



第7回 Indonesia Japan Joint Scientific Symposium (IJSS) 開催

～2年に1度のインドネシア・日本共同科学シンポジウム、今年は千葉大学で～

千葉大学は、インドネシアの多くの大学と学術交流協定を締結しています。IJSSは、2年に1回、千葉大学とインドネシアの大学で交互に開催され、両国の研究者や大学院生が交流を行う機会を提供するシンポジウムになっています。IJSSの第1回目は2004年10月に千葉大学で開催され、それ以降、2008年9月に第3回が、2012年10月に第5回のIJSSが千葉大学で開催されました。インドネシアでは、第2回IJSSがジャカルタのインドネシア大学で2006年9月に開催され、それ以降、2010年10月にバリ島のウダヤナ大学で第4回が、また、2014年10月にジョクジャカルタのガジヤマダ大学で第6回が開催されました。

今回の第7回IJSSは、2016年11月21日から24日にかけて、千葉大学のけやき会館と人文社会系研究棟を会場として開催されました。同時に、第24回の環境リモートセンシング研究センター国際シンポジウム、第4回のSymposium on Microsatellite for Remote Sensing (SOMIRES 2016)、そして千葉大学の戦略的重点研究強化プログラムの一つに選ばれた革新的マイクロ波リモートセンシングをテーマとするシンポジウム (The Symposium on Innovative Microwave Remote Sensing)の3つのプログラムが併催されました。合計で29のセッションが設けられ、情報通信やリモートセンシングを含むセンシング、地球科学、災害と減災、医学・薬学、教育、経済学、食料と水など幅広い分野にわたって160近い論文の発表がけやき会館と人文社会系総合研究棟で行われました。優秀論文賞、優秀発表賞、優秀学生発表賞、ヨサファット特別賞、ポスター賞の受賞者については、下記の英文報告の表をご参照ください。



開会の挨拶をする徳久千葉大学学長

The 7th Indonesia Japan Joint Scientific Symposium (<http://www2.cr.chiba-u.jp/ijss/>)

Established in 2004, the Indonesia Japan Joint Scientific Symposium (IJSS) is one of the premier events in the collaboration between Indonesian Universities and Chiba University. The first symposium of the IJSS series was held in October 20-22, 2004 at Chiba University. The second IJSS was held at Universitas Indonesia, Jakarta, Indonesia on 6-8 September 2006. Subsequently, the third IJSS was held at Chiba University on 9-11 September 2008, and the fourth IJSS at Universitas Udayana, Bali, Indonesia on 29 September - 1 October 2010. The fifth

IJSS was held at Chiba University on 25-28 October 2012, and the 6th IJSS at Universitas Gadjah Mada, Indonesia, on 28-30 October 2014. After such a long history, the 7th IJSS was held at Keyaki Kaikan (University Convention Hall), Nishi Chiba Campus of Chiba University, Japan on 20-24 November 2016.

The IJSS 2016 was arranged together with the following three symposia: the 24th CEReS International Symposium, the 4th Symposium on Microsatellite for Remote Sensing (SOMIRES 2016) and the Symposium on Innovative Microwave Remote Sensing as an activity of Chiba University Strategic Priority Research Promotion Program. The main purpose of IJSS 2016 was to provide a meeting that will enforce progress, stimulate growth and advance the state of knowledge among researchers and students. Also this event provided a forum for discussing new ideas, developments and applications, including techniques and methods to stimulate and inspire pioneering works.

The symposium was attended by 160 presenters and 51 participants including VIPs, delegations, as well as the Education and Culture Attaché from the Embassy of Republic of Indonesia. The symposium was sponsored by Center for Environmental Remote Sensing, Chiba University, two Indonesian institutions and five Japanese companies. The symposium was held on 21-23 November 2016 with sixteen sessions for the IJSS, eight sessions for social studies, one session for each of SOMIRES, CEReS International symposium, Symposium on Innovative Microwave Remote Sensing, and Novel Disaster Mitigation Engineering. Fourteen papers were presented in the poster session held on 22 November 2016.

Fifteen awards were awarded to excellent participants, as listed in the table shown below.



Session at the building of social and humanity sciences



Session at the Keyaki Hall

Best Paper Awards

Paper Number	Name, Affiliation	Title of Presentation
P042	Andung Bayu Sekaranom (Nagoya University, Japan)	Extreme Precipitation Over Indonesian Maritime Continent: Uncertainties In Satellite Estimation And Its Relationship With Low Storm Top Height Extreme
P168	Chua Ming Yam (Multimedia University, Malaysia)	Phase Coded Stepped Frequency Linear Frequency Modulated Waveform Synthesis Technique for Ultra-Wideband Synthetic Aperture Radar
P049	Fumihiro Kaneko (Chiba University, Japan)	Introducing A Threshold To Condorecet Improvement

Best Presenter Awards

Paper Number	Name, Affiliation	Title of Presentation
P047	Pradhikna Yunik Nurhayati (Universitas Gadjah Mada, Indonesia)	Japanese Soy Sauce Industry: A Legacy Of The Centuries
P041	Jamrud Aminuddin (Chiba University, Japan)	Observation of Aerosol Optical Properties by Means of Himawari-8 Satellite from Space and Lidar System from Surface
P079	Richa Bhattarai (Chiba University, Japan)	Risk Assessment of Land Subsidence in Kathmandu Valley, Nepal

Best Student Awards

Paper Number	Name, Affiliation	Title of Presentation
P068	Nazalia Kurnia Dewi (Chiba University, Japan)	A Preliminary Study on the Experience of Indonesian Certified Kaigofukushishi/Candidate Who Work at Japanese Nursing Home in Japan: A Result from Participant Observatory
P050	Yuta izumi (Chiba University, Japan)	Polarimetric Analysis Of Long Term Paddy Rice Observation Using Ground-based Sar (GB-SAR) System
P114	Arliandy P. Arbad (The University of Tokyo, Japan)	Time Series InSAR For Interpretating 5 Years Cycle of Mt. Bromo Eruptions in Indonesia by Using PALSAR and PALSAR-2 to Contribute Civil Engineering Work

Sri Sumantyo Awards

Paper Number	Name, Affiliation	Title of Presentation
P009	Fatmawati Djafri (Waseda University, Japan)	An Inquiry into the Meaning-Making Process of Japanese Learning in Higher Educational Institution in Indonesia
P149	Masaru Bunya (Chiba University, Japan)	CP-SAR Image Processing System with Kintex-7 FPGA Board
P162	Akira Kato (Chiba University, Japan)	Forest Disaster Monitoring using Google Earth Engine, UAVSfM, and Terrestrial Laser Scanner

Best Poster Awards

Poster Number	Name, Affiliation	Title of Presentation
P117	Min-Wook Heo and Heein Yang (Ajou University, Korea)	Implementation On Reduction Lut Memory Size In Chirp Signal Generation For Satellite On-board SAR
P134	Mustafa Yagmur (Chiba University, Japan)	3D Tomographic Analysis of Ionospheric Anomalies Preceding Large Earthquakes
P152	Tiger Jann-Yenq Liu (National Central University, Taiwan)	A Statistical Study Applying Receiver Operating Characteristic Curve on Seismo-ionospheric Precursors of the Total Electron Content Associated with Large Earthquakes in Japan



General chair Prof. Kuze and a student awardee



CEReS awardee students (Heein Yang, Jamrud Aminuddin, and Yuta Izumi)



Group photo taken after the opening ceremony



ご支援いただきました各企業の皆様方へは深く感謝申し上げます。

■■ リアウ・イスラム大学、シアク県との交流協定が締結 ■■

11月21日に行われたIJSSの開会式において、2件の交流協定が締結されました。1件目はインドネシア・リアウ州プカンバル市にあるリアウ・イスラム大学 (Universitas Islam Riau, UIR) です。UIRは1962年に創立され、インドネシアの私立大学として工学分野をはじめとした科学技術研究、地域開発のための人材育成などに貢献している大学です。学部生は約26,000名、博士前期課程学生が約500名在学しています。今回は、大学間交流協定の締結のため、H. Detri Karya 学長が出席し、千葉大学の徳久学長と交流協定書を交換しました。

2件目は同じくリアウ州にあるシアク県です。シアク県は人口約47万人で、インドネシア共和国の中でもとくに石油と天然ガスの産出が多い地域になっています。天然資源のほか、農林業、漁業に立脚してスマートシティの開発、人材育成を進めています。とくに森林と泥炭地の火災の早期発見へのリモートセンシングに関して CEReS と部局間交流協定を締結することになり、Drs. H. Syamsuar 知事が安岡 CEReS センター長と部局間交流協定書を交換しました。



President T. Tokuhisa and Rector H. Detri Karya

リアウ・イスラム大学は、2014年4月に当大学を表敬訪問されました。以降、当センターでも留学生が研究者を目指して勉学中です。



Prof. Y. Yasuoka and Bupati Drs. H. Syamsuar

■■■■■ RESEARCH TRIP TO INDIA ■■■■■

On November 13, 2016, I, along with my sensei, Dr. Hitoshi Irie, went to India, as a part of collaborative research. For a deeper understanding of atmospheric chemistry in South Asia, we had planned to set up a Multi-Axis Differential Optical Absorption Spectroscopy (MAX-DOAS) instrument in India in collaboration with Aryabhata Research Institute of Observational Sciences (ARIES). ARIES is located in Nainital, Uttarakhand, 281 kilometers northeast of the capital, New Delhi. It is a mountainous region with an elevation of 1,850 meters above sea level. Dr. Manish Naja of ARIES helped us effortlessly in every aspect during our trip. Site selection was the toughest

challenge we faced during the installation. Dr. Naja selected two sites for installing the instrument. The sites were surrounded by mountainous terrain and dense forest. Such sites have few disadvantages. (1) Our radiative transfer calculation assumes a flat surface, which is far from the mountainous terrain around the sites. (2) MAX-DOAS instrument installed at very high elevation will miss the information near the surface, where the air pollution level is usually highest. Therefore, we had to find a site in a flat terrain. After discussion with Dr. Naja, we reached a consensus to install the instrument in Pantinagar, a small town situated 57 kilometers south of Nainital. We installed our MAX-DOAS system on the top of a building named “Biotech Bhavan”, belonging to Pantinagar Agricultural University.



Figure (left to right) : (a) The mountainous terrain and dense forest view from a site in ARIES. (b) Spectrometer, control unit, PC, and (c) telescope unit intalled on the roof top of a building in Pantinagar.

Our instrument is directed towards the north. Off-axis elevation angles are set to 3, 4, 5, 6, and 8 degrees. The reference spectrum is set to 70 degrees. Time for one full scan is set to 15 minutes (2.5 minutes per elevation angle). Our target compounds are aerosol optical depth (AOD) at 357 and 476 nm, NO₂, HCHO, CHOCHO, O₃ and H₂O. This is the first MAX-DOAS system installed in India, an important region, which has a strong impact on global atmospheric chemistry. Therefore, our unique dataset will provide a strong platform for satellite validation and for a reduction of model uncertainties. Besides research activities, we enjoyed traditional Indian foods. The pristine beauty of Nainital lake was delightful to watch. We also joined a dinner party arranged by ARIES. Dr. Naja invited us to his house and we were overwhelmed by their charming hospitality. Therefore, despite tight schedules and tiring train journeys, we will relish the memories of this trip for a long time.



(入江研究室 : Hoque Hossain Md Syedul)

■ 大学全体での環境への取り組み ～ ISO 内部監査結果報告 ～

去る9月29日に、千葉大学環境 ISO 内部監査が実施されました。今回 CEReS で対象となったユニットは2つの建物とエネルギー関係で、この11月の監査結果報告ではいずれも指摘事項はなく良好という所見をいただきました。また一部ユニットではエアコンのフィルターをまめに掃除するなどが良い点として認められました。6月に発行された昨年度の取り組みをまとめた「千葉大学環境報告書2016」では、良好事例として省エネに対する取り組み(省エネルギーダー：梶原講師)が紹介されました。

※報告書はこちらから→ http://www.chiba-u.ac.jp/general/approach/environment/files/2016Env.Report_all.pdf