

Form B-5

Date (日付)

22/12/2016 (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): BUI CONG TINH (ID No. P15357)
- Participating school (学校名): Chiba Prefectural Chosei Senior High School
- Date (実施日時): 16/12/2016 (Date/Month/Year: 日/月/年)
- Lecture title (講演題目): (in English) Thermoelectric Effect and Energy Harvesting Applications
(in Japanese)
- Lecture summary (講演概要): Please summary your lecture 200-500 words.
Thermoelectricity is an emerging research field exploiting electrical and thermal transportation of charge carriers. In this effect, one can convert temperature gradient in to electricity by Seebeck effect and vice versa, one can create temperature gradient using electric current by mean of Peltier effect. The thermoelectric generator and thermoelectric cooler based on thermoelectric materials was introduced together with the derivation of the coefficient of performance. In the second part, I presented my research on thermoelectric properties of individual nanowires including the method for study and some results. Lastly, I performed an experiment demonstrating the thermoelectric effect in which a small fan was run by temperature gradient created by hot and cold water.
- Language used (使用言語): English
- Lecture format (講演形式):
- ◆Lecture time (講演時間) 60 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 slides with projector, conducted experiment
 - ◆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))
Assisted by physics teacher and staffs of the high school
 - ◆Name and title of accompanied person (同行者 職・氏名)
Non
 - ◆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。):