

APPLICATION GUIDELINES
Master's Program, Department of Engineering
Graduate School of Sustainability Science, Tottori University
Special Green Sustainable Chemistry Program in Collaboration
with Southwest Asia for 2026 Special Entrance Examination
- October Admission -

The Department of Engineering of the Graduate School of Sustainability Science, Tottori University (Special Green Sustainable Chemistry Program in Collaboration with Southwest Asia) recruit students who wish to study Engineering according to the following guidelines.

1. Courses and Number of Enrollments

Courses	Number of Enrollments
Mechanical and Aerospace Engineering	a few
Information and Electronics	a few
Chemistry and Biotechnology	a few
Social Systems and Civil Engineering	a few

2. Qualifications for Application

Applicants must fulfill one of the criteria given from 1 to 8 below.

1. Graduated or expected to graduate from a four-year university program on or before the end of September 2026.
2. Awarded or expected to be awarded a bachelor's degree by the National Institution for Academic Degrees and Quality Enhancement of Higher Education following the School Education Law Article 104 Clause 7 on or before the end of September 2026.
3. Have completed or expected to complete 16 years of formal education in a foreign country on or before the end of September 2026.
4. Have completed or expected to complete 16 years of formal education in a foreign country on or before the end of September 2026 by completing Correspondence Education courses provided by the country in question while residing in Japan.
5. Have completed or expected to complete a program provided by an educational institution that owns degree programs offered in foreign countries (only the program that grants the diploma for 16 years of formal education in the said foreign country), which is also recognized as a formal educational institution in the said country while authorized by the Ministry of Education, Culture, Sports, Science and Technology (hereafter called MEXT) on or before the end of September 2026.
6. Have been awarded or expected to be awarded a degree equivalent to a bachelor's by completing a program duration of which is more than three years (includes the case of finishing 16 years of formal education in a foreign country by completing Correspondence Education courses provided by the country in question while residing in Japan, and the case of obtaining degree specified by (5) when graduating from an educational institution recognized by the foreign country in question) at a university or other form of school in a foreign country (limited to the institutions with their educational quality such as education and research activities recognized by the evaluators approved by the government of the foreign country in question or other relevant authorities, or institutions recognized as its equivalent by MEXT) on or before the end of September 2026.

7. Have completed an upper-level course of a specialized training college (limited to the course duration of which is more than four years and meets other requirements provided by MEXT), which is specially approved by MEXT, after the date provided by MEXT or be expected to complete the course mentioned above before the end of September 2026.
8. Specially recommended by MEXT (Public notice Item 5 by Ministry of Education in 1953)

Note.

1. The Department of Engineering, Graduate School of Sustainability Science, Tottori University (Special Green Sustainable Chemistry Program in Collaboration with Southwest Asia), offers all lectures in English.
2. Since this program, including lectures and research guidance, is conducted in English, applicants must satisfy any one of the following conditions to prove that they have sufficient English language ability.
 - 1) Applicants must pass or achieve scores on English language proficiency tests that correspond to B1 or higher level in the Common European Framework of Reference for Languages (CEFR) at the time of application.
 - 2) Applicants must have completed school curricula that meet the conditions for admission to a Japanese university with English as the main language.
 - 3) Applicants are (separately) evaluated by Tottori University as having English language ability equivalent to or better than the ability requirement 1.

3. Application Procedure

3.1 Choice of Course and Desired Academic Supervisor

1. The applicant must choose a course of study and a desired supervisor. Please contact the desired supervisor in advance before applying. Applications are accepted only with the permission of the desired supervisor.
2. In addition, applicants must contact the Academic Affairs Division, Faculty of Engineering (email address: en-kyoumu@ml.adm.tottori-u.ac.jp) by May 29, 2026, to know how to transfer the Examination Fee.

3.2 Application Period

Applications must be submitted from June 2 to June 5, 2026. Any applications received after this date will not be accepted.

3.3 Application Documents

Applicants should send the following documents the Academic Affairs Division, Faculty of Engineering, by EMS (Express Mail Service) or international courier service.

1. Application Form for Admission (Form 1)
2. Admission Cards with photos (in duplicate) *The photos can be submitted as data files as well
3. Transcript of degree or graduation certificate issued by the university or college you attended. *must be original
4. Transcript of scholastic record issued by the university or college you attended. *must be original
5. Certificate of Residence, copy of Residence Card, or copy of Passport.
(Foreign nationals residing in Japan should submit a copy of their Residence Card (both sides) or a Certificate of Residence issued by the city or town office where they live. Foreign nationals residing aboard should submit a copy of their passport.)
6. Research Plan (Form 2)
7. Copy(ies) of a record of English proficiency tests such as TOEFL iBT, TOEIC L&R/TOEIC S&W, IELTS, GTEC, University of Cambridge ESOL, TEAP, TEAP CBT, The EIKEN Test in Practical English Proficiency.

The applicant planning to submit a score sheet proving their English ability other than the above documents must consult the Academic Affairs Section of the Faculty of Engineering before application.

8. Examination fee of 30,000 yen.

Please transfer the Examination Fee between May 28 and June 5, 2026. Please note that we never refund the Examination Fee you paid under any circumstance except in the following cases.

- (1) In the case of paying the Examination Fee but not submitting documents for the application
 - (2) In the case of paying the Examination Fee but not accepting documents for the application
 - (3) In the case of paying the Examination Fee twice
- If applicable (1) ~ (3), please be sure to contact the Academic Affairs Division, Faculty of Engineering (email address: en-kyoumu@ml.adm.tottori-u.ac.jp). Applicants are informed by email how to get a refund on the Examination Fee.

3.4 Note

1. Only complete and correct application forms and documents will be accepted.
2. The application documents are non-substitutable once received by the Academic Affairs Division, Faculty of Engineering. If original certificates are only issued once officially, duplicates (copies) that's attested to by your university (with official seal/stamp) can be accepted as original.
3. The application documents received will not be returned.

4. Screening

Applicants will be evaluated based on document screening and oral examination.

1. Document Screening

Based on the academic transcript, basic knowledge will be evaluated.

2. Oral examination

The interview will be on Friday, July 3, 2026. Applicants not based in Japan may be interviewed online but must consult in advance (i.e., before applying) with the professor who will become their adviser.

5. Applicants With Disabilities

The University provides consultation for applicants with disabilities who need special assistance during the entrance examination or enrollment after admission. Please submit a written statement with the following information and a medical certificate to the Academic Affairs Division, Faculty of Engineering by Wednesday, May 20, 2026.

If the University deems it necessary, it will interview the applicants or other related persons who can speak on their behalf. In addition, those who need assistance after the deadline due to an accident or other reason should contact the prospective supervisor immediately.

1. Name of applicant, address and telephone number
2. School from which you graduated
3. Course and Field of your choice
4. Type and degree of disability
5. Attention needed upon examination
6. Attention needed while attending graduate school
7. Measures and supports provided at previous schools
8. Conditions of daily life

6. Announcement of Screening Results

The screening results will be posted on the Tottori University website on Wednesday, July 22, 2026, at approximately 11:00.

(<https://www.admissions.adm.tottori-u.ac.jp/>).

7. Admission Process

Instructions for admission process will be individually notified to accepted applicants.

1. Processing Documents etc.

Dossier, photograph mount for student ID etc.

2. Entrance Fee 282,000 Japanese Yen (Tentative)

3. Tuition Fees 535,800 Japanese Yen / year [First Semester: 267,900 Yen, Second Semester: 267,900 Yen] (Tentative)

- Tuition Fees must be paid in May (First Semester) and November (Second Semester)

- Payment instructions will be provided to accepted applicants

(NOTES) a. Once submitted, the entrance fee will not be refunded under any conditions.

b. Students who wish to get an entrance/tuition fees waiver (or collection postponement) should not submit the entrance/ tuition fees upon admission process.

c. Above stated entrance/tuition fees amounts are tentative and may change at any time. Students will be asked to pay the revised amount while taking courses at Tottori University.

4. Personal Accident Insurance for Students Pursuing Education and Research

1) Gakkensai : This is an accident insurance which covers injuries occurred as a result of a sudden accident while insured students are participating in regular or extracurricular activities, being on campus, or commuting to school. Insurance premiums (2 years): 1,750 yen Department in charge: Health Science Center (E-mail: hokekan-jimu@ml.adm.tottori-u.ac.jp)

2) Insurance for International Students: This insurance provides a wide range of support for student life, including personal liability, permanent disability, medical expenses for daily injuries, rescue expenses, and accidental damage to household goods in the residence.

Insurance amount (2 years): The amount varies depending on the type.

Department in charge: International Affairs Division

(Tel:+81-85731-5056, E-mail: kokuko-gaku@ml.adm.tottori-u.ac.jp)

Department in charge: International Affairs Division

(Tel:+81-857-31-5056, E-mail: kokuko-gaku@ml.adm.tottori-u.ac.jp)

5. Place of Admission Process 4-101 Koyama-cho Minami, Tottori

the Academic Affairs Division, Faculty of Engineering, Tottori University

8. Inquiries

Please contact the prospective supervisor for application, examination, or admission inquiries.

教育研究分野，担当教員及び研究テーマ*
Field of Education-Research, Supervisor and Research Theme*

※募集時点での予定であり，教員の異動等により変更になる場合があります。

※Subject to change due to personnel changes

■は@に置き換える。
 The symbol of ■ should be replaced by @.

①機械宇宙工学コース Course of Mechanical and Aerospace Engineering

教育研究分野 Field of Education- Research	教員名・連絡先 Supervisor Place to Contact	研究テーマ Research Theme
材 料 M a t e r i a l s a n d M e c h a n i c s	固体力学 Solid Mechanics	<ul style="list-style-type: none"> 金属材料の大変形域変形抵抗の計測とモデル化 塑性変形に伴う塑性誘起損傷のマルチスケール解析 マイクロ・ナノスケール損傷現象のイメージベース逆解析 放射光X線イメージングによる構造材料の変形破壊解析
		<ul style="list-style-type: none"> Forming of high-strength metal material Identification of post-necking plastic deformation behavior of metal materials Multi-scale analysis of plastic deformation induced damage expansion Image-base inverse analysis for micro/nano damaging behavior Deformation and fracture analysis of materials by synchrotron X-ray imaging
	材料工学 Materials Science and Engineering	<ul style="list-style-type: none"> 高性能熱電変換材料の創製 3Dプリンタを駆使した革新的高強度・高延性チタン合金の開発 マルエージング鋼やステンレス鋼の積層造形 セラミックス基複合材料のIn-situ合成およびマルチ強化効果 セラミックス粒子強化アルミニウム基複合材料の合成および高強度化 高熱伝導率を有するアルミニウム/炭素系複合材料の開発 新規抗ウイルス粉体材料の創製および耐久性の向上
		<ul style="list-style-type: none"> Fabrication and characterization of thermoelectric materials Development of novel high-strength and high-ductility titanium alloys using additive manufacturing Additive manufacturing of maraging steels and stainless steels In-situ synthesis and multiple toughening of ceramic-matrix composites In-situ synthesis of ceramic-reinforced aluminum-matrix composites Extrusion of aluminum-carbon composites with high thermal conductivity Development of novel antiviral materials and improvement of their durability
M e c h a n i c a l D e s i g n a n d M a n u f a c t u r i n g E n g i n e e r i n g	信頼性・設計工学 Reliability and Design Engineering	<ul style="list-style-type: none"> 金属材料の疲労強度評価に関する研究 実験応力解析法に関する研究 歯車の高強度化に関する研究 交通流のモデル化に関する研究 交通渋滞緩和の方法論に関する研究
		<ul style="list-style-type: none"> Study on fatigue damage evaluation of metals Study on experimental stress analysis Study on improving strength of gear Study on modeling traffic flows Study on the methodology of easing traffic jams
	生産加工学 Manufacturing Engineering	<ul style="list-style-type: none"> 金属切削加工 機械加工における熱放射温度計測 ターンミリングのモデル化 フライス切削のびびり安定性モデリング
	<ul style="list-style-type: none"> Metal cutting process Infrared temperature measurement in machining process Process modeling of turn-milling Modeling of chatter stability in milling operations 	
ロ ボ ト メ カ ニ ク ス M e c h a n i c a l R o b o t i c s a n d R o b o t i c s	機械力学・ メカトロニクス Mechanical Dynamics and Mechatronics	<ul style="list-style-type: none"> 傷害バイオメカニクスに関する研究 人体モデリング・生体材料を用いた力学実験 衝突解析
		<ul style="list-style-type: none"> Study on injury biomechanics Human body modeling and mechanical characterization of biological materials Crash simulation
		<ul style="list-style-type: none"> 機械の振動・騒音低減に関する研究 機械装置の異常予兆検知技術の開発
	<ul style="list-style-type: none"> Study on vibration and noise reduction of machine Development of anomaly detection technique of machine 	
制御・ ロボティクス Control and Robotics	<ul style="list-style-type: none"> 脚移動ロボットの高機能化に関する研究 宇宙機の機能設計と運動制御に関する研究 人の運動支援システムの開発に関する研究 	
	<ul style="list-style-type: none"> Research on the high functionality of legged mobile robots Functional design and motion control of spacecraft Research on the development of human motion assistive systems 	

教育研究分野 Field of Education- Research		教員名・連絡先 Supervisor Place to Contact	研究テーマ Research Theme
熱流体 Thermofluid Dynamics	宇宙推進工学 Space Propulsion Engineering	葛山 浩 KATSURAYAMA, Hiroshi katsurayama@tottori-u.ac.jp	<ul style="list-style-type: none"> レーザー推進式ロケットのエネルギー変換過程の研究 レーザー爆轟波の超高速風洞への応用 電磁力を用いた大気圏突入用減速機の開発 <ul style="list-style-type: none"> Research on energy conversion process of laser propelled rockets Application of laser detonation waves to ultrafast wind tunnels Development of atmospheric entry decelerator using magnetohydrodynamic force
	流体工学 Fluid Engineering	松野 隆 MATSUNO, Takashi matsuno@tottori-u.ac.jp	<ul style="list-style-type: none"> 大気突入宇宙機熱防御システム開発 熱空力, アブレーション, 輻射, 表面熱化学反応 高温プロセスの数値シミュレーション 航空機・輸送機器の空力解析と低抵抗化 プラズマアクチュエータを用いた流体制御に関する研究 流れの数値シミュレーションによる解析・開発 液体燃料の微粒化と噴霧燃焼に関する研究 噴霧および燃焼の計測法に関する研究 エンジンの燃焼解析と排気ガス低減に関する研究
		小田 哲也 ODA, Tetsuya odate@tottori-u.ac.jp	<ul style="list-style-type: none"> Development of thermal protection system for space vehicles Aerothermodynamics, Ablation, radiation, and surface thermochemistry Simulation of High-Temperature Processes Aerodynamic drag reduction of Aircraft and Ground Vehicles Active flow control using plasma actuators Research of flow field by numerical simulations Research on liquid fuel atomization and spray combustion Developments of spray measurement technique Engine combustion analysis and emission reduction
数理学 Mathematical Physics Mechanics	複雑系数理工学 Mathematical Engineering of Complex Systems	古川 勝 FURUKAWA, Masaru furukawa@tottori-u.ac.jp	<ul style="list-style-type: none"> 磁場閉じ込め核融合プラズマの磁気流体力学 (MHD) 理論・シミュレーション ハミルトン力学理論に基づくプラズマ平衡・安定性解析 構造保存数値シミュレーション法 コロイド液体の統計物理 粉粒体ペーストの弾塑性モデル 加振した浅水系の流れ
		大信田 丈志 OOSHIDA, Takeshi ooshida@tottori-u.ac.jp	<ul style="list-style-type: none"> Theory and simulation of magnetohydrodynamics for magnetically confined fusion plasmas Equilibrium and stability analysis of plasmas based on Hamiltonian dynamics theory Structure-preserving numerical simulation algorithms Statistical physics of colloidal liquids Elastoplastic modeling of granular pastes Flows in oscillated shallow water systems
	数理物質科学 Mathematical Material Science	灘 浩樹 NADA, Hiroki hnada@tottori-u.ac.jp	<ul style="list-style-type: none"> 結晶形成機構のメタダイナミクス研究 非晶質構造や物質形状の機械学習研究 機能性分子による結晶形成制御機構 ソフトマター/液体の非平衡ダイナミクス ソフトクリスタルにおける相転移現象
高江 恭平 TAKAE, Kyohei takae@tottori-u.ac.jp		<ul style="list-style-type: none"> Metadynamics study on crystallization mechanisms Machine learning study on amorphous structures and material shapes Mechanism of crystallization control by functional molecules Nonequilibrium dynamics in soft matter and liquids Phase transition in soft crystals 	
計算理工学・ 物理計算工学 Electronic structure calculation/ Computational Physics and Engineering		榑原 寛史 SAKAKIBARA, Hirofumi sakakibara@tottori-u.ac.jp	<ul style="list-style-type: none"> 第一原理バンド計算を用いた機能材料の性能シミュレーション 性能シミュレーションのための多体模型の第一原理的導出 高精度及び高効率な多体計算手法の開発 第一原理計算に基づく強相関材料の設計 超伝導転移、励起子転移などの相転移の理論研究 薄膜及び超格子などの人工物質の設計 <ul style="list-style-type: none"> Performance simulations on functional materials using first-principles calculations First-principles derivation of many-body models used in performance simulations Development of highly accurate and efficient solver for many-body problems Design of correlated materials using first-principles calculations Theoretical investigation on transition such as superconducting or excitonic transition Design of artificial materials such as thin film and superlattice

教育研究分野 Field of Education- Research		教員名・連絡先 Supervisor Place to Contact	研究テーマ Research Theme
数理 応用 P h y s i c a l E n g i n e e r i n g	ナノシステム 解析学・ 分子流体力学 Nano Dynamics and Tribology/ Molecular Fluid Dynamic	松岡 広成 MATSUOKA, Hiroshige hiro■tottori-u.ac.jp	<ul style="list-style-type: none"> 分子間/表面間相互作用の研究 液体/固体超薄膜の研究 トライボロジー現象の超高精度計測 分子気体/液体潤滑の研究 計算トライボロジーの研究 情報機器ハードウェアのダイナミクスに関する研究 希薄気体の流れの研究 <ul style="list-style-type: none"> Research on molecular interactions and surface interactions Research on ultra-thin liquid/solid films Ultra-high accuracy measurements of tribological phenomena Research on molecular gas/liquid-film lubrication Research on computational tribology Research on dynamics of information storage systems Research on rarefied gas flows
		土井 俊行 DOI, Toshiyuki doi■tottori-u.ac.jp	
		石川 功 ISHIKAWA, Takumi tishikawa■tottori-u.ac.jp	
	生体システム 解析学 Bio and Fluid Mechanics	後藤 知伸 GOTO, Tomonobu goto■tottori-u.ac.jp	<ul style="list-style-type: none"> 微細な流れの観察及び数値シミュレーション 微生物の集団及び単独の運動 細菌の走化性の観察及び数値シミュレーション 流体音の発生機構と低減技術 流れを伴う開口部の音響インピーダンス計測 <ul style="list-style-type: none"> Micro-flow analysis, observation and numerical simulation Collective and cellular level behavior of micro-organisms Observation and numerical simulation of bacterial chemotaxis Aeroacoustics, sound generation mechanism and noise reduction Acoustic impedance measurement of an aperture in the presence of mean flow
		中井 唱 NAKAI, Tonau nakai■tottori-u.ac.jp	
	再生可能 エネルギー 工学 Renewable Energy Engineering	原 豊 HARA, Yutaka hara■tottori-u.ac.jp	<ul style="list-style-type: none"> 先端技術風車の研究開発 風力タービンの数値流体力学解析 小形風車の最適配置に関する研究 <ul style="list-style-type: none"> Research and development of advanced technology of wind turbine Computational fluid dynamics of wind turbines Research on optimal layout of small wind turbines

② 情報エレクトロニクスコース Course of Information and Electronics

教育研究分野 Field of Education- Research	教員名・連絡先 Supervisor Place to Contact	研究テーマ Research Theme
知能制御工学 Intelligent Control	榎田 大輔 KUSHIDA, Daisuke kushida@tottori-u.ac.jp	<ul style="list-style-type: none"> ・生体信号に基づく感覚の定量化 ・画像処理に基づく行動評価システム ・意思決定モデリングと経験則の抽出 ・人に対するパワーアシスト制御システムの設計 ・移動ロボットの知的制御
	竹森 史暁 TAKEMORI, Fumiaki take@tottori-u.ac.jp	<ul style="list-style-type: none"> ・Quantification of sensation based on biological signal ・Motion evaluation system based on image processing ・Decision-making modeling and extraction of empirical rules ・Control design of human power assist system ・Intelligent control for mobile robot
	吉川 宣一 YOSHIKAWA, Nobukazu nyoshi@tottori-u.ac.jp	<ul style="list-style-type: none"> ・光センシング・光計測 ・デジタルホログラフィ ・立体ディスプレイ ・散乱イメージング <ul style="list-style-type: none"> ・Optical sensing and measurement ・Digital holography ・3D display ・Imaging through scattering media
計算機工学 Computer Science and Technology	川村 尚生 KAWAMURA, Takao kawamura@tottori-u.ac.jp	<ul style="list-style-type: none"> ・分散システム ・社会情報システム ・エージェントシステム ・ネットワーク・情報セキュリティ <ul style="list-style-type: none"> ・Distributed systems ・Social information systems ・Agent system ・Network and information security
	高橋 健一 TAKAHASHI, Kenichi takahashi@tottori-u.ac.jp	
	東野 正幸 HIGASHINO, Masayuki higashino@tottori-u.ac.jp	
	村田 真樹 MURATA, Masaki murata@tottori-u.ac.jp	<ul style="list-style-type: none"> ・自然言語処理 ・情報検索・情報抽出 ・機械学習 <ul style="list-style-type: none"> ・Natural language processing ・Information retrieval, information extraction ・Machine learning
知能工学 Knowledge Engineering	吉村 和之 YOSHIMURA, Kazuyuki kazuyuki@tottori-u.ac.jp	<ul style="list-style-type: none"> ・非線形科学 ・非線形ダイナミクスを用いた情報処理 <ul style="list-style-type: none"> ・Nonlinear science ・Information processing using nonlinear dynamics
	清水 忠昭 SHIMIZU, Tadaaki tadaaki@tottori-u.ac.jp	
	木村 周平 KIMURA, Shuhei kimura@tottori-u.ac.jp	<ul style="list-style-type: none"> ・進化計算 ・バイオインフォマティクス ・自然言語処理における意味解析および感情推定 ・観光情報の応用 <ul style="list-style-type: none"> ・Evolutionary computation ・Bioinformatics ・Semantic and emotion analysis in natural language processing ・Information technology applications in tourism
	徳久 雅人 TOKUHISA, Masato tokuhisa@tottori-u.ac.jp	
	岩井 儀雄 IWAI, Yoshio iwai@tottori-u.ac.jp	<ul style="list-style-type: none"> ・計算インタラクション ・パターン認識 ・ヒューマンメディア処理 ・拡張現実感 <ul style="list-style-type: none"> ・Computational interaction ・Pattern recognition ・Human media processing ・Augmented reality
	青木 工太 AOKI, Kota aoki.k@tottori-u.ac.jp	
	西山 正志 NISHIYAMA, Masashi nishiyama@tottori-u.ac.jp	<ul style="list-style-type: none"> ・画像認識 ・映像解析 ・ヒューマンインタフェース <ul style="list-style-type: none"> ・Image recognition ・Video analysis ・Human interface

教育研究分野 Field of Education- Research	教員名・連絡先 Supervisor Place to Contact	研究テーマ Research Theme
電子情報制御 Information and Control Engineering	中川 匡夫 NAKAGAWA, Tadao nakagawa@tottori-u.ac.jp	<ul style="list-style-type: none"> • ウェアラブル機器の無線伝送および光無線伝送 • 生体センサの高精度化信号処理 • 高周波回路設計 • Wireless communications and optical wireless communications for wearable devices • High-precision signal processing for biomedical sensors • Radio frequency circuit design
	笹岡 直人 SASAOKA, Naoto sasaoka@tottori-u.ac.jp	<ul style="list-style-type: none"> • 音声強調 • デジタル無線通信方式 • 能動騒音制御 • Speech enhancement • Digital wireless communication system • Active noise control
	近藤 克哉 KONDO, Katsuya kondo@tottori-u.ac.jp	<ul style="list-style-type: none"> • コンピュータビジョン • バイオ画像解析・医用工学 • 計測制御システムの知能化 • Computer vision • Bioimage analysis and medical engineering • Development of smart measurement control system
電気電子 システム Electrical and Electronic Systems Engineering	大木 誠 OHKI, Makoto mohki@tottori-u.ac.jp	<ul style="list-style-type: none"> • 多数目的最適化アルゴリズム • 制約付き多数目的最適化アルゴリズム • 記号・数値混合の組合せ多目的最適化問題 • Many-objective optimization algorithms • Constrained many-objective optimization algorithms • Multi-objective combinatorial optimization problems including symbols and numerics
	齋藤 健太郎 SAITO, Kentaro saitouken@tottori-u.ac.jp	<ul style="list-style-type: none"> • 無線通信システム • IoTシステム • ドローンの無線通信システムへの活用 • Wireless communication systems • IoT systems • Application of drones to wireless communication systems
	三柴 数 MISHIBA, Kazu mishiba@tottori-u.ac.jp	<ul style="list-style-type: none"> • 画像処理 • コンピュータースショナルフォトグラフィ • Image processing • Computational photography

教育研究分野 Field of Education- Research	教員名・連絡先 Supervisor Place to Contact	研究テーマ Research Theme
電子物性 デバイス Electronic Materials and Device Engineering	市野 邦男 ICHINO, Kunio ichino@tottori-u.ac.jp	<ul style="list-style-type: none"> ・光デバイス・電力デバイス用ワイドバンドギャップ半導体の研究 ・高効率太陽電池の研究 ・高効率紫外・可視発光素子の研究 ・ Study on wide bandgap semiconductors for optical/power devices ・ Study on high-efficiency solar cells ・ Study on high-efficiency ultraviolet/visible light-emitting devices
	阿部 友紀 ABE, Tomoki abe@tottori-u.ac.jp	<ul style="list-style-type: none"> ・ワイドギャップ化合物半導体の結晶成長に関する研究 ・青-紫外受光デバイス(アバランシェフォトダイオード)の開発 ・青-紫外光変調器の開発 ・高効率紫外発光デバイスの開発 ・ Study on crystal growth of wide bandgap semiconductors ・ Development of blue-ultraviolet optical detectors (avalanche photodiodes) ・ Development of blue-ultraviolet optical modulators ・ Development of high efficient ultraviolet light emitting devices
	李 相錫 LEE, Sang-Seok sslee@tottori-u.ac.jp	<ul style="list-style-type: none"> ・バイオ/ケミカル/医療用MEMSデバイスの研究開発 ・IoT用センサとIoTシステムに関する研究 ・メタマテリアルの設計及び応用 ・RFMEMS及び高周波デバイスに関する研究 ・ MEMS devices for bio/chemical/medical applications ・ Sensors for IoT and IoT systems ・ Design and application of metamaterials ・ RFMEMS and RF devices
	松永 忠雄 MATSUNAGA , Tadao matsunaga@tottori-u.ac.jp	<ul style="list-style-type: none"> ・低侵襲医療MEMSデバイスの研究開発 ・極細径光ファイバMEMSセンサの研究開発 ・ロボット外科手術用マイクロセンサの研究開発 ・マイクロアクチュエータを用いた触覚ディスプレイの開発 ・非平面基板への微細加工技術の研究 ・ Development of minimally invasive medical devices utilizing microfabrication techniques (MEMS) ・ Development of ultra-thin fiber-optic MEMS sensor ・ Development of micro sensors for robotic surgery ・ Development of tactile display using micro actuators ・ Study on non-planar photofabrication techniques

③ 化学バイオコース Course of Chemistry and Biotechnology

教育研究分野 Field of Education- Research	教員名・連絡先 Supervisor Place to Contact	研究テーマ Research Theme
グリーン 触媒化学 Green Catalysis Chemistry	片田 直伸 KATADA, Naonobu katada@tottori-u.ac.jp	<ul style="list-style-type: none"> ゼオライト及び固体酸触媒の原理と応用 重質油, メタン, バイオマス, 廃プラスチックから有用物質への転換に資する触媒及びプロセス開発 機能性ナノ構造体の合成 水電解および二酸化炭素還元用電極触媒の開発 特性制御のためのオンデマンドなゼオライトの合成 二酸化炭素回収、有効利用および環境浄化に資する材料開発
	辻 悦司 TSUJI, Etsushi e-tsuji@tottori-u.ac.jp	<ul style="list-style-type: none"> Principles and application of zeolites and solid acid catalysis Conversion of heavy oil components, methane, biomass and plastic waste into useful materials
	津野地 直 TSUNOJI, Nao tsunoji@tottori-u.ac.jp	<ul style="list-style-type: none"> Synthesis of functional nanostructured materials Development of electrocatalysts for water electrolysis and CO2 reduction On-demand zeolite synthesis for property design Carbon capture and utilization, and environmental purification
無機元素化学 Main Group Element Chemistry	南条 真佐人 NANJO, Masato nanjo@tottori-u.ac.jp	<ul style="list-style-type: none"> 14族元素を鍵とするイオン液体の合成と機能性デバイスの創成 機能性電子材料を指向した有機ケイ素および有機ゲルマニウム化合物の分子設計と開発 Synthesis of ionic liquids consisting of heavy group 14-elements and application to electrochemical devices Design and synthesis of functional organosilicon and organogermanium compounds, and development of electronic materials
応用電気化学 Applied Electrochemistry	薄井 洋行 USUI, Hiroyuki usui@tottori-u.ac.jp	<ul style="list-style-type: none"> リチウムおよびナトリウムおよびカリウム貯蔵性材料の創製とその二次電池への応用 全固体二次電池の開発 光電変換に基づく新規エネルギー貯蔵材料の開発 二次電池用電極の反応挙動解析
	道見 康弘 DOMI, Yasuhiro domi@tottori-u.ac.jp	<ul style="list-style-type: none"> Synthesis of lithium, sodium, or potassium storage intermetallic compounds and their properties as anode materials in rechargeable batteries Development of all solid-state secondary batteries Development of energy storage materials based on photovoltaics Reaction behavior analysis of electrode in rechargeable batteries
分子集積化学 Molecular Self-assembly	松浦 和則 MATSUURA, Kazunori ma2ra-k@tottori-u.ac.jp	<ul style="list-style-type: none"> 人工ウイルス構造の創製と応用 生体分子の自己組織化によるナノ構造体の構築 光応答性生体分子システムの創成 細胞骨格を利用した機能性材料の創製 Creation and application of artificial virus structures Construction of nanostructures by self-organization of biomolecules Creation of light-responsive biomolecular systems Creation of functional materials applying cytoskeletons
有機材料化学 Organic and Polymer Materials Chemistry	吾郷 万里子 AGO, Mariko mariko.ago@tottori-u.ac.jp	<ul style="list-style-type: none"> 機能性ナノ粒子のハイスループット合成手法の開発 多孔性カーボン微粒子の光熱変換効果 未利用バイオマス資源を用いた機能性材料の開発 天然資源に由来する微粒子の紫外線遮断特性 ピッカリングエマルジョン安定化機構の解明とその応用展開 環境中のマイクロプラスチックの迅速分析法の開発 High-throughput synthesis for functional nanoparticles Photo-thermal conversion with porous carbon particles Sustainable development of functional materials from under-utilized biomass resources UV-blocking properties of nano-, micro-particles derived from natural polymers Mechanisms of stabilisation of Pickering emulsions and development of their applications. Development of a rapid analysis method for microplastics released into the environment.

教育研究分野 Field of Education- Research	教員名・連絡先 Supervisor Place to Contact	研究テーマ Research Theme
有機合成化学 Synthetic Organic Chemistry	野上 敏材 NOKAMI, Toshiki tnokami@tottori-u.ac.jp	<ul style="list-style-type: none"> 分子糖質科学 有機電気化学 機能性イオン液体 Molecular Glycoscience Organic Electrochemistry Functional Ionic Liquids
無機材料化学 Inorganic Materials Chemistry	増井 敏行 MASUI, Toshiyuki masui@tottori-u.ac.jp	<ul style="list-style-type: none"> 環境に優しい色材の合成と応用 新しい希土類蛍光体の設計 無機系紫外線遮断剤の開発 希土類を含有する不均一系触媒の調製 Synthesis and application of environment-friendly color materials Design of new phosphors based on rare earth compounds Development of inorganic sunscreens Preparation of heterogeneous catalysts containing rare earth elements
生物機能 開発工学 Biofunction Development Engineering	鈴木 宏和 SUZUKI, Hirokazu hirokazusuzuki@tottori-u.ac.jp	<ul style="list-style-type: none"> 微生物と海藻の新しい機能の発見と応用・開発と基礎研究 微生物と海藻の機能を利用する物質生産と環境保全への応用展開研究 微生物と海藻における生理活性物質の代謝と次世代炭素源の代謝に関わる酵素と遺伝子の解明 高変異性好熱菌を利用した酵素進化学 未利用海洋資源を用いた新規医療素材の開発 Discovery and application of novel functions of microorganisms and marine algae Application and development of the functions of microorganisms and marine algae to the practical production of useful substances and the solutions of environmental problems Fundamental studies: enzymology, molecular genetics, and protein engineering of enzymes involved in the metabolisms of physiologically active substances and new generation carbon sources in microorganisms and marine algae Directed evolution approaches to enhance enzyme stability using error-prone thermophiles Development of new medical materials using unutilized marine resources
	八木 寿梓 YAGI Hisashi yagi@tottori-u.ac.jp	
生体触媒工学 Biocatalyst Engineering	岡本 賢治 OKAMOTO, Kenji okamoto@tottori-u.ac.jp	<ul style="list-style-type: none"> 担子菌由来の生理活性物質の単離と生産 担子菌由来の生理活性物質の作用機序の解明 担子菌によるリグノセルロース分解酵素, エタノールおよびキシリトールの生産 パスウェイエンジニアリングによる有用イソプレノイドの生産 高等植物・微細藻類由来イソプレノイド合成遺伝子の機能同定 微細藻類による有用物質生産 Isolation and production of bioactive compounds from basidiomycetes Determining the mechanism of action of bioactive compounds from basidiomycetes Production of lignocellulose-degrading enzymes, ethanol and xylitol by basidiomycetes Pathway engineering for the production of functional isoprenoids Functional characterization of isoprenoid biosynthesis genes in higher plants and microalgae Production of useful materials by microalgae
	原田 尚志 HARADA, Hisashi harada@tottori-u.ac.jp	
蛋白質工学 Protein Engineering	溝端 知宏 MIZOBATA, Tomohiro mizobata@tottori-u.ac.jp	<ul style="list-style-type: none"> タンパク質, 酵素の構造と機能相関 タンパク質の構造形成 タンパク質の安定性とコンフォメーション変化 分子シャペロンとアミロイド線維凝集 細菌由来膜タンパク質の膜挿入反応 細菌タンパク質を標的とする抗菌剤の研究 Structure and function of enzyme and protein Protein folding Protein stability and conformational change Molecular chaperone and protein fibrillogenesis (aggregation) Membrane insertion of bacterial membrane proteins Study of antibiotics targeting bacterial proteins
	青木 英莉子 AOKI, Eriko eaoki@tottori-u.ac.jp	
生物有機化学 Bioorganic Chemistry	花島 慎弥 HANASHIMA, Shinya hanashima@tottori-u.ac.jp	<ul style="list-style-type: none"> 柔軟な構造を持つ生体有機分子: 相互作用と生命機能の解明 脂質膜に作用する有機分子: 開発と作用機構の解明 生体分子の有機合成 Flexible bioorganic molecules: Interactions and biological functions Organic molecules targeting lipid bilayers: Mechanistic insights and development Organic synthesis of biomolecules
構造生物学 Structural Biology	永野 真吾 NAGANO, Shingo snagano@tottori-u.ac.jp	<ul style="list-style-type: none"> 生理活性物質生合成系の構造生物学的研究 アナモックス菌の窒素化合物変換の分子基盤 動物による熱感知システムの構造生物学的研究 膜タンパク質の構造生物学的研究 ユビキチンシグナルの構造生物学 Structural biology of natural products biosynthesis Molecular basis of nitrogen metabolism by anammox bacteria Structural biology of thermal sensation Structural biology of membrane proteins Structural biology of ubiquitin signaling
	日野 智也 HINO, Tomoya t_hino@tottori-u.ac.jp	
	佐藤 裕介 SATO, Yusuke yusato@tottori-u.ac.jp	

④ 社会システム土木コース Course of Social Systems and Civil Engineering

教育研究分野 Field of Education- Research	教員名・連絡先 Supervisor Place to Contact	研究テーマ Research Theme
構造・ コンクリート工学 Structural and Concrete Engineering	谷口 朋代 TANIGUCHI, Tomoyo t_tomoyo@tottori-u.ac.jp	<ul style="list-style-type: none"> 土木構造物、機械構造物及び海洋構造物の構造設計 土木構造物、機械構造物及び建築構造物の耐震性能 土木構造物、機械構造物及び海洋構造物の維持管理 地盤・構造物の地震応答特性の評価 GIS及び人工衛星技術を用いた自然災害のハザード評価
	野口 竜也 NOGUCHI, Tatsuya noguchit@tottori-u.ac.jp	<ul style="list-style-type: none"> Structural design of infra-, mechanical and offshore structures Earthquake-resistant performance of infra-, mechanical and building structures Maintenance of infra-, mechanical and offshore structures Earthquake response evaluation of subsurface and building structures Hazard assessment of natural disasters by GIS and satellite technology
	黒田 保 KURODA, Tamotsu tkuroda@tottori-u.ac.jp	<ul style="list-style-type: none"> 産業副産物のコンクリートへの有効利用 コンクリートおよびコンクリート構造物の耐久性評価 コンクリートおよびコンクリート構造物の補修・補強 コンクリート構造物の劣化予測と維持管理 Application of industrial waste products to concrete Durability assessment of concrete and concrete structures Repair and strengthening for concrete and concrete structures Prediction of deterioration and maintenance for concrete structures
地盤・岩盤工学 Geotechnical and Rock Engineering	中村 公一 NAKAMURA, Koichi nak_x@tottori-u.ac.jp	<ul style="list-style-type: none"> 飽和土および不飽和土の力学的性質 斜面防災とモニタリング Constitutive properties of saturated and unsaturated soils Slope disaster mitigation and monitoring
	小野 祐輔 ONO, Yusuke ysk@tottori-u.ac.jp	<ul style="list-style-type: none"> 地盤構造物の地震応答解析 地盤災害の数値シミュレーション 斜面災害のハザード・リスク評価 粘土鉱物に着目した土・岩石の物性の解明 粘土鉱物を含有した材料による岩盤の力学特性の向上
	河野 勝宣 KOHNO, Masanori kohnom@tottori-u.ac.jp	<ul style="list-style-type: none"> Earthquake response analysis of earth structures Numerical simulation of geohazards Hazard risk assessment for slope disaster Evaluation of properties of clay mineral-bearing geomaterials Properties of rock mass including macro-fracture filled with clay minerals
水工・海岸工学 Hydraulic and Coastal Engineering	和田 孝志 WADA Takashi wada-t@tottori-u.ac.jp	<ul style="list-style-type: none"> 混合砂礫の移動機構と河床変動予測 河道への土砂供給による河床変動、流路変動 土砂動態に及ぼす河道構造物の影響 土石流流動メカニズムの解明 山地～河川～河口域にわたる流砂系内の土砂動態把握 Sediment transport and bed deformation in non-uniform sediment beds Bed deformation and channel evolution due to sediment supply to riverbed Effects of river structure on sediment dynamics Debris flow mechanics Sediment-transport process in a river system from mountainous area to estuary
	黒岩 正光 KUROIWA, Masamitsu kuroiwa@tottori-u.ac.jp	<ul style="list-style-type: none"> 波と海浜流の数値解析モデル 漂砂と海浜変形予測 河口・航路の維持管理 沿岸防災とモニタリング 河川流や津波による地形変化解析
	梶川 勇樹 KAJIKAWA, Yuki kajikawa@tottori-u.ac.jp	<ul style="list-style-type: none"> Numerical model of waves and nearshore currents Coastal sediments and Prediction of coastal geomorphological change Maintenance of river-mouth, port and harbor Coastal disaster and monitoring Numerical analysis of topography change due to river flow or tsunami
地圏環境・ 建築工学 Geo-spherical Environmental and Architectural Engineering	香川 敬生 KAGAWA, Takao kagawa@tottori-u.ac.jp	<ul style="list-style-type: none"> 強震動予測の高度化に関する研究 震源破壊過程・地盤構造が地震動に及ぼす影響 地球物理学的手法に基づく地下構造の探査とモデル化 Research for sophisticating strong ground motion estimation Effects of fault rupture process and surface geology on earthquake ground motion Exploration and modeling of underground structures based on geophysical methods
	山口 秀文 YAMAGUCHI, Hidefumi h-yamaguchi@tottori-u.ac.jp	<ul style="list-style-type: none"> 居住と地域の持続性 歴史的建造物の保存活用と歴史的資源を活かしたまちづくり 地域文脈と地域文脈デザイン 公共建築の市民共創に関する研究 建築工学教育の涵養過程に関する研究 工学教育における基礎造形教育に関する研究
	辻井 麻衣子 TSUJII, Maiko K. m.tsujii@tottori-u.ac.jp	<ul style="list-style-type: none"> Sustainable Living and Community Sustainability Preservation and adaptive reuse of historic buildings and community development based on historical resources Local context and context-sensitive design Citizen co-creation of public architecture Cultivation process of architectural engineering education Basic education of fine arts in engineering education

教育研究分野 Field of Education- Research	教員名・連絡先 Supervisor Place to Contact	研究テーマ Research Theme
都市計画 Urban Planning	福山 敬 FUKUYAMA, Kei fukuyama■tottori-u.ac.jp	<ul style="list-style-type: none"> ・地域都市システムの理論・実証分析 ・社会経済モデルによる定量的政策評価手法の開発 ・都市地域・空間データの解析 ・土木計画学・都市計画
	細江 美欧 HOSOE, Mio mhosoe■tottori-u.ac.jp	<ul style="list-style-type: none"> ・Institutional design and analyses of regional socio-economic systems ・Public policy evaluation ・Analysis of urban regional and spatial data ・Infrastructure planning and management, and urban planning
経営システム Management Systems	長江 剛志 NAGAE, Takeshi nagae■tottori-u.ac.jp	<ul style="list-style-type: none"> ・地域・産業間波及効果を考慮した政策分析のための多地域応用一般均衡モデル分析手法の開発と実証 ・人口減少社会における居住空間/道路空間の設計 ・不確実性下の社会基盤整備事業のマネジメントと財務価格評価 ・土木計画学・交通工学・地域科学・都市経済学 <ul style="list-style-type: none"> ・Multi-regional computable general equilibrium model and its application ・Design of residential and road space in a society with decreasing population ・Management and pricing of infrastructure projects under dynamic uncertainty ・Infrastructure planning and management, transportation engineering, regional science and urban economics
情報システム Information Systems	桑野 将司 KUWANO, Masashi kuwano■tottori-u.ac.jp	<ul style="list-style-type: none"> ・生活・交通行動分析手法の開発 ・ビッグデータを用いた計画論 ・土木計画学・交通工学・都市計画 ・サービスの品質管理・評価 ・意思決定モデルの開発
	南野 友香 MINAMINO, Yuka minamino■tottori-u.ac.jp	<ul style="list-style-type: none"> ・Activity - travel behavior analysis ・Big data based planning theory ・Infrastructure planning and management, transportation engineering, and urban planning ・Service quality control and evaluation ・Decision making models
公共システム Public Systems	谷本 圭志 TANIMOTO, Keishi tanimoto■tottori-u.ac.jp	<ul style="list-style-type: none"> ・持続的社會システムの計画方法論の開発 ・生活交通システムの計画論 ・生活支援サービスの設計・分析 ・市民参加型計画プロセスの設計 ・地域運営組織の分析・評価
	長曾我部 まどか CHOSOKABE, Madoka mchoso■tottori-u.ac.jp	<ul style="list-style-type: none"> ・Methodologies for sustainable society planning ・Planning theory of local transport system ・Design and analysis of daily support services ・Design of participatory planning process ・Analysis and evaluation of regional management organization
防災計画・維持管理工学 Disaster Prevention Planning and Infrastructure Maintenance Engineering	太田 隆夫 OTA, Takao ohta■tottori-u.ac.jp	<ul style="list-style-type: none"> ・避難シミュレーション等に基づくソフト防災 ・沿岸防災施設の性能評価に関する研究 ・社会基盤施設の維持管理モデルに関する研究 ・XR (Cross Reality) とAIによる橋梁維持管理支援システムに関する研究 ・舗装路面評価システムに関する研究
	江本 久雄 EMOTO, Hisao emoto■tottori-u.ac.jp	<ul style="list-style-type: none"> ・Soft measures for disaster prevention based on evacuation simulation ・Performance evaluation of coastal disaster prevention facilities ・Maintenance management model for infrastructure ・Bridge management support system by XR and AI ・Road pavement management system by AI and motion sensor
環境計画 Environmental Planning	宮本 善和 MIYAMOTO, Yoshikazu miyamoto■tottori-u.ac.jp	<ul style="list-style-type: none"> ・流域/環境経営に関する社会デザイン ・環境デザインに関する研究 ・気候変動の適応策としての防災マネジメント ・循環型社会に向けた微生物の応用 ・水質環境の保全, 管理 ・環境配慮型社会システム
	高部 祐剛 TAKABE, Yugo takabe.yugo■tottori-u.ac.jp	<ul style="list-style-type: none"> ・Social design on watershed or rural environmental management ・Design for the preservation of environments ・Disaster risk management for adaptation to climate change ・Application of microorganisms for establishing recycling-based society ・Water quality control and management ・Current issues in global environmental protection