



Message from the President

National Institute of Technology, Kagawa College was established by the incorporation and reorganization of Takamatsu National College of Technology and Takuma National College of Technology both having the long history, on October 1st, 2009. We have seven departments at the General Education Courses and two majors at the Advanced Course. We have improved and advanced the facilities and the equipment for both education and research. We are enhancing the cooperative relationship between Takamatsu Campus and Takuma Campus, and are providing favorable environments for the education. At the General Education Course, we arrange a curriculum composed of liberal education, professional education, and practical technology education for 5 years, to develop highly qualified engineers that have a rich sense of humanity and creativity, with a competency to deal with rapid progress of science and technology and with harmony among intelligence, technology and spirit. Students



can attain as high competency as those at a university by the study for 5 years. Moreover, students can obtain the same degree of bachelor as those who graduate a university by the study for 2 years at the Advanced Course after graduation of the General Education Course.

At Takamatsu Campus, We have Industrial and Systems Engineering Division composed of Department of Mechanical Engineering, Department of Electrical and Computer Engineering, Department of Electro-Mechanical Systems Engineering and Department of Civil Engineering for the General Education Courses. We are cultivating engineers active in the region of creative manufacturing. At Takuma Campus, We have Electronics, Information and Communication Engineering Division composed of Department of Communication Network Engineering, Department of Electronic Systems Engineering, and Department of Information Engineering for the General Education Courses. We are cultivating engineers active in the region of advanced electronics, information and communication. We have Advance Course in Industrial and Systems Engineering at Takamatsu Campus and Advanced Course in Electronics, Information and Communication Engineering at Takamatsu Campus. At both Advanced Course, We are supplying educations full of intellectual stimulation and international sense, and are enhancing the Science Seminar.

We have Dormitories, Counseling Room and Career Support Center to support students' welfare, study, employment and career shaping through such as internship. We have International Exchange Promotion office to develop international exchange and collaboration in education and research, and Human Resource Development Office to develop local industries and enhance the partnership with them. We are making Academic Exchange Agreements with Overseas Universities, sending students abroad for international internship or student exchange, and promoting Cooperative Research with the Private Sector eagerly. We contribute to the wealth and advancement of our local community as a driving force of intellectual and technological progress.

Both of our campuses' long histories have seen over 19,900 students graduate and secure meaningful employment in the private sector, municipal and prefectural governmental offices, universities, and research institutes. These graduates of the colleges have displayed and exemplified an impressive work ethic and job performance, leading to high praise and evaluations given by employers. We constantly embark on new challenges and develop ourselves, inheriting the excellent traditions.

Yoshio Aso President

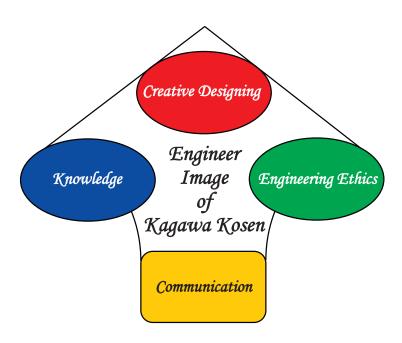
Mission and Educational Goals

- Mission of National Institute of Technology, Kagawa College: NITKC (Kagawa KOSEN)
 - To develop highly qualified engineers that have a rich sense of humanity and creativity.
 - To contribute to the wealth and advancement of our local community as a driving force of intellectual and technological progress.

■Educational Goals

Kagawa KOSEN's educational objectives, based upon a detailed and comprehensive curriculum, are as follows:

- ♦ To broaden students' minds, with the aim that they will become engineers of the future that will play an instrumental role in a sustainable society.
- To train students to have the technological Knowledge and applicable skills for coping with these fast changing times.
- ♦ To train students to be engineers of the future, who can apply their imagination to tackle the complex problems of society.
- ♦ To develop the students' intellect, as well as communication skills, in order to prepare them for international career paths.



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History

\Diamond History

Takamatsu National College of Technology (Takamatsu KOSEN) **Takamatsu Campus of Kagawa KOSEN

(Takuma Denpa KOSEN) **Takuma Campus of Kagawa KOSEN

October	, Kanritsu	ı Musen	Densin	Koshujo	Osaka	Branch	(National	
1943	School	of Radio	Teleco	mmunicati	ons, Os	saka Bra	nch) was	5
established at Yata-mura, Naka-Kawachi-gun, Osaka								

Takuma National College of Technology

- Kanritsu Musen Densin Koshujo Osaka Branch was renamed 1945 Kanritsu Osaka Musen Densin Koshujo (Osaka National School of Radio Telecommunications).
- Kanritsu Osaka Musen Densin Koshuio was relocated in April. 1949 Takuma-cho, Mitovo-gun, Kagawa, and was renamed Takuma Denpa High School (Takuma Radio Technical High School).
- April. Takamatsu National College of Technology(Takamatsu KOSEN) was established. It consisted of two departments: the Department of Mechanical Engineering and the Department of Electrical Engineer-
- April, Takamatsu KOSEN was restructured into three departments: the 1966 Department of Mechanical Engineering, the Department of Electrical Engineering and the Department of Civil Engineering.
- April. Takuma Denpa High School became Takuma National College 1971 of Technology (Takuma Denpa KOSEN). It consisted of one department of Radio Engineering.
- April, Takuma Denpa KOSEN was restructured into two departments: 1976 the Department of Radio Engineering and the Department of
- Takuma Denpa KOSEN was restructured into three departments: 1980 the Department of Engineering, the Department of Electronics and the Department of Information Engineering.
- April. Takuma Denpa KOSEN was restructured into four departments: the Department of Radio Engineering, the Department of 1985 Electronics, the Department of Information Engineering and the Department of Control Engineering.
- The Department of Radio Engineering was renamed the April, Department of Telecommunication Technology.
- Takamatsu KOSEN was restructured into four departments: the 1990 Department of Mechanical Engineering, the Department of Electrical Engineering, the Department of Electro-Mechanical Systems Engineering and the Department of Civil Engineering.
- April Advanced Engineering Course was established 1999
- April, Takamatsu KOSEN consisted of four departments: the Department 2001 of Mechanical Engineering, the Department of Electrical and Computer Engineering, the Department of Electro-Mechanical Systems Engineering and the Department of Civil Engineering.
- Takamatsu KOSEN was reorganized and was affiliated with the 2004 Institute of National Colleges of Technology.

Takuma Denpa KOSEN was reorganized and was affiliated with 2004 the Institute of National Colleges of Technology. Advanced Engineering Course was established.

In October, 2009, Takamatsu KOSEN and Takuma KOSEN were incorporated and reorganized as National Institute of Technology, Kagawa College (Kagawa KOSEN). Two divisions including seven departments were set up: Industrial and Systems Division (Takamatsu Campus) and Electronics, Information and Communications Division (Takuma Campus).

The departments are as follows: Dpt of Mechanical Engineering, Dpt of Electrical and Computer Engineering, Dpt of Electro-Mechanical Systems Engineering and Dpt of Civil Engineering (Takamatsu Campus); Dpt of Communication Network Engineering, Dpt of Electronic Systems Engineering and Dpt of Information Engineering (Takuma Campus). The Faculty of Advanced Engineering was also set up: Advanced Course in Industrial and Systems Engineering; Advanced Course in Electronics, Information and Communication Engineering. Dr. Masashi Kamon was appointed as the first president of Kagawa KOSEN.

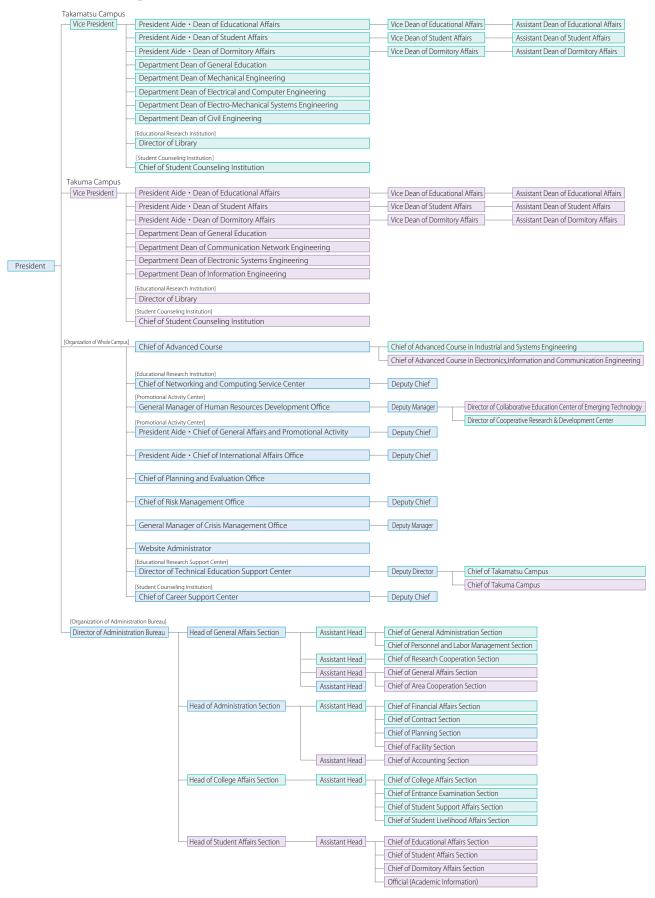
In January, 2013, a commemoration ceremony was held to celebrate the 50th anniversary of the Takamatsu Campus and the 70th anniversary of the Takuma Campus.

In April, 2014, Dr. Takeshi Yao was appointed as the second president of Kagawa KOSEN.

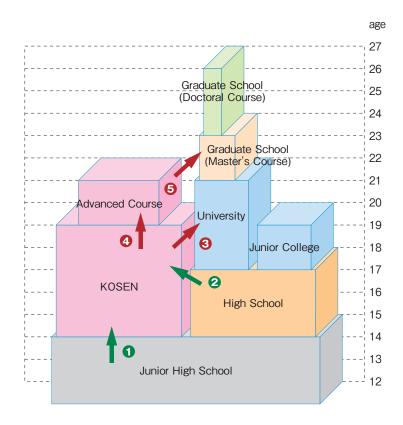
In April, 2018, Dr. Yoshio Aso was appointed as the third president of Kagawa KOSEN.

Organization

♦ Chart of Organization



School System of Japan



- 1 Junior high school graduates are eligible to enroll at a KOSEN.
- 2 High school graduates are eligible to enroll at a KOSEN as transfer students.
- **3** KOSEN graduates are eligible to enroll in a university as transfer students.
- 4 KOSEN graduates are eligible to enroll in an advanced course.
- 6 KOSEN Advanced Course graduates are eligible to enroll in a university graduate program.

■ KOSEN System

KOSEN system — five-year engineering education from 15-year old — was established in 1961, in response to a strong demand from industrial sector to foster engineers who sustain Japanese high economic growth at that time.

Characteristics of KOSEN Education Upon Admission

- We admit junior high school graduates
- We enable students to engage in career and life planning at a young age

In School

Practical and Innovative Education

- We develop an curriculum in the liberal arts and professional studies
- We have highly qualified teaching staff (more than 80% of specialized subject teachers have doctoral degree)
- We provide experimental and practical training, internship and coop education
- We provide programs accredited by JABEE
- We offer international exchange opportunities

Personality Development

- · We offer student dormitories and extracurricular activities
- We hold Robot, Programming, Design and Speech contests
- We organize annual all KOSEN Athletics Competition

Upon Graduation

- · We help students to find various career paths
- We produce engineers with extensive practical creativity

Departments

General Education

This division offers various arts and science subjects including physical education aimed at cultivating students with wide-ranging knowledge and basic understanding required for the study of engineering. Our curriculum covers that of senior high schools putting stress on mathematics and science, and also offers some courses at the college level to the senior students.

◇Fulltime Academic Staff in Department of General Education

[Takamatsu Campus]

Title	Name	Research Field
	KONO, Michihiro	Criminal Law & Procedure Constitution
	TANIGUCHI, Hiroaki	Algebraic Combinatorics
	SAKAMOTO, Tomotsugu	History of Ancient Chinese Thoughts
	TAKAHASHI, Hiroaki	Topology Mathematical Physics
	OKANO, Hiroshi	Inorganic Materials Chemistry Thin Film Engineering
Prof.	TAGUCHI, Jun	History of Educational Thought
	NAKASE, Mikio	Sports Methodology Coach Methodology
	ITO, Kikuyo	Cross-language Speech Perception and Production
	SAWADA, Isao	Statistical Mechanics Condensed Matter Theory
	HASHIMOTO,Norifumi	Synthetic Organic Chemistry Catalytic Chemistry
	NAGAHARA,Shinobu	Modern Literature
	YOSHIZAWA, Kousei	Theory of Sports Training
	YODA, Jun	European History
Associate Prof.	ICHIKAWA, Ken	English Education
	TOBA, Motoko	English Education
	SATO, Fumitoshi	Algebraic Geometry
Senior Lecturer	TOKUNAGA, Shintaro	TESOL, East Asian History
Assistant	NODA, Kazuto	Condensed matter theory
Prof.	SHIRAISHI, Maresuke	Cosmology





Department of General Education





[Takuma Campus]

Title	Name	Research Field
	IDEBUCHI, Mikiro	Methodologies of Teaching English
	MINAMI, Takayuki	Differential Equation Hamiltonian System
Prof.	UCHIDA, Yuriko	Japanese History Women's Studies
Pioi.	ARIMA, Hirotoshi	Methodology of Coaching
	HATA, Nobuoki	British Literature
	FUJIHARA, Nobuhiro	Japanese Literature
	HASHIMOTO, Ryuta	Number Theory Continued Fraction
	UEHARA, Shigenori	Geometric Topology General Topology
Associate	MORI, Kazunori	English Teaching, CALL
Prof.	YOKOYAMA, Manabu	Methodology of Sports Training Health Education
	NAKAMURA, Tokuhiro	Atmospheric Chemistry
	KUROKI, Tsunehide	Theoretical Physics
Senior Lecturer	YAMAOKA, Kenjiro	Political Theory Refugee Studies
Assistant	MORI, Akane	Clasial Japanese Literature
Prof.	MASUMOTO, Shuhei	Operator Algebra, Set Theory

♦Curriculum

Compulsory Subject	Credits
Japanese I-II	7
Geography	2
History I, II	4
Civics I, II	4
Fundamental Mathematics I-II	8
Differential and Integral Calculus I, II	7
Mathematical Analysis	3
Physics I, II	5
Chemistry I, I	5
Health and Physical Education I-IV	9
Art I, II	2
English IA, IB	6
English IIA, IIB	5
English IIA, IIB	4
Language Seminar	2
Science Seminar	1
Career Support	1



Department of General Education in Spring



Learning English Grammar at Multimedia LL

[Takamatsu Campus]

Elective Subject	Credits
Japanese Literature I	2
Human Science I-Ⅲ	6
Social Science I-III	6
Environmental Chemistry	2
Principles of Physical Chemistry	2
Health and Physical Education V	1
English IVA, IVB, VA, VB	8
Language Seminar I, II	4
Overseas English Program	1

[Takuma Campus]

Elective Subject	Credits
Japanese Literature II	2
Social Science	2
Global Studies	2
Topics in Natural Science	1
Mathematics Seminar I-Ⅲ	3
Health and Physical Education V	1
English for Specific Purposes I, II	4
Chinese I, II	4
Overseas English Program	1
Teaching Support Activity	1

◇Main Experiment Facilities

Takamatsu Campus Physics Laboratory High Vacuum Pump. Spectroscope, Induction Coil Chemical Laboratory Sputtering System, PH Meter, Draft Chamber with Scrubber		Room	Main Equipment
Chemical Laboratory Sputtering System, PH Meter, Draft Chamber with Scrubber	skamatsu Campus "	Physics Laboratory	High Vacuum Pump, Spectroscope, Induction Coil
		Chemical Laboratory	Sputtering System, PH Meter, Draft Chamber with Scrubber
Language Laboratory 46 booths, 46 Computers, e-learning			

	Room	Main Equipment
Takuma Campus	Physics Laboratory	Audio-visual Equipment, Measurement Device of Specific Charge
	Chemistry Laboratory	Ultra Pure Water Production System, Draft Chamber with Scrubber, Drying Oven
	Multimedia Learning Laboratory	45 booths, 45 computers, e-learning

Industrial and Systems Engineering Division (Takamatsu Campus)

Department of Mechanical Engineering

Mechanical engineers play a vital role in product design, development and manufacturing of industrial products in the modern industrial world as well as new challenges in developing countries.

Our educational program is designed to develop creative mechanical engineers who will excel in the industrial world and fulfill their personal desire to leave a legacy of successful accomplishments.

○Fulltime Academic Staff

Title	Name	Research Field
	YAMASAKI, Yojiro	Robotics Motion Control
	IWATA, Hiromu	Vibration Dynamics Solar Car
Prof.	KIHARA, Shigefumi	Applied Mechanics
	HASHIMOTO, Yoshio	Computational Dynamics
	KOJIMA,Takafumi	Thermodynamics Heat Transfer Engineering
	YOSHINAGA, Shinichi	Control Engineering
Associate	JODAI, Yoshifumi	Fluids Engineering
Prof.	TOKUDA, Taro	Strength of Matorials Fracture Mechanics
·	TAKAHASHI, Yoichi	Precision Machining Forming Processes
Assistant	KIMURA, Yuto	Moleculae Dynamics
Prof.	MAEDA, Yusaku	Sensor Engineering





○Curriculum

Classification	Subject	Credits
	Applied Mathematics	2
	Engineering Physics I	2
	Introduction to Mechanical Engineering	1
	Mechanics	1
	Strength of Materials I	2
	Strength of Materials I	
	Working Technology	
	Machine Element Design I	1
	Machine Element Design II	2
	Engineering Materials I	
	Dynamics of Machinery	2
Compulsory	Thermodynamics	0
	Hydraulics	2
	Electrical Engineering	0
	Control Engineering	0
	Fundamental Programming	2
	Numerical Methods I	2
	Mechanical Design & Drafting I	
	Mechanical Design & Drafting II	2
	Computer Aided Design & Drafting I	3
	Fundamental of Working Exercise I	3
	Fundamental of Working Exercise II	3
	Fundamental of Working Exercise II	2
	Mechanical Experiment I	3
	Mechanical Experiment II	3
	Graduation Research	8

	Mathematical Methods in Engineering	2
	Engineering Physics II	2
	Strength of MaterialsⅢ	1
	Theory of Elasticity	
	Engineering Materials II	1
	Heat Transfer Engineering	1
	Fluids Dynamics I	1
	Electronic Engineering	2
	Computer Engineering	2
	Mechanism	
	Systems Engineering I	
	Numerical Methods II	0
	Computational Mechanics	2
	Computer Aided Design & Drafting II	4
	Technical English I	1
Elective	Technical English II	1
	Strength & Fracture of Materials	1
	Heat Engines	1
	Systems Engineering II	1
	Fluids Dynamics II	1
	Job Training	1
	Special Lectures I	1
	Special Lectures II	1
	Special Lectures I I	1
	Pre-research Activity I	
	Pre-research Activity II	1
	Pre-research Activity 	1
	Advanced Programming Training I	4
	Advanced Programming Training I	4
	Advanced Programming Training II	4
	Introduction to Engineering Frontier	1





Room	
Machining Lab.	Ultra-Precision Machine, Wire-Cut EDM Systems, Hobbing Machine, Precision Lathe
Measuring Lab.	Non-Contact 3D Measuring Machine. Surface Finishing Indicator, Micro Hardness Tester
Material Strength Lab.	Universal Materials Testing Machine, Fatigue Testing Machine. Torsion Tester, Charpy Impact Tester
Metallographic Lab.	Optical Microscope, Electric Furnace, Hardness Tester, SPD Equipment
Sharing Lab.	Hydraulic Servo-Mechanical Fatigue Testing Machine
Dynamics Lab.	Vibration System, Vibration Meter, FFT Analyzer, Signal Analyzer
Wind Tunnel Lab.	Low Turbulent Wind Tunnel (40 m/s), Hot Wire Anemometer
Thermal Engineering Lab.	Heat Exchanger Testing Equipment
Internal Combustion Engine Lab.	Internal Combustion Engine Performance Testing Equipment, Engine Combustion Analysis System, Exhaust Gas Analyzer
Control Lab.	DC Servo Motor Testing System, BASIC FA Study Kits, Pocketcomputer Controlled AGV Testing System
Electronics Lab.	Oscilloscope, Digital Multi-Meter, Function Generator, DC Power-Supply Unit
Training Factory	Lathe, Machining Center, CNC Lathe, Milling Machine, Grinding Machine, Crucible Furnace, Welding Equipment, Hydraulic Press
Drafting Room, CAD Room	Drafting Desks and Machines, Sketching Goods and Models, CAD System

!- Department of Electrical and Computer Engineering

The department of electrical and computer engineering intends to educate the engineers who can contribute to the high technological society. For this purpose, the educational curriculum is designed to include the fundamental of mathematics and physics in the first stage, and applied technologies are programmed in the next stage. Furthermore, teamwork and cooperativeness, which are necessary in the social works, will be introduced in the various experiments and circuit design. Major parts of these subjects consist of the technologies of the embedded system.

○Fulltime Academic Staff

Title	Name	Research Field
	SHIKAMA, Tomokazu	Semiconductor Physics Thin Films Engineering
Prof.	SHIGETA, Kazuhiro	Information and Communication Engineering Educational Technology
	TUJI, Masatoshi	Electronic Circuit Microwave Engineering
	URUSHIHARA, Shiro	Motion Control Control Engineering
Associate	TARAO, Hiroo	Electromagnetic Compatibility Bioelectromagnetics
Prof.	MURAKAMI, Yukikazu	Educational Technology
	KAKIMOTO, Takeshi	Software Development Management
Senior Lecturer	YAMAMOTO, Masashi	Material Science
	HINAMOTO, Yoichi	Digital Signal Processing
Assistant Prof.	YOSHIOKA, Takashi	Motion Control Motor Drive
	KITAMURA, Daichi	Statistical Signal Processing, Machine Learning









○Curriculum

Classification	Subject	Credits
	Engineering Mathematics I	2
	Engineering Mathematics II	2
	Fundamentals of Physics	2
	Electric Fundamental-Mathematics	2
	Electrical Fundamentals I	2
	Electrical Fundamentals II	2
	Electromagnetics I and Exercise	3
	Electrical Circuits I and Exercise	3
	Electrical Physics	1
	Fundamentals of Electronics	2
	Fundamentals of Measurement Engineering	2
	Fundamentals of Computer Mathematics	1
	Logic Circuits	1
Compulsory	Fundamentals of Information Processing I	2
	Fundamentals of Information Processing II	2
	Fundamentals of Information Processing II	2
	Operating Systems	2
	Information and communication network	2
	Computer Hardware	2
	Energy Engineering in Environment	2
	Practice of Elementary Creation I	2
	Practice of Elementary Creation II	2
	Experiments of Electronics and Computer Science I	3
	Experiments of Electronics and Computer Science II	
	Applied Experiments on Electronics and Computer Science	3
	Graduation Research	6
	Special Practice	1
	Design of Circuit	2

		Credits
	Engineering Mathematics II	2
	Physics	2
	Electromagnetics II and Exercise	
	Electrical Circuits II and Exercise	3
	Electronics Circuits I and Exercise	4
	Introduction of Semiconductor Physics	2
	Algorithms	2
	Study Guide for Technical English	2
	Communication Engineering	
	Control Science	2
	Digital Instrumentation and Control	2
	Information and Coding Science	2
	Statistical Data Processing	2
	Signal Processing	2
	Electric and Electronic Materials	0
Elective	Interface	2
	Electronics Circuit II and Exercise	2
	Multimedia Engineering	2
	Electronic Device	2
	Computer Simulation	2
	Job Training	1
	Special Lecture I	1
	Special Lecture II	1
	Special Lecture II	1
	Pre-research Activity I	1
	Pre-research Activity I	1
	Pre-research ActivityⅢ	1
	Advanced Programming Training I	4
	Advanced Programming Training I	4
	Advanced Programming Training I	4
	Introduction to Engineering Frontier	1

⊘Main Experiment Facilities

Main Equipment
SCR Inverter, Electric Machine Training System, He-Ne Laser, Optical Power
Curvetracer, Oscilloscope, Logic Analyzer, Microwave Measuring System, Print Board Fabrication System, Optical Communication/Optical Fiber Communication System
Lock-in Amplifier, Ultra High Resistance Meter, Liquid Nitrogen Cryostat, Thickness Meter, Green Laser
Ball screw mechanical system with AC servo motor, Induction motor control system
Uniform Magnetic Field Exposure System, Magnetic Field Measurement Device, Work Station
Oscilloscope, Function Generator, DC Power supply, Q Meter, Digital Frequency Counter, Pulse Circuit Trainer
Anechoic Chamber, Acoustic Measuring System, Ultrasound Detector
Logical Circuit Experiment Apparatus, Semiconductor Element Experiment Apparatus, Arithmetic Circuit Trainer, AD/DA Converter Trainer, Logic Analyzer

1- Department of Electro-Mechanical Systems Engineering

The department has a curriculum to educate students standing on mechatronics which is a combined engineering field that consists of mechanics, electronics, control engineering and computer science. The students are expected to have the role of not only simple manufacturing but also design & development, quality management, maintenance & inspection and so on in the production process.

◇Fulltime Academic Staff

Title	Name	Research Field
	HIRAOKA, Nobuaki	Mechatronics
Prof.	SOGO, Hiroyuki	Kinematics Robotics
Pioi.	TOKUNAGA, Hidekazu	Conputational Learning Theory Web Mining
	SOUMA, Takeshi	Energy Engineering Energy Materials
	YURA, Satoshi	Control Engineering Motion Control
Associate	SHIMASAKI, Shin-ichi	Electromagnetic Processing of Materials
Prof.	HENMI, Tomohiro	Control Engineering
	SHOBAKO, Shinichiro	Welding & Joining Arc Plasma
Senior	ISHII, Kohei	Biomedical Engineering
Lecturer	TSUMORI, Nobuhiro	Nanophotonics Near-field Optics









♦Curriculum

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Classification	Subject	Credits
	Applied Mathematics	
	Engineering Mathematics	2
	Physics I	2
	Physics I	_
	Manufacturing Processes	2
	Fundamental Mechanics	_
	Mechanics of Materials I	
	Engineering Materials I	
	Thermal Engineering I	1
	Fluid Engineering I	1
	Electric Circuits	
	Electronic Circuits	
0	Information Processing I	
Compulsory	Mechatronics I on Basis	3
	Mechatronics II on Basis	0
	Mechatronics II on Basis	······
	Mechatronics System Design	
	System Control Engineering I	
	System Control Engineering I Technical Japanese Expression I	
	Technical Japanese Expression II	i
	Training and Exercise I on MONOZUKURI Basis	
	Training and Exercise I on MONOZUKURI Basis	
	Training and Exercise II on MONOZUKURI Basis	
	Experiment I	
	Experiment II	
	Graduation Research	6

	345,551	
	Mechanical Engineering Design	2
	Mechanics of Materials II	2
	Engineering Materials II	1
	Thermal Engineering II	1
	Fluid Engineering II	1
	Electronics	0
	Information Processing II	0
	Information Processing II	0
	System Control Engineering II	2
	Mechanical Dynamics	2
	Robotics	2
	Mechanical Instrumentation	1
	Statistical Analysis	0
	Technical English	0
Elective	Computer Network	2
	Welding and Joining	2
	Laser Processing	0
	Electromagnetics	2
	Electronic Instrumentation	2
	Sensor Devices	_
	Planning	
	Job Training	1
	Special Lecture I	1
	Special Lecture II	1
	Special Lecture II	1
	Pre-research Activity I	1
	Pre-research Activity II	1
	Pre-research Activity I I	1
	Advanced Programming Training I	4
	Advanced Programming Training I	4
	Advanced Programming Training II	4
	Introduction to Engineering Frontier	1

♦ Main Experiment Facilities

<u> </u>	
Room	Main Equipment
Engineer Material Lab.	Optical Microscope, Electric Furnace, Video Microscope, Vickers Brinell and Rockwell Hardness Tester, SPD Equipment
Mechanics of Material Lab.	300kN Universal Testing Machine, Torsion Tester Charpy Impact Testing Machine, Rotating Bending Fatigue Testing Machine
Thermal Engineering Lab.	High-frequency Induction Furnace, Electrometer, Laser Displacement Sensor, High-speed Camera, Heat Exchanger Testing Equipment
Electronics Lab./Electronic Control Lab.	Oscilloscope, Digital Multi-Meter, Function Generator, Electronic Voltmeter, Universal Counter, DC Power-Supply Unit, PCB-CAD/CAM
CAD Room	Video Projector, Personal Computer, 3D CAD
Exercise Room	Video Projector, Personal Computer, 3D CAD, 3D Printer
Control Lab.	Temperature Control Testing System, Water Level Control Testing System
FA Training Factory	3D Modeling Machine, Vertical Milling Machine, Drilling Machine, Band Sawing Machine
Measuring Lab.	Air Micrometer, Micro-Indicator, Tool Micrometer Microscope
Training Factory	Engine Lathe, Drilling Machine, Universal Milling Machine Universal Band Sawing Machine, Machining Center, Welders

1- Department of Civil Engineering

The department of civil engineering is working on fostering engineers who can contribute to the construction of infrastructure supporting safe and comfortable lives of citizens and the maintenance of the natural environment which is also deeply related to the construction of infrastructure.

◇Fulltime Academic Staff

Title	Name	Research Field
Dest	KOTAKE, Nozomu	Geotechnical Engineering Geoenvironmental Engineering
Prof.	MUKAITANI, Mitsuhiko	Geotechnical Engineering Irrigation Pond Science
	ARAMAKI, Noritaka	Geotechnical Engineering Resource Development Engineering
	MIYAZAKI, Kosuke	Infrastructure Planning Transportation Planning
Associate Prof.	TAGAWA, Tadashi	Sanitary Engineering Environmental Engineering
	YANAGAWA, Ryoichi	Coastal Disaster Management Engineering Coastal Ecosystem Engineering
	HAYASHI, Kazuhiko	Concrete Engineering Maintenance Engineering
Senior	IMAOKA, Yoshiko	Urban Planning Welfare Engineering
Lecturer	TAKAHASHI, Naoki	Hydraulic Engineering Ecological Engineering
Assistant Prof.	HASEGAWA, Yuki	Concrete Engineering Agricultural Engineering





♦Curriculum

Classification	Subject	Credits
	Physics I	2
	Applied Mathematics I	2
	Introduction to Civil Engineering	
	Basic Drawing	1
	Fundamental Mechanics I, II	4
	Structural Mechanics I	3
	Structural Materials	2
	Structural Design	3
	Basis of Disaster Prevention Engineering	2
	Regional Disaster Prevention Engineering	1
	Elements of Environmental Engineering	1
Compulsory	Environmental Engineering I	2
	Regional Environmental Engineering	1
	Foundamental Information Processing	2
	Advanced Computer Engineering	2
	Surveying I, II	2
	Urban and Regional Planning	2
	Regional Urban and Regional Planning	1
	Practices in Civil Engineering I, II, II	3
	Engineering Study with Creative Training	2
	Experiment and Practice in Civil Engineering I, II	4
	Civil Experiments and Exercises I, II, II	6
	Civil Engineering Design and Draft I, II	4
	Graduation Research	6

	Physics I	1
	Applied Mathematics II	2
	Introduction to Electrical Engineering	
	Structural Mechanics II	2
	Soil Mechanics	0
	Hydromechanics	
	Construction Method	_
	Hydrology	7
	Coastal Engineering	1
	Environmental Engineering I	
	Environmental Impact Assessment	2
	Applied Computer Engineering	
	Surveying II	0
Elective	Structural Engineering	
	Geotechnical Engineering	2
	Information Processing Engineering	2
	Structures in Architecture	_
	Advanced Environmental Engineering	2
	Job Training	1
	Special Lecture I	1
	Special Lecture II	
	Special Lecture II	1
	Pre-research Activity I	1
	Pre-research Activity II	1
	Pre-research Activity I I	1
	Advanced Programming Training I	4
	Advanced Programming Training I	4
	Advanced Programming Training I I	4
	Introduction to Engineering Frontier	1





⊘Main Experiment Facilities

Room	Main Equipment
Structural Engineering Lab.	Static and dynamic loading machine, Beam testing machines, Static strain meters, Dynamic strain meters, Universal counter, Multi-channel data recorder, Servo-type 1D&2D shaking tables, 2D soil tanks
Materials Engineering Lab.	Universal material testing machine (Cap. of 3000kN), Strain control universal testing machine, Revolving-blade concrete mixer, Center hole oil jacks and oil pumps, testing apparatuses for various concrete, Concrete curing water bath, Data loggers, Digital displacement meters, Electronic balances(9seats)
Hydraulic Engineering Lab.	Three dimensional channel, Movable channels, Wave making channels, Shape-created weir. Pipe line with a Venturi meter, Wave height indicators, Various recorders
Geotechnical Engineering Lab.	Automatic consolidation testing apparatus, Universal compression testing apparatus, Cyclic triaxial compression test apparatus, Large-scaled universal direct shear apparatus, Falling head permeability test apparatus, B-type viscometer, High speed camera, Various soil testing apparatus
F	Total organic carbon analyzer, Ion chromatograph, Gas chromatograph, CHN analyzer, Autoclaves, Centrifuge, Ultra pure water system, Acid rain collect,
Environmental Engineering Lab.	Electronic scale, Constant temperature ovens
Equipment room	Global Navigation Satellite Systems, Geographic Information System, Remote Sensing, Total station, Digital type theodolites(4set), Automatic levels,
Equipment room	Electro-optical distance meters(4set), Plane table, Pranimeters, Stereoscope

Electronics, Information and Communication Engineering Division (Takuma Campus)

- Department of Communication Network Engineering

Both modern industry and society rely heavily on telecommunication systems, which are also known as a "neural network" of society. The constituents of the systems are electric wires, optical fibers and electromagnetic waves, as well as a great deal of computers. The aim of the Department of Communication Network Engineering is to foster competent engineers in this promising field of telecommunications. The curriculum is organized so that students can qualify for various national licenses such as an On-the-Ground I-Category Special Radio Operator, or a First-Class Technical Radio Operator for On-the-Ground Services.

○Fulltime Academic Staff

Title	Name	Research Field
1100	FUKUNAGA, Tetsuya	Information Theory Communication Theory
	SHIOZAWA, Takahiro	Optical Electronics Microwave Photonics
D (SAWADA, Shiro	Theoretical Physics
Prof.	INOUE, Tadaaki	Communications Measurement
	ISSHIKI, Hiromi	Biomedical Engineering
	YOKOUCHI, Takashi	Applied Technology of Optical Fiber
	MANABE, Katsuya	Electromagnetic Theory Microwave Theory and Techniques
	TAKAJO, Hideyuki	Educational Technology Ubiquitous Computing
	SHOHON, Toshiyuki	Coding Theory Communication Engineering
Associate Prof.	ONO, Akira	Telecommunication Electronic Circuit
	KUMEKAWA, Kazuya	Computer Networks
	SHIRAISHI, Keiichi	Computer Algebra e-Learning
	KUSAMA, Yusuke	Microwave Engineering
Senior Lecturer	KAWAKUBO, Takashi	Field Emission Surface Physics









♦Curriculum

Classification	Subject	Credits
Classification	Applied Mathematics	2
	Probability and Statistics	2
	Applied Physics I	
	A I' I Di i II	2
	Applied Physics II	2
	Electric Engineering	2
	Information Processing I	2
	Information Processing I	2
	Digital Circuits I	2
	Electric Circuits I	2
	Electric Circuits II	2
Compulsory	Electromagnetics I	2
Compaicon	Electromagnetics II	2
	Electronic Circuits I	2
	Electronic Circuits II	2
	Electric and Electronic Measurements I	2
	Electronics	2
	Seminar on Communication Engineering	4
	Creative Experiments and Practices	4
	Experiments and Practices	2
	Experiments in Communication Network Engineering	2
	Experiments in Communication Engineering I	3
	Experiments in Communication Engineering II	4
	Graduation Research	12
	Information Processing II	2
	Electric and Electronic Measurements II	2
	Wireless Communication Engineering I	2
		<u>5</u>
	Wireless Communication Engineering I	<u>-</u>
	Antennas and Propagation I	2
	Antennas and Propagation II	2
	Communication System A	2
	Communication System B	5
	Telecommunications Law I	
	Telecommunications Law II	1
	Computer Networks I	2
	Computer Networks II	2
	Information Theory	2
Elective	Seminar on Radio Engineering	2
	Data Communications	2
	Semiconductor Electronics	2
	Optoelectronics	2
	Mathematics for Information Science	2
	Information Security	2
	Network Programming	2
	Factory Training	1
	Special Lectures I	1
	Special Lectures II	1
	Pre-research Activity I	1
	Pre-research Activity II	1
	Pre-research Activity II	j
	Introduction to Engineering Frontier	j

♦ Main Experiment Facilities

Room	Main Equipment
Electromagnetic Anechoic Chamber	EMI(Electromagnetic Interference)Receiver, CVCF(Constant-voltage Constant-Frequency)Power Supply, BiLog Antenna, Artificial Mains Network, Absorbing Clamp, Turn Table
Photonics Lab.	Sampling Oscilloscope, Spectrum Analyzer, Logic Scope
Digital Circuit Lab.	Pulse Pattern Generator, Error Rate Detector, Optical Spectrum Analyzer, Optical Amplifier, Optical Power Meter, Wavelength Variable Optical Attenuator
Information Network Exercise Room	Training Equipments for LAN (Local Area Network) Integration (Routers, Switching Hubs, Wireless LAN Access Points, Personal Computers)
Applied Electromagnetic Wave Lab.	Radar, Satellite Compass, AlS (Automatic Identification System) Receiver, Radio Direction Measurement Equipment, Radio Transmitter, Radio Receiver, Microwave Fundamental Measurement Equipment

1- Department of Electronic Systems Engineering

In light of the advancements of mechatronics and Information technologies, there is a large demand for engineers in the development and integration of computer science, robotic systems and telecommunications.

The program in our department is designed to offer students many options from various fields such as hardware, software, electronics and communication technologies. We combine theory and practical application in the same course which provides practical laboratory experience. Our goal is to cultivate ingenuity and innovation in our students and provide them with all skills necessary for a successful career in the electronics industry.

◇Fulltime Academic Staff

Title	Name	Research Field	
	MISAKI, Yukinori	Robot Engineering	
Prof.	NAGAOKA, Shiro	Integrated Circuits	
	YAGI, Masakazu	Solid State Physics	
	MIKAWA, Michio	Solid State Physics	
	JOHNSTON, Robert Weston	Computer Science	
Associate Prof.	TSUKIMOTO, Isao	Electronic Circuits	
	TENZOU, Hideki	Energy Engineering	
	MORIMUNE, Taichiro	Solid State Physics	
Senior	SHIMIZU, Tomo	Semiconductor Devices	
Lecturer	IWAMOTO, Naoya	Semiconductor Devices	
Assistant Prof.	SUGIMOTO, Masashi	Robotics	



Digital Circuit Manufacture Experiment using VHDL (in 5th Grade)





○Curriculum

<>Curricu	ilulii	
Classification	Subject	Credits
	Applied Mathematics	2
	Probability and Statistics	2
	Applied Physics I	2
	Applied Physics II	2
	Electric Engineering	2
	Electric Circuits I	2
	Electric Circuits II	2
	Electromagnetics I	2
	Electromagnetics II	2
	Electronics	2
	Electronic Circuits I	2
	Electronic Circuits II	2
Compulsory	Semiconductor Electronics	2
	Semiconductor Device Engineering	2
	Digital Circuits I	2
	Digital Circuits II	2
	Electronic Measurements	2
	Control Engineering I	2
	Information Processing I	2
	Seminar in Electronic Systems Engineering	4
	Creative Experiments and Practices	4
	Experiments and Practices	2
	Experiments in Electronic Engineering	4
	Experiments in Electronic Engineering I	4
	Experiments in Electronic Engineering II	4
	Graduation Research	12
	Network Theory	2
	Solid State Physics	2
	Optoelectronics	2
	Electrical and Electronic Materials	2
	Control Engineering II	
	Robot Engineering	2
	Sensor Electronics	2
	Special Lecture in Electronic Systems Engineering	2
	Information System I	2
	Communication System A	2
Elective	Information Processing II	2
Licotivo	Data Communications	2
	Image Processing Technology	2
	System Engineering	2
	Job Training	·····i
	Special Lectures I	i
	Special Lectures II	·····i
	Pre-research Activity I	·····i
	Pre-research Activity I	·····i
	Pre-research Activity II	·····i
	Introduction to Engineering Frontier	
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○Main Experiment Facilities

Vinum Experiment Facilities	
Room	Main Equipment
Common Lab.	Liquid Crysta, Tunable Filters,Cooled CCD Camera,Multispectral Imaging System, Hyperspectral Camera
Measurement Engineering Lab.	Equipment of Supply Current Test to Detect Lead Opens of CMOS ICs, Oscilloscope, Current Probe
Computer Engineering Lab.	Oscilloscope, Radiation Detector, Analog Waveform Processing System
Circuit Design Lab.	Photoelectron Yieid Spectroscopy, UV-VIS NIR Spectrophotometer, Organic Thin Film Deposition Apparatus, Spectroscopic Reflectometer,
Circuit Design Lab.	Laser Micro-machining Apparatus. Atomic Force Microscope
Optoelectronics Lab.	Fluorometer, Quantum efficiency measurement system, Diffraction-grating monochromator, He-Cd laser, Ar ion laser, Cryogenic refrigerator
Electronics Lab.	Infrared Thermal Camera, 3D Printer, 3D Scanner, Tabletop Microscope, Non-Mydriatic Auto Fundus Camera, Pulse Oximeter
Materials Engineering Lab.	Pulsed Laser Depositon System, Sputtering Apparatus, Hall Effect Measurement System, X-ray Diffraction Equipment
Plasma Sinering Lab.	Spark Plasma Sinering System

!- Department of Information Engineering

The department offers students an opportunity to acquire the theoretical fundamentals of computer science, and learn how to apply this practical knowledge to everyday problems. The department aims to educate the students to be able to perform tasks such as the following:

- -Information system development
- -Application development and integration, such as sound and image processing, computer networking.

○Fulltime Academic Staff

Title	Name Research Field	
	FUKUMA, Kazumi	Physics
	MIYATAKE, Akiyoshi	Educational System Engineering
Prof.	TOKUNAGA, Shuichi	Image Processing
PIOI.	KAWATA, Susumu	Programming Instruction
	SAWARAME, Masashi	Information Systems
	KANAZAWA, Keizo	Image Processing
	KAWATA, Jun	Plasma Surface Interaction
Associate	KONDOH, Yuji	Computer Algebra
Prof.	OKUYAMA, Shingo	Algebraic Topology
	KAWAZOME, Hayato	Plasma Spectroscopy
Senior	SASAYAMA, Manabu	Information Retrieval Machine Translation
Lecturer	TANIGUCHI, Yasutaka	Theoretical Nuclear Physics
Assistant Prof.	MIYAZAKI, Takahiro	Remote Sensing





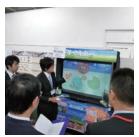


♦Curriculum

Classification	Subject	Credits
	Applied Mathematics	2
	Probability and Statistics	2
	Applied Physics I	0
	Applied Physics II	2
	Electric Engineering	2
	Electric Circuits I	0
	Electronic Circuits I	2
	Digital Circuits I	2
	Digital Circuits II	2
	Information Engineering	2
	Computer Architecture	
Compulsory	Information Processing I	2
	Software Design and Development	4
	Communication Theory	_
	Data Structures and Algorithms	2
	Compiler	2
	Seminar on Information Engineering	6
	Creative Experiments and Practices	4
	Experiments and Practices	2
	Experiments in Information Engineering	2
	Experiments in Information Engineering I	4
	Experiments in Information Engineering I	3
	Graduation Research	12

		Credits
	Mathematics for Information Science	2
	Numerical Analysis	2
	Electromagnetics	2
	Semiconductor Electronics	2
	System Engineering	2
	Automaton Theory	2
	Programming Language	2
	System Programming	2
	System Software	2
	Information System I	2
	Information System II	2
	Introduction to Artificial Intelligence	2
	Natural Language Processing	2
Elective	Digital Image Processing	2
	Database Management System	2
	Computer Networks I	2
	Computer Networks II	2
	Information Security	2
	Information Science I	1
	Information Science II	1
	Factory Training	
	Special Lectures I	1
	Special Lectures II	1
	Pre-research Activity I	1
	Pre-research Activity II	1
	Pre-research Activity I I	1 1
	Introduction to Engineering Frontier	1





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Room	Main Equipment
Control Circuit Lab.	3D Input/Output Device(3D Scanner, 3D Milling machine) 3D CAD/CAM software
Engineering Science Lab.	Educational design and prototyping platform, LabVIEW, Electronic Circuit Simulator
Network Lab.	Experiment equipments for network skill acquisition(Router,L2,L3 switch)
NLP Lab.	The server for analyzing Big Data
ICT Lac.	203.2cm diagonal screen size Integrated Touch Display

Faculty of Advanced Engineering(Bachelor's Degree Program)

The Faculty of Advanced Engineering at Kagawa KOSEN aims to develop analytical, problem-solving skills as well as research ability of students so that they become practical and creative engineers who will play important roles in various industries, and contribute to the regional economy and society through collaborative projects.

To accomplish this goal, the Faculty of Advanced Engineering is comprised of the Courses in Industrial and Systems Engineering Program at the Takamatsu Campus, and the Course in Electronics, Information and Communication Engineering Program at the Takuma Campus.

■Educational Objectives

The educational objectives of the Faculty of Advanced Engineering at Kagawa KOSEN are:

- ♦ Students will acquire highly specialist knowledge in their engineering fields and develop analytical skills by attending advanced lectures and proceeding their thesis research.
- ♦ Students will acquire broad knowledge and problem-solving skills from practical experience in other related fields to play leading roles in interdisciplinary areas.
- ♦ Students will learn ethical issues and responsibilities as engineers through collaborative researches with local educational organizations and companies.
- ♦ Students will acquire global viewpoints and communication skills in Japanese and English, by participating in workshops and scientific conferences inside and outside of the college.



Advanced Course(Takamatsu Campus)



Advanced Course(Takuma Campus)

- Advanced Course in Industrial and Systems Engineering (Takamatsu Campus)

This course has four sub-courses to educate students to be practical engineers with problem-solving skills and the creativity to develop technologies.

■ Mechanical Engineering Course

This course is for future mechanical engineers with problem-solving skills and original creativity.

■ Electrical and Computer Engineering Course

This course is for future electrical engineers, electronic engineers, computer engineers and researchers.

■ Electro-Mechanical Systems Engineering Course

This course is for future mechatronics engineers with well-founded skills who contribute to the human happiness and welfare.

■Civil Engineering Course

This course is for future civil engineers with knowledge of design, planning, disaster prevention and environmental preservation techniques.

♦Curriculum

Cli	assification	Subject	Credits
iberal Arts	Compulsory	Management Theory TOEIC Preparation	2
Libera	Elective	Jurisprudence Reading of Literary works	2
	Compulsory	Engineer Ethics Topics in Mathematics I	0
Engineering Basic	Elective	Modern Physics Intellectual Property Rights English for Technical Purpose Topics in Mathematics II Physical Chemistry Analytical Chemistry Applied Physics Overseas English Program	2 2 2 2 2 2
Subjects	Compulsory	Experiments and Practicals I Experiments and Practicals II Thesis Research I Thesis Research II	2 6
Core Eng. Subj	Elective	Seminar I Seminar II Special Lectures Internship II Internship II Internship III Internship III	2









Water Quality Analysis

		Subject	
Eng. Subjects of ME Course.	Elective	Internal Combustion Engines Computational Mechanics Elasticity and Plasticity Advanced Strength and Fracture of Materials Matrix Vibration Analysis Reliability Engineering	2 2 2 2
Eng. Subjects of EC Course	Elective	Electromagnetic Compatibility Modern Control Theory Energy Conversion Engineering Project Management Theory Solid State Electronics Integrated Circuits Semiconductor Physics Digital Technologies Information and Communication Engineering Microwave Engineering Digital Signal Processing Knowledge Computing Image Processing Engineering	2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2
Eng. Subjects of MS Course.	Elective	Advanced Heat Transfer Advanced Dynamics Optimization Theory Advanced Computer Processing Advanced Joining Technologies Advanced Energy Engineering Advanced Control Engineering I Advanced Control Engineering II Mechatronics	2 2 2 2 2 2 2
Eng. Subjects of CV Course	Elective	Seismic Design Maintenance Engineering Structural Analysis in Civil Engineering Transport Planning Urban Design Prevention of Natural Disasters I Environmental Disaster Prevention Engineering II Advanced Fluid Dynamics Civil Mathematical Planning Infrastructure Planning Information Technology and Systems Introduction to Civil Engineering Environmental Ethics and Management	2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2

ME Course...Mechanical Engineering Course

EC Course ··· Electrical and Computer Engineering Course

MS Course...Electro-Mechanical Systems Engineering Course

CV Course...Civil Engineering Course

- Advanced Course in Electronics, Information and Communication Engineering (Takuma Campus)

This course has two sub-courses to educate students to be practical, highly sophisticated engineers with knowledge of originality in electronics, information and communication engineering.

■Electronics and Information Engineering Course

This course is an educational program of engineers who follow the standards of JABEE (Japan Accreditation Board for Engineering Education).

■ Electronics, Information and Communication Engineering Vocational Course

This is the course in which students can be intent on the achievement of technology and expertise.

○Curriculum

CI	assification	Subject	Credits
Liberal Arts	Compulsory	Communicative English I Communicative English II	2
<u>_</u>	Elective	Advanced Japanese Literature	2
<u>ي</u> Compulsory		Engineer Ethics	2
Basic		Advanced Physical Science	2
		Topics Applied Mathematics	2
98	Elective	Intellectual Property	2
Engineering		English for Engineers	2
山		Engineering Mathematics	2

UI	assification		Credits
		Thesis Research I	6
	Compulsory	Thesis Research II	4
	Compuisory	Experiments and Exercise I	4
		Experiments and Exercise II	6
		Quantum Mechanics	2
		Introduction to Information Technology	2
Sts		Digital Signal Processing	2
)je(Applied Electromagnetics	2
Sur.		Graph Theory	2
<u>a</u>		Information Networks	2
.ij		Specialized Electronic Circuits	2
Sp	Elective	Industrial Instrument Engineering	2
Sommon Special Subjects	2.000.70	System Control Engineering	2
		Algorithms and Data Structures	2
, o		Multi-Media Engineering	2
0		Image Processing	2
		Special Lectures	2
		Internship I	1
		Internship II	2
		Internship II	4
		Internship IV	6
o o		Communication Engineering	2
Eng. Subjects of CN	Elective	Radio and Light Wave Engineering	2
Sen	2.000.70	Optical Communications	2
		Specialized Radio Engineering	2
Eng. Subjects of ES		Applied Solid State Physics	2
g being	Elective	Integrated Electronics	2
		Digital Control Engineering	2
Eng. Subjects of IT		Object Oriented Programming	2
of big	Elective	Applied Network Programming	2
Ø		Database Design	2



ES...Flectronic Systems

IT...Information



Stockholm International Youth Science Seminar, SIYSS



The world congress of Imagin Cup 2015 at Microsoft Corporate headquarters. (Image provided courtesy of Microsoft Corp.)



An international conference NANO Scitech2017

International Affairs

♦ Academic Exchange Agreement with Overseas Institutions

University / Faculty	Country / Region	Since
Dongyang Mirae University (DMU)	South Korea	Aug. 2005
Danang University of Technology (DUT)	Vietnam	Jun. 2009
Cheng Shiu University (CSU)	Taiwan (R.O.C.)	Dec. 2009
College of Engineering, Seoul National University (SNU)	South Korea	Jun. 2010
Universiti Teknologi MARA (UiTM)	Malaysia	Aug. 2010
Christchurch Polytechnic Institute of Technology (CPIT)	New Zealand	Jun. 2012
University of Caen Basse-Normandie	France	Jul. 2013
Rajamangala University of Technology Thanyaburi (RMUTT)	Thailand	Aug. 2014
Thai-Nichi Institute of Technology (TNI)	Thailand	Mar. 2015
Universite Francois-Rabelais Tours (UFRT)	France	Dec. 2015

♦ Organization of International Symposiums/Seminar (2011-2017)

- "International Symposium on Geo-Environment Engineering (GEE) 2011," May 2011, May 2012, May 2013, May 2014, May 2015 and May 2016.
- "International Joint Workshop on Technology in Education and Educational Research," Mitoyo, Kagawa, Japan, Jul. 2011and Oct. 2013.
- "International Postgraduate Seminar (IPGS)." Shah Alam, Malaysia, Jun. 2013, Jun. 2014.
- "International Civil and Infrastructure Engineering Conference (InCIEC)," Shah Alam, Malaysia, Sep. 2015.
- "International Conference on Nanoscience, Nanotechnology and Nanoengineering (IC-NET)," Shah Alam, Malaysia, Mar. 2014, Feb. 2015.
- ♦ "International Seminar on NanoScience and Nanotechnology (NANO-SciTech 2016)," Shah Alam, Malaysia, Feb.
- ♦ "Eco-Energy and Materials Sciences and Engineering Symposium", Dec. 2016.
- ♦ "International Conference on Nanoscience & Nanotechnology" 2017,2018 Shah Alam, Selangor. Malaysia.
- ♦ "International Seminar on Electronics Engineering and NANO Technology", Mar. 2017.

♦ International Exchange and Academic Activities by Faculties and Students

- ♦ Exhibition by NITKC students at Korea Electronics Show with DMU, Oct. 2010, Oct, 2012, and Oct. 2014.
- ♦ International internship at local offices of Japanese firms; in Thailand (2009 and 2015), Philippines (2010, 2012), China (2011 and 2013), Indonesia (2012), Hong Kong (2013 and 2016), Singapore (2013), Taiwan (2013), U.S. (2013), Vietnam(2015) and Malaysia(2015, 2016 and 2017).
- ♦ "Engineering Class in English" by Visiting Professors from overseas; at Dept. of Civil Eng. (Oct. 2010), Dept. of Mechanical Eng. (Jan. 2011), Dept. of Electrical and Computer Eng. (Sep. 2011), and Dept. of Communication and Network Eng. (Jan. 2013), Dept. of Civil Eng. (Jun. 2013), Dept. of Civil Eng. (Oct. 2013), all Departments (Oct. 2013), Takamatsu Campus (Dec. 2017) and Takuma Campus (Jan. 2018).
- Global Engineer Training Program: to UiTM (Mar. 2015), to UiTM (Mar. 2016), to UFRT (Sep. to Dec. 2016), to UiTM (Mar. 2017), to RMUTT (Mar. 2017) and to UiTM (Mar. 2018).
- Slobal Engineer Training Program: from UiTM (Jul. to Oct. 2011), from CSU (Jul. to Aug. 2014), from RMUTT (Apr. 2015), from UFRT (Apr. to Jun. 2016) and from UiTM (Mar. 2017).

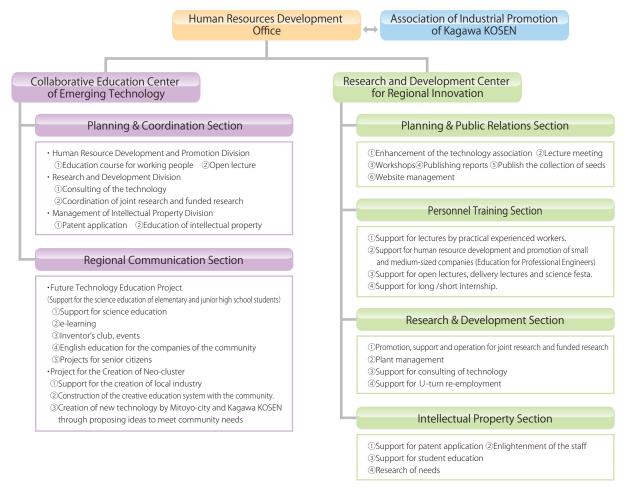
○International Students at NITKC

■Number of International Students Entering Mid-course/Advanced course of NITKC in Each School Year

Country School Year	Bangladesh	Brazil	Cambodia	China	Colombia	India	Indonesia	Kenya	Korea	Lao PDR	Malaysia	Mongolia	Philippines	Sri Lanka	Thailand	Uganda	Viet Nam	Pakistan	Total
2018												3							3
2017											2	2			1				5
2016											4	1			1				6
2015									(2)	1		1						1	5
2014							2				2								4
1985~2013	7	1	4	5	1	1	11	1	2	8	70	6	9	7	10	2	11		156
Total	7	1	4	5	1	1	13	1	4	9	78	13	9	7	12	2	11	1	179

Human Resources Development Office

◇Organization Chart of Human Resources Development Office



■ Association of Industrial Promotion of Kagawa KOSEN

Established on 28 August, 2009.

Purpose:

We utilize our knowledge, materials and human resources. We would like to develop the local industries and enhance the partnership with them, through the many operations such as exchanging technologies and information. We would like to contribute to the promotion of the education and research in Kagawa KOSEN

Description of business:

Promotion of technology development by the academic-industrial alliance. Development of local industries. Lecture meeting about technologies, lecture class, Workshop, Publish the information report, Consulting on technologies, Exchange information, Support for education of company workers, Promotion support projects of cooperative research, Internship, Recruiting fairs, Collaborative education, Promotion of education and research of Kagawa KOSEN etc.

■Shikoku KOSEN Center for Innovative Technologies

Purpose:

Anan, Kagawa, Niihama, Yuge and Kouchi KOSENs utilize the potentials of the colleges and aspects of the Shikoku-area, and spread out the activities of the academic-industrial alliance to contribute to the stimulation and promotion of the local area. Business outline:

- Department of the creation of innovation
 Matching between the needs and the technology seeds of KOSENs in Shikoku-area. Consulting the technologies. Activities of academic-industrial alliance such as joint research.
- Department of the Intellectual Property
 Management and education of Intellectual Property in coalition for KOSENs in Shikoku-area.
- 3 . Department of coalition for KOSENs in Shikoku-area. Other activities to achieve the purpose of the center.

Research

Study on higher dimensional dual hyperovals and related functions on finite fields

Construction of education environment utilizing tablet devices by applying Ad Hoc / sensor network technology

Dosimetric study based on measurements of magnetic fields and contact currents from IH cookers

Photoplethysmographic nail tip sensor for non-restraint and real-time monitoring system in home medical care

Development of the optimal parameter tuning method based on Gröbner basis for the model predictive controller

Practice on advanced fluid mechanical experiments and its application to extensive engineering education for developing competent engineers

NANO Technology Plat Form Established in the Average Science Laboratory

Development of a WEB Application to Support Autonomous Learning in English Education

Fundamental degrees of freedom and breaking of supersymmetry viewed from higher order perturbation series and nonperturbative effect in nonperturbative string theory

Development of the reproduction system of the expert skill with the fine sensorless force control and the data storage cloud system

Development of Using Big Data for Local Transport Planning

Proposal of farm work inheritance manual using eye camera

A Study on English Writing Lesson Applying Machine Translation

A study of technologies to prevent dialogue breakdown for natural conversation with communication robot

Development of high brightness x-ray focusing technique using leaser plasmas

Development of an Educational Tool in Radiation Shielding by Using a Mock Survey Meter and the Educational Assessment

Teaching material development kit for computer network and computer algebra

Utilize and Characterize human skill for Sports-coaching.

Production and perception of word-final consonants in English connected speech by Japanese and American English speakers

Development of an interaction system based on measurement of wind pressure

Development of an intelligent hammer for hammering sound test

Testing Gaussianity of primordial gravitational waves toward understanding the inflationary Universe

Development of Sensor Mounted Holder for Improving Safety and Visualizing Progress of Soldering Work

Evaluation on supply-demand balance of irrigation water and development of small-scale reservoir facility using terraced paddy field in The Kingdom of Bhutan

1 another research study

Number of Research Studies 25, Total Funds 25,689,000Yen

○Commissioned Research

Demonstration of flow fluctuation tracking type wastewater treatment technology using DHS system

A Collaboration Project between Mitoyo City and The National Institute of Technology, Kagawa College

Improvement of high leveling support system for agricultural production technology utilizing ICT

Number of Research Studies 3, Total Funds 5,890,641Yen

○Cooperative Research with Private Sector

Development of a Waste Treatment Plant for Scrap of Covered Wire

Development and evaluation of a system to manage a handwritten report

Development of a vital signal sensor

Study on Application of an Optical Fiber Grating Device

Study on the disaster prevention equipment of an overhead traveling crane

Development of an AI software for shape recognition and dimension measurement of metal parts

Power line inspection by using a multicopter and a robot (2)

Study on service level of public transport using transport and socio-economic indicators

Health condition monitoring of elderly people by using a piezoelectric film-based respiration sensor

A study on inland tsunami behavior of overflowed breakwater A Project for Resolving Regional Needs Using an Optical Method

Development and high functionality of the permeability test apparatus at in-situ named "Suika"

Study on Cardboard Airplane

Numerical Simulation of Electromagnetic Stirrer for DC Casting

A Study on Evaluation of Excavator Operation and Controller Design based on Equivalent Center of Mass

Technology for preventing ice and snow accretion on LED lamps

Study on the development of portable fishways for agricultural water facilities

12 another research studies

Number of Research Studies 30. Total Funds 13.180.000Yen

Other Competitive Funds and Grants

Science Classes in Kodomo Miraikan Children's Center of Takamatsu City (3)

Demonstration project of small-scale municipality utilization model mainly for acquisition and education of regional IoT data utilizing the college IoT network

Slope failure based on the localized liquefaction of the silip surface and the simple control work method using the rice terrace

Analysis from various perspectives regarding the wide-area backup from Kagawa prefecture assuming the Nankai-Trough Megathrust Earthquake

Development of photoresist removal method using hydrogen radicals mixing a small amount of oxygen gas

Improvement of the environment for the upstream migrating of Ayu fish by a portable fishway

Development of a Community Care System for Senior Citizens and Caregivers

Development of a Gamma Rays Source Detector Sensitive in All Directions by Using Image Processing Technology

development of slot car teaching materials for learning the best mix of the energy

Phenomena in AC GTA Welding under like Mars Atmosphere

4 another research studies

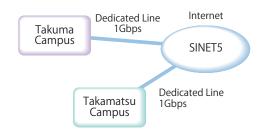
Number of Research Studies 16, Total Funds 16,416,226Yen

Facilities

○Networking and Computing Service Center

■Network Infrastructure

Each campus have a dedicated connection with 1Gbps to the Science Information NETwork (SINET).



Network Between Two Campuses and SINET5

■Computing Service

Takamatsu Campus

Automatically-recoverable computers are installed in the facilities and are used for education on computer literacy and academic research. 47 client computers for the first training room; 50 client computers for the second training room; 18 client computers for the third training room; and 54 client computers for the multimedia room



Takamatsu Campus Second Training Room

OTakuma Campus

Automatically-recoverable computers are installed in Second Seminar Room, Cyber Lab, Advanced Information Lab, and Multimedia Learning Lab, and are used for education on computer literacy and academic research. All of the students can take advantage of the internet using e-mail and WWW.



Takuma Campus Second Seminar Room

\rightarrow Human Resources Development Office

This office consists of the Collaborative Education Center of Emerging Technology and the Cooperative Research & Development Center. Each center has many laboratories and a lot of equipment. These are used for students' experiment programs, the experiments for the graduation thesis of the associate degree, the cooperative research, and the commissioned research. The equipment is as follows: RF magnetron sputtering system; Plasma CVD; Vacuum evaporation system; Electron beam lithography system; X-ray diffraction system for thin-film crystalline analysis; Scanning electron microscope; Surface profiler; General-purpose FEM analyzer; X-ray fluorescence spectrometer; X-ray diffractometer; Scanning probe microscope; Ellipsometer; Absorption spectrophotometer; Scratching tester.



Scanning Electron Microscope



General-purpose FEM Analyzer

Students

■Number of Students

○Department

	Classification	Admission			nrollment			Total
	Classification	Capacity	1st	2nd	3rd	4th	5th	TULAI
	Department of Mechanical Engineering	40	42	44(2)	41(2)	43(1)	37(3)[2]	207(8)[2]
	Department of Electrical and Computer Engineering	40	42(5)	46(7)	43(2)	50(10)	35(3)	216(27)
۱	Department of Electro-Mechanical Systems Engineering	40	43(4)	41(4)	40(3)	46(4)[1]	35(1)	205(16)[1]
Je	Department of Civil Engineering	40	41(9)	42(9)	45(13)[1]	43(9)[2]	44(8)[2]	215(48)[5]
l Ë	Department of Communication Network Engineering	40	42(10)	42(4)	39(11)[1]	40(8)[1]	37(5)	200(38)[2]
ep	Department of Electronic Systems Engineering	40	42(8)	42(6)	46(6)	44(6)[1]	40(3)	214(29)[1]
	Department of Information Engineering	40	42(5)	45(5)	36(5)[1]	38(8)[1]	36(6)[1]	197(29)[3]
	Total	280	294(41)	302(37)	290(42)[3]	304(46)[6]	264(29)[5]	1,454(195)[14]

◇Faculty of Advanced Engineering

	Classification	Admission	Enrolln	Total		
	Classification	Capacity	1st	2nd	Tutai	
Se	Advanced Course in Industrial and Systems Engineering	24	30(4)	35(2)	65(6)	
onr	Advanced Course in Electronics,Information and Communication Engineering	18	21(2)	22(3)	43(5)	
ŏ	Total	42	51(6)	57(5)	108(11)	

] Overseas Students As of May. 1, 2018

■Clubs and Associations of People Sharing Common Interests

♦ Sports Clubs

Baseball Club Tennis Club Track & Field Club Soccer Club Softball Tennis Club Table Tennis Club Judo Club Badminton Club Kendo Club Handball Club Yacht Club Karate Club Volleyball Club Trekking Club Basketball Club Shorinji-Kenpo Club Swimming Club

♦Societies

Drama Society Literature Society Calligraphy Society Painting Society Microcomputer Society Photograph Society Miniature Model Society **SPOT Society**

○Cultural Clubs

Chorus Club Photography Club Brass Band Club Sado & Kado Club English Club Radiotelegraphy Club Light Music Club Sado Club Computer Club Shogi Club Original Comics Club Painting Club Mechanical System Club S.J.R.C Club Science Club Go & Shogi Club Future Car Club Space Development Research Club

Dormitories

Seiun-ryo (Takamatsu Campus)

Takamatsu Campus has accommodations for students called Seiun-ryo, which consists of three buildings: South Dormitory, North Dormitory and West Dormitory. Male boarders stay at North and South Dormitory and female boarders use West Dormitory

- South Dormitory 4-story building 57 private rooms(9m²), 2 private rooms(13.5m²), 1 shared room with 2 beds etc(24m²)
- North Dormitory 3-story building
 West Dormitory 3-story building
 West Dormitory 3-story building
 29 private rooms(11m²), 1 private rooms(15m²), 24 shared room with 2 beds etc(15m²)
 23 private rooms(10m²), 8 shared room with 2 beds etc(15m²)
- Common rooms a-study room, a seminar room to study Japanese, a drawing room, lounges with a kitchenette, laundry room, bath room and a cafeteria

♦ Number of Dormitory Students

School Year	1st	2nd	3rd	4th	5th	Faculty of Advanced Engineering	total
No. of Dorm studs	46(3)	34(4)	33 (9) (1)	31 (4) (3)	23(4) (4)	1(1)	168 (25) (8)



As of May 1, 2018





■ Shippo-ryo • Shiun-ryo (Takuma Campus)

Takuma Campus has two block sets of dormitory buildings, one of which is "Shippo-ryo" and the other is "Shiun-ryo". The dormitory accommodations consist of three buildings, which are called Second, Third and Fourth Block. Presently, male students stay at Second and Third Block in Shippo-ryo, while female students use Fourth Block in Shiun-ryo.

- Shippo-ryo (Takuma Campus) Two houses 4-story building 26 shared room with 2 beds(13.5m²), 9 shared room with 2beds etc(27m²) Three houses 5-story building 46 private rooms(9ml), 69 shared room with 2 beds etc(18ml)
- Shiun-ryo (Takuma Campus) Four houses 5-story building 12 private rooms(9m²), 38 shared room with 2 beds etc(18m²)
- Common rooms Study hall, a computer room, Lounge, lounges with a kitchenette, laundry room, bath room and a cafeteria

School Year	1st	2nd	3rd	4th	5th	Faculty of Advanced Engineering	total	
No. of Dorm studs	40(10)	43(2)	36(8) (2)	48(9) (2)	46(6)(1)	15(1)	228(36) (5)	
(): Number of Female Students within Total. < > Number of Overseas Students within Total								

(): Number of Female Students within Total, < > Number of Overseas Students within Total







Cafeteria

After Graduation

■ Employment or Academic Situation

As of Aplil. 1, 2018

♦Takamatsu Campus

	Department	Number of Graduates	Number of the Students who Further their Education	Number of Employed	Number of the Other	Job Offered Companies
ä	Department of Mechanical Engineering	37	11	25	1	
th l	Department of Electrical and Computer Engineering	34	17	17	0	
par	Department of Electro-Mechanical Systems Engineering	36	12	23	1	826
De	Department of Civil Engineering	38	16	21	1	
	Total	145	56	86	3	
Course	Advanced Course in Industrial and Systems Engineering	25	10	15	0	

	Department	Number of Graduates	Number of the Students who Further their Education	Number of Employed	Number of the Other	Job Offered Companies
ent	Department of Communication Network Engineering	37	13	23	1	
Department	Department of Electronic Systems Engineering	41	15	26	0	573
Dep	Department of Information Engineering	36	25	11	0	5/3
	Total	114	53	60	1	
Course	Advanced Course in Electronics, Information and Communication Engineering	19	8	11	0	

Campus Map

🔭 Takamatsu Campus



99_666 _96

- Department of Executive and Department of General Education
 Department of General Education
 Department of Mechanical Engineering

- 4 Machine Shop
- Department of Electrical and Computer Engineering
 Department of Electro-Mechanical Systems Engineering
- Department of Civil Engineering and Lecture Rooms
- 8 Advanced Course
- Networking and Computing Service Center
 Research and Development Center for Regional Innovation
- Budo-jyo(Gymnasium for Martial Arts)
 Training Room for Sports
- 16 Meeting Place for the Staff

 - © Clubrooms©
 © Wind Tunnel Laboratory
 Ø Jikyo-kaikan(Welfare Facilities)
 Ø Wakei-kan(Site of a Training Camp)
 - Seiun-ryo(North Dormitory)
 - Seiun-ryo(South Dormitory)Seiun-ryo(West Dormitory)
 - Seiun-yo(Dining Hall of Dormitory)
 Swimming Pool
 Athletic Field
 Handball Court
 Tennis Court
 Baseball Ground

 - Tennis Courts

 - 3 Tennis Court

- Takuma Campus

- 1 Department of Executive 2 Departmental Building 1
- 3 Departmental Building2
 4 Departmental Building3
- Multimedia Building
- 6 Advanced Course
- 7 Primary Lecture Halls

- Secondary Lecture Halls
 Library
 Department of Executive for Dormitory
- Shippo-ryo@(Dormitory)
- Shippo-ryo③(Dormitory)
- (B) Shiun-ryo(Dormitory)
- 14 East Dormitory
 15 West Dormitory
- 6 Boiler Room of Dormitory
 Warehouse for Dormitory
- 18 Bathhouse for Dormitory 19 Gymnasium 1 20 Gymnasium2

- Budo-jyo(Gymnasium for Martial Arts)
 Site of a Training Camp
- Warehouse for Physical Education
 Building for the Swimming Pool
- Sukuri Center(Welfare Facilities)
 Meeting Place for the Staff
- Shippo Memorial Hall
 Guard's Room
- Garage
- Housing for the Staff
 Swimming Pool
- 32 Baseball Field
- 33 Athletic Field 34 Tennis Courts

Accounting

◇Revenue and Expenditure (2017)

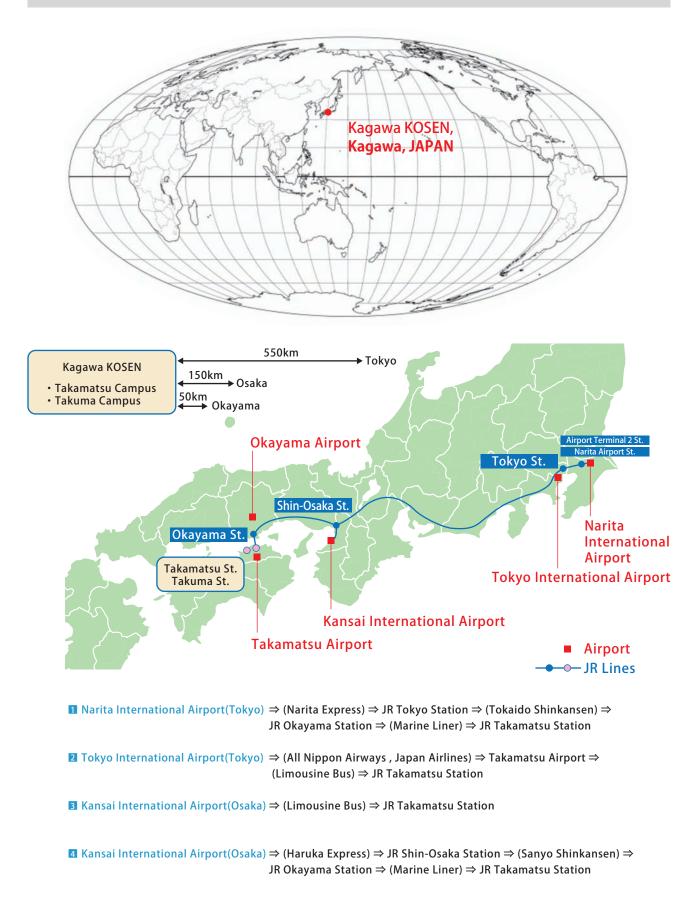
Revenue (a monetary unit: 1,000yen)

Grant for working Expenditure 117,224 Facilities Improvement Expenses 0 Self-Revenue 381,135 Miscellaneous Revenue 9,332 Industry-University Cooperation Research Revenue and Donation 44,488 Other Subsidy 6,759 Total 558,938		
Self-Revenue Tuition and Entrance Examination Fee 381,135 Miscellaneous Revenue 9,332 Industry-University Cooperation Research Revenue and Donation 44,488 Other Subsidy 6,759	Grant for working Expenditure	117,224
Tuition and Entrance Examination Fee 381,135 Miscellaneous Revenue 9,332 Industry-University Cooperation Research Revenue and Donation 44,488 Other Subsidy 6,759	Facilities Improvement Expenses	0
Miscellaneous Revenue 9,332 Industry-University Cooperation Research Revenue and Donation 44,488 Other Subsidy 6,759	Self-Revenue	
Industry-University Cooperation Research Revenue and Donation 44,488 Other Subsidy 6,759	Tuition and Entrance Examination Fee	381,135
Other Subsidy 6,759	Miscellaneous Revenue	9,332
	Industry-University Cooperation Research Revenue and Donation	44,488
Total 558,938	Other Subsidy	6,759
	Total	558,938

Expenditure (a monetary unit: 1,000yen)

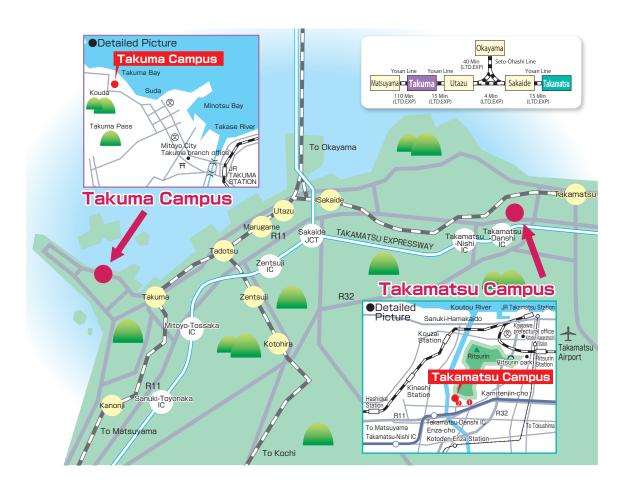
Educatioal Research Expenses	453,015
General Administrative Expenses	62,163
Facilities Improvement Expenses	0
Industry-University Cooperation Research and Donation Project Expenses	37,885
Other Subsidy	6,760
Total	559,823

Access from International Airports to Kagawa KOSEN



Direct access from Takamatsu Airport or JR Takamatsu Station to NITKC is only 20 minutes by car.

Access Map



Takuma Campus

■From JR Takuma Station (Yosan Line)

20 minutes by car

Mitoyo City Community Bus for Nabuto on Takuma line /for Ohama on Takuma-Mino line

→ 1 minute walk from Kagawa KOSEN mae bus stop

■From Takamatsu Expressway IC

20 minutes by car from Mitoyo-Tossaka IC 30 minutes by car from Sanuki-Toyonaka IC

From Takamatsu Airport 60 minutes by car

551 Kohda, Takuma-cho, Mitoyo, Kagawa 769-1192 Japan +81-875-83-8506

Takamatsu Campus

■From JR Takamatsu Station

30 minutes by car

Kotoden Bus(No.5 bus stop) for Ritsurin Garden, Mimaya-Prefecture Swimming Pool → 1 minutes walk from Kagawa Kosen mae bus stop 2

25 minutes by car

Kotoden Bus(No.5 bus stop) for Yusa-Iwasaki, Yusa-Ikenishi or Ikenishi-Konanrakuyu→ 10 minutes walk from Koyama bus stop 10

■From Takamatsu Expressway IC

7 minutes by car from Takamatsu-Nishi IC 5 minutes by car from Takamatsu-Danshi IC

From Takamatsu Airport

20 minutes by car

Address -

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