

Project Supported by the Fukushima Prefectural Foundation for the Advancement of Science and Education 2017

1. Principal Investigator: Hirokuni Kurokawa
Title: Support Project of Programming Language Understanding Using PROVIT
Amount: ¥ 1,960,400

Research Project Supported by Collaborative Research, Commissioned Research and Grant Donation 2017

Collaborative Research

1. Financial Provider for Research: Aqua Clue
Research Representative: Yuichi Yaguchi
Title: Development of a Remote Centralized Management Device Utilizing Image Processing Technology
Amount: N/A
2. Financial Provider for Research: International Institute Of Advanced Science and Technology (AIST)
Research Representative: Takeaki Sampe and Saji Hameed
Title: Research and Development of sophistication of wide area prediction technology for electric generation by renewable energy
Amount: N/A
3. Financial Provider for Research: Japan Aerospace Exploration Agency (JAXA)
Research Representative: Keitaro Naruse
Title: Triangulation based simultaneous localization and mapping by massively distributed robots
Amount: N/A

Projects

4. Financial Provider for Research: Kitashiba Electric Co. Ltd.
Research Representative: Qiangfu Zhao
Title: Research about automation of inspection process in the motor manufacturing facility
Amount: ¥ 990,000

5. Financial Provider for Research: Socionext Inc.
Research Representative: Hiroshi Saito
Title: Research on the High-level Synthesis Technique for Asynchronous Circuits
Amount: ¥ 1,000,000

6. Financial Provider for Research: EWM Japan, Ltd.
Research Representative: Jiro Iwase (Hideyuki Fukuhara)
Title: Development for distributed computer system using nano grid photovoltaic solar energy
Amount: ¥ 1,000,000

7. Financial Provider for Research: SIMPLEX QUANTUM Inc.
Research Representative: Wenxi Chen
Title: Development of HRV frequency range parameter calculation (LF/HF)
Amount: ¥ 3,014,000

8. Financial Provider for Research: Toolmart Corporation
Research Representative: Keitaro Naruse
Title: Preliminary analysis for automatic detection of potential incidents from video taken from forklift
Amount: ¥ 110,000

9. Financial Provider for Research: Ai-NET Corporation
Research Representative: Lei Jing
Title: R & D of Mimamori Wrist Band for the Elders
Amount: ¥ 495,000

10. Financial Provider for Research: Institute of Space and Astronautical Science (ISAS), JAXA

Research Representative: Hirohide Demura

Title: Research of “obstruction detection method for evaluation of landing point in lunar and planetary exploration” and “tools for analysis and operation of irregularly shaped small bodies”

Amount: ¥ 1,282,832

11. Financial Provider for Research: East Japan Accounting Center Co.,Ltd.
Research Representative: Yuichi Yaguchi
Title: A Technology Survey to Establish Secure Drone Flight and Security Evaluation of a Feasible Demonstration
Amount: ¥ 1,346,400
12. Financial Provider for Research: Toolmart Corporation
Research Representative: Keitaro Naruse
Title: Analysis for automatic detection of potential incidents from video taken from forklift
Amount: ¥ 550,000
13. Financial Provider for Research: Mitsubishi Shindo Co. Ltd.
Research Representative: Qiangfu Zhao
Title: Automatic defect detection based on surface images of copper plate
Amount: ¥ 300,000
14. Financial Provider for Research: Alpine Electronics, Inc.
Research Representative: Qiangfu Zhao
Title: Situation awareness of nearby environment for a personal vehicle
Amount: ¥ 700,000
15. Financial Provider for Research: Mitsubishi Pencil Co., Ltd.
Research Representative: Lei Jing
Title: Research and Development on an E-Pen to Digitalize the Handwriting
Amount: ¥ 1,320,000
16. Financial Provider for Research: Ai-NET Corporation
Research Representative: Lei Jing
Title: R & D of Mimamori Wrist Band for the Elders (2)
Amount: ¥ 1,485,000

Projects

Commissioned Research

1. Financial Provider for Research: Japan Science and Technology Agency (JST)
Research Representative: Keitaro Naruse
Title: Enhancement of disaster resilient functions to prevent and reduce damages
Amount: ¥ 2,785,300
2. Financial Provider for Research: Japan Science and Technology Agency (JST)
Research Representative: Junbo Wang
Title: Dynamic Evolution of Smart-Phone Based Emergency Communications Network
Amount: ¥ 10,660,000
3. Financial Provider for Research: Fukushima Prefecture
Research Representative: Keitaro Naruse
Title: Development of farming support robot (weeding robot system for rice fields)
Amount: ¥ 9,930,000
4. Financial Provider for Research: Ministry of Internal Affairs and Communications
Research Representative: Toshiaki Miyazaki
Title: Tracking of Living Activity and Health Condition in Smart Home using Radio reflection and Big data
Amount: ¥ 10,855,000
5. Financial Provider for Research: Kikuchi Seisakusho Co., Ltd.
Research Representative: Yuichi Yaguchi
Title: “Data processing and collecting sample of acquirable 3D topography data using 3D mapping technology” and “Examination for a fall accident simulator development”
Amount: ¥ 7,000,000

6. Financial Provider for Research: Japan Society for the Promotion of Science (JSPS)
Research Representative: Ryuhei Yamada
Title: Lunar impact flash observation by ground stations among two nations and an application of the results to future lunar seismic explorations
Amount: ¥ 960,000

7. Financial Provider for Research: Japan ADvanced system co.,ltd
Research Representative: Keitaro Naruse
Title: Support of prototype development of advanced safety system for industrial workers
Amount: ¥ 500,000

8. Financial Provider for Research: FUJITSU LABORATORIES LTD.
Research Representative: Akihito Nakamura
Title: Study of Personal Data Stores API
Amount: ¥ 1,000,000

9. Financial Provider for Research: FSK Corporation
Research Representative: Makoto Yashiro
Title: General wheel type / Crawler type Robot Model and Simulation Contents Construction, Simulation Accuracy verification
Amount: ¥ 14,997,150

10. Financial Provider for Research: GClue, Inc.
Research Representative: Yuichi Okuyama
Title: Evaluation of an Extension Board Development for Embedded GPU
Amount: ¥ 495,000

Grant Donation

1. Donation Provider: Telecommunications Advancement Foundation
Research Representative: Anh T. Pham
Title: Hybrid Architecture and Cross-Layer Design for Free-space Optics/Millimeter-Wave Front/Backhaul of the Next-Generation Mobile Networks
Amount: ¥ 550,000

Projects

2. Donation Provider: Foundation for Research of Arteriosclerosis
Research Representative: Wenxi Chen
Title: Research for statistical analysis of blood pressure data and Blood pressure measurement at household
Amount: ¥ 1,000,000

3. Donation Provider: Nakajima Foundation
Research Representative: Yoichi Tomioka
Title: Establishment of Fast Camera Identification Method for videos captured by smartphones
Amount: ¥ 1,100,000

4. Donation Provider: JAL Information Technology Co., Ltd.
Research Representative: The University of Aizu
Amount: ¥ 500,000

5. Donation Provider: JAL Information Technology Co., Ltd.
Research Representative: The University of Aizu
Amount: ¥ 500,000

6. Donation Provider: Aiki Co., Ltd. / Yakuju Co., Ltd.
Research Representative: Wenxi Chen
Title: To encourage a research of the biomedical information measurement technique
Amount: ¥ 1,000,000

7. Donation Provider: Aizu-Wakamatsu City
Research Representative: Student Affairs Division and The University of Aizu Revitalization Center
Amount: ¥ 10,000,000

Research Project Supported by Grants-in-Aid (Kakenhi) 2017

Grant-in-Aid for Scientific Research

1. Category: Scientific Research (C)
Research Representative: Jung-pil Shin
Title: Automonous generation of ink brush characters and hand-writing characters with individuality and natural typographical fluctuation
Amount: ¥ 1,170,000
2. Category: Scientific Research (C)
Research Representative: Toshiaki Miyazaki
Title: Research on ultra-low-power software defined sensor network with self-repairing capability
Amount: ¥ 780,000
3. Category: Scientific Research (C)
Research Representative: Yong Liu
Title: Evolutionary Approaches to Learning Self-awareness for a Decentralized System
Amount: ¥ 1,040,000
4. Category: Scientific Research (C)
Research Representative: Anh T. Pham
Title: Study and development of smart supermarket by using visible light communication (VLC) and smartphone technologies
Amount: ¥ 1,040,000

Projects

5. Category: Scientific Research (C)
Research Representative: Yodai Watanabe
Title: Research on optimality and existence of confidence variance method
Amount: ¥ 1,170,000

6. Category: Scientific Research (C)
Research Representative: Alexander Vazhenin
Title: Service-oriented infrastructure for education of Tsunami modeling and English
Amount: ¥ 1,040,000

7. Category: Scientific Research (C)
Research Representative: Debopriyo Roy
Title: 3D Printing in Creative Factory Contexts for English Language Learning
Amount: ¥ 910,000

8. Category: Scientific Research (C)
Research Representative: Hiroshi Saito
Title: Tamper resistance evaluation of asynchronous circuit by batch data method using programmable delay element
Amount: ¥ 910,000

9. Category: Scientific Research (C)
Research Representative: Konstantin Markov
Title: Speech based emotional and depressive mental state prediction using Gaussian Process state-space models
Amount: ¥ 1,300,000

10. Category: Scientific Research (C)
Research Representative: Incheon Paik
Title: Web service discovery and linkage on big data of linked service network
Amount: ¥ 1,430,000

11. Category: Young Research (B)
Research Representative: Jeremy Perkins

Title: An Acoustic Typology of Creaky Voice
Amount: ¥ 390,000

12. Category: Young Research (B)
Research Representative: Younghyon Heo
Title: Improving English speaking with parsing training
Amount: ¥ 650,000
13. Category: Scientific Research (C)
Research Representative: Julian Villegas
Title: Saund: Simulation of auditory near-field distance
Amount: ¥ 1,170,000
14. Category: Scientific Research (C)
Research Representative: Qiangfu Zhao
Title: Research on action pattern recognition based on small-scale human-presence sensor network
Amount: ¥ 910,000
15. Category: Scientific Research (C)
Research Representative: Shuxue Ding
Title: Research on real-time processing system of compression sensing and sparse expression
Amount: ¥ 1,300,000
16. Category: Scientific Research (C)
Research Representative: Hisako Yasuda
Title: Introduction of Japanese comics analysis for English education: An application to academic writing of role word analysis
Amount: ¥ 1,040,000
17. Category: Scientific Research (C)
Research Representative: Emiko Kaneko
Title: Development of picture prompt with difficulty level information and its effect of characteristics for L2 deliverance
Amount: ¥ 780,000

Projects

18. Category: Young Researcher (B)
Research Representative: Peng Li
Title: A machine learning based system for storing and processing big spatial-temporal data
Amount: ¥ 1,820,000
19. Category: Young Researcher (B)
Research Representative: Yutaka Watanobe
Title: An intelligent programming study support environment
Amount: ¥ 910,000
20. Category: Young Researcher (B) (period extension)
Research Representative: Ryuhei Yamada
Title: Development study of wide range seismometer aiming for network deployment for extreme environment
Amount: ¥ 0
21. Category: Scientific Research (C)
Research Representative: Maxim V. Ryzii
Title: Computer modeling of cardiac conduction system with nonlinear oscillators
Amount: ¥ 1,040,000
22. Category: Scientific Research (C)
Research Representative: Evgeny Pyshkin
Title: Advancing interfaces and algorithms used in traveler-centric information systems supporting geographical, cultural and historical perspectives
Amount: ¥ 910,000
23. Category: Scientific Research (C)
Research Representative: Naru Hirata
Title: Spectral data analysis of Asteroid Itokawa based on high precision shape model
Amount: ¥ 2,210,000
24. Category: Young Researcher (B)
Research Representative: Yukihide Kohira

Title: Development of designing technology of integrated circuit which is resistant to delay dispersion and aging degradation
Amount: ¥ 1,300,000

25. Category: Young Researcher (B)
Research Representative: Sender Dovchin
Title: Integrating English language based Western social media in the EFL classrooms in Japanese universities
Amount: ¥ 1,690,000
26. Category: Young Researcher (B)
Research Representative: Jun Ogawa
Title: Evolved soft robotics for efficient development of irregular terrain capable robots in disaster scene
Amount: ¥ 1,040,000
27. Category: Young Researcher (B)
Research Representative: Chunhua Su
Title: Method of authentication and privacy protection in IoT environment
Amount: ¥ 1,085,373
28. Category: Young Researcher (B)
Research Representative: Yosuke Kira
Title: Breakthrough of social dilemma research by establishing large-scaled online experiment method
Amount: ¥ 1,170,000
29. Category: Scientific Research (B)
Research Representative: Shigeo Takahashi
Title: Research on dynamic configuration optimization for annotative visual information display
Amount: ¥ 7,110,000
30. Category: Publication of Scientific Research Results
Research Representative: Nobuyoshi Asai
Title: Hyper-Dictionary: Hyper English word origin dictionary
Amount: ¥ 1,700,000

Projects

31. Category: JSPS Research Fellow
Research Representative: Huawei Huang
Title: Conjoint optimization of routing and protection in software defined network
Amount: ¥ 780,000

Contribution from outside the University

1. Category: Scientific Research (A)
Research Representative: Hiroshi Saito
Title: Research on ultra-low-power consumption technology of high-speed serial communication mechanism
Distribution: National Institute of Informatics Amount: ¥ 500,000
2. Category: Scientific Research (C)
Research Representative: Emiko Kaneko
Title: Vocabulary and grammar coaching for improvement of English delivery proficiency
Distribution: Kobe Gakuin University Amount: ¥ 60,000
3. Category: Scientific Research (S)
Research Representative: Maxim V. Ryzhii
Title: Creation of two-dimensional atomic lamina heterojunction and its application for terahertz opto-electronics device application
Distribution: Tohoku University Amount: ¥ 700,000
4. Category: Scientific Research on Innovative Areas
Research Representative: Shigeo Takahashi
Title: Enhancing visualization foundation encouraging space modeling
Distribution: Keio University Amount: ¥ 2,600,000
5. Category: Scientific Research (C)
Research Representative: Takao Maeda
Title: Production method of novel series by multi-dimensionalization and structuration and their mathematics and application
Distribution: Niigata University Amount: ¥ 100,000

6. Category: Scientific Research (C)
 Research Representative: Yodai Watanabe
 Title: Production method of novel series by multi-dimensionalization and structuration and their mathematics and application
 Distribution: Niigata University Amount: ¥ 100,000

7. Category: Scientific Research (B)
 Research Representative: Naohito Nakasato
 Title: Co-design of accelerator and software for accelerating multiple-precision integral calculation
 Distribution: Hitotsubashi University Amount: ¥ 500,000

8. Category: Scientific Research (B)
 Research Representative: Zhu Xin
 Title: Multi-hierarchical analysis of role of TRPM family in development mechanism of atrial fibrillation
 Distribution: Fukuoka University Amount: ¥ 500,000

9. Category: Scientific Research (B)
 Research Representative: Yosuke Kira
 Title: Commons moving with citizen society — Mathematical sociology research for enlivenment of hilly and mountainous areas
 Distribution: Shibaura Institute of Technology Amount: ¥ 45,000

10. Category: Scientific Research (A)
 Research Representative: Emiko Kaneko
 Title: CEFR-J (English skill achievement index) compliant CAN-DO coaching task and prototype development and publication
 Distribution: Tokyo University of Foreign Studies Amount: ¥ 250,000

11. Category: Scientific Research (C)
 Research Representative: Kenta Ofuji
 Title: Investigation of linguistic feature of effective evacuation call sentence on natural disaster — for more appeal on refuge psychology
 Distribution: Gunma Prefectural Women's University Amount: ¥ 153,000

Projects

12. Category: Scientific Research (B)

Research Representative: Shigeyuki Aoki

Title: Fundamental research for development of interactive educational material for discussion education

Distribution: Kyushu University Amount: ¥ 150,000