

## G30 自動車工学プログラム／Automotive Engineering Program

卒業研究配属および卒研テーマ／List of Laboratories available at the 4th year with the research project samples

学科名：電気電子情報工学科／Department of Electrical Engineering, Electronics, and Information Engineering

研究グループ名(英語)／Group	卒研テーマ(英語)／Research project	研究室URL／Laboratory URL	指導教員／Supervisor	連絡先／Contact person	Mail address
Advanced Energy Science, Plasma Energy Group	Metallic nanostructure formation by plasma irradiation for photocatalysis application	<a href="http://www.ees.nagoya-u.ac.jp/~web_dai5/">http://www.ees.nagoya-u.ac.jp/~web_dai5/</a>	Noriyasu OHNO Shin KAJITA	Noriyasu OHNO	ohno@ees.nagoya-u.ac.jp
Space Electromagnetic Environment (Space Observation)	Studies on electromagnetic environment of geospace around the Earth using radars, GPS receivers optical interferometers, and satellites.	<a href="http://stdb2.stelab.nagoya-u.ac.jp/index_e.html">http://stdb2.stelab.nagoya-u.ac.jp/index_e.html</a>	Kazuo SHIOKAWA	Kazuo SHIOKAWA	shiohawa@nagoya-u.jp
Energy Systems Engineering	Integration of EV/PHEV into Electric Power System	<a href="http://www.nuee.nagoya-u.ac.jp/labs/katolab/">http://www.nuee.nagoya-u.ac.jp/labs/katolab/</a>	Takeyoshi KATO	Takeyoshi KATO	tkato@nuee.nagoya-u.ac.jp
Plasma Electronics	Surface Wettability Control by Plasma Treatment	<a href="http://www.nuee.nagoya-u.ac.jp/labs/toyodalab/index_t_e.html">http://www.nuee.nagoya-u.ac.jp/labs/toyodalab/index_t_e.html</a>	Hirohaka TOYODA	Hirohaka TOYODA	toyoda@nuee.nagoya-u.ac.jp
Materials and Device Processing Research Group, Nano Process Laboratory	Novel fuel cell device based on nanocomposite materials and plasma nano-processing	<a href="http://horilab.nuee.nagoya-u.ac.jp/index.php?id=336">http://horilab.nuee.nagoya-u.ac.jp/index.php?id=336</a>	Masaru HORI Hiroki KONDO	Masaru HORI Hiroki KONDO	hori@nuee.nagoya-u.ac.jp hkondo@nagoya-u.jp
	High-performance GaN power devices developed by advanced plasma technologies				
	Surface functionalization technology for car engineering by advanced plasma treatments				
Nano information devices	Nitride-based LEDs, LDs, Power devices, Solar cells	<a href="http://www.semicond.nuee.nagoya-u.ac.jp/">http://www.semicond.nuee.nagoya-u.ac.jp/</a>	Hiroshi AMANO	Hiroshi AMANO	amano@nuee.nagoya-u.ac.jp
Intelligent Devices	CMOS VLSI Design for Biomedical Application	<a href="http://www.nuee.nagoya-u.ac.jp/labs/nakazatolab/">http://www.nuee.nagoya-u.ac.jp/labs/nakazatolab/</a>	Kazuo NAKAZATO	Kiichi NIITSU	niitsu@nuee.nagoya-u.ac.jp
Quantum Opto-Electronics	Novel ultrashort pulse fiber lasers and their application for optical imaging	<a href="http://www.nuee.nagoya-u.ac.jp/labs/optelelab/">http://www.nuee.nagoya-u.ac.jp/labs/optelelab/</a>	Norihiko NISHIZAWA	Norihiko NISHIZAWA	nishizawa@nuee.nagoya-u.ac.jp
Quantum Integration Devices Group	Energy-Efficient Cryogenic Devices and Circuits	<a href="http://www.super.nuqe.nagoya-u.ac.jp/en/index.html">http://www.super.nuqe.nagoya-u.ac.jp/en/index.html</a>	Akira FUJIMAKI	Akira FUJIMAKI	fujimaki@nuee.nagoya-u.ac.jp
Semiconductor Engineering and Integration Science	Material Characterization and Processing for Advanced Semiconductor Devices	<a href="http://www.nuee.nagoya-u.ac.jp/labs/miyazakilab/">http://www.nuee.nagoya-u.ac.jp/labs/miyazakilab/</a>	Seiichi MIYAZAKI	Seiichi MIYAZAKI	miyazaki@nuee.nagoya-u.ac.jp
Nano-spin Devices Group	Development of High Performance Magnetic Sensors Using Magnetoresistance Effect	<a href="http://www.nuee.nagoya-u.ac.jp/labs/iwatalab/">http://www.nuee.nagoya-u.ac.jp/labs/iwatalab/</a>	Satoshi IWATA	Satoshi IWATA	iwata@nuee.nagoya-u.ac.jp
Nano-electron devices	Carbon nanotube-based electron devices	<a href="http://qed63.qd.nuqe.nagoya-u.ac.jp/public/">http://qed63.qd.nuqe.nagoya-u.ac.jp/public/</a>	Yutaka OHNO	Yutaka OHNO	yohno@nagoya-u.jp
Visual Information Group	Image and Video Processing	<a href="http://www.fujii.nuee.nagoya-u.ac.jp/">http://www.fujii.nuee.nagoya-u.ac.jp/</a>	Toshiaki FUJII	Toshiaki FUJII	fujii@nuee.nagoya-u.ac.jp
Infomatoin Systems (Control Systems) Group	Advanced system control of Viechle and Robot	<a href="http://www.nuee.nagoya-u.ac.jp/labs/doki/">http://www.nuee.nagoya-u.ac.jp/labs/doki/</a>	Shinji DOKI	Shinji DOKI	doki@nagoya-u.jp
Information Networks Group	Network traffic engineering to create power efficient networks	<a href="http://www.nuee.nagoya-u.ac.jp/labs/satolab/en/index.html">http://www.nuee.nagoya-u.ac.jp/labs/satolab/en/index.html</a>	Ken-ichi SATO	Ken-ichi SATO	sato@nuee.nagoya-u.ac.jp
Intelligent Systems	Artificial Intelligence and Natural Language Processing	<a href="http://ssl.nuee.nagoya-u.ac.jp">http://ssl.nuee.nagoya-u.ac.jp</a>	Satoshi SATO Takuya MATSUZAKI	Satoshi SATO	ssato@nuee.nagoya-u.ac.jp
Information Systems Group Intelligent Control Laboratory	1. Brain Computer Interface for Aged People 2. Design Optimization using Evolutionary Computation	<a href="http://www.cmplx.cse.nagoya-u.ac.jp/Research_English.php">http://www.cmplx.cse.nagoya-u.ac.jp/Research_English.php</a>	Takeshi FURUHASHI Tomohiro YOSHIKAWA	Takeshi FURUHASHI	furuhashi@cse.nagoya-u.ac.jp
Advanced Information Environment Group	Big data analysis for Location based Information Systems	<a href="http://www.ucl.nuee.nagoya-u.ac.jp/">http://www.ucl.nuee.nagoya-u.ac.jp/</a>	Nobuo KAWAGUCHI	Kei HIROI	k.hiroi@ucl.nuee.nagoya-u.ac.jp
Information Engineering Group	Design and analysis of cryptographic primitives	<a href="http://www.nuee.nagoya-u.ac.jp/labs/tiwata/index.html">http://www.nuee.nagoya-u.ac.jp/labs/tiwata/index.html</a>	Tetsu IWATA	Tetsu IWATA	iwata@cse.nagoya-u.ac.jp
Acoustic Speech and Behavior Signal Processing Group	In-vehicle speech and acoustic systems Modeling of traffic/vehicle and driver behaviors Data mining for Field Operational Tests	<a href="http://takedalab.g.sp.m.is.nagoya-u.ac.jp/">http://takedalab.g.sp.m.is.nagoya-u.ac.jp/</a>	Kazuya TAKEDA	Kazuya TAKEDA	takeda@is.nagoya-u.ac.jp
Communication Systems	Wireless Communications for Transportation Systems	<a href="http://www.katayama.nuee.nagoya-u.ac.jp/">http://www.katayama.nuee.nagoya-u.ac.jp/</a>	Masaaki KATAYAMA	Hiraku OKADA	okada@nuee.nagoya-u.ac.jp

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学科名：機械・航空宇宙工学科／Department of Mechanical and Aerospace Engineering

研究グループ名(英語)／Group	卒研テーマ(英語)／Research project	研究室URL／Laboratory URL	指導教員／Supervisor	連絡先／Contact person	Mail address
Material Characterization & Mechanics	Effect of high-density electric current on the material strength of TiAl alloy	<a href="http://www.mech.nagoya-u.ac.jp/ju/index_E.html">http://www.mech.nagoya-u.ac.jp/ju/index_E.html</a>	Yang Ju	Yang Ju	ju@mech.nagoya-u.ac.jp
Ultraprecision Engineering	High-Precision/High-Efficiency Machining and Machine Tool	<a href="http://www.mech.nagoya-u.ac.jp/upr/English/index.html">http://www.mech.nagoya-u.ac.jp/upr/English/index.html</a>	Eiji Shamoto	Eiji Shamoto	shamoto@mech.nagoya-u.ac.jp
Manufacturing Process	Ultra low friction and high wear resistance coatings for advanced automobiles	<a href="http://huga.ume.mech.nagoya-u.ac.jp/umelab-english/index_con.html">http://huga.ume.mech.nagoya-u.ac.jp/umelab-english/index_con.html</a>	Noritsugu Umehara	Noritsugu Umehara	ume@mech.nagoya-u.ac.jp
High-temperature energy conversion engineering	Development of efficient biomass gasification technology in packed bed gasifier	<a href="http://www.mech.nagoya-u.ac.jp/en/laboratories/temperature.html">http://www.mech.nagoya-u.ac.jp/en/laboratories/temperature.html</a>	Ichiro Naruse Ryo Yoshiie	Ichiro Naruse Ryo Yoshiie	naruse@esi.nagoya-u.ac.jp ryoshiie@mech.nagoya-u.ac.jp
Statistical Fluid Engineering	On the intelligent active control of mixing and diffusion process in an axisymmetric air jet flow	<a href="http://www.mech.nagoya-u.ac.jp/sfe/en/eindex.html">http://www.mech.nagoya-u.ac.jp/sfe/en/eindex.html</a>	Yasuhiko Sakai	Yasuhiko Sakai	ysakai@mech.nagoya-u.ac.jp
Heat Transfer & Combustion Engineering	Advanced thermal management technology for effective heat-energy utilization	<a href="http://www.eess.mech.nagoya-u.ac.jp/index.html">http://www.eess.mech.nagoya-u.ac.jp/index.html</a>	Hosei Nagano	Hosei Nagano	nagano@mech.nagoya-u.ac.jp
Biomechanics	Evaluation of Mental Stress by Mechanical Response of Arteries	<a href="http://bio.mech.nagoya-u.ac.jp/">http://bio.mech.nagoya-u.ac.jp/</a>	Takeo Matsumoto	Takeo Matsumoto	takeo@mech.nagoya-u.ac.jp
Safety Intelligence	Investigation into Cognitive Characteristics in The Use of Personalcare Robots	<a href="http://www.mech.nagoya-u.ac.jp/asi/en/research/">http://www.mech.nagoya-u.ac.jp/asi/en/research/</a>	Yoji Yamada	Yoji Yamada	yamada-yoji@mech.nagoya-u.ac.jp
Human System Engineering	Optimization of crash pulse for reduction of injury risk to vehicle occupants	<a href="http://www.mech.nagoya-u.ac.jp/en/laboratories/human.html">http://www.mech.nagoya-u.ac.jp/en/laboratories/human.html</a>	Koji Mizuno Daisuke Ito	Koji Mizuno	kmizuno@mech.nagoya-u.ac.jp
Micro-Nano Control Engineering Bio-Robotics	Robot Technologies for Human Enhancement and Support	<a href="http://www.mein.nagoya-u.ac.jp/index.html">http://www.mein.nagoya-u.ac.jp/index.html</a>	Yasuhisa Hasegawa	Yasuhisa Hasegawa	hasegawa@mein.nagoya-u.ac.jp
Biorobotics and Biomedical Engineering	MEMS Sensor for Detection of Biological Signals of Driver	<a href="http://www.biorobotics.mech.nagoya-u.ac.jp/index_e.html">http://www.biorobotics.mech.nagoya-u.ac.jp/index_e.html</a>	Fumihito Arai	Fumihito Arai	arai@mech.nagoya-u.ac.jp
MEMS and Micromachining	Combinatorial search for novel magnetostrictive alloy and its application to micro torque sensor for mobile body	<a href="http://mnp.mech.nagoya-u.ac.jp/">http://mnp.mech.nagoya-u.ac.jp/</a>	Seiichi Hata	Seiichi Hata	hata@mech.nagoya-u.ac.jp
Micro Thermal Fluid Engineering	Analysis on molecular behavior in high Knudsen number flows	<a href="http://www.mech.nagoya-u.ac.jp/mtfe/index_e.htm">http://www.mech.nagoya-u.ac.jp/mtfe/index_e.htm</a>	Tomohide Niimi Hiroki Yamaguchi	Tomohide Niimi Hiroki Yamaguchi	niimi@mech.nagoya-u.ac.jp hiroki@nagoya-u.jp
Computational Mechatronics	Shape Optimization Analyses of Vehicle Interior Sound Fields	<a href="http://www.matsumoto.nuem.nagoya-u.ac.jp/">http://www.matsumoto.nuem.nagoya-u.ac.jp/</a>	Toshiro Matsumoto	Toshiro Matsumoto	t.matsumoto@nuem.nagoya-u.ac.jp
Mechatronics-Dynamics Group	Parameter Estimation of Mechatronics System/Human body-mechanical System	<a href="http://www.nuem.nagoya-u.ac.jp/inouelab/">http://www.nuem.nagoya-u.ac.jp/inouelab/</a>	Tsuyoshi Inoue	Tsuyoshi Inoue	inoue@nuem.nagoya-u.ac.jp
Intelligent Sensing Group	Micro/nano Measurement for Clarifying Boundary Lubrication Phenomena	<a href="http://www.mitsuya.nuem.nagoya-u.ac.jp/">http://www.mitsuya.nuem.nagoya-u.ac.jp/</a>	Kenji Fukuzawa	Kenji Fukuzawa	fukuzawa@nuem.nagoya-u.ac.jp
Mathematical System Control Group	Fault Tolerant Control for Electric Vehicles via Steer-by-Wire and In-Wheel Motors	<a href="http://www.haya.nuem.nagoya-u.ac.jp/index.html">http://www.haya.nuem.nagoya-u.ac.jp/index.html</a>	Toru Asai	Toru Asai	asai@nuem.nagoya-u.ac.jp
Biomechanical Control Group	Multimode multi-user equilibrium assignment for efficient and low emission traffic flow	<a href="http://www.uno.nuem.nagoya-u.ac.jp/index_en.html">http://www.uno.nuem.nagoya-u.ac.jp/index_en.html</a>	Kouichi Taji	Kouichi Taji	taji@nuem.nagoya-u.ac.jp
Mobility System	Personalized assistance system design for future vehicle Synthesis and control of automated vehicle	<a href="http://www.suzlab.nuem.nagoya-u.ac.jp/index_e.html">http://www.suzlab.nuem.nagoya-u.ac.jp/index_e.html</a>	Tatsuya Suzuki	Tatsuya Suzuki	t_suzuki@nuem.nagoya-u.ac.jp
Aerospace Vehicle Dynamics Research Group	Characterization and Optimum Design of Advanced Composite Materials	<a href="http://str.nuae.nagoya-u.ac.jp/index.html">http://str.nuae.nagoya-u.ac.jp/index.html</a>	Masahiro Arai	Masahiro Arai	arai@nuae.nagoya-u.ac.jp
Shock Wave and Space Propulsion Laboratory	Boundary layer interaction in high-speed flows	<a href="http://akagi.nuae.nagoya-u.ac.jp/">http://akagi.nuae.nagoya-u.ac.jp/</a>	Akihiro Sasoh	Akihiro Sasoh	sasoh@nuae.nagoya-u.ac.jp

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卒業研究配属および卒研テーマ／List of Laboratories available at the 4th year with the research project samples

学科名：化学生命工学科／Department of Chemistry and Biotechnology

研究グループ名(英語)／Group	卒研テーマ(英語)／Research project	研究室URL／Laboratory URL	指導教員／Supervisor	連絡先／Contact person	Mail address
Chemistry of Inorganic Reactions	Fuel and Automobile Catalysts for Environmental Friendly Cars	<a href="http://www.apchem.nagoya-u.ac.jp/mde6-e.html">http://www.apchem.nagoya-u.ac.jp/mde6-e.html</a>	Atsushi Satsuma	Atsushi Satsuma	satsuma@apchem.nagoya-u.ac.jp

学科名：物理工学科／Department of Physical Science and Engineering

研究グループ名(英語)／Group	卒研テーマ(英語)／Research project	研究室URL／Laboratory URL	指導教員／Supervisor	連絡先／Contact person	Mail address
High Pressure Materials Science Group	High pressure syntheses of hydrogen storage materials for green vehicles	<a href="http://www.numse.nagoya-u.ac.jp/hasegawa/">http://www.numse.nagoya-u.ac.jp/hasegawa/</a>	Masashi Hasegawa	Masashi Hasegawa	hasegawam@cc.nagoya-u.ac.jp
Nano-materials properties analysis by electron spectroscopic method	Nano-scale analysis of vehicular exhaust gas purification catalyst/high-power new secondary batteries/other materials related to automotive applications	<a href="http://emu.nucl.nagoya-u.ac.jp/indexJ.html">http://emu.nucl.nagoya-u.ac.jp/indexJ.html</a>	Shunsuke Muto	Shunsuke Muto	s-mutoh@nucl.nagoya-u.ac.jp

学科名：マテリアル工学科／Department of Materials Science and Engineering

研究グループ名(英語)／Group	卒研テーマ(英語)／Research project	研究室URL／Laboratory URL	指導教員／Supervisor	連絡先／Contact person	Mail address
Chemical Reaction Engineering Group	Studies on exhaust emission control catalytic system	<a href="http://www.nuce.nagoya-u.ac.jp/L3/">http://www.nuce.nagoya-u.ac.jp/L3/</a>	Tomohiko TAGAWA	3388	tagawa@nuce.nagoya-u.ac.jp
Multiscale Powder Technology Group	Development of extreme low frictional system using Boron carbide based composite ceramics	<a href="http://www.nuce.nagoya-u.ac.jp/L17/index.html">http://www.nuce.nagoya-u.ac.jp/L17/index.html</a>	Hideki Kita (Prof. Dr.Eng.)	Hideki Kita	hkita@nuce.nagoya-u.ac.jp
Material Hybridization Engineering Group	Processing of porous aluminum for crash energy absorption	<a href="http://www.numse.nagoya-u.ac.jp/P6/kobashi/">http://www.numse.nagoya-u.ac.jp/P6/kobashi/</a>	Makoto Kobashi	Makoto Kobashi	kobashi@numse.nagoya-u.ac.jp

学科名：エネルギー理工学科／Department of Energy Science and Engineering

研究グループ名(英語)／Group	卒研テーマ(英語)／Research project	研究室URL／Laboratory URL	指導教員／Supervisor	連絡先／Contact person	Mail address
Thermal Energy System and Fluid Engineering Laboratory	Visualization of heat transfer process in heat pipe and its effective control.	<a href="http://www.ees.nagoya-u.ac.jp/~web_dai2/index.htm">http://www.ees.nagoya-u.ac.jp/~web_dai2/index.htm</a>	Yoshiyuki Tsuji	Yoshiyuki Tsuji	y-tsuji@nucl.nagoya-u.ac.jp
八木研究室(環境システム・リサイクル科学)	Fabrication of metal-nanoparticle catalyst and its characterization		八木伸也, 吉田朋子	6828	s-yagi@nucl.nagoya-u.ac.jp
八木研究室(環境システム・リサイクル科学)	Development of advanced hydrogen storage materials		八木伸也	6828	

学科名：環境土木・建築学科／Department of Civil Engineering and Architecture

研究グループ名(英語)／Group	卒研テーマ(英語)／Research project	研究室URL／Laboratory URL	指導教員／Supervisor	連絡先／Contact person	Mail address
中村英樹研究室	交差点における安全性に関する研究 Study on traffic safety at intersections	<a href="http://www.genv.nagoya-u.ac.jp/ge1/nakamura/index-en.html">http://www.genv.nagoya-u.ac.jp/ge1/nakamura/index-en.html</a>	中村英樹	中村英樹	nakamura@genv.nagoya-u.ac.jp
Nakamura Lab.(INTERCHANGE)	高速道路の交通流特性に関する研究 Analysis on traffic flow characteristics on motorways		Hideki Nakamura	Hideki Nakamura	
森川・山本・三輪研究室	プローブカーデータを用いたエコドライブの分析	<a href="http://www.trans.civil.nagoya-u.ac.jp/english/index.html">http://www.trans.civil.nagoya-u.ac.jp/english/index.html</a>	森川高行	森川高行	morikawa@nagoya-u.jp
Morikawa, Yamamoto & Miwa Laboratory	Analysis on eco-driving behavior using private probe vehicle data		Takayuki Morikawa	Takayuki Morikawa	
森川・山本・三輪研究室	自動運転車によるカーシェアリングの分析	<a href="http://www.trans.civil.nagoya-u.ac.jp/english/index.html">http://www.trans.civil.nagoya-u.ac.jp/english/index.html</a>	山本俊行	山本俊行	yamamoto@civil.nagoya-u.ac.jp
Morikawa, Yamamoto & Miwa Laboratory	Analysis on car sharing system with automated vehicles		Toshiyuki Yamamoto	Toshiyuki Yamamoto	
加藤研究室	交通システムの環境負荷のライフサイクル評価 Life cycle assessment with environmental load from transport systems	<a href="http://orient.genv.nagoya-u.ac.jp/kato/ekato.htm">http://orient.genv.nagoya-u.ac.jp/kato/ekato.htm</a>	加藤博和	加藤博和	kato@genv.nagoya-u.ac.jp
Kato Laboratory	アジア途上国における低炭素交通システムの実現方策検討 Seeking countermeasures for realizing low-carbon transport systems in Asian developing countries		Hirokazu Kato	Hirokazu Kato	