Must be typed

（For JSPS Fellow）

Form B-2
(FY2018)

Date（日付）
25/12/2018 （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）: LE DINH THANH （ID No. P17368）

- Participating school（学校名）: Nirasaki High School in Yamanashi Prefecture

- Date （実施日時）: 15/12/2018 （Date/Month/Year:日/月/年）

- Lecture title（講演題目）: From a radio boy to a researcher in applied electromagnetics: A brief story

- Name and title of your companying person（講義補助者 職・氏名）
Dr. Soichi Watanabe (Host Researcher)

- Lecture format（講演形式）:
◆Lecture time（講演時間） 80 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 a projector, presentation slides, white boards in the lectures. Two small experiments were also conducted.

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

In this lecture, I spoke about a story of a countryside kid (myself) living in a poor village becoming a researcher in worldwide. During this story, I also presented fundamental backgrounds of electromagnetic and its applications, as well as the current research that I am doing in National Institute of Information and Communications Technology (NICT), Japan. There were three sections of my talk, which included two small experiments on electromagnetic and antennas to attract students. The first section was a story about myself, a kid with a dream becoming a radio engineer, his village and beloved country. The second section was about the fundamentals of electromagnetic and typical electromagnetic applications in our society. Two experiments were carried out in this section. One was to block a cell-phone signal using aluminium foil. This experiment aimed to help students understanding about electromagnetic wave reflections from high conductivity materials, and closed surfaces. The second experiment was to make a simple antenna, which can be used with a Television (TV). The antenna can be simply fabricated using carton papers and aluminium foil. Students were divided into 8 groups, and each group made their own antennas and tested the performances of the fabricated antennas with a TV. This experiment aimed to help students briefly understanding about antenna and its roles in TV

systems (more generally, in wireless communication systems). In the lecture, we had successfully made several antennas, and tested all of them. The antennas worked very well, and were able to clearly capture TV signals in Nirasaki High School. The last section of this lecture was about my current research in NICT. It was about measurement techniques to evaluate the electromagnetic exposures of wireless devices. Some simple mathematical calculations were presented here, and students participated in in solving mathematical problems.

- Overall advice or comments to future participants in the program（今後の講師へのアドバイス）:
It is a very nice program, and I definately recommend to other JSPS postdoctoral fellows. For a successful lecture, the participating fellows should have well connections (emails) with teachers in the participating school to make sure that all necessary preparations should be carefully carried out before the lectures. In my circumstance, I received great support from teachers in Nirasaki High School, expecially in pre-tests on antenna performances, which are used in the experiment during the lecture.

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

- Impressions and comments from the accompanying person（講義補助者の方から、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。）

講義先の先生方も授業準備に協力していいただき、生徒さん達にとっても良い機会になったと思います。また、講師役の外国人研究者にとっても日本の青少年と触れ合うまたとない機会になったと思います。このような取り組みは是非継続していただきたいと思います。
また、可能であれば、フォローアップとして講師役の研究者が在籍している研究所への見学会等も企画いただけると、生徒さん達の関連分野の研究への理解・興味もより深まると思います。
私どもが所属しております情報通信研究機構においてもアウトリーチ活動を重視しております。今回の活動は研究者に直接相談いただきましたが、研究所の広報部門にご相談いただいたうえで、ご依頼いただくと、JSPS と研究所でより密接に連携したアウトリーチ活動が可能になるのではないかと思いました。