

## Research Project Supported by Grants-in-Aid (Kak-enhi) 2015

### Grant Donation

1. Category: Grant-in-Aid for JSPS Fellows  
Research Representative: Wuhui Chen  
Title: Discovery and selection of linked social service  
Amount: ¥ 1,170,000
2. Category: Grant-in-Aid for JSPS Fellows  
Research Representative: Zhenni Li  
Title: Research on image processing algorithm based on sparse expression and dictionary studies  
Amount: ¥ 800,000
3. Category: Grant-in-Aid for JSPS Fellows  
Research Representative: Yuya Kaneda  
Title: Research on Design for Small and High-performance Detection Agent for Mobile Devices  
Amount: ¥ 1,000,000
4. Category: Grant-in-Aid for Publication of Scientific Research Results  
Research Representative: Nobuyoshi Asai  
Title: Hyper Etymology Dictionary of English  
Amount: ¥ 1,800,000
5. Category: Scientific Research (B)  
Research Representative: Naru Hirata  
Title: Analysis of geological activity in asteroids based on high-precision shape model  
Amount: ¥ 1,430,000

### Grant Donation

1. Category: Scientific Research (B)  
Research Representative: Naru Hirata

## Projects

Title: Analysis of geological activity in asteroids based on high-precision shape model

Amount: ¥ 910,000

2. Category: Scientific Research (C)  
Research Representative: Keitaro Naruse  
Title: Clarification of phase transition of large-scale crowd and its application to control of crowd robot  
Amount: ¥ 1,300,000
3. Category: Scientific Research (C)  
Research Representative: Xin Zhu  
Title: Research on the most favorable implantation place of implantable cardioverter-defibrillator and its utility in clinical practice  
Amount: ¥ 1,300,000
4. Category: Scientific Research (C)  
Research Representative: Maxim Mozgovoy  
Title: Wordbricks: Interactive virtual world for study of mobile language  
Amount: ¥ 1,950,000
5. Category: Scientific Research (C)  
Research Representative: Emiko Kaneko  
Title: Comparison of effect for L2 deliverance of shadowing and induced mimicry  
Amount: ¥ 650,000
6. Category: Challenging Exploratory Research  
Research Representative: Shigeyuki Aoki  
Title: Re-assessment of Toulmin model from interdisciplinary discussion study and measurement of effect of new discussion model  
Amount: ¥ 1,300,000
7. Category: Grant-in-Aid for Young Scientists (B)  
Research Representative: Junbo Wang

Title: Construction of autonomous IoT / M2M platform adapting to condition of network and users

Amount: ¥ 780,000

8. Category: Grant-in-Aid for Young Scientists (B)

Research Representative: Yutaka Watanobe

Title: Online judge system using next generation programming language

Amount: ¥ 1,040,000

9. Category: Scientific Research (C)

Research Representative: Nobuyoshi Asai

Title: Sense unification of color and music: intergration science with brain science and visual look design

Amount: ¥ 1,820,000

10. Category: Scientific Research (C)

Research Representative: Yoshiko Ogawa

Title: Construciton of lunar mineral composition map based on lunar exploration data and research of lunar surface using Web-GIS

Amount: ¥ 650,000

11. Category: Scientific Research (C)

Research Representative: John Brine

Title: Digital Storytelling for Computer Science Team Project Documentaries

Amount: ¥ 1,300,000

12. Category: Scientific Research (C)

Research Representative: Naomi Ogasawara

Title: Classification of sentences for evacuation advisory and order in natural disaster and their analysis in linguistic viewpoint

Amount: ¥ 1,560,000

13. Category: Scientific Research (C)

Research Representative: Yoichi Tomioka

Title: Establishment of Robust Classification Technology for Judgement of

## Projects

Imaging Device of Digital Images  
Amount: ¥ 1,170,000

14. Category: Grant-in-Aid for Young Scientists ( B )  
Research Representative: Lei Jing  
Title: Research on charging by body heat and method for online immediate action recognition using unrestraint ring type device  
Amount: ¥ 1,950,000
15. Category: Grant-in-Aid for Young Scientists ( B )  
Research Representative: Yukihide Kohira  
Title: Development of design technology of multi-power digital integrated circuit enabling high speed data processing with low power consumption  
Amount: ¥ 1,690,000
16. Category: Scientific Research ( C )  
Research Representative: Jungpil Shin  
Title: Automatic Generation of Handwritten Characters and Brush-Style Characters with Personality and Natural Character Fluctuation  
Amount: ¥ 1,950,000
17. Category: Scientific Research ( C )  
Research Representative: Toshiaki Miyazaki  
Title: Research of Ultra Power Saving Software-Defined Sensor Network with Self-Repairing Capability  
Amount: ¥ 1,950,000
18. Category: Scientific Research ( C )  
Research Representative: Yong Liu  
Title: Evolutionary Approaches to Learning Self-awareness for a Decentralized System  
Amount: ¥ 1,820,000
19. 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: ¥ 1,690,000

20. Category: Scientific Research (C)  
 Research Representative: Yodai Watanabe  
 Title: Research on Optimality and Beingness of Secret Sharing Schemes  
 Amount: ¥ 1,170,000
21. Category: Scientific Research (C)  
 Research Representative: Alexander P. Vazhenin  
 Title: Service Oriented Infrastructure for Education of English and Tsunami Modeling  
 Amount: ¥ 1,690,000
22. Category: Scientific Research (C)  
 Research Representative: Debopriyo Roy  
 Title: 3D Printing in Creative Factory Contexts for English Language Learning  
 Amount: ¥ 2,340,000
23. Category: Scientific Research (C)  
 Research Representative: Hiroshi Saito  
 Title: Tamper Resistance Evaluation of Asynchronous Circuit by Bundled Data Method Using Programmable Delay Element  
 Amount: ¥ 2,730,000
24. Category: Scientific Research (C)  
 Research Representative: Konstantin Markov  
 Title: Speech based emotional and depressive mental state prediction using Gaussian Process state-space models  
 Amount: ¥ 2,080,000
25. Category: Scientific Research (C)  
 Research Representative: Incheon Paik  
 Title: Web Service Discovery and Coordination on Big Data of Linked Service Network  
 Amount: ¥ 1,690,000

## Projects

26. Category: Grant-in-Aid for Young Scientists (B)  
Research Representative: Jeremy Perkins  
Title: An Acoustic Typology of Creaky Voice  
Amount: ¥ 650,000
27. Category: Grant-in-Aid for Young Scientists (B)  
Research Representative: Younghyon Heo  
Title: Improving English speaking with parsing training  
Amount: ¥ 1,170,000
28. Category: Grant-in-Aid for Young Scientists (B)  
Research Representative: Ryoji Sawa  
Title: Research on Evolving Game Theory on Multitask Environment and Cooperation Game  
Amount: ¥ 780,000
29. Category: Challenging Exploratory Research  
Research Representative: Shigeo Takahashi  
Title: Research on Visualization Method of Abstract Data Based on Map Design Principle  
Amount: ¥ 1,950,000

## Contribution from outside the University

1. Category: Scientific Research (C)  
Research Representative: Yoichi Tomioka  
Title: Research on Architecture Mechanism of Deep Learning Hardware Based on Synchronous Shift Data Transmission  
Distribution: Tokyo University of Agriculture and Technology  
Amount: ¥ 6,7241
2. Category: Scientific Research (B)  
Research Representative: Xin Zhu  
Title: Multistage Analysis of Role of TRPM family in Occurrence Mechanism of Artial Fibrillation  
Distribution: Fukuoka University  
Amount: ¥ 975,000

3. Category: Scientific Research ( C)  
Research Representative: Ian Wilson  
Title: Development of learning method of English rhythm by bio-feedback based on acoustic and articulation database  
Distribution: Kanazawa Medical University  
Amount: ¥ 325,000
4. Category: Scientific Research ( C)  
Research Representative: Tsuneo Tsukahara  
Title: LSI design technique for radio receiving with suppression of channel interference of adjacent channel using channel grouping  
Distribution: Nippon Institute of Technology  
Amount: ¥ 130,000
5. Category: Scientific Research ( C)  
Research Representative: Emiko Kaneko  
Title: Teaching of Vocabulary and Grammar for Improving Proficiency of English Pronunciation  
Distribution: Kobe Gakuin University  
Amount: ¥ 130,000
6. Category: Specially Promoted Research  
Research Representative: Maxim Ryzhii  
Title: Emergence of graphene terahertz laser  
Distribution: Tohoku University  
Amount: ¥ 1,950,000
7. Category: Scientific Research ( B)  
Research Representative: Chikatoshi Honda  
Title: Creation of global map of the moon for clarification of geologic evolution history of the moon  
Distribution: Japan Aerospace Exploration Agency  
Amount: ¥ 561,600
8. Category: Scientific Research ( Grant-In-Aid)  
Research Representative: Shigeo Takahashi  
Title: Intensification of Visualization Infrastructure for Promoting Sparse

## Projects

Modeling

Distribution: Keio University

Amount: ¥ 1,560,000

9. Category: Scientific Research ( A)  
Research Representative: Emiko Kaneko  
Title: Synthetic study for identification and application of English CEFR level standard characteristic features by learner corpus  
Distribution: Tokyo University of Foreign Studies  
Amount: ¥ 455,800
  
10. Category: Scientific Research ( B)  
Research Representative: Takeaki Sampe  
Title: Role of seasonal transition of temperature structure in tropical and mid-/high-altitude region for formation and fluctuation of rain band and atmospheric environment  
Distribution: The University of Tokyo  
Amount: ¥ 650,000
  
11. Category: Scientific Research ( B)  
Research Representative: Naoto Nakasato  
Title: Co-design of Accelerators and Software for Acceleration of Multiple Precision Integral Arithmetic  
Distribution: Hitotsubashi University Amount: ¥ 1,300,000
  
12. Category: Scientific Research ( C)  
Research Representative: Emiko Kaneko  
Title: Verification of effectiveness of extensive reading for adults and construction of extensive reading education model as an outreach activity of universities  
Distribution: The University of Kitakyushu Amount: ¥ 130,000
  
13. Category: Scientific Research ( B)  
Research Representative: Konstantin Markov  
Title: Research on discrimination prediction of sound data using time-space Gaussian process model



Distribution: The Institute of Statistical Mathematics  
Amount: ¥ 715,000

14. Category: Scientific Research ( A)  
Research Representative: Hiroshi Saito  
Title: Research on Super Low Electricity Consumption of High-Speed Serial Communication Feature  
Distribution: National Institute of Informatics (NII)  
Amount: ¥ 650,000
  
15. Category: Scientific Research ( B)  
Research Representative: Yukihide Kohira  
Title: Development of physical design technology compliant with next generation lithography technology  
Distribution: Tokyo Institute of Technology  
Amount: ¥ 455,000 and 845,000
  
16. Category: Scientific Research ( B)  
Research Representative: Shigeyuki Aoki  
Title: Basic study for development of interactive course materials for discussion study  
Distribution: Kyushu University  
Amount: ¥ 650,000

## Carry Over

1. Category: Scientific Research ( B)  
Research Representative: Yukihide Kohira  
Title: Development of physical design technology compliant with next generation lithography technology  
Distribution: Tokyo Institute of Technology  
Amount: ¥ 23,867,000