiconductor Engineering and Integration Science	Assoc. prof.	Katsunori Makihara	makihara <at> nuee.nagoya-u.ac.jp	Silicon-based novel functional devices with quantum structures. Materials and process integration for new generation nanoscale electron devices
Information Device Engineering	Semiconductor Engineering and Integration Science	Lecturer	Maki Kushimoto	kusimoto <at> nuee.nagoya-u.ac.jp	Study of compound semiconductors for the photonic and quantum devcies; hetero-epitaxal growth and characterization of GaN and GaAs nano-structures, MOVPE, MBE, femto-second spectroscopy.
Information Device Engineering	Advanced Devices	Professor	Jun Suda	suda <at> nuee.nagoya-u.ac.jp	
Information Device Engineering	Advanced Devices	Assoc. prof.	Masahiro Horita	horita <at> nuee.nagoya-u.ac.jp	
Quantum System Engineering	Quantum Opto-Electronics	Professor	Norihiko Nishizawa	nishizawa <at> nuee.nagoya-u.ac.jp	Development of advanced optical and laser diagnostics techniques for plasmas and applications of non-equilibrium plasmas to light sources and materials processing.
Quantum System Engineering	Integrated Quantum Devices and Systems	Professor	Akira Fujimaki	fujimaki <at> nagoya-u.jp	Preparation and Integration of superconductive devices based on low- and high-temperature superconductors are studied toward future sensor systems, information network devices, and quantum computing systems.
Quantum System Engineering	Integrated Quantum Devices and Systems	Assoc. prof.	Masamitsu Tanaka	masami t <at> nagoya-u.jp	Preparation and Integration of superconductive devices based on low- and high-temperature superconductors are studied toward future sensor systems, information network devices, and quantum computing systems.
Quantum System Engineering	Optical Electronics	Professor	Kodo Kawase	kawase <at> nuee.nagoya-u.ac.jp	We are investigating development of compact THz-wave sources and their applications for Non-destructive THz imaging, high sensitive sensing, and novel advanced measurements.
Nanoelectronics	Semiconductor Electronics (Institute of Materials and Systems for Sustainability)	Professor	Hiroshi Amano	amano <at> nuee.nagoya-u.ac.jp	Study of compound semiconductors for the photonic and quantum devcies; hetero-epitaxal growth and characterization of GaN and GaAs nano-structures, MOVPE, MBE, femto-second spectroscopy.
Nanoelectronics	Semiconductor Electronics (Institute of Materials and Systems for Sustainability)	Assoc. prof.	Yoshio Honda	honda <at> nuee.nagoya-u.ac.jp	Study of compound semiconductors for the photonic and quantum devcies; hetero-epitaxal growth and characterization of GaN and GaAs nano-structures, MOVPE, MBE, femto-second spectroscopy.
Nanoelectronics	Nano-Spin Devices (Institute of Materials and Systems for Sustainability)	Professor	Takeshi Kato	takeshik <at> nuee.nagoya-u.ac.jp	Basic researches on spin tunnel effect, magnetic superlattices, nano-magnetic materials and spin dynamics, and their application to magnetic random access memories, magnetic recording and magnetic sensors.

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Nanoelectronics	Nano-Electronic Materials (Institute of Materials and Systems for Sustainability)	Professor	Nobuyuki Ikarashi	ikarashi <at> imass.nagoya-u.ac.jp	
Nanoelectronics	Nano-Electronic Materials (Institute of Materials and Systems for Sustainability)	Assoc. prof.	Masahiro Nagao	nagao.masahiro <at> imass.nagoya-u.ac.jp	
Nanoelectronics	Nano-electronics Devices (Institute of Materials and Systems for Sustainability)	Professor	Yutaka Ohno	yohno <at> nuee.nagoya-u.ac.jp	To develop innovative LSIs we are engaged in research and development of quantum effect devices using nanostructures.
Communication Systems	Visual Information	Professor	Toshiaki Fujii	t.fujii <at> nagoya-u.jp	Study on visual information and communication systems such as data compression, image processing, multimedia, 3D images, Free Viewpoint Television and ITS.
Communication Systems	Visual Information	Assoc. prof.	Keita Takahashi	keita.takahashi <at> nagoya-u.jp	Study on visual information and communication systems such as data compression, image processing, multimedia, 3D images, Free Viewpoint Television and ITS.
Communication Systems	Information Networks	Professor	Hiroshi Hasegawa	hasegawa <at> nuee.nagoya-u.ac.jp	Future network technologies that include photonic networks, broadband networks, and next generation multi-service networks. Focuses are on network architectures, photonic network systems/devices, and network control and transport technologies.
Communication Systems	Information Networks	Assoc. prof.	Yojiro Mori	mori <at> nuee.nagoya-u.ac.jp	Future network technologies that include photonic networks, broadband networks, and next generation multi-service networks. Focuses are on network architectures, photonic network systems/devices, and network control and transport technologies.
Communication Systems	Advanced Information Environment	Professor	Nobuo Kawaguchi	kawaguti <at> nuee.nagoya-u.ac.jp	We study smart and ubiquitous computing systems to support human life. We also support ubiquitous communications which enable anyone to access any information at anyplace, anytime , anywhere.
Communication Systems	Advanced Information Environment	Assoc. prof.	Takuro Yonezawa	takuro <at> nagoya-u.jp	We study smart and ubiquitous computing systems to support human life. We also support ubiquitous communications which enable anyone to access any information at anyplace, anytime , anywhere.
Communication Systems	Wireless Systems (Institute of Materials and Systems for Sustainability)	Professor	Masaaki Katayama	katayama <at> nuee.nagoya-u.ac.jp	Development and analysis on multimedia wireless systems based on communication and information theories, traffic theories, and signal processing theories.

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Communication Systems	Wireless Systems (Institute of Materials and Systems for Sustainability)	Assoc. prof.	Hiraku Okada	okada<at>imass.nagoya-u.ac.jp	Development and analysis on multimedia wireless systems based on communication and information theories, traffic theories, and signal processing theories.
Communication Systems	Communication Theory	Professor	Takaya Yamazato	yamazato<at>nagoya-u.jp	We aim to approach the essence of communication from a perspective beyond the existing framework of communication.
Information Systems	Computer Architecture	Professor	Hideki Ando	ando<at>nuee.nagoya-u.ac.jp	We are investigating microprocessor architecture for high-performance and low-power consumption.
Information Systems	Intelligent Systems	Professor	Satoshi Sato	ssato<at>nuee.nagoya-u.ac.jp	We study natural language processing and automated editing technologies, which generate information packages with high readability and usability.
Information Systems	Intelligent Systems	Assoc. prof.	Kohei Ogawa	k-ogawa<at>nuee.nagoya-u.ac.jp	We study natural language processing and automated editing technologies, which generate information packages with high readability and usability.
Information Systems	Computational Intelligence	Professor	Tetsu Iwata	iwata<at>cse.nagoya-u.ac.jp	Our research area is the information security technology mainly from a cryptographic point of view.
Information Systems	Control System	Professor	Shinji Doki	doki<at>nuee.nagoya-u.ac.jp	Human-like robots based on brains with emergent soft computers, intelligent motion control systems with the signal-symbol hybrid systems and advanced motor drive systems with adaptive and robust controls.
Information Systems	Control System	Assoc. prof.	Yuki Funabora	funabora<at>nagoya-u.jp	Human-like robots based on brains with emergent soft computers, intelligent motion control systems with the signal-symbol hybrid systems and advanced motor drive systems with adaptive and robust controls.

* Please change <at> to @ in an email address of each faculty member.