

(For JSPS Fellow)

Form B-5

Date (日付)

29/01/2013 (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): Jay Arre Oliveros Toque (ID No. P 12060)- Participating school (学校名): Toyama High School- Date (実施日時): 24 January 2013 (Date/Month/Year: 日/月/年)- Lecture title (講演題目): (in English) Digitization and Analytical Imaging of World Cultural Heritage using State-of-the-art High-Resolution Scanning Technologies(in Japanese) 最先端高精細スキャンニング技術を用いた世界的文化財のデジタル化及び分析用画像取得

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

My research is about analytical imaging. In our lab, we develop an imaging system based on scanning technology for acquiring images at high resolution (above 600 dpi). For example, normal office scanner has a resolution between 200-300dpi. Using the images that we acquired from the scanner, we apply mathematical models and fundamental physics principles to extract material information from the objects. In a way, our system has a dual function of being an imaging device and also a spectrometer. Mostly, we apply our technique for studying cultural heritage like byoubu, fusuma, kakejiku, paintings, statues and many more others. My presentation will mainly focus on the actual on-the-site projects that we have done in Japan and other parts of the world like Egypt, England, Ireland, Italy, Korea, China and Philippines.

- Language used (使用言語): English and Japanese

- Lecture format (講演形式):

◆Lecture time (講演時間) 75 min (分), Q&A time (質疑応答時間) 15 min (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))

I used power point and video presentations. I tried to make the lecture interactive and participatory rather than just letting the students listen to my lecture

◆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))

Some Japanese translation was provided by the accompanying person

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

Ms. Chizu Hoshiai, Researcher at Kyoto University

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

The students were quite receptive to the lecture and ask very smart questions

- 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。):

The program is a very good way to promote science and technology to future generations. It can facilitate the awareness of students and perhaps lead them to better career choices