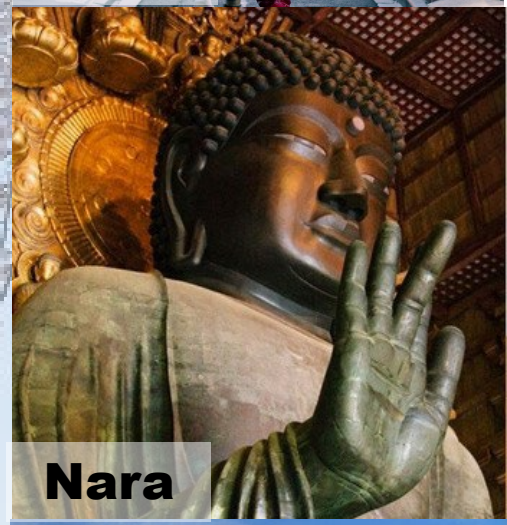
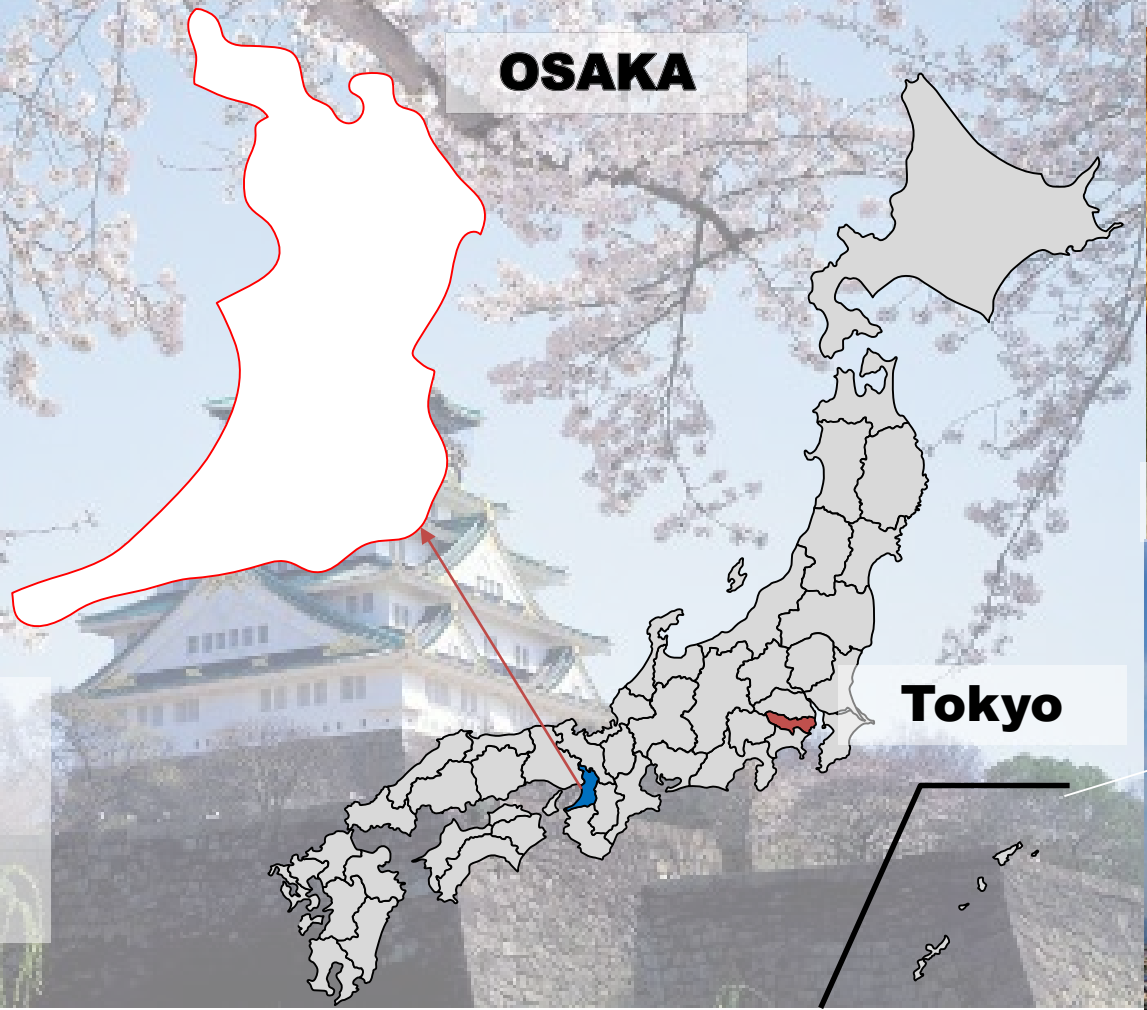

WE WELCOME YOU TO JAPAN.
Kansai University

# Location

## 20 min from Central Osaka






| | |
|---|---|
| Kyoto | :60 min |
| Nara | :90 min |
| Hyogo(Kobe) | :60 min |

# Campuses

- Senriyama Campus
- Takatsuki Campus
- Takatsuki Muse Campus
- Umeda Campus
- Sakai Campus
- Suita Mirai Campus(new!)


# 14 Undergraduate Schools（14 faculties as of April 2025）

- ✓ Law
- ✓ Letters
- ✓ Economics
- ✓ Informatics
- ✓ Sociology
- ✓ Policy Studies
- ✓ Foreign Language Studies
- ✓ Health and Well-being
- ✓ Business & Commerce
- ✓ Societal Safety Sciences
- ✓ **Engineering Science**
- ✓ **Environmental and Urban Engineering**
- ✓ **Chemistry, Materials and Bioengineering**
- ✓ Business Data Science (established on April 2025)

Japanese-based Program **ONLY**

# 13 Graduate Schools + 2 Professional Schools

- ✓ Law
- ✓ Letters
- ✓ Economics
- ✓ Business & Commerce
- ✓ Sociology
- ✓ Informatics
- ✓ **Science and Engineering**
- ✓ Foreign Language Education and Research
- ✓ Psychology
- ✓ Societal Safety Sciences
- ✓ East Asian Cultures
- ✓ Governance
- ✓ Health and Well-being

- ✓ School of Law
- ✓ School of Accountancy

Entrance Examination Screening &
Application Method / Schedule

**English-based Program**

**Japanese-based Program**

# Science and Engineering

ENGLISH

✓Engineering Science Major
- Mathematics
- Pure and Applied Physics
- Mechanical Engineering
- Electrical, Electronic and Information Engineering
- Green Electronics / 2026.4-

✓ Environmental and Urban Engineering Major
- Architecture
- Civil, Environmental and Applied Systems Engineering
- Chemical, Energy and Environmental Engineering

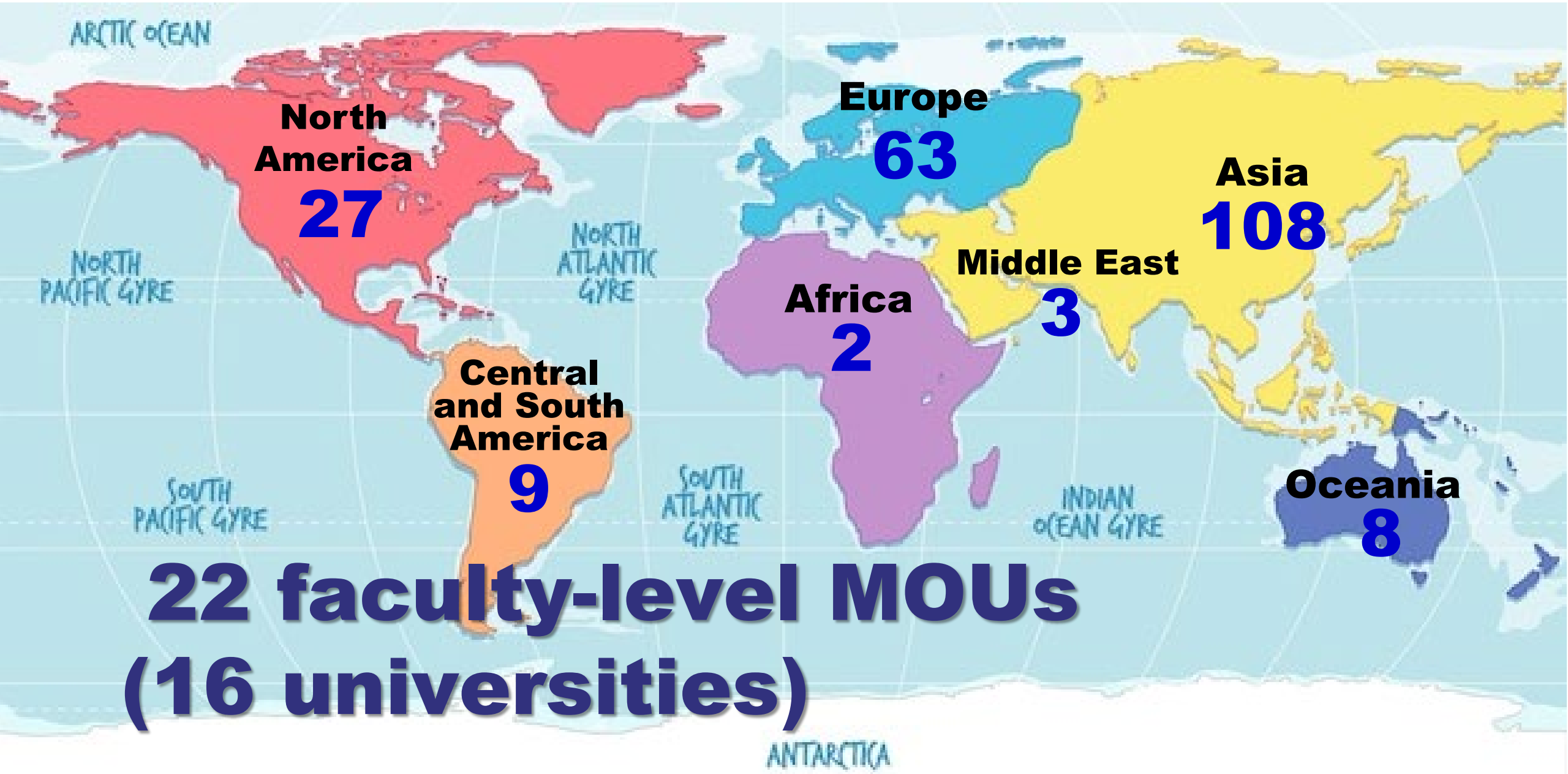
✓ Chemistry, Materials and Bioengineering Major
- Chemistry and Materials Engineering
- Life Science and Biotechnology

Website

Check our video!

# 220 Partner Universities

As of October, 2024




# 22 faculty-level MOUs (16 universities)

# University Overview

Established in 1886

## Students / Teaching Staff

30,019 Undergraduate and Graduate Students & 747 Professors (in 2024)

1,654 International Students

Short-term laboratory exchange program 49 International Students as of 2025

English-based Degree Seeking Program / Double Degree 8 International Students as of 2023

# Key Numbers of STEM

as of 2024

**193** Professors

**4,978** Undergraduate students

**824** Master's students & **56** Doctorate students

**133** laboratories

# Engineering Science Major

Website

### Mathematics

| Field | Name |
|---|---|
| Cohomological Aspects in Mathematics | SHODA Toshihiro |
| | FUJIOKA Atsushi |
| | MURABAYASHI Naoki |
| | YANAGAWA Kohji |
| | WAKUI Michihisa |
| | KANKI Masataka |
| Probability and Statistics | UEMURA Toshihiro |
| | TAKEDA Masayoshi |
| | TERAMOTO Hiroshi |
| | UEHARA Yuma |
| | TAGUCHI Dai |

### Pure and Applied Physics

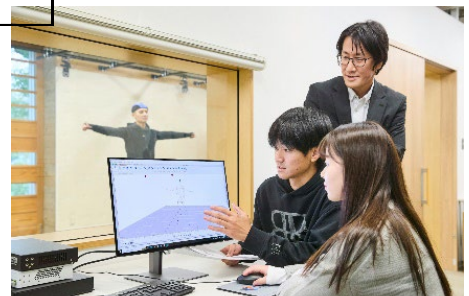
| Field | Name |
|---|---|
| Physics | ITANO Tomoaki |
| | ITOH Hiroyoshi |
| | ITO Makoto |
| | SUGIHARA-SEKI Masako |
| | HONDA Syuta |
| | WADA Takahiro |
| | ABE Yugo |
| Applied Physics | ASAKAWA Makoto |
| | INADA Mitsuru |
| | YAMAGUCHI Soichiro |
| | YAMAMOTO Ken |
| | YAMAMOTO Mahito |

### Mechanical Engineering

| Field | Name |
|---|---|
| Nanophysics and Nanomaterials Engineering | ITO Takeshi |
| | SHIMIZU Tomohiro |
| | SHINGUBARA Shoso |
| Fluid Engineering and Biomechanics | TAJIKAWA Tsutomu |
| | YAMAMOTO Yasufumi |
| | OTOMO Ryoko |
| Materials Engineering | SAITOH Ken-ichi |
| | SATO Tomohiro |
| | TAKAHASHI Yoshimasa |
| | TAKUMA Masanori |
| Tribology and Micromechatronics for Information Equipment | KOGANEZAWA Shinji |
| | TANI Hiroshi |
| | LU Renguo |
| Thermal Engineering | UMEKAWA Hisashi |
| | MATSUMOTO Ryosuke |
| | AMI Takeyuki |
| | ODA Yutaka |
| Manufacturing Systems | FURUSHIRO Naomichi |
| | YAMAGUCHI Tomomi |
| | HIROOKA Daisuke |
| Mechanical Dynamics and Control Engineering | UTSUNO Hideo |
| | YAMADA Keisuke |
| | Shouhei Shirafuji |
| Measurement and Intelligent Systems | TAKATA Keiji |
| | MAE Yasushi |
| | RATSAMEE Photchara |
| Robot and Microsystems | AOYAGI Seiji |
| | SUZUKI Masato |
| | TAKAHASHI Tomokazu |
| Ergonomics and Biomedical Engineering | KOTANI Kentaro |
| | SUZUKI Satoshi |

### Electrical, Electronic and Information Engineering

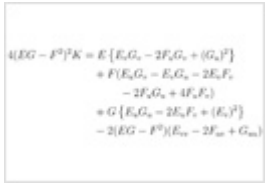
| Field | Name |
|---|---|
| Electrical Engineering | OHASHI Shunsuke |
| | HAMADA Shoji |
| | YONETSU Daigo |
| Materials and Devices for Electronics and Optics | KITAMURA Toshiaki |
| | SAIKI Taku |
| | TAJITSU Yoshiro |
| | SATO Shingo |
| | TAKARADA Jun |
| Information and Communication Engineering | HIRATA Kouji |
| | YAMAMOTO Miki |
| | YOMO Hiroyuki |
| | WADA Tomotaka |
| System Informatics | ITO Hidetaka |
| | HIKAWA Hiroomi |
| | MIYOSHI Seiji |
| | MOTONAKA Kimiko |
| Media Processing | KAJIKAWA Yoshinobu |
| | MATSUSHIMA Kyoji |
| | MUNEYASU Mitsuji |
| | YOSHIDA Soh |
| Intelligent Software Engineering | EBARA Hiroyuki |
| | KOJIRI Tomoko |
| | TOKUMARU Masataka |
| | HANADA Yoshiko |
| | Emmanuel Ayedoun |



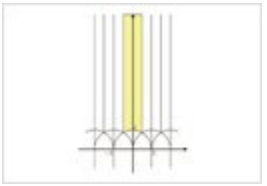
# Engineering Science Major システム理工学専攻
# Mathematics 数学分野

| Research Area | 7+ 3 Faculties |
|---|---|
| Cohomological Aspects in Mathematics<br>**コホモロジー的数理** | •Prof. SHODA Toshihiro **庄田 敏宏** (Spectral Geometry)<br>•Prof. FUJIOKA Atsushi **藤岡 敦** (Differential geometry)<br>•Prof. MURABAYASHI Naoki **村林 直樹** (Theory of numbers)<br>•Prof. YANAGAWA Kohji **柳川 浩二** (commutative algebra)<br>•Prof. WAKUI Michihisa **和久井 道久** (Algebra)<br>•Assoc Prof. KANKI Masataka**神吉 雅崇** (Discrete dynamical systems) |
| Probability and Statistics**確率・統計** | •Prof. UEMURA Toshihiro **上村 稔大** (Probability theory)<br>•Prof. TAKEDA Masayoshi **竹田 雅好** (Symmetric Markov process)<br>•Assoc Prof. UEHARA Yuma **上原 悠槙** (Estimation theory)<br>•Assoc. Prof. TAGUCHI Dai **田口 大** (Stochastic calculus)<br>•Assoc Prof. TERAMOTO Hiroshi **寺本 央** (Computational Algebra) |

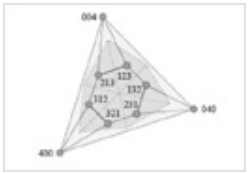
Crossed product of a Hilbert C*-module （KUSUDA）



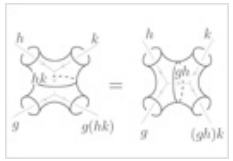
Differential geometry related to integrable systems （FUJIOKA）



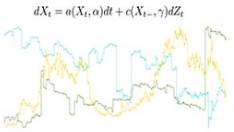
The arithmetic of abelian varieties with complex or quaternionic multiplication （MURABAYASHI）



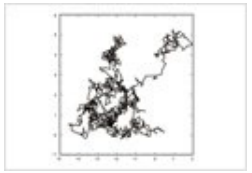
Combinatorial commutative algebra （YANAGAWA）



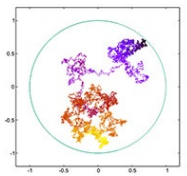
Quantum invariants of knots and 3-manifolds （WAKUI ）



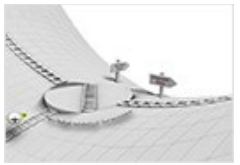
stochastic differential equation model （UEHARA）



Regularity problem for Dirichlet forms （UEMURA）



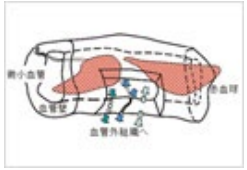
Stochastic calculus （TAGUCHI）



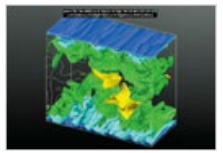
chemical reaction dynamics （TERAMOTO）

# Engineering Science Major システム理工学専攻
## •Pure and Applied Physics 物理・応用物理学分野

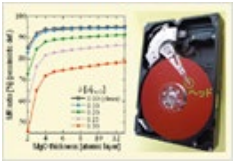
| Research Area | 10 + 2 Faculties |
|---|---|
| Physics | •Prof. SUGIHARA-SEKI Masako 関 眞佐子 (fluid dynamics)<br>•Prof. ITANO Tomoaki 板野 智昭 (Fluid Physics)<br>•Prof. ITOH Hiroyoshi 伊藤 博介 (Theoretical Solid State Physics)<br>•Prof. ITO Makoto 伊藤 誠 (Finite Quantum Many-body Systems)<br>•Prof. WADA Takahiro 和田隆宏 (biological effects of radiation)<br>•Prof. SUGIMOTO Nobumasa杉本 信正 (Thermofluid dynamics)<br>•Assoc Prof. HONDA Syuta本多 周太 (Spintronics) |
| Applied Physics | •Prof. ASAKAWA Makoto 淺川 誠 (Photon Radiation)<br>•Prof. YAMAGUCHI Soichiro 山口 聡一朗 (Photon Radiation)<br>•Prof. SAITOH Tadashi 齊藤 正 (Photonic Green Devices)<br>•Prof. INADA Mitsuru 稲田 貢 (Photonic Green Devices)<br>•Prof. YAMAMOTO Ken 山本 健 (ultrasonic material science)<br>•Assoc Prof. YAMAMOTO Mahito 山本 真人 (Spintronics) |



Fluid dynamical study of red blood cells motion in microvessel

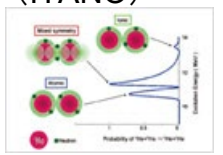


Understanding of physical mechanisms in fluid phenomena （ITANO）



Magnetic nano-structure (spintronics) （H. ITOH）

Synthesis of super-heavy elements （WADA）

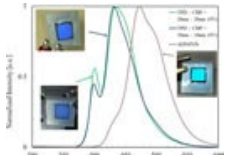


Reactions of highly-excited neutron-excess systems （M. I

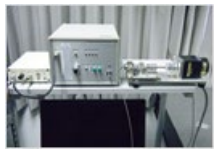
Thermoacoustics and its application to novel heat engines （SUGIMOTO）

Titanium sapphire Laser （ASAKAWA）

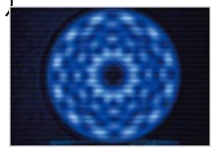
Solid rocket propellant （YAMAGUCHI ）



Photonic Green Devices （SAITOH）



Nanofabrication ・measurement （INADA ）

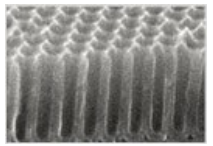


Optical Visualization of Acoustic Field （K.YAMAMOTO ）

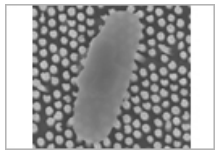
Field-effect transistors （M.YAMAMOTO ）

# Engineering Science Major システム理工学専攻
## •Mechanical Engineering 機械工学分野

| Research Area | 17 + 13 + 4 (34) Faculties |
|---|---|
| Nanophysics and Nanomaterials Engineering | •Prof ITO Takeshi **伊藤 健**<br>(Micro fabrication process)<br>•Prof SHINGUBARA Shoso **新宮原 正三**<br>(nano memory devices)<br>•Prof SHIMIZU Tomohiro **清水 智弘**<br>(Synthesis of semiconductor nanowires) |
| Fluid Engineering and Biomechanics | •Prof YAMAMOTO Yasufumi **山本 恭史**<br>(Numerical analysis of multiphase flows)<br>•Prof TAJIKAWA Tsutomu **田地川 勉**<br>(Fluid Engineering and Biomechanics)<br>•Assoc Prof OTOMO Ryoko **大友 涼子**<br>(Analysis of Particle Motion) |
| Materials Engineering | •Prof SAITOH Ken-ichi **齋藤 賢一**<br>(Computational Mechanics)<br>•Prof TAKUMA Masanori **宅間 正則**<br>(Non-destructive inspection method)<br>•Assoc Prof SATO Tomohiro **佐藤 知広**<br>(sintering process for Cu alloy)<br>•Prof TAKAHASHI Yoshimasa **高橋 可昌** |
| Tribology and Micromechatronics for Information Equipment | •Prof KOGANEZAWA Shinji<br>•Prof TANI Hiroshi<br>•Assoc Prof LU Renguo |
| Thermal Engineering | •Prof UMEKAWA Hisashi<br>•Prof MATSUMOTO Ryosuke<br>•Assoc Prof AMI Takeyuki<br>•Assoc Prof ODA Yutaka |

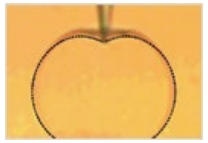


Nano-holes（SHINGUBARA）

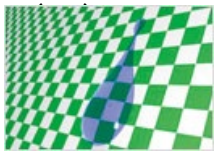


Antibacterial nanosize surface structures

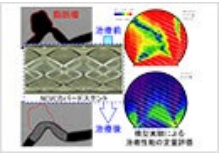
Nano-wire（SHIMIZU）



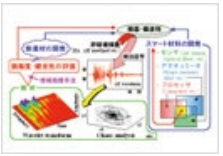
Microcapsule（BANDO）



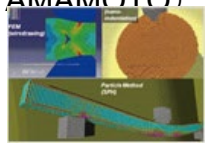
Wettability and surface tension (Y. YAMAMOTO)



血液循環器系のバイオメカニクス(田地川准教授)

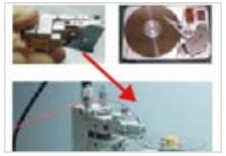


スマート構造とスマート材料の開発（宅間教授）

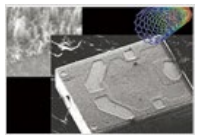


計算ナノテクノロジーの応用（齋藤教授）

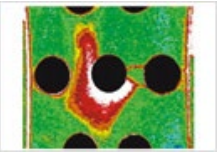
汎用吸着グリッパ（高橋准教授）



情報機器ハードディスク実験装置（多川教授）



磁気ヘッド表面に形成したカーボンナノチューブ（谷教授）



中性子線を用いた熱流動現象の定量評価（梅川教授）

管状火炎を用いた熱機器の開発（松本教授）

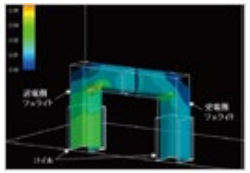
# Engineering Science Major システム理工学専攻

## •Electrical, Electronic and Information Engineering電気電子情報工学分野

| Research Area | 19 + 7 + 4 (30) Faculties |
|---|---|
| Electrical Engineering | •Prof HAMADA Syoji (Electric power equipment)<br>•Prof OHASHI Shunsuke (electrical equipment )<br>•Prof YAMAMOTO Yasushi (Electric energy engineering)<br>•Assoc Prof YONETSU Daigo (Electric energy engineering) |
| Materials and Devices for Electronics and Optics | •Prof KITAMURA Toshiaki (Wireless Communication)<br>•Prof TAJITSU Yoshiro (Sensor & Actuator)<br>•Assoc Prof SAIKI Taku (new laser materials)<br>•Assoc Prof SATO Shingo (Electronic device Engineering)<br>•Assoc Prof TAKARADA Jun (Piezoelectric Polymer) |
| Information and Communication Engineering | •Prof YAMAMOTO Miki (information communication)<br>•Prof YOMO Hiroyuki (Wireless network control)<br>•Prof HIRATA Kouji (information communication)<br>•Prof WADA Tomotaka (Information networking) |

電気自動車（大橋教授）


核融合炉における高効率エネルギー変換（山本靖教授）

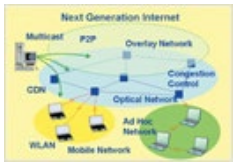


非接触給電装置の特性に関する研究（米津准教授）

各種インテリジェント・センサ技術の開発（大村教授）

高周波デバイスの特性測定（北村教授）

光情報材料、エネルギー伝送材料（田實教授）

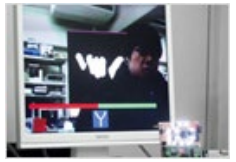



次世代インターネット（山本幹教授）

移動体ネットワーキング（四方教授）

次世代高度道路交通システム（和田准教授）

| | |
|---|---|
| System Informatics | •Prof HIKAWA Hiroomi (Digital Circuit Design)<br>•Prof MAEDA Yutaka (electronic control)<br>•Prof MIYOSHI Seiji (Information and Mathematical)<br>•Prof ITO Hidetaka (Digital Circuit Design)<br>•Assoc Prof MOTONAKA Kimiko (Autonomous control system) |
| Media Processing | •Prof KAJIKAWA Yoshinobu (Audio and Electroacoustics)<br>•Prof MATSUSHIMA Kyoji (Opticl information system)<br>•Prof MUNEYASU Mitsuji (Digital Image Processing)<br>•Assoc Prof YOSHIDA Soh (Artificial intelligence technologies) |
| Intelligent Software Engineering | •Prof EBARA Hiroyuki (Parallel Algorithm)<br>•Prof TOKUMARU Masataka (Kansei analysis)<br>•Prof KOJIRI Tomoko (information processing)<br>•Assoc Prof HANADA Yoshiko (information processing) |



指文字認識システム（肥川教授）

視覚情報を用いたロボット制御（前田教授）


学習の解析（三好教授）

オーディオ信号処理（梶川教授）

コンピュータホログラフィによる3次元立体映像の作成と再生（松島教授）

便利な画像へのデータ埋め込み技術（棟安教授）

メニーコア・コプロセッサ搭載計算サーバ（榎原教授）

感性ロボット・コミュニケーション（徳丸教授）

プレゼンテーションの補足発言生成支援システム（小尻教授）

# Environmental and Urban Engineering Major

Website

## Architecture

| Field | Name |
|---|---|
| Structural Engineering | IKENAGA Masahiro |
| | MASUI Takeshi |
| | MATSUDA Satoshi |
| Architectural Design and Planning | OKAGE Yoshifumi |
| | OKA Eriko |
| | KAMETANI Yoshihiro |
| | KINOSHITA Hikaru |
| | FUJITA Masaya |
| | NOMURA Masaharu |
| | HASHITERA Tomoko |
| Environmental Engineering in Architecture | TSUZUKI　Kazuyo |
| | TOYODA Masahiro |
| | HARA Naoya |
| | TAKEMURA Akihisa |

## Civil, Environmental and Applied Systems Engineering

| Field | Name |
|---|---|
| Environmental Engineering | OZAKI Taira |
| | TOBITA Tetsuo |
| | YASUDA Tomohiro |
| | MIYAZAKI Yuusuke |
| | HASHIMOTO Masakazu |
| Design and Construction | ISHIKAWA Toshiyuki |
| | UEDA Naoshi |
| | TSURUTA Hiroaki |
| | KITAOKA Takafumi |
| Planning and Management | INOKUCHI Hiroaki |
| | KITAZUME Keiichi |
| | YUN Yeboon |
| | HAYASHI Michiko |
| plied Systems Engineeri | KANEKIYO Hiroaki |
| | KUBOTA Satoshi |
| | TAKIZAWA Yasuhisa |
| | YASUMURO Yoshihiro |
| | ADACHI Naotoshi |

## Chemical, Energy and Environmental Engineering

| Field | Name |
|---|---|
| Energy Engineering | ASAKUMA Yusuke |
| | IKENAGA Naoki |
| | NAKAGAWA Kiyoharu |
| | MURAYAMA Norihiro |
| | FUKU Kojiro |
| | MATSUOKA Mitsuaki |
| Environmental Chemistry | OKADA Yoshiki |
| | TANAKA Shunsuke |
| | HAYASHI Jun'ichi |
| | YAMAMOTO Hideki |
| | ARAKI Sadao |
| | KINOSHITA Takuya |
| | HASEGAWA Isao |

# Environmental and Urban Engineering Major 環境都市工学専攻

## •Architecture 建築学分野

| Research Area | 12 + 2 + 3 (17) Faculties |
|---|---|
| Structural Engineering | •Prof IKENAGA Masahiro (Seismic structure)<br>•Prof MASUI Takeshi (Building Structure)<br>•Prof MATSUDA Satoshi (Seismic Performance)<br>•Prof YAMAZAKI Masahiro (Support Mechanism of Foudations) |
| Architectural Design and Planning | •Prof OKAGE Yoshifumi (Design and theory of architecture)<br>•Prof OKA Eriko (Residential Environment)<br>•Prof KAMETANI Yoshihiro (Spatial Planning and Architectural Design)<br>•Prof KINOSHITA Hikaru (urban design)<br>•Prof FUJITA Masaya (history of Japanese domestic architecture)<br>•Assoc Prof NOMURA Masaharu (City Management)<br>•Assoc Prof HASHITERA Tomoko (Architectural Conservation) |
| Environmental Engineering in Architecture | •Prof TSUZUKI Kazuyo (Effects of environment on human)<br>•Prof HARA Naoya (Designing of Visual and Lighting Environment)<br>•Prof TOYODA Masahiro (Vibroacoustic analysis) |

歴史的な建物の構造的な特性についての研究（西澤教授）

歴史的な建物の構造的な特性についての研究（桝井教授）

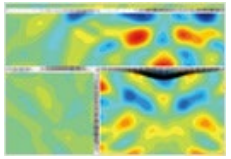
関西大学の地震観測システム（松田教授）

集住環境を形成する建築（江川教授）

こどもの遊び環境に関する研究（大影教授）

日本の建築の様式・技法・工匠に関する歴史研究（藤田教授）

エッジ効果抑制型遮音壁のエッジ近傍の音のエネルギーの流れ（河井教授）



建築構造体の振動伝搬と音の放射（豊田教授）

# Environmental and Urban Engineering Major 環境都市工学専攻

## •Civil, Environmental and Applied Systems Engineering 都市システム工学分野

| Research Area | 11 + 10（21) Faculties |
|---|---|
| Environmental Engineering | •Prof KUSUMI Harushige (Safety analysis of ground)<br>•Assoc Prof HASHIMOTO Masakazu (flood analysis)<br>•Assoc Prof OZAKI Taira (Water Management)<br>•Assoc Prof HAYASHI Michiko (Landscape Planning)<br>•Prof TOBITA Tetsuo (Disaster Prevention in geotechnics)<br>•Prof YASUDA Tomohiro (Mitigation of coastal disasters) |
| Design and Construction | •Prof TSURUTA Hiroaki (Concrete Engineering)<br>•Prof ISHIKAWA Toshiyuki (Steel Structures)<br>•Assoc Prof UEDA Naoshi (Concrete Structures) |
| Planning and Management | •Prof KITAZUME Keiichi (social capital management)<br>•Prof YUN Yeboon (Social systems)<br>•Assoc Prof INOKUCHI Hiroaki (Operations Research)<br>•Assoc Prof KITAOKA Takafumi (civil engineering and AI) |

浸水した地下室からの避難体験実験（石垣教授）

道路斜面の崩壊（楠見教授）

環境共生の都市づくりの実践（盛岡教授）

土木構造物の非破壊検査法（小林教授）

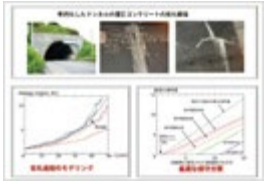
橋梁の長寿命化に関する研究（坂野教授）

コンクリートの耐久性効果（鶴田教授）

健康まちづくりのフューチャーデザイン（秋山教授）

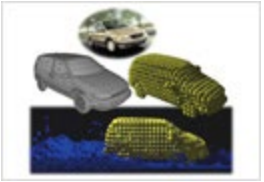
統合型土地利用・交通・環境モデル（北詰教授）

スマートモビリティに関する分析（井ノ口准教授）



確率システム論・リスク工学のトンネル保守問題への適用例（兼清教授）

自己組織化による無線ネットワークのトポロジ再現例（滝沢教授）



3Dモデリングとシミュレーション（安室教授）

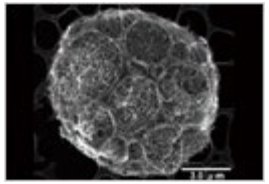
| | |
|---|---|
| **Applied Systems Engineering** | •Prof KANEKIYO Hiroaki (System reliability and risk analysis)<br>•Prof TAKIZAWA Yasuhisa (Network Dynamics)<br>•Prof YASUMURO Yoshihiro (Information Systems)<br>•Prof KUBOTA Satoshi (Geospatial Information)<br>•Prof DAN Hiroshige (Mathematical Optimization)<br>•Assoc Pof ADACHI Naotoshi (Communications infrastructure) |

# Environmental and Urban Engineering Major 環境都市工学専攻

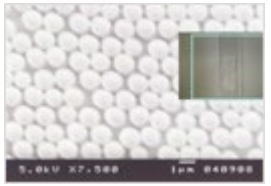
## •Chemical, Energy and Environmental Engineering エネルギー環境・化学工学分野

| Research Area | 7 + 5 + 2 (14) Faculties |
|---|---|
| Energy Engineering | •Prof IKENAGA Naoki (catalyst chemistry)<br>•Prof NAKAGAWA Kiyoharu (energy materials)<br>•Prof MIYAKE Takanori (Hydrothermal Synthesis)<br>•Prof MURAYAMA Norihiro (Recycling of Industrial Wastes)<br>•Assoc Prof SANO Makoto (functional inorganic)<br>•Assoc Prof FUKU Kojiro (Clean energy production)<br>•Assoc Prof MATSUOKA Mitsuaki (functional inorganic materials) |
| Environmental Chemistry | •Prof OKADA Yoshiki (Nanoparticles engineering)<br>•Prof HAYASHI Jun'ichi (Activated Carbon)<br>•Prof YAMAMOTO Hideki (Estimation of solubility parameter(SP value) , Blood Viscosity)<br>•Assoc Prof ARAKI Sadao (Membrane Separation)<br>•Assoc Prof KINOSHITA Takuya (Nanoparticles engineering)<br>•Prof TANAKA Shunsuke (nanoporous materials)<br>•Assoc Prof HASEGAWA Isao (Chemical Industry) |

高価な貴金属を用いない燃料電池用選択酸化触媒（三宅孝典教授）

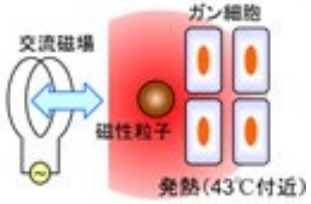


新規ナノ炭素材料合成（マリモカーボン）（中川准教授）

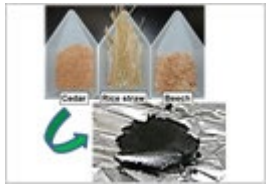


シックハウス症候群の原因物質等を吸着・光分解させるチタニア薄膜上に配列させた多孔性球状シリカ粒子（三宅義和教授）

ヒト血液の超小型粘度測定装置の開発（山本教授）




磁性粒子を用いた癌温熱療法（木下准教授）



木材をプラスチック原料へ転換（長谷川准教授）

# Chemistry, Materials and Bioengineering Major

## Chemistry and Materials Engineering

| Field | Name |
|---|---|
| Metallic Materials Design | UEDA Masato |
| | MORISHIGE Taiki |
| Metallic Materials Proccessing | TAKENAKA Toshihide |
| | NISHIMOTO Akio |
| | HOSHIYAMA Yasuhiro |
| | MARUYAMA Toru |
| Metallic Inorganic Materials Properties | ARACHI Yoshinori |
| | UCHIYAMA Hiroaki |
| | KOZUKA Hiromitsu |
| | TAKESHITA Hiroyuki T. |
| | HARUNA Takumi |
| | KONDO Ryota |
| Inorganic and Physical Chemistry | AOTA Hiroyuki |
| | ISHIKAWA Masashi |
| | KAWASAKI Hideya |
| | GUO Haoxuan |
| | YAMAGATA Masaki |
| Organic Chemistry | UMEDA Rui |
| | OBORA Yasushi |
| | SAKAGUCHI Satoshi |
| | NISHIYAMA Yutaka |
| | YANO Masafumi |

| Field | Name |
|---|---|
| Polymer Chemistry | KUDO Hiroto |
| | SANDA Fumio |
| | HARADA Miyuki |
| | SOGAWA Hiromitsu |
| Biomaterials Chemistry | IWASAKI Yasuhiko |
| | OHYA Yuichi |
| | KAKINOKI Sachiro |
| | HIRANO Yoshiaki |
| | FURUIKE Tetsuya |
| | MIYATA Takashi |
| | KAWAMURA Akifumi |
| Biofunctional Molecular Chemistry | ISHIDA Hitoshi |
| | KUZUYA Akinori |
| | YAJIMA Tatsuo |
| | NAKAI Misaki |
| Inorganic and Physical Chemistry | FUJIMOTO Kazushi |

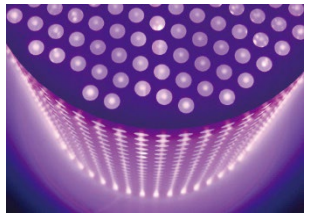
**Website**

## Life Science and Biotechnology

| Field | Name |
|---|---|
| Biotechnology | OIKAWA Tadao |
| | YAMANAKA Kazuya |
| | IWAKI Hiroaki |
| | OKANO Kenji |
| | KATAKURA Yoshio |
| | YAMASAKI Shino |
| | MATSUMURA Yoshinobu |
| | SASAKI Miho |
| Life Science | FUKUNAGA Kenji |
| | HOSOMI Ryota |
| | NAGAOKA Yasuo |
| | SUMIYOSHI Takaaki |
| | SHIMOKE Koji |
| | YAMAGUCHI Yoshiaki |
| | YASUHARA Hiroki |
| | KUSAKABE Rie |

# Research and Education Field, Chemistry and Materials Engineering

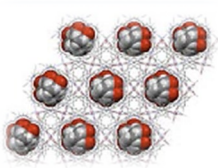
## 1. Materials Science

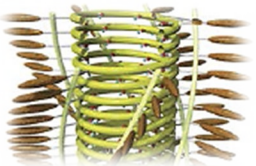


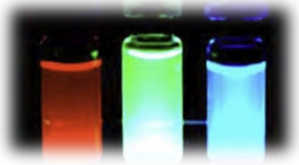

Metallic Materials **Design**
Metallic Materials **Processing**
Metallic Inorganic Materials **Properties**

Key words: Titanium Alloys, Rare-metal, Hydrogen Storage Materials, Ionic Conductor, Ceramics, Plasma-nitriding,
Rapid Solidification, Full Mold Process, Sol-Gel thin film, Corrosion

## 2. Applied Chemistry



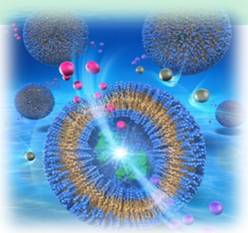




**Organic** Chemistry
**Polymer** Chemistry
**Inorganic and Physical** Chemistry

Key words: Catalyst, Metal-Organic Frameworks (MOF), Metal Nanoparticles, π-conjugated Polymer, Helical Polymer,
Ionic Liquid, Supercapacitor, Lithium Battery

## 3. Biomolecular Chemistry



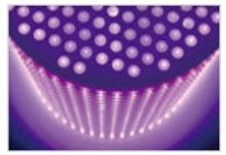
**Biomaterials** Chemistry
**Biofunctional Molecular** Chemistry

Key words: Bio-inspired Polymers, Natural Polymer, DNA, Peptide, Protein, Polysaccharides, Polymer Gels,Drug Delivery, Anti-bacterial Materials, Tissue Engineering, Biosensor, Biomedical Material

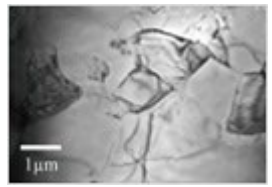
## Chemistry, Materials and Bioengineering Major 化学生命工学専攻

### •Chemistry and Materials Engineering 化学・物質工学分野

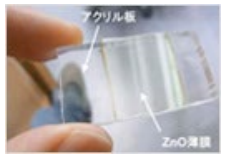
| Research Area | 29 + 9 + 2 (40) Faculties |
|---|---|
| Metallic Materials Design | •Prof UEDA Masato (inorganic materials) |
| Metallic Materials Processing | •Prof TAKENAKA Toshihide (production process of rare-metals)<br>•Prof NISHIMOTO Akio (Metallographic investigation)<br>•Prof HOSHIYAMA Yasuhiro (Solidified Composite Deposits)<br>•Prof MARUYAMA Toru (Castings)<br>•Prof MORISHIGE Taiki (Grain refinement processings) |
| Metallic Inorganic Materials Properties | •Prof ARACHI Yoshinori (ionic materials)<br>•Prof KOZUKA Hiromitsu (Ceramics)<br>•Prof TAKESHITA Hiroyuki T. (Hydrogen Storage Materials)<br>•Prof HARUNA Takumi (intelligent metal surfaces )<br>•Prof UCHIYAMA Hiroaki (Ceramics)<br>•Assoc Prof KONDO Ryota (hydrogen storage materials) |



Surface modification of metallic materials by Plasma Nitriding and Diffusion-coating （NISHIMOTO）



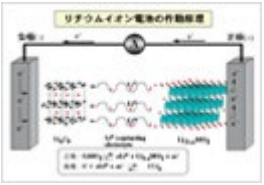

Metal Production Engineering, High Temperature Chemistry (MORISHIGE)




Sol-gel coating technique for fabricating ceramic （KOZUKA）

Production of Metallic Materials for Vehicle, Rail, Ship and Aircraft （MARUYAMA）


Hydrogen Energy Materials (Takeshita)

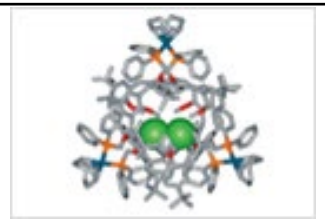


Li-ion Secondary Battery（ARACHI）

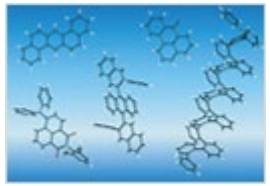
| | |
|---|---|
| Inorganic and Physical Chemistry | •Prof AOTA Hiroyuki (Artificial photosynthesis)<br>•Prof ISHIKAWA Masashi (electrochemical supercapacitors)<br>•Prof KAWASAKI Hideya (Metal nanoparticles)<br>•Assoc Prof YAMAGATA Masaki (Electrochemistry)<br>•Assoc Prof Fujimoto Kazushi (Molecular Dynamics Simulation) |
| Organic Chemistry | •Prof OBORA Yasushi (Organochatarityc Chemistry)<br>•SAKAGUCHI Satoshi (Organosynthetic Chemistry)<br>•TANAKA Koichi (Metal–Organic Frameworks)<br>•NISHIYAMA Yutaka (catalytic reactions)<br>•UMEDA Rui (Organic Reaction)<br>•YANO Masafumi |

Next generation solar cell（AOTA）

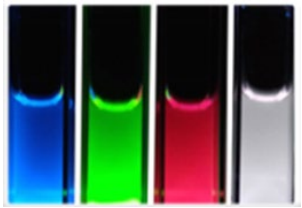

High-performance capacitor materials(ISHIKAWA)



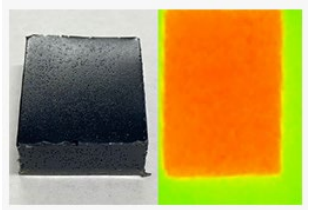
Organometallic complex（OBORA）



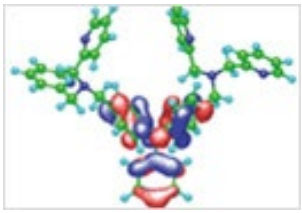
Creation of conjugated π-electron Compounds (UMEDA)



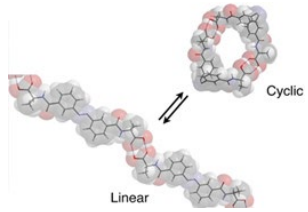
Functional Nanoparticles (Catalytic, electronic, and luminescent materials) (KAWASAKI)



Development and evaluation of thermal control materials(YAMAGATA)



Design, synthesis and properties of organic semiconductor molecules (YANO)

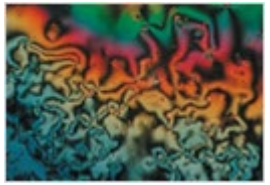



Functional Supramolecular Chemistry(SOGAWA)

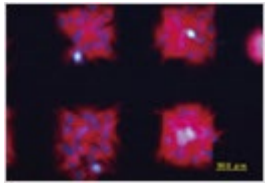
| | |
|---|---|
| Polymer Chemistry | •Prof KUDO Hiroto (Polymer synthetic chemistry)<br>•Prof SANDA Fumio (Design and synthesis of functional polymers)<br>•Prof HARADA Miyuki (Design and synthesis of functional polymers)<br>•Assoc Prof SOGAWA Hiromitsu (Supramolecular polymers) |
| Biomaterials Chemistry | •Prof IWASAKI Yasuhiko (biocompatible polymers)<br>•Prof OHYA Yuichi (Biomaterials)<br>•Prof TAMURA Hiroshi (Chitin, Chitosan)<br>•Prof HIRANO Yoshiaki (Peptide based biomaterials)<br>•Prof FURUIKE Tetsuya (Biofunctional molecules)<br>•Prof MIYATA Takashi (Bio-inspired Materials)<br>•Prof KAKINOKI Sachiro (Biomedical Materials)<br>•Assoc Prof KAWAMURA Akifumi (Polymer Nanomaterials) |
| Biofunctional Molecular Chemistry | •Prof ISHIDA Hitoshi (Novel Metal-Peptide Complexes )<br>•Prof KUZUYA Akinori (Fusion of DNA and functional nanomaterial)<br>•Assoc Prof NAKAI Misaki (Biometal complexes )<br>•Prof YAJIMA Tatsuo (Photodynamic Therapy) |

Peptide based biomaterials for tissue engineering （HIRANO）

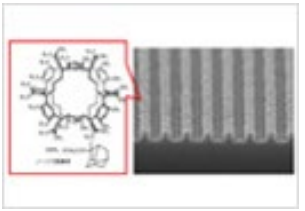
Synthesis of optically active polymers （SANDA）



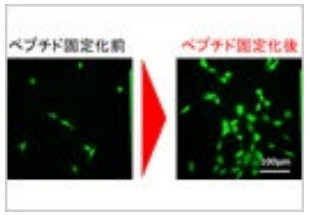
Network Polymers with high heat dissipation and toughness (HARADA)



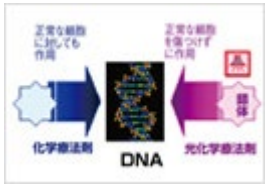
Development of highly functional artificial organ （IWASAKI）



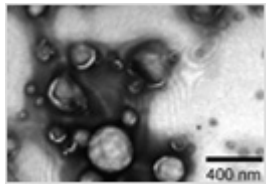
Development of high-resolution resist materials(KUDO)



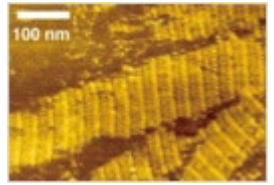

Protein engineering and functional medical material chemistry (KAKINOKI)



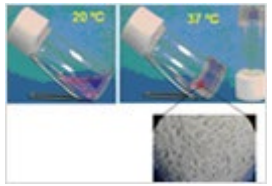

Anticancer metal complexes （NAKABAYASHI）



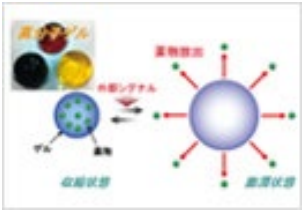

Highly functional materials using sugar chain （FURUIKE）




Construction of nanostructures made of DNA（KUZUYA）




Cell growth in injectable medical polymer （OHYA）

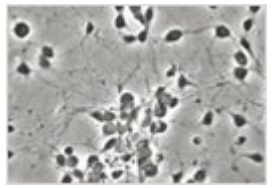


Synthesis of smart gels and their medical and environmental applications （MIYATA）

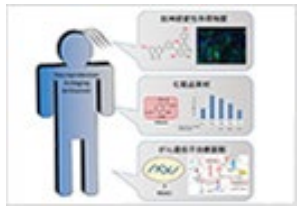
# Chemistry, Materials and Bioengineering Major 化学生命工学専攻

## •Life Science and Biotechnology 生命・生物工学分野

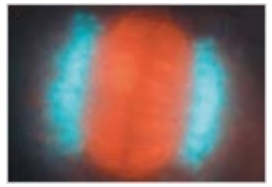
| Research Area | 10 + 5 + 1 (16) Faculties |
|---|---|
| Life Science | •Prof FUKUNAGA Kenji (Food Chemistry)<br>•Prof YOSHIDA Munehiro (Nutrition Chemistry)<br>•Assoc Prof HOSOMI Ryota (Food Chemistry)<br>•Prof SHIMOKE Koji ((Neurophysiology)<br>•Assoc Prof YAMAGUCHI Yoshiaki (Neurophysiology)<br>•Prof NAGAOKA Yasuo (Medicinal Chemistry)<br>•Prof SUMIYOSHI Takaaki (Drug discovery)<br>•Assoc Prof YASUHARA Hiroki (Plant Cytokinesis)<br>•Assoc Prof KUSAKABE Rie (developmental biology) |
| Biotechnology | •Prof IWAKI Hiroaki (Bioremediation)<br>•Prof KATAKURA Yoshio (Bioethanol, Solid state Fermentation)<br>•Prof MATSUMURA Yoshinobu (Microbial growth control)<br>•Prof OIKAWA Tadao (Enzyme Engineering)<br>•Prof YAMANAKA Kazuya (Genome-mining)<br>•Assoc Prof YAMASAKI Shino (Intestinal Flora)<br>•Assoc Prof SASAKI Miho (antimicrobial technology)<br>•Assoc Prof OKANO Kenji (Metabolic Engineering of Microorganisms) |



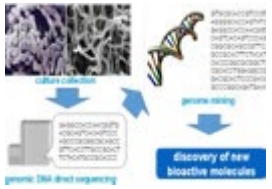
Elucidation of neurodegenerative disease (SHIMOKE)



Exploration of bioactive compounds from natural resources（NAGAOKA）

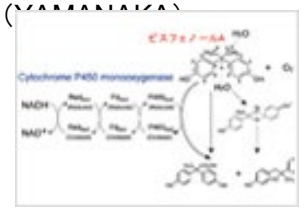


fluorescence micrograph of phragmoplast（YASUHARA）



Genomics-guided Discovery of Biosynthetic Genes for Novel Bioactive Molecules（YAMANAKA）

Production of useful materials from lactic acid bacteria（KATAKURA



Bioremediation（MATSUMURA）

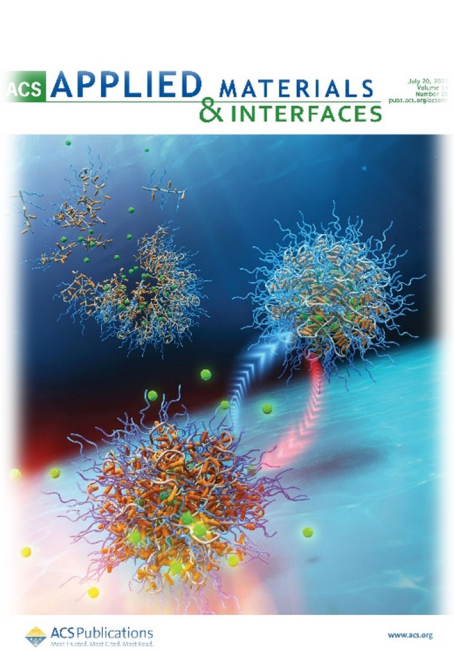
Application of antifreeze protein to frozen food（KAWAHARA）

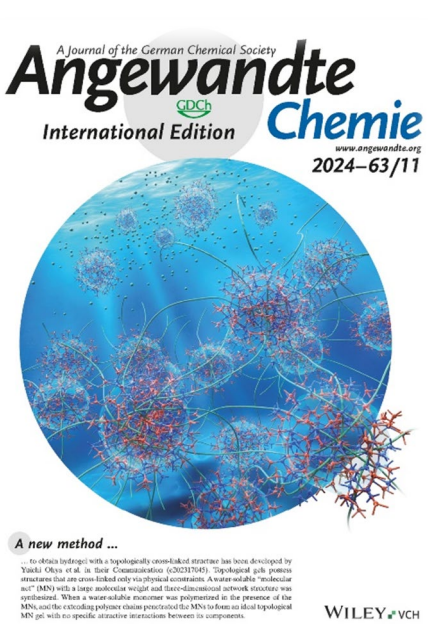
Absorption, metabolism and nutrigenomics of n-3 polyunsaturated fatty acids (FUKUNAGA)

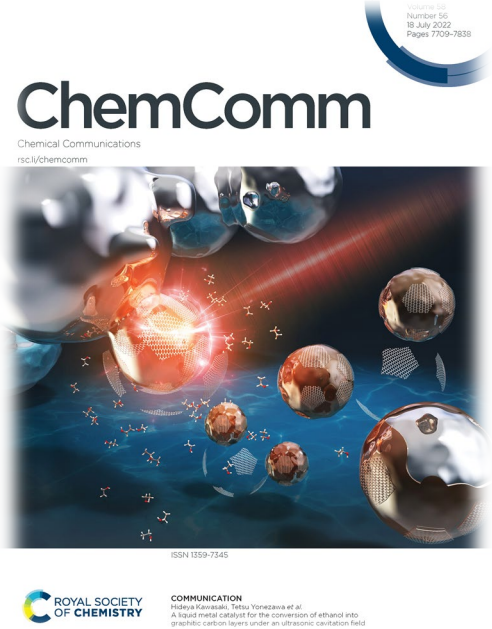
# Research fields from the viewpoint of published articles at Kansai University

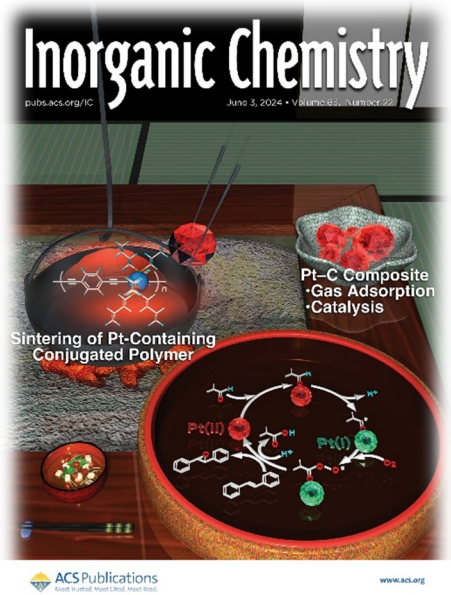

by **Web of Science**, search in address articles including "**Kansai University**" as author affiliation

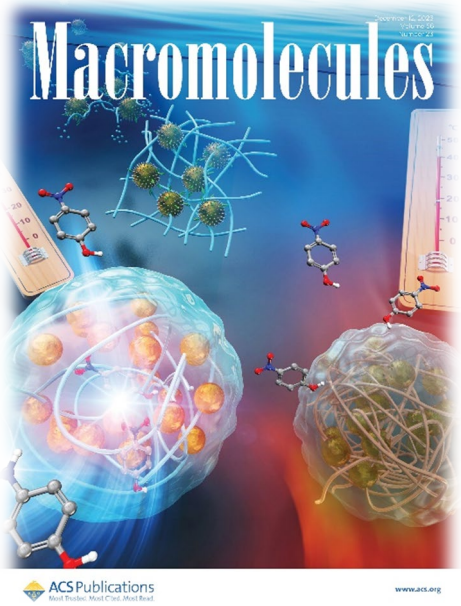
# Hot Articles:2023-2024 in our department

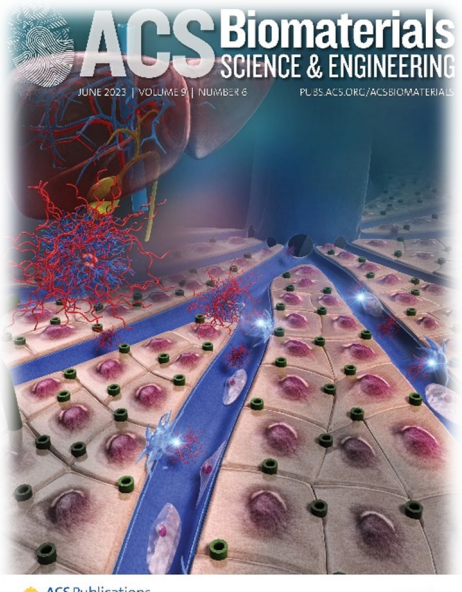


ELSEVIER

Elsevier Data Repository

# 10 researchers from our department were selected as one of the "Top 2% Most Influential Researchers in the World" by Stanford University and Elsevier.

## August 2024 data-update for "Updated science-wide author databases of standardized citation indicators"

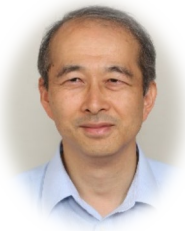
Published: 17 September 2024 | Version 7 | DOI: 10.17632/btchxktzyw.7
Contributor: John P.A. Ioannidis

*Prof. Miyata*
(Biomaterials Chemistry)
**Cit:6256 h-index:37**
**from Scopus**

*Prof. Ohya*
(Biomaterials Chemistry)
**Cit:5085 h-index:42**

*Prof. Iwasaki*
(Biomaterials Chemistry)
**Cit:9961 h-index:52**

*Prof. Tamura*
(Biomaterials Chemistry)
**Cit:14510 h-index:57**



*Prof. Sanda*
(Polymer Chemistry)
**Cit:10969 h-index:50**

*Prof. Obora*
(Organic Chemistry)
**Cit:6168 h-index:45**

*Prof. Sakaguchi*
(Organic Chemistry)
**Cit:10165 h-index:57**

*Prof. Kawasaki*
(Inorganic and Physical Chemistry)
**Cit:7221 h-index:43**

*Prof. Ishikawa*
(Inorganic and Physical Chemistry)
**Cit:5435 h-index:38**

*Prof. Kozuka*
(Metallic Inorganic Materials Properties)
**Cit:6050 h-index:37**

*The selection is based on the top 100,000 scientists by c-score (Scopus citation) ,*
*And a percentile rank of 2% or above in the sub-field.*

# Internationalization and The Undergraduate Students: How Domestic Students Experience Interaction with International Students

## On campus At Kansai Univ.

- Small group English Class ( 4 students / 1 staff)
- Domestic Students Experience Interaction with International Students


## Summer Camp Abroad （～1 month）

student exchange, culture experience, facility tour, attendance in class, some activity, small seminar for professor exchange


## Short-term Abroad stay （1-3 months）

Short-term stay in laboratory ( no class) in Thailand or United States

## Graduation Research Work In Kansai Univ.

Students are required to find their own theme for a graduation report, And they submit the work.

## Double Degree Program

JLU Giessen, Germany or National Central University, Taiwan

**1 year** → **2 year** → **3 year** → **4 year** → **Master's**

Chung Yuan Christian University (Taiwan)

Clemson Univ. (The USA)

Chulalongkorn Univ. (Thailand)

Gdańsk University of Technology (Poland)

KMUTT(Thailand)

The Chinese Univ. of Hong Kong(China)

University of Giessen (Germany)

National Central University (Taiwan)

**The universities we exchange students over the short-term exchange laboratory program as of 2024.**

# Academic Calendar

## Spring Semester

April – September

## Fall Semester

September – March

## Short-term Program

April – early August

Late August - December

# Student Support by STEM Offices

## Scholarships

TBD
Students on short-term international students can apply for our inbound scholarships

## Host laboratory

We will help you assign your host laboratory at KU. Enjoy your lab stay with your friendly lab mates and host professors.

## Dormitory Rooms for international Students

Great variety of dormitory rooms is provided.

# Student Dormitories
# Short-stay

## Student House Shurei-ryo

**50,000** yen / 31 nights

5 mins walk /

Female-only

## Dormitory Tsukigaoka

**45,000** yen /31 nights

15 mins walk /

## Minami-Senri International Plaza

**65,000** yen / 31 nights

20 mins by train /


## International Dormitory

**45,000** yen / 31 nights

25 mins by train /


## KU Global-House

Approx. €550

**94,050** yen /31 nights

40 mins bus and trains

**The fees may change.**
**Vacancies might change according to the number of degree-seeking students and semester-base exchange students**

# Student Dormitories
# Long-stay

## Student House Shurei-ryo

Entrance Fee : 15,000 yen
Dormitory Fee :
Single room A : 37,000 yen / month
Single room B : 39,000 yen / month

Female-only

## Dormitory Tsukigaoka

Entrance Fee : 22,000 yen
Dormitory Fee : 42,000 yen / month

## Minami-Senri International Plaza

Entrance Fee : No Entrance Fee
Dormitory Fee : 48,000 yen / month


## International Dormitory

Entrance Fee : 15,000 yen
Dormitory Fee : 30,000 yen / month


## KU Global-House

Entrance Fee : 20,000 yen
Dormitory Fee : 63,000 yen / month

**The fees may change.**
**One month's dormitory fees will be collected for the security deposit.**
**( The deposit will be applied to the last month’s dormitory fees.)**
**Dormitory fee includes electricity, gas, water, internet, and linen lease.**

# Program Details:

# Short-term Internship Program

## Who this program for

During the program, international students join different laboratories at Kansai University to pursue their mentored projects. This program is recommended for undergraduates.

## Background experience

No specific research backgrounds are required. Students experience what it is like to conduct research.

## Experience or Research

Undergraduate students to KU join laboratories “EXPERIENCE” our laboratories.
We do not seek firm research results, but we can set one.

## What this program will give you…Students’ Voices

Clemson University, USA: “100% of students answered Yes to the question “Do you feel that your experiences at KU had (will have) a positive effect on your career development?”
This program also helps students improve their communication skills and become more open-minded.

# Program Details:

## Double Degree Program

### Who this program for

The program is designed for Master's students and offers the opportunity to obtain master's degrees from two universities.
Upon completing the required coursework at each university, students can earn a master's degree from both institutions.

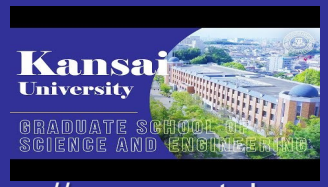
### What this program will give you

By engaging with diverse individuals, students broaden their worldview and refine their communication skills. Gaining research experience abroad during their master’s program is invaluable for becoming globally active professionals.

### Key numbers outbound / inbound

outbound : 4 students / National Central University (Taiwan)
7 students / University of Giessen (Germany)
inbound : 16 students / University of Giessen (Germany)

### Introduction Video



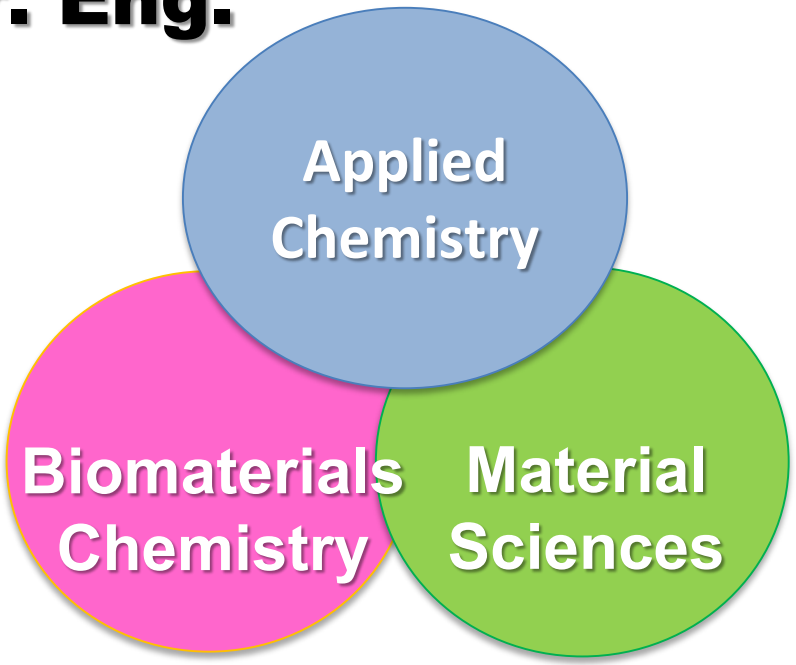

https://www.youtube.com/watch?v=duqNTSV1diw

Kansai University Graduate School of Science and Engineering

# English-based Master's Program Course of Chem. Mater. Eng.

**Chemistry and Materials Engineering**

Seminar I (Chemistry and Materials Engineering)
Seminar II (Chemistry and Materials Engineering)
Seminar III (Chemistry and Materials Engineering)
Seminar IV (Chemistry and Materials Engineering)
Metallurgy and Metallic Materials
Inorganic Chemistry and Materials
Polymer Chemistry and Materials
Organic Chemistry
Biomaterials Science
Advanced Carbohydrate Chemistry
PBL I
PBL II
Advanced Metallic Materials for Biomedical and Healthcare Applications
Advanced Ceramic Materials
Advanced Applied Colloidal Chemistry
Advanced Catalytic Organic Chemistry
Advanced Biomaterials Chemistry




# Master's Double Degree Program

University of Giessen (Germany)

National Central University (Taiwan)

Chung Yuan Christian University (Taiwan)

**Degree-seeking course in English at the Graduate School of Kansai University**

# Gallery








# How to get in touch

***Email***

stem-mobility@ml.kandai.jp

***STEM Offices***

3-3-35 Yamate-cho, Suita-shi,

Osaka 564-8680 JAPAN

## Website:

https://wps.itc.kansai-u.ac.jp/abroad-en/?doing_wp_cron=1718166836.2127389907836914062500


Kansai University
Thank you for your attention
Visit Us, and Email Us