Impact of ball milling on the hydrogen evolution performance of Cu₂Sn_{0.} 38Ge_{0.} 62S₃ photocatalytic particles synthesized via a flux method. ACS Appl. Mater. Interfaces, 15, 10, 13108-13120, 2023.

https://doi. org/10. 1021/acsami. 2c23103

Eiichi Satou, Toshihiko Ikeda, Tomomi Uchiyama, Tomoko Okayama, Tomoaki Miyazawa, Kotaro Takamure, Daisuke Tsunashima

Development of an undershot cross-flow hydraulic turbine resistant to snow and ice masses flowing in an installation canal. Renewable Energy, 200, 146-153, 2022.

https://doi. org/10. 1016/j. renene. 2022. 09. 062

2. 国際会議プロシーディング

電子情報システム工学科

Felipe Honjo Ide, Hernan Aguirre, Minami Miyakawa, Darrell Whitley

Exploring the Decision and Objective Space of SAT Constrained Multi-Objective Problems. The Genetic and Evolutionary Computation Conference (GECCO2022), Poster Session, 332-335, 2022.

Raphaël Cosson, Bilel Derbel, Arnaud Liefooghe, Sébastien Verel, Hernan Aguirre, Zhang Qingfu,

Kiyoshi Tanaka

Cost-vs-Accuracy of Sampling in Multi-objective Combinatorial Exploratory Landscape Analysis. The Genetic and Evolutionary Computation Conference (GECCO2022), 493-501, 2022.

R. Armas, H. Aguirre, D. Orellana

Evolutionary bi-objective optimization for the electric vehicle charging stand infrastructure problem. GECCO 2022, 1139-1146, 2022.

Maiko Onishi, Shinpei Ogata, Kozo Okano, Daisuke Bekki

Reducing syntactic complexity for information extraction from Japanese requirement specifications. Proceedings of 29th Asia-Pacific Software Engineering Conference (APSEC 2022), 387–396, 2022.

Maiko Onishi, Shinpei Ogata, Kozo Okano, Daisuke Bekki

A Method for matching patterns based on event semantics with requirements. Proceedings of 14th International Joint Conference on Knowledge-Based Software Engineering (JCKBSE 2022), 181-192, 2022.

Hitoshi Kiryu, Shinpei Ogata, Kozo Okano

Improve measuring suspiciousness of bugs in spectrum-based fault localization with deep learning. Proceedings of Inter- national Workshop on Informatics 2022 (IWIN2022), 3–8, 2022.

Koki Shimokawa, Hiroya Ii, Maiko Onishi, Shinpei Ogata, Kozo Okano

Automatic derivation of a transition model from a Japanese requirement specification under a restricted grammar. Proceedings of International Workshop on Informatics 2022 (IWIN2022), 13–20, 2022.

Kozo Okano, Maiko Onishi, Jo Otsuka, Shinpei Ogata, Toshifusa Sekizawa, Keishi Okamoto, Daisuke Bekki

A Bounded model checker for timed automata and its application to LTL properties. Proceedings of 26th International Conference on Knowledge-Based and Intelligent Information & Engineering Systems, 532-541, 2022.

Ryoga Maryama, Mizue Kayama, Takashi Nagai, Koki Otaku, Naomi Taguchi

Proposal of a conceptual modeling learning environment with task/model management functions, Proc. of 2022 International Conference on Advanced Learning Technologies (ICALT), 196–198, 2022. doi:10.1109/ICALT55010.2022.00064.

Kanato Sugii, Takashi Nagai, Mizue Kayama

A basic study on educational growth indicators based on quantitative evaluation of strokes quality in drawing works, Proc. of the 23rd International Conference on Artificial Intelligence in Education (AIED 2022), 490–501, 2022. doi:10.1007/978-3-031-11644-5_40

Ryoga Maruyama, Shinpei Ogata, Mizue Kayama, Nobuyuki Tachi, Takashi Nagai, Naomi Taguchi

An educational unified modeling language programming envuronment and its two case studies, Proc. of the 20th International Conference on Cognition and Explortory Learning in Digital Age (CELDA2022), F137_1-8, 2022.

Takashi Nagai, Strahinja Klem, Mizue Kayama, Takehiko Asuke, Maram Meccawy, Alexandra Ioana Cristea, Jingyun Wang, Lei Shi, Craig D Stewart

PICA-PICA: exploring a customisable smart STEAM educational approach via a smooth combination of programming, engineering and art, Proc. of the IEEE Global Engineering Education Conference 2023, TS7-6_1-6, 2023.

Issei Mukoda, Takashi Nagai, Mizue Kayama

An interactive STEAM educational approach via a combination of programming, information & communication network and arts: PICAPICA-Z, Proc. of the IEEE Global Engineering Education Conference 2023, SS8-6_1-8, 2023.

Hideto Kubo, Kazuki Kobayashi, Yuya Aoyagi

Automatic annotated farm image generation from 3D computer graphics for machine learning. Proc. 2022 Joint 12th International Conference on Soft Computing and Intelligent Systems and 23rd International Symposium on Advanced Intelligent Systems (SCIS&ISIS), 2022.

Ren Hiraoka, Kazuki Kobayashi, Yuya Aoyagi

Simulation of vibration caused by an automatic transporter on harvested products. Proc. 2022 Joint 12th International Conference on Soft Computing and Intelligent Systems and 23rd International Symposium on Advanced Intelligent Systems (SCIS&ISIS), 2022.

Yuji Mukaiyama, Yuki Fukui, Toshinori Taishi, Vladimir Artemiev, Yusuke Noda, Koji Sueoka

Numerical Modeling and Evaluation of Constitutional Supercooling during Silicon Single Crystal Growth by Cz Method. Proc. of the 8th International Symposium on Advanced Science and Technology of Silicon Materials (JSPS Si Symposium), P-2, 2022.

Tomoya Iwai, Katsuya Ozeki, Gouki Nakashima, Toshinori Taishi

Effect of contact angle between SiC and metal solvents on growth surface morphology in solution growth of SiC. Proc. of the 8th International Symposium on Advanced Science and Technology of Silicon Materials (JSPS Si Symposium), P-4, 2022.

Yuki Fukui, Toshinori Taishi, Yuta Watanabe, Nobumasa Kariya

Theoretical verification of constitutional supercooling and growth conditions in heavily B-doped Si crystal growth by the Czochralski method. Proc. of the 8th International Symposium on Advanced Science and Technology of Silicon Materials (JSPS Si Symposium), P-15, 2022.

Yoshiki Azuma, Hidetoshi Miyao, Minoru Maruyama

A Guitar training system for beginners using a mixed reality device and a MIDI guitar. Proc. of the 24th International Conference on Human-Computer Interaction, CCIS 1582, 19-26, 2022. (Web)

Shoma Irie, Mitsuhide Sato, Tsutomu Mizuno, Fumiya Nishimura, Kaname Naganuma

Quad-cylinder structure for electrical loss reduction in free-piston engine linear generator with four-stroke engine. Proc. SPEC 2022, 1397, 1-6, 2022.

DOI:10. 1109/SPEC55080. 2022. 10058234

Yuta Yoshizawa, Katsumi Wasaki

Detection of strictly L3-Live structures by structural analysis of general petri net using SAT-solver. Proc. of 19th International Conference on Information Technology-New Generations (ITNG 2022), Advances in Intelligent Systems and Computing, Springer, 1421, 387-392, 2022.

https://doi.org/10.1007/978-3-030-97652-1_46

Tomoki Miura, Katsumi Wasaki

Space abstraction and quasi-home states of petri nets using the submarking method. Proc. of 19th International Conference on Information Technology-New Generations (ITNG 2022), Advances in Intelligent Systems and Computing, Springer, 1421, 393–398, 2022.

https://doi.org/10.1007/978-3-030-97652-1_47

Shizuka Nakamura, Katsumi Wasaki

The Development of Japanese language e-learning system focusing on CLIL (Content Language Integrated Learning) suitable for DX education. Proc. of the 33rd Annual Conference of Society for Information Technology & Teacher Education (SITE 2022), AACE, 219–223, 2022.

Hideharu Furushima, Daichi Yamamichi, Seigo Shigenaka, Kazuhisa Nakasho, Katsumi Wasaki

An Integrated web platform for the mizar mathematical library. Proc. of the 15th onference on Intelligent Computer Mathematics (CICM 2022), LNAI 13467, 141–146, 2022.

https://doi.org/10.1007/978-3-031-16681-5_9

Toshiki Kumagai, Keita Tomita, Kenichi Hibino, Katsumi Wasaki

Reduction of spherical aberration measurement error in high numerical aperture spherical test with synthetic-aperture Fizeau interferometry. Proc. of the 9th International Conference of Asian Society for Precision Engineering and Nanotechnology (ASPEN2022), OR-11-0125, 528-530, 2022.

DOI://10. 3850/978-981-18-6021-8 OR-11-0125

Kenta Sawada, Kazuhisa Nakasho, Katsumi Wasaki, Nobuhiro Shimoi

Classification of human posture on bed using machine learning. Proc. of IEEE International Conference on Consumer Electronics, Consumer Systems for Healthcare and Wellbeing (ICCE-TW 2022), 547-548, 2022.

Takehiko Mieno, Hiroyuki Okazaki, Kenichi Arai, Yuichi Futa

Comparison of Tamarin-prover and ProVerif security verification. 2022 International Conference on Security and Management (SAM'22), 31, 2022.

Shinpei Ogata, Hiroyuki Nakagawa, Haruhiko Kaiya, Hironori Takeuchi

A Study on Analyzing Learner Behaviors in State Machine Modeling Using Process Mining and Statistical Test. Proc. JCKBSE 2022, 141-153, 2022.

Haruhiki Kaiya, Tomoya Misawa, Shinpei Ogata, Shinobu Saito, Hiroyuki Nakagawa, Hironori Takeuchi

A Proposal to Find Mutually Contributable Business or Life Activities Using Conformance Checking. Proc. KES 2022, 542–551, 2022.

Ayumu Yamamoto, Yuta Kaga, Tomohiro Aso, Shin-ichiro Kuroki, Hideya Momose, Koh Johguchi

A high-precision wearable perspiration monitor with 0.18 μ m BCD process and PDMS micro air-flow path. Ext. Abst. SSDM2022, 2022.

Kizuku Kawamura, Kohei Akimoto, Osamu Takyu

Antenna Beamforming Selection With Low Complexity and High Exploitation of White Space in Frequency Spectrum Sharing. APSIPA ASC2022, 1725-1730 2022.

Ryuji Miyamoto, Osamu Takyu, Hiroshi Fujiwara, Koichi Adachi, Mai Ohta, Takeo Fujii

Optimal Index Design for Aggregation Accuracy in Packet Level Index Modulation. IEICE ICETC 2022, 2022.

Ryuji Miyamoto, Osamu Takyu, Hiroshi Fujiwara, Koichi Adachi, Mai Ohta, Takeo Fujii

Highly Efficient Information Collection Method by Trend Analysis of Sensor Information Using Event Position Estimation. IEICE ICETC 2022, 2022.

Toshi Ito, Riku Yamabe, Osamu Takyu

A study of anomaly detection using MCS data in 5G environment. IEICE ICETC 2022, 2022.

Kizuku Kawamura, Kohei Akimoto, Osamu Takyu

Evaluation of Antenna Beam Search Algorithm Using Terminal Position Prediction in Frequency Sharing. IE-ICE ICETC 2022, 2022.

Keita Takeda, Osamu Takyu

Evaluation of Packet Level Index Modulation in 429MHz LoRa/FSK in Actual Equipment. IEICE ICETC 2022, 2022.

Toshi Ito, Osamu Takyu, Mai Ohta, Takeo Fujii, Koichi Adachi

High-Sensitivity Detection Method for Signals in PhyC-SN. IEEE ICUFN2022, 61-66, 2022.

Rvuji Miyamoto, Osamu Takyu, Hiroshi Fujiwara, Koichi Adachi, Mai Ohta, Takeo Fujii

Performance Evaluation of Highly Efficient Information Collection Methods by Trend Analysis of Sensor Information Using Pre-learning. IEEE ICUFN2022, 55-60, 2022.

Pacawat Kangwanwisit, Morakot Choetkiertikul, Chaiyong Ragkhitwetsagul, Thanwadee Sunetnanta,

Rungroj Maipradit, Hideaki Hata, Kenichi Matsumoto

A component recommendation model for issues in software projects. Proc. of 19th International Joint Conference on Computer Science and Software Engineering (JCSSE 2022), 1–6, 2022.

Naomichi Shimada, Tao Xiao, Hideaki Hata, Christoph Treude

GitHub sponsors: exploring a new way to contribute to open source. Proc. of 44th IEEE/ACM International Conference on Software Engineering (ICSE 2022), 1058-1069, 2022.

Motohiro Kanai, Hidetoshi Taki, Kyohei Tanimura, Kousuke Miyaji

A 15MHz GaN FET AZVT Buck Converter that Achieves 7. 2-point Efficiency Increase at Heavy Load. IEEE Energy Conversion Congress & Exposition (ECCE), 0367 1-6, 2022, Web.

Kazuya Nishijima, Toma Umeki, Kousuke Miyaji

A 24V-to-1V On-Chip Switch Dual-Charging Path Dual-Inductor Hybrid Converter Achieving Improved Load Transient Response. International Conference on Solid State Devices and Materials (SSDM), 794–795, 2022, Web.

Ryosuke Saito, Takayuki Tomida, Daisuke Ikeda

Examination of Xmax anisotropy for the next generation Ultra-high energy cosmic rays observations. EPJ Web Conf., Ultra High Energy Cosmic Rays (UHECR 2022), 283, 03012, 2023.

水環境・土木工学科

Takashi Kawamura, Takeo Umezaki

Influences of unit cement content and fine fraction on freezing and thawing characteristics of soil pavement. Proc. 20th International Conference on Soil Mechanics and Geotechnical Engineering, 1-6, 2022.

Masayasu Irie, Masaki Okuda, Yuichi Miyabara, Yusuke Nakatani, Masashi Toyota

Influence of boundary conditions on modeling water temperature and quality in a shallow stratified lake (Lake Suwa, Japan). Proceedings of the 39th World Congress of IAHR, 1509, 2022.

Shouta Mizuno, Yuki Chikahiro, Shigeru Koyama

Material cost minimization problem for aluminum alloy beam using beam string structure. Prof. of WCCM-APCOM 2022, 1-10, 2022.

機械システム工学科

Takuya Fukumoto, Yuichi Chida, Masaya Tanemura

Improved tracking performance by H∞control for an automatic spinach harvester. 10th IFAC Symposium on Robust Control Design ROCOND 2022, 0024, 308–313, 2022. Web.

Naoki Kosaka, Mei Du, Yutaka Okamiya, Kanemi Hirata, Masayoshi Tamura, Yuichi Chida, Masaya Tanemura, Kimitoshi Yamazaki, Keiji Kataoka

Control system development for automation of curve sewing operations and experimental verification. The 9th IFAC Symposium on Mechatronic Systems (Mechatronics 2022) The 16th International Conference on Motion and Vibration Control (MoViC 2022), 0013, 36–41, 2022.

Hiroki Yamada, Yuichi Chida, Masaya Tanemura

Improvement of linear tracking response of two-degree-of-freedom control of discrete-valued driven crawler. 12th IFAC Symposium on Nonlinear Control Systems (NOLCOS2022), FrA3. 2, 1-6, 2023. Web.

Kimitoshi Yamazaki, Ryo Matsuura, Solvi Arnold

Generating shape transitions of deformable linear objects using generative adversarial networks. Proc. IEEE International Conference on Mechatronics and Automation (ICMA), 538–543, 2022.

Takahiro Yamazaki, Yutaka Takase, Kimitoshi Yamazaki

A robot system for assisting humans in wearing long-sleeved shirt. Proc. IEEE International Conference on Mechatronics and Automation (ICMA), 657-663, 2022.

Shunji Fujihara, Kimitoshi Yamazaki, Tetsuyou Watanabe

An end-effector for pinch and slide unfolding using a protruding passive rotation mechanism. Proc. IEEE International Conference on Mechatronics and Automation (ICMA), 882-887, 2022.

Kimitoshi Yamazaki, Yuto Nakagawa, Akihisa Ishikawa, Motoki Hirayama

Force sensing based on nail deformation for measurement of fingertip force in detailed work. Proc. IEEE 18th International Conference on Automation Science and Engineering (CASE), 2403–2408, 2022.

Yoshiaki Watanabe, Kyosuke Miyairi, Kimitoshi Yamazaki, Mikita Miyairi

Reproduction of roller painting operations by humanoid robot for observational learning. Proc. IEEE-RAS International Conference on Humanoid Robots, 383–388, 2022.

Keisuke Onda, Takahiro Yamazaki, Yutaka Takase, Kimitoshi Yamazaki

Robotic system for assisting long-sleeved shirt dressing using two manipulators with different roles. Proc. IEEE/SICE International Symposium on System Integration, 1050-1054, 2023.

Toru Sakai, Yoshikazu Hayashi, Shouichiro Iio, Takaya Kitahora, Young-Do Choi, Morihito Inagaki

Investigation of draft tube shape for a cross-flow turbine with guide wall and cavity. Proc. Nineteenth International Conference on Flow Dynamics, OS13-11, 650-653, 2022.

Seisei Rin, Takahiro Saito, Shouichiro Iio, Daisuke Tsunashima

Influence of the nozzle disk and runner clearance on noise and performance of a Submerged Impulse Turbine. Proc. Nineteenth International Conference on Flow Dynamics, OS13-12, 654-656, 2022.

Kazuhiro Aiba, Mitsuteru Fujimori, Kota Otsuka, Shouichiro Iio

Investigation of the flow field around a guide vane in a cross-flow turbine. Proc. Nineteenth International Conference on Flow Dynamics, OS13-13, 657-659, 2022.

Satoru Sakai, Takumu Takagi, Yuichi Ikeda, Kohei Sawada, Tomoya Yokogawa

Fast Search Method for Stable NMPC by Objective Nondimensionalization of Mechatronic Systems. Proceedings of IEEE/ASME International Conference on Advanced Intelligent Mechatronics (AIM), 442–448, 2022.

Ryo Arai, Satoru Sakai, Teruo Kato

Numerical Energy Behavior Analysis While Digging in Hydraulic Cylinder Dynamics of Agriculture Scale Excavators. Proceedings of SICE AC, 146–151, 2022.

Ryoya Sasakura, Satoru Sakai, Ryo Arai, Yasuki Takahashi, Minoru Hiraoka, Junichi Ishikawa, Yusuke Ida Analysis of the Inverse System of the Unsteady Flow Block for Hydraulic Arms with Practical Valves. Proceedings of The XX CIGR World Congress, 12–03, 2022.

YanBin Zhang, Satoru Sakai, Kazuki Ono, Shunsaku Hamachi, Yuichi Nakamura, Teruo Kato, Yun Lin,

Yi-Che Huang, Kuan-Ting yeh, Yan-Fu Kuo

On the 3D Position Measurement of Field Watermelons via a Deep Learning and Robotic Body. Proceedings of The XX CIGR World Congress, 5-02, 2022.

Shota Takagi, Kazutomo Obinata, Jun-ya Takayama

Power line tracking method based on ellipsoidal and curve models with three-dimensional point cloud data. Proc. of the SICE Annual Conference 2022, WeB08. 2, 358-361, 2022.

Jun-va Takavama, Erina Inukai, Shunsuke Tani

Precise depth estimation considering size of buried object based on scattering reflection model on microwave radar method. Proc. of the SICE Annual Conference 2022, WeB08. 3, 362-365, 2022.

建築学科

Hom B. Rijal, Shotaku Okamoto, Supriya Khadka, Katsunori Amano, Teruyuki Saito, Hikaru Imagawa, Tomoko Uno, Kahori Genjo, Hiroshi Takata, Kazuyo Tsuzuki, Takashi Nakaya, Daisaku Nishina, Kenichi Hasegawa, Taro Mori

Development of the adaptive model for thermal comfort in office buildings of Aichi prefecture. The 11th International Conference on Indoor Air Quality, Ventilation & Energy Conservation in Buildings (IAQVEC2023), 396, 01062, 6, 2023.

Rahma Apriliyanthi, Tomonori Sakoi, Diinal Aziiz, Tetsu Kubota, Fajri Alfata, Fefen Suhendi,

Donny Koerniawan, Takashi Nakaya

Perceived thermal acceptability and behavioural adjustment for Indonesian workers. The 11th International Conference on Indoor Air Quality, Ventilation & Energy Conservation in Buildings (IAQVEC2023), 396, 01049, 7, 2023.

Kahori Genjo, Momoka Oki, Haruna Nakanishi, Hikaru Imagawa, Tomoko Uno, Teruyuki Saito, Hiroshi Takata, Kazuyo Tsuzuki, Takashi Nakaya, Daisaku Nishina, Kenichi Hasegawa, Taro Mori, H. B. Rijal

Development of the adaptive model for thermal comfort in office buildings of Nagasaki city. The 11th International Conference on Indoor Air Quality, Ventilation & Energy Conservation in Buildings (IAQVEC2023), 396, 01053, 5, 2023.

Supriya Khadka, Hom B. Rijal, Katsunori Amano, Teruyuki Saito, Hikaru Imagawa, Tomoko Uno, Kahori Genjo, Hiroshi Takata, Kazuyo Tsuzuki, Takashi Nakaya, Daisaku Nishina, Kenichi Hasegawa, Taro Mori

Study on behavioral adaptation for thermal comfort of mixed-mode Japanese office buildings. 9th Zero Energy Mass Custom Home International Conference 3rd-5th NOVEMBER 2022, BMS SCHOOL OF ARCHITECTURE BENGALURU, INDIA

Supriya Khadka, H. B. Rijal, Katsunori Amano, Teruyuki Saito, Hikaru Imagawa, Tomoko Uno, Kahori Genjo, Hiroshi Takata, Kazuyo Tsuzuki, Takashi Nakaya, Daisaku Nishina, Kenichi Hasegawa, Taro Mori

Study on winter comfort temperature based on daily survey in mixed-mode office buildings in Aichi prefecture of Japan. Comfort at the Extermes 2022, 1214, 2022.

工学基礎部門

Minori Endo, Pauline N. Kawamoto

Tuning Small Datasets for a Custom Apple Sorting System Based on Deep Learning. 2022 Fourth International Conference on Transdisciplinary AI, 1, 97-100, 2022.

Ikki Fukuda

Asymptotic analysis for solutions to the generalized Fornberg-Whitham equation with dissipation. Proceedings of the 41st JSST Annual International Conference on Simulation Technology, 44-47, 2022.

航空機システム共同研究講座

Yosuke Sakurai, Teruhisa Ota, Masaaki Yanagihara

Relative Position and Attitude Estimation Applying GPS/INS Integrated Navigation Technology. Asia-Pacific International Symposium on Aerospace Technology (APISAT2022), S33-1, 6pages, 2022.

特任教員 等

Kimitoshi Yamazaki, Ryo Matsuura, Solvi Arnold

Generating shape transitions of deformable linear objects using generative adversarial networks. Proc. IEEE International Conference on Mechatronics and Automation (ICMA), 538–543, 2022.

Takahiro Yamazaki, Yutaka Takase, Kimitoshi Yamazaki

A robot system for assisting humans in wearing long-sleeved shirt. Proc. IEEE International Conference on Mechatronics and Automation (ICMA), 657-663, 2022.

Keisuke Onda, Takahiro Yamazaki, Yutaka Takase, Kimitoshi Yamazaki

Robotic system for assisting long-sleeved shirt dressing using two manipulators with different roles. Proc. IEEE/SICE International Symposium on System Integration, 1050-1054, 2023.

統合技術院(工学部)

Naoki Kosaka, Mei Du, Yutaka Okamiya, Kanemi Hirata, Masayoshi Tamura, Yuichi Chida, Masaya Tanemura, Kimitoshi Yamazaki, Keiji Kataoka

Control system development for automation of curve sewing operations and experimental verification. The 9th IFAC Symposium on Mechatronic Systems (Mechatronics 2022) The 16th International Conference on Motion and Vibration Control (MoViC 2022), 0013, 36-41, 2022.

3. 総説・解説・展望等

物質化学科

新井 進

粗面化めっき膜を用いた鉄鋼と樹脂の異種材料接合. 溶接技術, 91, 5, 2-5, 2022. 酒井俊郎

超音波と活性炭を組み合わせた水中溶存貴金属イオンの回収. 超音波TECHNO, 34, 5, 27-30, 2022.