

(For JSPS Fellow)

Form B-5

Date (日付)

07/03/2017 (Date/Month/Year: 日/月/年)

Activity Report -Science Dialogue Program-
(サイエンス・ダイアログ事業 実施報告書)

- Fellow's name (講師氏名): Bruno ADRIANO ORTEGA (ID No. P16055)

- Participating school (学校名): Iwaki High School, Fukushima

- Date (実施日時): 04/03/2017 (Date/Month/Year: 日/月/年)

- Lecture title (講演題目): Fusion of real-time simulation and remote sensing for tsunami damage estimation to Latin America.

リアルタイムシミュレーションとリモートセンシングの融合による南米の津波予測高度化

- Lecture summary (講演概要): Please summary your lecture 200-500 words.

The lecture was divided in three parts.

- 1) The first part was an introduction of Peru (my home country). A flight simulation from Iwaki High School to Peru was shown to illustrate where Peru is located and how long it would take to get there. A comparison between Japan and Peru was, in terms of population, area, and weather, was also explained. Finally, a sort introduction of Peru history was also shown.
- 2) In the second part, I gave an explanation of the main reasons of becoming an engineer (scientist). I mainly explain that Peru, same as Japan, has a very long history of disasters, mainly earthquake and tsunamis. As a result, Peru needs good scientists and engineers to make a good disaster mitigation plan against tsunami disasters.
- 3) In the final part, I explained what the interesting aspects about my research. First, we gave a sort introduction of the objective of my research. In my research, an integration of real-time computer simulation and remote sensing technologies is being developed for tsunami damage assessment. Then, I explained the basics concepts of Remote Sensing and Tsunami. We explained the types and platforms of remote sensing information and its application to disaster management. Several examples of damage mapping, after disasters, using remote sensing information were shown, for instance damage mapping after the 2011 Tohoku Tsunami and 2015 Super Typhon Haiyan in the Philippines. Furthermore, in case of tsunami simulation, we showed several simulations, in 3D and 2D, of previous tsunamis such as the 2011 Tohoku Tsunami, and the 2016 Fukushima Tsunami. Finally, a simulation of tsunami in Peru was also shown.

- Language used (使用言語): English

- Lecture format (講演形式):

◆Lecture time (講演時間) 60 (分), Q&A time (質疑応答時間) 15 (分)

◆Lecture style (ex.: used projector, conducted experiments)

(講演方法 (例: プロジェクター使用による講演、実験・実習の有無など))

Used projector

◆Interpretation (ex.: assistance by accompanied person, provided Japanese explanation by yourself) (通訳 (例: 同行者によるサポート、講師本人による日本語説明))

Assistance by accompanied person

◆Name and title of accompanied person (同行者 職・氏名)

Satomi HAYASHI, Doctoral Student at Tohoku University

◆Other note worthy information (その他特筆すべき事項):

- Impressions and opinions from accompanied person (同行者の方から、本事業に対する意見・感想等がありましたら、お願いいたします。):