Must be typed

**（For JSPS Fellow）**

**Form B-5**

Date（日付）
26/12/2017 （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）: MIA MD BODRUDDOZA （ID No. P16081 ）

- Participating school（学校名）: Kasumigaoka High School, Fukuoka

- Date （実施日時）: 22/12/2017 （Date/Month/Year:日/月/年）

- Lecture title（講演題目）: Geothermal exploration using satellite remote sensing techniques

- Name and title of your company（同行者 職・氏名）
Mr. Yohei Morifuji, M2 student, Kyushu University

- Lecture format（講演形式）:
◆Lecture time（講演時間） 90 min（分）, Q&A time（質疑応答時間） 30 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））
Used Projector

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

I have given a brief summary of my research topic i.e. geothermal exploration using satellite remote sensing techniques to the students of Kasumigaoka high school using powerpoint presentation. At first, I discuss briefly about satellites and basics of remote sensing as well renweable and non-renewable energy such as fossil fuel, geothermal energy. As geothermal energy is relating to active volcano, I have also given some basics related to volcano, its hazards and how can we use satellite remote sensing for volcano monitoring. I was tried to understand them that remote sensing is one of the best method for early stage exploration of geothermal resources around the volcano as most volcanoes in Japan are within the national park, as ground exploration is sometime quite impossible, inaccessible, time consuming and expensive. I have shown them how to use satellite remote sensig to geothermal exploration with two case studies of Aso volcano of my recent works. One of this work was publsihed in the Journal of Volcanology and geothermal research in 2014 and another one was published in the journal "Geosciences", in 2017. We used four sets of Landsat ETM+ to explore and monitor the geothermal activity of Aso volcano from 2002 to 2011 in the earlier work. In this study, we used hydrothermal alteration and thermal anomaly to identify the most thermally active zone first and

then assess and monitor the heat losses from the volcano from 2002 to 2011, found a declining trend of heat loss overall. After the eruption activity of the Aso volcano from 2012, we again used for the first time the Landsat 8 OLI/TIRS images to understand the thermal activity of ASO volcano in Japan from 2013 to 2017 in the second work. We found the thermal activity or heat loss decling from the Aso volcano after the eruption activity from 2013 to 2017.

I have also introduce myself and my origin of country　i.e., about Bangladesh and its geohraphy, history, culture, demography, resources, hazards, education system briefly. Students were well prepared as I given them my lecture materials before. Some of students asked me some interesting questions related to energy such as fossil fuel, its merit and demerits; geothermal enery and its scope, potentiality in Japan; other renewable energy etc. Students were interested to learn about the topics and my research field. I am quite happy to gave the lecture in the mentioned school.

- Overall advice or comments to future participants in the program（今後の講師へのアドバイス）:

- Other noteworthy information（その他特筆すべき事項）:

- Impressions and opinions from a company（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。）