

Form 3

Date (日付)

06/10/2009 (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 (参加外国人研究者氏名): Bantu Prasanta Kumar Patro (ID No. P 08024)

Participating school (参加機関(受入学校名)): Iwata South High School

Date (実施日時): 30/09/2009 (Date/Month/Year:日/月/年) Time: from 13:00 to 14:00

Lecture title (講演題目): (in English) Understanding the mother Earth through geology and geophysics spectacles.

(in Japanese) 地質学と地球物理学より探る母なる地球

Lecture summary (講演概要):

Earth consists of mainly three layers such as crust, mantle and core. The top layer of the Earth is known as crust. The crust is broken into many pieces and is known as plates. Movement of these plates causes earthquakes, volcanic activity etc. Different type of plate boundaries exist depending on the interaction of ocean and continental plates. When these plates moves towards each other, one plate sink under another plate. This process is known as subduction. Japan Island is situated in a special case; know as Arc-trench system. Using the geophysical techniques, one can understand the physical properties of the earth below these subduction zones. I talked mainly about a technique known as Magnetotellurics, which uses naturally occurring electromagnetic waves as it source. This technique is based on the Maxwell's laws. One can get the electrical image of the subsurface from 0 to 100 km depth below the surface. I have shown some results from 1) Himalayas, India 2) Cascadia, USA and 3) Mt. Fuji, Japan. Towards the conclusion, presented about the opportunities available in Geophysics including student fellowships.

Language used (使用言語): English

Lecture format (講演形式):

○Lecture time (講演時間) 50 min (分), Q&A time (質疑応答時間) 10 min (分)

○Lecture style (examples: used projector, conducted experiments)

(講演方法 (例: プロジェクター使用による講演、プレ実験など))

Used power point, animations, shown boiled egg to demonstrate Earth layers

○Interpreter (example: assistance by host or colleague, provided Japanese

explanation by yourself)

(通訳 (例: 受入研究者によるサポート、外国人研究者本人による日本語説明))

Assistance by host (Dr. Makoto Uyeshima).

Name and title of assistant (協力者 職・氏名) (example: host or colleague)

Dr. Makoto Uyeshima, Associate Professor

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

Impressions and opinions of assistant (協力者から本事業に対する意見・感想等がございましたら、お願いいたします。):

高校において授業を持つ機会はほとんど無く、良い経験をさせていただきました。