

Laboratories Accepting Research Students
Kanazawa Institute of Technology, Japan

April 2026-March 2027

This list is compiled as a reference for broad research areas. We will match students with KIT faculty members based on their individual preferences and interests, and coordinate specific research activities, assigned faculty members, and laboratories accordingly.

Department	Id	Advising Prof./Lab.	Field/Keyword Examples and Requirements
Information and Computer Science			
Information and Computer Science	1	Prof. Nakazawa	Example themes: - Research on HMI (Human Machine Interface) using brain activity - Research on behavior understanding using image and voice recognition - Application of AI in regional traffic at intersections - Collision detection system in the automatic driving system using MR/VR - Research on accident prevention in warehouses using AI sensors - Universal lesion detection system using deep learning - Construction of a 5G-enabled dynamic frequency-sharing mechanism using deep reinforcement learning - Identity management method for objects using the P2P method
Artificial Intelligence	2	Prof. Yamamoto	1. Human interface and communication 2. Virtual reality and mixed reality 3. Human-computer interaction 4. Artificial intelligence and Data Science
Artificial Intelligence	3	Assoc. prof. Sakamoto	1. Wireless Mesh Networks 2. Intelligent Algorithms 3. Mobile Computing 4. Information and Communications Networks 5. Optimization
Robotics Common points ①Robot mechanics and mechatronics, ②Robot intelligence, ③Measurement and control, ④Robot programming, ⑤Digital technology and Social implementation			
Robotics	4	Prof. Suzuki	1.Control Engineering 2.Robotics 3.Assistive Technology 4.Welfare and Medical Support Technology
Robotics	5	Prof. Doi	1.Sustainability 2.Off-road mobility 3.Disaster response 4.Multi-legged robot
Robotics	6	Prof. Kawai	1.Human Motion Control 2.Functional Electrical Stimulation 3.Rehabilitation System 4.Robot Control
Media Information			
Media Information	7	Prof. Izuhara	1.Media informatics 2.Media design 3.Visualization 4.Space media design 5.Regional cooperation
Media Information	8	Assoc. prof. Takano	1.Speech 2.Image 3.Programming 4.Design Science 5.local communication
Mechanical Engineering			
Mechanical Engineering	9	Assoc. prof. Fukue	1.Mechanical engineering 2.Thermal-fluids engineering 3.Biomimetics 4.Engineering design Fluid Engineering, Heat Transfer Engineering, Biomimicry, Fish Swimming Mechanics and Flow Dynamics, Cooling for Electric Vehicles and Supercomputers
Advanced Mechanical Systems Engineering	10	Prof. Suwabe	1.Mechanical engineering 2.Processing 3.Engineering design 4.Engineering analysis Ultra-precision machining, cutting and polishing, grinding, laser processing

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Aeronautics and Astronautics			
Aeronautics and Astronautics	11	Prof. Yoshida	1.Aeronautics and astronautics 2.Aerospace structure 3.Structural mechanics 4.Composite materials 5.Programing
Electrical and Electronic Engineering			
Electrical Energy Systems Engineering	12	Prof. Osawa	1.Electrical discharges and plasmas 2.Insulation and dielectric phenomena 3.Modeling 4.Verification 5.Green Transformation [Projects] (1) fundamental research on non-thermal plasmas and dielectric breakdown phenomena. Elucidation of mechanism on atmospheric pressure air diffuse dielectric barrier discharge generation, dielectric breakdown phenomena of solid/gas composite insulation, etc. (2) applications of non-thermal plasmas. Ozone generation by non-thermal plasmas, air and water treatment, etc. We address not only research themes related to Engineering (manufacturing, enhancing performance, etc.), but also research themes related to Science (why it happens, what is happening inside).
Electrical Energy Systems Engineering	13	Prof. Nakata	1.Power Semiconductor 2.Power Electronics 3.Circuit Simulation 4.Device analysis and SOA estimation [Example of project theme] Research of the power converter a) High frequency operation of the several kinds of converter. b) Application of the SiC or GaN semiconductor for the converter. Research of the safety operation area of the power semiconductor a) Estimation of the ultra-fast switching stress on the characteristics of the power semiconductor b) Precise electric circuit modeling of the power semiconductor aiming for the ultra-fast switching operation
Electrical Energy Systems Engineering	14	Prof. Fujita	1.Energy storage technology literacy 2.Energy storage device 3.Transient response and energy conversion 4.Reliability and safety evaluation [Example of project theme] (1) Study on the effect of high voltage pulsed high electric field on batteries (2) Study on the effects of the equalization circuit and method for assembled batteries (3) Cell performance analysis and modeling of lead-acid batteries
Electronics and Information Systems Engineering	15	Prof. Yamaguchi	1.Research 2.Semiconductor Lasers 3.LEDs 4.Optical properties Specializes in physics (solid-state physics), compound semiconductors, and optics
Electronics and Information Systems Engineering	16	Prof. Yokotani	Fields related to 1.information and communication systems 2.IoT 3.Internet
Electronics and Information Systems Engineering	17	Prof. Noguchi	1.Mobile Communication 2.Mobile terminal 3.Antenna 4.Wave Propagation 5.mm Wave Project themes includes (1) small and planar antennas, (2) broadband and high efficient microstrip antennas, (3) antennas for sensor network systems, (4) wearable antennas, (5) automotive antennas and (6) wireless power transfer antennas.

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Management Systems			
Students themselves set project themes based on their own problem awareness. To gather and process information for project themes, they require strong curiosity, information technology skills, research and analytical abilities, writing skills, and presentation skills. Past project themes have primarily covered the following fields: ①Management Systems and Management Strategy Analysis, ②Marketing, ③Financial Systems, ④Internet Business, ⑤Supply Chain Management			
Management Systems	18	Prof. Tokunaga	1.Innovation 2.Web service 3.IoT and big data 4.Data analysis 5.Simulation Requirements: Currently studying Japan, interested in social issues within Japan (such as aging and declining birth rates), and motivated to utilize IT to address these challenges.
Management Systems	19	Prof. Hiramoto	1.SDGs 2.Global Supply Chain 3.Management System 4.Leadership 5.Regional partnership
Environmental Design and Innovation	20	Assoc. prof. Kano	1. International Development, Developing Country Assistance, ODA 2. Digital (IT) Technology 3. Innovation 4. SDGs 5. Cross-Cultural Understanding 6. Regional Revitalization
Applied Chemistry			
Chemistry and Environmental Science	21	Prof. Sakamoto	1.Organic chemistry 2.Inorganic chemistry 3.Analytical chemistry 4.Physical chemistry 5.Machine learning Organic Synthesis, Organic-Inorganic Composite Materials, Separation and Recovery of Rare Metals, Archaeochemistry
Chemistry and Environmental Science	22	Prof. Osawa	1.Biocompatible materials 2.Organic chemistry 3.Polymer chemistry 4.Analytical chemistry 5.Physical chemistry Biodegradable Plastics, Food Chemistry, Cosmetics, Medical Materials, Health Materials
Chemistry and Environmental Science	23	Prof. Tosa	1.Inorganic chemistry 2.Organic chemistry 3.Polymer chemistry 4.Analytical chemistry 5.Physical chemistry Other student-proposed themes may be implemented. (1) Water purification and water quality analysis (2) Synthesis of porous molecules and their application in environmental, bio, and energy fields (3) Production of useful substances and fuels from biomass
Chemistry and Environmental Science	24	Prof. Suzuki	1.Inorganic chemistry 2.Organic chemistry 3.Polymer chemistry 4.Analytical chemistry 5.Physical chemistry Simple Analysis, Environmental Analysis, Spectroscopic Analysis, Equipment Development
Chemistry and Environmental Science	25	Prof. Okada	1.Organic chemistry 2.Inorganic chemistry 3.Biocompatible materials 4.Polymer chemistry 5. Physical Chemistry Phosphor materials, Rare earth ions, Sensors, Radiophotoluminescence (RPL), Scintillation

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Applied Bioscience			
Life Science and Biotechnology	26	Prof. Hakamada	1. Biotechnology 2. Bacillus natto 3. Bioengineering 4. Genetic engineering 5. Regional cooperation 1. Utilization of Bacillus natto (application for industry). -Tyrosinase inhibitor, LDH inhibitor, Production of Natto, Screening of Bacillus natto 2. Bioethanol production from Komb using marine microorganisms.
Life Science and Biotechnology	27	Prof. Hirata	1. Mechanobiology 2. Molecular and cellular biology 3. Mechanical measurement/manipulation 4. Live imaging 5. Cancer
Civil and Environmental Engineering			
Civil and Environmental Engineering	28	Prof. Tokunaga	The accepted topic is Remote Sensing & GIS.
Civil and Environmental Engineering	29	Prof. Hanaoka	1. Construction materials 2. Maintenance 3. Renewal (repair and reinforcement) 4. Engineering ability If the student's aspirations align with our educational environment, we can accept them.
Civil and Environmental Engineering	30	Prof. Miyazato	1. Construction materials 2. Maintenance 3. Green material, CN, GX 4. Engineering design 5. 3D Print, Digital twin, DX
Architecture			
Architecture	31	Prof. Yamagishi	1. Added value 2. Architectural structure 3. Aseismic structure 4. Programming
Architecture	32	Prof. Marui	1. Architectural environmental engineering 2. Urban thermal environment 3. Utilization of green 4. Environmental design
Architecture	33	Prof. Suda	1. Architectural structure 2. Building system 3. Structural materials 4. Seismic engineering Limited to students majoring in architectural structures
Architecture	34	Prof. Nishimura	1. Space structure 2. Structural stability problem 3. Structural optimization 4. Information technology The field is Civil Engineering, and we seek individuals interested in the design and research of spatial structures. Proficiency in Rhino, Grasshopper, and MATLAB is desirable as computer literacy.
Architectural Design	35	Prof. Teshirogi	1. Green transformation 2. Urban Greening 3. Global and Urban Warming Countermeasures 4. Evaluation of green functions 5. Utilization of open space Project activities (research, studies, and works) related to architectural environmental engineering and environmental design will be conducted in accordance with the laboratory's fundamental theme: "Creating Human Comfort Environments Based on 'Green'."