

(For JSPS Fellow)

Form B-5

Date (日付)

13/09/2016 (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): NICOLA GENZANO (ID No. P 15792 )

- Participating school (学校名): Tezukayama Junior & Senior High School (Nara)

- Date (実施日時): 07/09/2016 (Date/Month/Year: 日/月/年)

- Lecture title (講演題目): Science from Space: Advanced satellite techniques for monitoring and mitigating natural and environmental risks

宇宙からの科学: 自然災害および環境リスクの監視と軽減のための衛星技術の活用

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

The lecture has been divided in 4 main parts. In the first part, few information about my background and me has been provided. The second part was oriented to furnish to the students the basic concepts of remote sensing technology. To this aim, information about the different Earth Observation (EO) techniques (i.e. active and passive), sensors proprieties (e.g. spatial and temporal resolutions) and a list of the main satellite missions for EO has been provided. In the third part of lecture, some examples of remote sensing applications for monitoring natural and environmental hazards were shown, like for example volcanic eruptions, fire detections, flood areas, dust storm and coastal monitoring. The last part of lecture has been dedicated to the topic of the earthquakes prone areas monitoring through the using of satellite techniques and its implications on the assessment of seismic hazard in the short time. In particular, a brief summary of the main studies of thermal anomalies, which are discovered by satellite technologies in the thermal infrared (TIR) channel, in a possible space-time relation with earthquakes occurrence has been provided together to some examples. Finally, a mention on it possible use, in combination with others known parameters associated to seismic process, both satellite and ground based, in the framework of a multiparametric system devoted to the reduction of the seismic hazard in the short term has been provided.

- Language used (使用言語): English

- Lecture format (講演形式):

◆Lecture time (講演時間) 40 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))

Presentation of slides through a 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)

Prof. Katsumi Hattori

- ◆ 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。):

Nicola さんにとっても高校生に向かって講義をすることは初めての経験で、彼にとっても良い経験になったと思います。高校生に対して英語で最新の科学について講義をするのはよいことだと思います。生徒さんが一生懸命講演を聴いていたのは印象的でした。また、英語では質問ができないものの、内容はある程度理解していたようなので、感心しました。

おそらく、講演内容は多分に専門的な用語が含まれていたと思います。事前に ppt を資料として生徒さんに配布するようことがされているようなことがあってもよかったのかなと思いました(資料を配ると話より資料を見てしまう傾向があるので一概にいいとはいえませんが)。