## 京都大学教育研究振興財団助成事業 成 果 報 告 書

平成28年7月22日

公益財団法人京都大学教育研究振興財団 会 長 辻 井 昭 雄 様

所属部局•研究科 工学研究科

職 名·学 年 博士課程3年

氏 名 NGUYEN TIEN HOANG(グイエンテイエンホアン)

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| 助成の種類            | │<br>│ 平成28年度 • 若手研究者<br>│  | f在外研究支援 · 国際研究集会発表助成        |
| 研究集会名            | 第23回国際写真測量とリモートセンシング学会議<br>(XXIII INTERNATIONAL SOCIETY FOR PHOTOGRAMMETRY AND<br>REMOTE SENSING CONGRESS)  |                             |
| 発表題目             | 疑似ハイパースペクトル画像合成アルゴリズムを用いたEO-1 ALIデータのハイパースペクトル変換(HYPERSPECTRAL TRANSFORMATION FROM EO-1 ALI IMAGERY USING PSEUDO-HYPERSPECTRAL IMAGE SYNTHESIS ALGORITHM) |                             |
| 開催場所             | チェコ共和国・プラハ・プラハ議会センター  |                             |
| 渡航期間             | 平成28年7月11日 ~ 平成28年7月20日   |                             |
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|                  | (今回の助成に対する感想、今後の助成に望むこと等お書き下さい。助成事業の参考にさせていただきます。)  |                             |
| 当財団の助成に<br>つ い て | この度、助成を頂くことにより国際学会に参加することができました。助成金をいただくことで貴重な経験をすることができ、心より感謝しております。ビザ申請に要する英語の経費負担証明の迅速な対応などを重ねて感謝いたします。どうもありがとうございました。                                 |                             |

## 成果の概要

## Nguyen Tien Hoang

ISPRS (International Society for Photogrammetry and Remote Sensing) is a leading organization in remote sensing, photogrammetry and spatial information sciences - very high-resolution satellite imagery, terrain based imaging and participatory sensing, inexpensive platforms, and advanced information and communications technologies. Every 4 years the Congress welcomes participants from all over the world. This ISPRS Congress in Prague welcomed 2,294 participants from 88 countries. There were more than 1500 presentation including 600 of interactive presentations with posters. During the Congress Exhibition we can visit stands of more than 80 exhibiting leading organization of the field. That made this ISPRS Congress a great place to share knowledge, learn, and meet fellow scientists and professionals working with geospatial technology.

The Congress consisted of multiple sessions of various types: technical sessions, theme sessions, special sessions, plenary meetings, exhibitor's showcase sessions and commercial sessions. The technical sessions were divided into 8 commissions as below:

- Sensors and platforms for remote sensing,
- Theory and concepts of spatial information science,
- Photogrammetric computer vision and image analysis,
- Geospatial databases and location based services,
- Education, technology transfer and capacity development,
- Close-range imaging, analysis and applications,
- Thematic processing, modeling and analysis of remotely sensed data,
- Remote sensing applications and policies.

Each commission was then split into several topics. The congress had 9 plenary keynote speakers who are internationally-renowned scientists, explorers, educators in the field of geoinformatics. The congress succeeded in holding the Youth Forum which helped to link students, young researches and professionals in different countries and provide a platform for exchange of information, to organize student specific events and other actions that integrate youth effectively into ISPRS. Talks in conference rooms were well attended, with networking going full on and participants fully engaged in conference activities.

I delivered a talk in the Commission VII on Remote Sensing Data Fusion. Time reserved for my presentation is 15 minutes + 3 minutes of discussion. In the presentation, I introduced results of extending a new method, Pseudo–Hyperspectral Image Synthesis Algorithm (PHISA), to simulate pseudo-hyperspectral imagery from EO-1 ALI imagery. Hyperspectral remote sensing is more effective than multispectral remote sensing in many application fields because of having hundreds of observation bands of high spectral resolution. However, hyperspectral remote sensing resources are limited both in temporal and spatial coverage. Therefore, simulation of hyperspectral imagery from multispectral imagery with a small number of bands must be one of innovative topics.

During the congress, I had very good discussions with the experts of my field and made new research network. I attended a variety of presentations and some of them inspired me with new ideas. Apart from technical sessions, I had good chances to join two workshops of Elsevier on academic publication and a session of White Elephant Club which were very useful for young scientists and students. Elsevier's editors shared their experiences on how to publish (and review) in a top journal and talked about changes in the publishing landscape. Members of White Elephant Club, such as Shunji Murai, Professor Emeritus of the University of Tokyo, had lectures on how to give a presentation, how to prepare a project proposal and how to write a thesis.

Overall, ISPRS Congress is the largest conferences in the world on remote sensing and photogrammetry. This event provided the excellent opportunities for learning more about satellite-based imaging techniques, exchanging ideas, identifying future trends, and making networking with the international remote sensing community. By attending the conference, I got the chance to meet the outstanding scholars and professionals who inspired me. I also gave the oral presentation as the chance for me to introduce my research to other scientists around the world.

## Some photos took at the congress



A corner of the congress venue during coffee break



A presentation in the opening ceremony



I was giving the oral presentation