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（For JSPS Fellow）

Form B-2
(FY2018)

Date（日付） 23/11/2018
（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）: Yu Qin （ID No. 18124 ）

- Participating school（学校名）: Iwate Prefectural Mizusawa High School

- Date （実施日時）: 13/11/2018 （Date/Month/Year:日/月/年）

- Lecture title（講演題目）: Anaerobic Technology in Environmental Engineering

- Name and title of your companying person（講義補助者 職・氏名）
None

- 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））
Only projector

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

Great amount of organic waste is produced around the world. Meanwhile, short of fossil fuels would limit the economic growth in the future. Anaerobic digestion is the ancient but still promising technique to achieve the waste reduction and the biofuel production.

In this lecture, I introduced my hometown, my undergraduate University (Shanghai Jiao Tong University), my experience to EXPO2010. I also introduced the Tohoku University and our lab.

After this, the basic introduction of environmental engineering was introduced (the essence was the self-cleaning ability enhanced by cival engineering, the object, the measure, and the relating fundamental courses, etc.). And then the brief principles and applications of anaerobic digestion will be introduced.

I introduced two topics of my research experience: (1) the enhanced treatment of waste activated slude. In introducing the source of waste activated sludge, I also introduced the basic knowledge on the municipal wastewater treatment. With the inovative treatment system, the waste reduction rate and bioenergy production rate were both enhanced. (2) the co-production of hydrogen and methane from food waste and paper waste. In our lab, a new process was developed to convert the organic waste into not only methane but also hydrogen. This process is believed to contribute to a more sustainable society in the future.

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

  * Prepare a list of English-Japanese keywords in presentation slide.

  * Put more schematic diagram, picture and photos, especially on your research content.

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

  It was very helpful to know the opinions towards my researches from the teachers and students from Mizusawa high school.

- 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。）