

Research Project Supported by Competitive Research Funding 2014

General Category

1. Principal Investigator: Yuichi Yaguchi
Detailed Research Area: Young
Title: Development 3D measurement techniques by aerial images for forestry
Amount: ¥ 1,552,000

2. Principal Investigator: Yutaka Watanobe
Detailed Research Area: Young
Title: Knowledge Discovery and Data Analysis for Course-Oriented Online Judge System
Amount: ¥ 1,434,000

3. Principal Investigator: Takafumi Hayashi
Detailed Research Area: Seedbed / Collaborative
Title: Design and Analysis of Sequences and its application to Instrumentation, Communications, Information Security, Signal Processing, Sensor Networking, Smart Grid, Information Sharing, and Synchronization.
Amount: ¥ 832,000

4. Principal Investigator: Rentaro Yoshioka
Detailed Research Area: Young
Title: ICT Project Based Learning based on Intercultural Development Framework
Amount: ¥ 264,000

5. Principal Investigator: Xin Zhu
Detailed Research Area: Seedbed
Title: Mathematical Modeling and Simulation of Ion Channels' dynamics in Spontaneously Human iPS Cell-derived Cardiomyocytes
Amount: ¥ 916,000

6. Principal Investigator: Hiroshi Saito
Detailed Research Area: Young

Title: Development of System-level Design Environment for FPGA-based Systems

Amount: ¥ 1,072,000

7. Principal Investigator: Song Guo

Detailed Research Area: Young

Title: Cloud Networking for Cost-Efficient Big Data Service Delivery

Amount: ¥ 1,220,000

8. Principal Investigator: Incheon Paik

Detailed Research Area: Seedbed

Title: Network-Aware Optimal Data Allocation for Map-Reduce Operation on Big Data Processing Environment

Amount: ¥ 1,115,000

9. Principal Investigator: Abderazek Ben A.

Detailed Research Area: Seedbed

Title: Photonic 3D-Network-on-Chip for High-throughput Many-core Systems-on-Chip

Amount: ¥ 1,180,000

10. Principal Investigator: Wenxi Chen

Detailed Research Area: Seedbed

Title: Automatic Monitoring of Electrocardiogram in a Bathtub

Amount: ¥ 766,000

11. Principal Investigator: Subhash Bhalla

Detailed Research Area: Seedbed

Title: Relational Database Query Languages for Persistent Standardized Medical Information Repositories: Using Cloud-based Databases

Amount: ¥ 957,000

12. Principal Investigator: Junji Kitamichi

Detailed Research Area: Seedbed

Title: Development of a Safety RTOS and Propose of Design Method of Processor Architecture for Critical Systems

Amount: ¥ 712,000

Projects

13. Principal Investigator: Anh T. Pham
Detailed Research Area: Young
Title: Toward the Paradigm of Ultra-wideband MIMO-OFDM Optical-Wireless Communications
Amount: ¥ 1,020,000

14. Principal Investigator: Cong Thang Truong
Detailed Research Area: Young
Title: VLC-based Indoor Multimedia Network with Support for Multiple Connections
Amount: ¥ 880,000

15. Principal Investigator: Lei Jing
Detailed Research Area: Young
Title: Key issues on design of an open platform for personalize wearable device development
Amount: ¥ 980,000

16. Principal Investigator: Julian Villegas
Detailed Research Area: Young
Title: Effect of task on temporal evolution of the Lombard effect
Amount: ¥ 932,000

17. Principal Investigator: Junbo Wang
Detailed Research Area: Seedbed / Young
Title: Optimized Deployment and Traffic Flows for Anti-Disaster Communication Networks based on Mobile Mesh Router
Amount: ¥ 589,000

18. Principal Investigator: Jung-pil Shin
Detailed Research Area: Seedbed
Title: Human Computer Interaction on Pen Computing
Amount: ¥ 760,000

19. Principal Investigator: Younghyon Heo
Detailed Research Area: Seedbed / Young

Title: Testing Japanese learners of English for their knowledge of English syntactic parsing and intonation pattern
Amount: ¥ 500,000

20. Principal Investigator: Kyoko Okudaira
Detailed Research Area: Collaborative
Title: Development of image analysis techniques for Tanpopo mission aerogel samples retrieved from the International Space Station
Amount: ¥ 832,000
21. Principal Investigator: Emiko Kaneko
Detailed Research Area: Seedbed / Collaborative
Title: Student Preparation for Overseas Technical Communication Program
Amount: ¥ 753,000
22. Principal Investigator: Debopriyo Roy
Detailed Research Area: Young
Title: Developing Usability Testing Facilities at the Technical Communication Laboratory, CLR for Usability Testing of English Language Learning Interfaces and Informational Websites
Amount: ¥ 576,000
23. Principal Investigator: Peng Li
Detailed Research Area: Young
Title: Codelogy: Towards Efficient, Green, and Secure Software Defined Networks
Amount: ¥ 579,000
24. Principal Investigator: Irina Khmyrova
Detailed Research Area: -
Title: Computer modeling of planar light-emitting diodes based on novel numerical algorithm for light extraction(continued)
Amount: ¥ 560,000
25. Principal Investigator: Nobuyoshi Asai
Detailed Research Area: Seedbed

Projects

Title: Mathematical Modeling and FDTD Numerical simulation of Novel Nano Optical Device
Amount: ¥ 535,000

26. Principal Investigator: Tsutomu Hashida
Detailed Research Area: Others
Title: Towards social innovation by re-inventing regional crafts and cultural tradition: case of collaboration between Aizu and Cremona
Amount: ¥ 524,000
27. Principal Investigator: Ryoji Sawa
Detailed Research Area: Young
Title: Stochastic Equilibrium Selection in Game Theory
Amount: ¥ 546,000
28. Principal Investigator: Igor Lubashevskiy
Detailed Research Area: Seedbed
Title: Stochastic Properties of Phase Transitions in Human Intermittent Control
Amount: ¥ 640,000
29. Principal Investigator: Neil Yen
Detailed Research Area: Young
Title: IREF: An Intelligent Renewable Eco-Framework towards Opportunity-Finding in Big Data
Amount: ¥ 663,000
30. Principal Investigator: Jeremy Perkins
Detailed Research Area: Young
Title: Sentence-Level Intonation in Languages with Contrastive Phonation
Amount: ¥ 478,000
31. Principal Investigator: Anna Danielewicz-Betz
Detailed Research Area: Collaborative
Title: Detection and classification of stress-related and anti-social emotions in social media posts
Amount: ¥ 466,000

32. Principal Investigator: Takako Yasuta
 Detailed Research Area: Others
 Title: Developing learner motivation and English language competence through Manga and pop culture
 Amount: ¥ 470,000

33. Principal Investigator: Konstantin Markov
 Detailed Research Area: Collaborative
 Title: Acoustics and Linguistics based Depression and Emotion Recognition
 Amount: ¥ 550,000

34. Principal Investigator: Kim Forrester Rockell
 Detailed Research Area: Seedbed
 Title: Practicing Lexical Chunks with a Music Looping App (Loopy)
 Amount: ¥ 432,000

35. Principal Investigator: John Brine
 Detailed Research Area: Collaborative
 Title: Digital badges support for English-village experiential language learning
 Amount: ¥ 487,000

36. Principal Investigator: Vitaly Klyuev
 Detailed Research Area: Seedbed
 Title: Summarization of Wikipedia Articles
 Amount: ¥ 439,000

37. Principal Investigator: Hitoshi Oi
 Detailed Research Area: Collaborative
 Title: Power-Efficient System Design with Multi-core Processors
 Amount: ¥ 434,000

38. Principal Investigator: Mohamed Hamada
 Detailed Research Area: Others
 Title: A Multimedia Learning Framework based on Smart Devices
 Amount: ¥ 431,000

Projects

39. Principal Investigator: Maxim Ryzhii
Detailed Research Area: Others
Title: Modeling of cardiac electrical dynamics with nonlinear oscillators
Amount: ¥ 409,000

40. Principal Investigator: Kohei Kitazato
Detailed Research Area: Young
Title: Fundamental development of a miniature IR spectrometer with the MEMS-based FTIR engine toward future space missions
Amount: ¥ 412,000

41. Principal Investigator: Yan Pei
Detailed Research Area: Young
Title: Nash equilibrium and fusion technique of evolutionary computation :to make evolutionary computation more efficient and more effective
Amount: ¥ 407,000

Mid-Term Category

1. Principal Investigator: Saji N. Hameed
Detailed Research Area: CAIST
Title: Service-Oriented Multistage Tsunami Modeling Tools
Amount: ¥ 1,945,000

2. Principal Investigator: Naru Hirata
Detailed Research Area: CAIST
Title: Monitoring and Analysis of atmospheric water vapor over Aizu using a dense network of low-cost Global Navigation Satellite System receivers towards nowcasting capability for extreme weather
Amount: ¥ 1,288,000

3. Principal Investigator: Hiroide Demura
Detailed Research Area: CAIST
Title: Development of optical instruments for planetary landers; MINERVA-on Hayabusa-2&LDM on Mars2020
Amount: ¥ 1,488,000

4. Principal Investigator: Alexander P. Vazhenin
Detailed Research Area: Strategic
Title: Hybrid Tsunami Modeling Tools combining natural and artificial Bottom Topography
Amount: ¥ 1,200,000

5. Principal Investigator: Tuan Duc Pham
Detailed Research Area: CAIST
Title: Uncertainty Modeling of Fuzzy Information in Images for Biomedical Pattern Classification
Amount: ¥ 686,000

UBIC Category

1. Principal Investigator: Toshiaki Miyazaki
Detailed Research Area: R&D local industry
Title: Demand Addressable Sensor Network(2nd year)
Amount: ¥ 1,675,000

2. Principal Investigator: Keitaro Naruse
Detailed Research Area: R&D local industry
Title: Development of multi-robot sweeping-path planning in loose soil
Amount: ¥ 1,576,000

3. Principal Investigator: Qiangfu Zhao
Detailed Research Area: R&D local industry
Title: Construction of a Prototype System for Secure Cloud Storage Service
Amount: ¥ 1,308,000

4. Principal Investigator: Michael Cohen
Detailed Research Area: R&D local industry
Title: Tworlds: twirling interface for mobile ambient, practically panoramic whole-body entertainment
Amount: ¥ 802,000