

2017年12月11日

立教大学国際学術研究交流制度
2017年度「招へい研究員」報告書

1. 招へい概要

受入 教員	所属・職	経営学部・講師
	氏名	Herbert A. Donovan
受入学部・研究科・研究所		経営学部
招へい 研究員	所属・職	Associate Professor, Department of Mathematics, Madras Christian College 協定の有無：無 所在国：インド
	氏名	Robinson Thamburaj
招へい期間		2017年11月11日～2017年11月24日（14日間）
研究経費		398,080円

2. 滞在中の活動

来日日および離日日を含め、滞在中の活動を記入してください。全日程（毎日）記載する必要はありません。講演会やセミナーなどを開催した場合はタイトル、会場、参加者数等を記載してください。

活動内容記入例) ○○ついて研究討議、共同研究、講演、講義、大学院生への研究指導等

年月日	活動内容
2017/11/11	Dr. Robinson arrival
2017/11/11	Discussion with Prof. Donovan
2017/11/14	Meeting with Prof. Minoura of Rigakubu, Tour of Minoura Kenkyushitsu
2017/11/16	Discussion on mathematics education for the visually impaired, Kolam Patterns, and Dr. Minoura's research modeling molecular structure of molecules.
2017/11/21	Lecture on "Ethno-mathematics" to students of Rikkyo Second Stage College and Rigakubu (28 participants)
2017/11/22	Meeting with Mr. Fujieda of Rikkyo Volunteer Center about Service Learning Lecture on "service learning program teaching math and culture to children in Indian tribal communities" to Rikkyo Volunteer Center Service Learning students, rigakubu students, and general public (22 participants)

3. 研究・交流状況および成果

上記に記載した活動について、具体的な研究・交流の内容および成果を、本学の学術研究、教育活動、国際交流の進展へ与える効果を含めて、記載してください。講演会やセミナーなどの参加者層（学生、大学院生、一般、教職員等）、会場の様子なども記載してください。

1. Contents and results of concrete research:

- a. Discussions on mathematics of Kolam patterns were held with Prof. Minoura of Rikkyo Rigakubu.
- b. Discussions were held on education for blind students, and ideas were shared on use of 3D modeling in math and science education.
- c. Discussion of combination of cultural and education, such as in Ethnomathematics were shared with Rikkyo Rigakubu, Service Learning Center, and Prof. Donovan. These techniques could be used and studied in current and future service learning programs.

2. Educational activities:

- a. Exploration of Kolam patterns for teaching mathematics was presented to students.
- b. Discussions were held on other ways to teach mathematics, including 3D modeling, raised line diagrams and braille, and incorporations of Japanese arts such as Origami and Temari balls.
- c. Discussions were held and techniques demonstrated of methods for service learning education.
- d. Class materials preparation for service learning programs was demonstrated to Rikkyo students, who should be able to use them in service learning activities.

3. Service Learning exchange and cooperation:

- a. A Service Learning program is being held by Dr. Robinson's university (Madras Christian College or MCC) in India. It is hoped that Rikkyo students or faculty could observe or take part.
- b. Rikkyo has a Service Learning program at Trinity University in Philippines organized with CUAC (Anglican Colleges). It is hoped that MCC students or faculty could observe or take part.
- c. Dr. Robinson and Prof. Donovan plan to present findings of their service learning research at the conference of the International Association for Research on Service-Learning and Community Engagement, or a similar conference to be held in Asia.