



International Newsletter

Research Institute for Sustainable Humanosphere, Kyoto University, Japan

= Foreword =

International Research Activities at RISH in 2011

Prof. Mamoru Yamamoto

Chair of the International Academic Exchange
Committee of the RISH, Kyoto University



Humanospheric science is a new interdisciplinary science to conduct research concerning a “humanosphere.” The Research Institute for Sustainable Humanosphere (RISH) of Kyoto University was established in 2004 in order to promote this new science with academic activities and education through domestic and international collaborative research programs. RISH contributes to both academic and public societies. International collaborations are especially important in the academic activities of RISH. In fact, most members of RISH have been involved in multi-lateral collaborations with other universities or research institutes at the international level. As a preface to the international newsletter, we would like to overview our international research activities in the fiscal year 2011.

RISH holds Memory of Understanding (MOU) with 15 foreign institutions as listed in Table 1. One characteristic feature is that our counterparts spread over 11 countries in 6 Asian, 3 European, and 2 American regions. In the fiscal year 2011, we renewed the agreement with Universiti Sains Malaysia in July.

Table 2 shows list of visiting scientists in this year. Among these six professors and associated professors, Prof. Vernard Lewis from the University of California at Berkeley, and Prof. Dennis Riggan from Colorado Research Associate of North West Research Associate kindly wrote reports of their research activities and visits to RISH. There are many foreign young scientists visiting RISH as post-doctoral fellows. In this booklet, there is another report from a young scientist, Dr.

Amarkumar Pandharirao Kakad, who is a JSPS post doctoral fellow visiting Prof. Y. Omura.

RISH sponsors number of symposia and scientific meetings. As listed at the end of this newsletter, we supported nine international meetings in this year. We have reports from five meetings. They are IEEE MTT-S International Microwave Workshop Series (IMWS) on Innovative Wireless Power Transmission (May 12-13, Kyoto), Wood Culture and Science Kyoto 2011 (Aug. 6-9, Kyoto), International Symposium on 10th Anniversary of Equatorial Atmosphere Radar (Sep. 22-23, Jakarta, Indonesia), Humanosphere Science School 2011 (HSS2011) (Sep. 30-Oct. 3, Ambon, Indonesia), and The 6th Atmospheric Limb Conference in Kyoto (Nov. 1-Dec. 1, Kyoto).

= News Topics =

Wood Culture and Science Kyoto 2011

Associate Professor Kenji Umemura

Wood Culture and Science Kyoto 2011 (WCS Kyoto 2011) was held at the Uji Campus of Kyoto University on August 6th to 9th, 2011. This conference was billed as the 177th Symposium on Sustainable Humanosphere. The chairperson of the conference committee was Prof. Shuichi Kawai, and the conference was organized by the WCS Kyoto 2011 committee composed of the members of the staff of Kyoto University and the staff of the Forestry and Forest Products Research Institute Kansai Research Center. In addition, the conference gained the

support of the Agency of Cultural Affairs, COST Action IE 0601 “Wood Science for Conservation of Culture Heritage”, the Nara National Research Institute for Cultural Properties, the Society for Conservation of Cultural Heritages in East Asia, the Japanese Association for Conservation of Architectural Monuments, the Japan Wood Research Society, the Japan Wood Preserving Association, and the Forestry and Forest Products Research Institute. The purpose of the conference was to establish an international fundamental network on “Wood Culture and Science” typified by historical buildings and wood cultural properties. The conference had a total of 102 participants from 13 countries (29 foreign participants). Five plenary presentations by Prof. Luca Uzielli (Univ. of Florence, Italy), Prof. Jiang Xiaomei (Research Institute of the Wood Industry, Chinese Acad-



Poster presentations

emy of Forestry, China), President Masao Nishizawa (Japan Association for the Traditional Construction Arts JAPTCA, Japan), Director Seiichi Fujimoto (“Bijyutsuin” Lab. for the Conservation of National Treasures of Japan, Japan), and Prof. Junji Sugiyama (RISH, Kyoto Univ., Japan) were given as public lectures. Eighty-nine presentations regarding the conservation and restoration of wooden cultural heritage, wood identification and dating, and the deterioration and aging of wood-based materials and timber structures were given. On the last day, a technical tour of Nara city was held with most of the participants. The sites visited included the Kohfukuji-temple precincts, Nara Women’s University, Todaiji-temple, and Kasugataisha-shrine. We observed many huge timber constructions and wooden statues in different styles, and felt the essence of Japanese tradition.



Symposium participants, Aug. 6-9, 2011, at the Uji Obaku Plaza on the Uji campus of Kyoto University

= News Topics =

Ceremony Celebrating the 10th Anniversary of the Equatorial Atmosphere Radar

Associate Professor Hiroyuki Hashiguchi,
Professor Mamoru Yamamoto and
Professor Toshitaka Tsuda

The Equatorial Atmosphere Radar (EAR) is a VHF atmospheric radar facility located in Kototabang, West Sumatra, Indonesia. It has been operated under a collaboration among the Research Institute for Sustainable Humanosphere (RISH), Kyoto University of Japan and the National Institute of Aeronau-

tics and Space of Indonesia (LAPAN) since 2001. The equatorial atmosphere over Indonesia is considered to play an important role in the global change of the Earth’s atmosphere. A research project known as the Coupling Processes in the Equatorial Atmosphere (CPEA) was conducted to determine the basic pro-

cesses of the vertical coupling on various spatial and temporal scales that is occurring in the equatorial low, middle, and upper atmosphere and ionosphere in 2001-2007. The EAR site has been equipped with any facilities such as a meteor wind radar facility, an all-sky airglow imager, various kinds of lidars, and a weather radar facility. RISH has conducted a collaborative research program by using the EAR and its related facilities since 2005 to enhance the scientific research activity conducted using the EAR and associated facilities, or by using their database.

RISH and LAPAN held the 10th anniversary ceremony at RISTEK (The State Ministry of Research and Technology),



Group photo of Mr. K. Sawakawa, Prof. K. Shiota, guests, and the EAR staff at the EAR site after the 10th anniversary

Jakarta on September 22, 2011. The opening address was given by Professor Toshitaka Tsuda, Director, RISH, Kyoto University. Welcome addresses were given by Dr. Ir. Bambang S. Tejasukmana, Chairman, LAPAN and Professor Kohei Shiota, Executive Vice-President for General Affairs and Personnel, Kyoto University. Four thoughtful congratulatory addresses were presented by Dr. Ir. Suharna Surapranata, Ministry of RISTEK, Mr. Yashimori Katori, Ambassador of Japan to Indonesia (read by

Mr. Junji Shimada, Japanese Minister to Indonesia), Mr. Kazuhiro Sawakawa, Director, Scientific Research Institutes Division, Research Promotion Bureau, Ministry of Education, Culture, Sports, Science and Technology (MEXT), and Ir. Eldi Zen, Representative of the Agam District. Professor Mamoru Yamamoto, RISH, Kyoto University, presented the achievements of the EAR. Professor Tsuda and Dr. Tejasukmana presented a certificate of appreciation to Agam District, which has contributed a great deal to the continuous operation of the EAR.

After the ceremony, a reception was held. Three congratulatory addresses that included anecdotes about the EAR were given by Emeritus Professor Shoichiro Fukao, Kyoto University, Dr. Mahdi Kartasasmita, Ex-Chairman, LAPAN, and Professor Iain

Reid, University of Adelaide. Several attendants visited the EAR after the reception.

The international symposium was held on September 22-23. The many scientific achievements produced by the EAR and related facilities over the past 10 years were reviewed, and the ongoing research on the atmosphere and ionosphere and future plans related to the EAR and its observatory were discussed.



Group photo of the ceremony participants at RISTEK, Jakarta on Sept. 22, 2011

= News Topics =

The 6th Atmospheric Limb Conference

Mr. Takuki Sano, Dr. Makoto Suzuki
(Japan Aerospace Exploration Agency) and
Professor Masato Shiotani

The 6th Atmospheric Limb Conference was held at Kyoto University from November 29 to December 1, 2011. The Atmospheric Limb Conference is an international scientific meeting covering a wide variety of topics related to atmospheric limb measurements made from satellites; these topics include instrumentation, retrieval algorithms and their theoretical basis, and scientific



Prof. Shiotani presenting at Yamauchi-Hall of Shiran Kaikan, Kyoto University

outcomes from the derived data. Past meetings took place in Bremen (2003), Stockholm (2004), Montreal (2006) Virginia Beach (2007) and Helsinki (2009). This meeting was originally scheduled to take place in mid-March 2011, but regrettably it had to be postponed due to the terrible earthquakes and related disasters in northeastern Japan. The number of participants was less than that expected for the pre-disaster meeting, but still over 40 colleagues got together at the conference venue. The venue of this meeting was a conference hall, Shiran-Kaikan, on the Kyoto University campus. There were 30 oral presentations and 10 poster presentations. There were 8 sessions about instruments and missions, data com-

parison and assimilation, and radiative transfer, and these covered the mesosphere, the stratosphere, and the upper-troposphere and lower-stratosphere. To highlight Japanese activity in this field, special topics on the Superconducting Submillimeter-Wave Limb-Emission Sounder (SMILES), which was onboard the International Space Station, were included.

In session 1, ongoing and future missions as well as spaceborne instruments were discussed. Session 2 was named the "SMILES Special Session," in which the latest status and results from half-year observation of the SMILES instrument from October 2009- April 2010 were reported. In session 3, the main theme of the presentations was the comparison of data from multiple missions and the long-term variation of the Earth's atmosphere. The second day began with session 4, in which scientific talks on the mesosphere were presented. Session 5 was a mini-poster session, in which 10 posters were presented mainly by young researchers in Japan. In session 6, stratospheric chemistry

and dynamics such as the distribution of chlorine/bromine compounds found via statistical analysis of SMILES data and diurnal variations in temperature or horizontal winds were mainly discussed. Session 7 was a discussion of retrieval

and radiative transfer. The last session, session 8, consisted of talks related to the upper troposphere and lower stratosphere. The meeting was closed with an open discussion session about strategies for future earth observation,

cooperation between earth science and molecular chemistry, etc. At the end of the discussion, Bremen University bid to host the next meeting in March 2013, and this proposal was approved by the participants.

= News Topics =

Humanosphere Science School 2011 in Ambon

Professor Tsuyoshi Yoshimura

Following the last three successful Schools in 2008, 2009 and 2010, the Humanosphere Science School 2011 (HSS2011) was held at Baileo Oikumene and Swiss Belhotel Ambon, Ambon, Maluku, in September 30-October 3, 2011, under the title “The Development of Science and Technology for Sustainable Humanosphere”. The purpose of the HSS2011 was to share the state-of-art research results in humanosphere sciences among young Indonesian and Japanese scientists. With approximately 150 participants from all over Indonesia, the HSS2011 was very successful with 14 lectures: 8 by Japanese and 6 by Indonesian scientists. Presentations by young scientists including 4 RISH students were independently organized on the last day under the name of the 1st International Symposium for Sustainable Humanosphere (ISSH). “Wallace Ecosystem and Biodiversity in Maluku for Sustainable Humanosphere” was the title of the symposium, and 14 oral papers and 20 posters were presented.

At mid-day, 2nd October, a fascinat-

ing study tour took place, and included visiting the Maluku Museum, World Peace Gong, and LIPI Marine Science Station. All participants, not only Japanese but also Indonesian, were able to learn the history and culture of Maluku on this tour. At the end of the tour, the Japanese participants had a special opportunity to take part in “Crazy Bamboo Dancing”, the traditional spiritual dancing performance.

At last, I, on behalf of the Japanese participants, would like to express my greatest thanks to all of the following organizers and supporting organizations/programs for enabling us to hold the school. Organizers: Research Institute for Sustainable Humanosphere (RISH), Kyoto University; Research and Development Unit for Biomaterials (UDUB), LIPI; Faculty of Agriculture, Pattimura University (UNPATTI); Center for Southeast Area Studies (CSEAS), Kyoto University; Supporting Organizations/Programs: Global-COE Program, Kyoto University. Special thanks also go to the Maluku Govern-



Ambon City



Dr. Abe in the HSS2011



The venue of the 1st ISSH

ment and Ambon City for their support. We had an unforgettable time while enjoying dinners/dancing with the Governor of Maluku and the Mayor of Ambon City.

= News Topics =

IEEE MTT-S International Microwave Workshop Series on Innovative Wireless Power Transmission: Technologies, Systems, and Applications

Professor Naoki Shinohara

wave Theory and Techniques Society (MTTS) International Microwave Workshop Series (IMWS) on Innovative Wireless Power Transmission: Technologies, Systems, and Applications (IMWS-IWPT2011) was held at the Uji Campus, Kyoto University on May 12-13, 2011, and was supported by the IEEE MTTS Kansai Chapter and the Research Institute for Sustainable Humanosphere, Kyoto University. The

The 2011 Institute of Electrical and Electronics Engineers (IEEE) Micro-



Prof. Shinohara delivers opening remarks



Oral session at the Uji Obaku Plaza on the Uji campus of Kyoto University

IEEE is one of the biggest institutes in the field of engineering, with approximately 407,000 members (FY2010). The IEEE MTT-S presents the IMWS on various topics around the world. The

IMWS-IWPT2011 was the first IMWS in Japan and the first workshop on the topic that covered (1) the technologies of microwave power transmission, resonance coupling wireless power transmission, inductive coupling wireless power transmission, and energy harvesting; (2) systems based on standardization, regulation, and biological effects; and (3) applications of the Space Solar Power Satellite/Station, mobile phones, electric vehicles, home applications and factory applications. Prof. Naoki Shinohara was one of the general chairs of the IMWS-IWPT2011. Three keynote speakers and 6 invited speakers gave excellent presentations. Fifty-nine papers were selected from 69 papers submitted which were reviewed by 31 members of International Technical Program Committee (TPC). All of the papers are available in the IEEE Xplore international database. The papers were submitted from Japan, Taiwan, Korea, USA,

Italy, Canada, Spain and Singapore. One keynote session, 10 oral sessions (41 papers) and 1 poster session (21 papers) were held in Kihada Hall on the Uji Campus. A total of 176 individuals from around the world attended the workshop and engaged in fruitful discussion. Because of the success of the workshop, the IEEE decided that the next IMWS-IWPT will be held in Kyoto again in May, 2012. RISH members are supporting the workshop as TPC members and LOC (Local Organizing Committee) members.



Award winners

= Visiting Professor =

My visit and research activities at RISH

Dr. Dennis Riggan

Visiting Professor from North West
Research Associates, Boulder Colorado, USA

I was a visiting professor at the Research Institute for Sustainable Humanosphere, Kyoto University, from mid-June through mid-December of 2011. My host was the Institute director, Dr. Toshitaka Tsuda. I know Dr. Tsuda well having twice been a guest of Dr. Tsuda's for extended periods during the past ten years. One of the great benefits of being a foreign guest is have the opportunity to delve into a new subject. It is difficult to have the free time to explore a completely new topic after leaving graduate school. My research focuses on observational studies of gravity waves, tides and planetary waves in the stratosphere and ionosphere. During

my time at RISH I learned about ion plasma density data from the GPS/COSMIC satellite constellation and from the GUVI instrument aboard the TIMED satellite. In future I am planning to explore the effects of upward propagating waves and tides on the ionosphere. The Tsuda Laboratory where I worked has the mission to study and diagnose the atmosphere through accurate, long-term, and comprehensive sensing using radio, light, and sound waves. The Lab seems to have a bright future because GPS measurements, a subject of particular concentration for the Lab, are rapidly growing in importance. The Lab also has expertise in equatorial



measurements and important upgrades are planned for Equatorial Atmosphere Radar Observatory, which is jointly operated with an Indonesian scientific agency, LAPAN. During my time in Japan it was a pleasure to guide and also learn from postdoctoral students from India, Drs. N. V. Rao, and Sanjay Mehta. On a personal level I got a great deal of help from secretaries Mrs. Sachiko Shikata and Mrs. Nobuko Yagi. At my farewell dinner, Dr. Tsuda noted that if the past is precedent, I might once more be a guest in Japan in five years. I hope to have this opportunity.

= Visiting Professor =

Termites, Sakura Blossom, and the Phoenix Arising

Dr. Vernard Lewis

Visiting Professor from the University of California, Berkeley, USA



The impetus for my visit to Japan actually began in January 2010. Professor Tsuyoshi Yoshimura with RISH was visiting my laboratory at the University of California Berkeley. During our many discussions he mentioned the growing drywood termite problem in Japan. His research at RISH had proven this invasive species to be *Incisitermes minor* (Hagen). This same invasive species is native to California, and also is a serious structural pest. I mentioned I would be having a sabbatical starting in January 2011. Professor Yoshimura suggested that I spend part of my sabbatical in his laboratory and with fellow RISH scientists to further explore the drywood termite problems in Japan. I arrived in Japan on January 15, 2011. I was immediately greeted with a warm welcome and high degree of professionalism by all RISH faculty, staff, and students. The length of my stay was almost 14 weeks.

My sabbatical activities included learning the Japanese Wood Preserving Association (JWPA) standards for termite laboratory and field testing. These standards are famous among termite scientists around the world, and I had hoped to apply some of them to my research projects in California. I spent several weeks working with Professor Yoshimura and two collaborating Indonesian scientists with RISH to learn methods for evaluating treatment performance for *Coptotermes formosanus* Shiraki, a devastating structural pest throughout the Pacific Rim region. I had hands-on experience learning some of the standards, including counting thousands of Formosan subterranean

termites. My opportunity for learning JWPA methods also included going to Kagoshima, a field testing facility on Kyushu Island. This field site has a 20 year history of testing termiticide products before they are commercialized for use in Japan.

I also spent several weeks participating in projects involving the drywood termite pest, *Incisitermes minor*. I participated in trips to several prefectures in Honshu (Matsue) and Kyushu (Nobeoka) Islands to inspect for drywood termites (Fig. 1).

The structures at both island sites were very demanding to inspect, involving infestations in ceilings and hidden behind walls. In California, I would have recommended the use of a fumigant gas or whole structural treatment with heat. However, because of the unique conditions in Japan that included structures very close to each other and the potential of pesticide drift, other innovative control methods are needed. Lastly, I continued a project that was initially started by a former Kyoto University visiting professor, Michael Lenz, to create drywood termite colonies for future research projects. Although the laboratory results are preliminary and on-going, they suggest that drywood termite colonies are difficult to rear and maintain once dissected from timbers (Fig. 2). The challenge that lies ahead in the future for RISH scientists and collaborators is to find innovative means to prolong and enhance drywood termite colonies under laboratory conditions.

While a visiting Professor, I was able to share my research interests on termites to scientists and students

from other countries along the Pacific Rim and Asia. I gave a seminar before faculty of RISH on February 20, 2001 entitled: Drywood termite control-yesterday, today, and tomorrow. The seminar stimulated much discussion for further research on drywood termites. I also attended the 8th Annual Pacific Rim Termite Research Group Conference from February 28 to March 1, 2011. This regional meeting was held in Bangkok, Thailand and attracted more than 120 participants from 8 Pacific Rim countries. Professor Tsunoda is the president for this internationally recognized group. I gave a presentation and chaired a conference session. During the conference, I had the opportunity to meet many scientists and pest control companies, all sharing the common goal of disseminating the latest information



Fig. 1. Window sill infested with drywood termites, Nobeoka, Kyushu, March 12, 2011

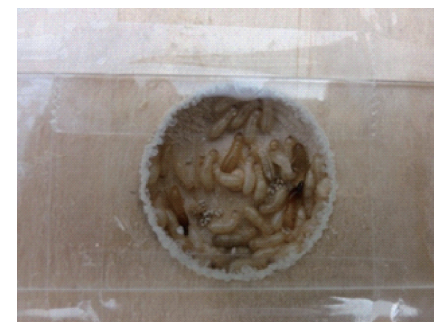


Fig. 2. Drywood termites

on termite detection and management. After the regional conference, I continued the sharing of termite research information with fellow scientists from Indonesia, postdoctoral fellows, and graduate students in RISH. Most of the discussions involved termites; however powderpost beetles were also discussed. I was able to introduce a RISH graduate student to two US scientists also working on woodboring beetle problems.

During my stay in Japan I was able to travel considerably. In total, I visited (on weekends) 4 islands in Japan; Honshu, Kyushu, Shikoku, and Okinawa. I was struck with the beauty of the landscape, politeness of people, great food, and rich cultural history. I was also able to witness my first Sakura blossom (Fig. 3). I was amazed at the trunk size of cherry trees and varieties.

Lastly, I was witnessed to one of the greatest tragedies in history to affect

Japan. The overseas media focused much of its attention on radiation exposure to faraway places that I thought was over dramatized. The focus should have been on those directly affected by the earthquake and tsunami in the coastal prefectures. I was one of the fortunate and escaped harm, but thousands of Japanese were and are still affected. I was under considerable pressure from my government, university, and family to leave Japan. I didn't. Why? Simply, I was never in any direct danger and I believe in the strength and determination of the Japanese people to rise like the phoenix and overcome their obstacles.

I would like to express my sincerest gratitude to my host Yoshimura-Sensei and to Tsunoda-Sensei for giving their time and sharing their wisdom. I am also very appreciative to Nobuko Yagi and Ai Tashiro for always being there



Fig. 3. Daigo Temple, Kyoto City, April 2, 2011

to help me. I am also thankful to Dr. Aya Yanagawa for coffee and delightful chats. Finally, a special thanks to Toshimitu Hata-Sensei, staff (Akio Adachi, Kyoko Inoue, and Hajime Sorimachi), and graduate students (Ryohei Asakura, Emiria Chrisanti, Titik Kartika, Ono Kazuko, Naotaka Maru, Yuichi Yamamoto, and Rikiya Takesako) who always answered my many questions and requests for assistance. Arigatogozaimashita.

= Post-doctoral fellow =

Research Activities in RISH under JSPS Post Doctoral Fellowship

Dr. Amarkumar Pandharirao Kakad

Indian Institute of Geomagnetism, Navi Mumbai, India



I am currently working as a JSPS (Japan Society for the Promotion of Science) post doctoral fellow at RISH. Presently, I am on leave from Indian Institute of Geomagnetism, Navi Mumbai, India, where I work in the upper atmospheric studies division. I am working at RISH with Prof. Yoshiharu Omura in the area of computational space plasma physics. My research efforts under the JSPS fellowship have been focused on the generation mechanism of electrostatic coherent structures and associated plasma heating and acceleration processes in the boundary layer regions of the Earth's magnetosphere.

The boundary layer regions of the Earth's magnetosphere support a great variety of coherent nonlinear structures. These include shocks, double layers,

solitons, vortices, etc. These nonlinear structures are often called electrostatic solitary waves (ESWs), and they are ubiquitous in the Earth's magnetosphere and in the interplanetary space. Numerous spacecraft missions have documented the characteristic signature of ESWs in the form of pulses of the electric field component parallel to the geomagnetic field direction. The spiky, bipolar and almost perfectly antisymmetric electric field signal parallel to the magnetic field, observed in satellite data, clearly results from the rapid propagation past the spacecraft of a structure which is localized along the magnetic field line and has a positive or negative potential. Most frequently these pulses are bipolar, i.e. they feature a positive and a negative signal (of the same intensity) of the

electric field parallel to the magnetic field direction, along which they are propagating. They appear in the regions of near-Earth plasma that are prone to various linear instabilities due to the presence of either strong particle beams or sharp boundaries containing velocity shear, temperature, density and current gradients. The observations of coherent electrostatic structures give important clues to identify particle acceleration processes associated with meso-scale phenomena such as shock formation and magnetic reconnection. The study of these structures is mainly important because they can efficiently transport energy, momentum and charge, and are one of the building blocks in a deterministic description of turbulence in the

plasma.

My research interest include the development of new techniques to investigate the formation and dynamics of numerous nonlinear coherent structures which are observed in space plasmas. These are subjects of wide interest in the international research effort. There is a growing interest on the validity of the fluid models as compared to the kinetic model in the study of these coherent

structures in space plasma. In this aspect, my aim is to use both the fluid and kinetic approaches to investigate the macroscopic and microscopic behavior of coherent structures.

RISH has an excellent space plasma simulation group and an advance high performance computing facility, which is an essential tool to carry out space plasma simulation. RISH has provided me an unique scientific atmosphere to

carry out my project. I express my deep sense of gratitude to my host Professor Yoshiharu Omura, who gave me this opportunity to work in such a unique research environment of Kyoto University. I am enjoying my current visit to Japan tremendously, both scientifically and socially. I would like to thank my friends and colleagues from my Lab at RISH for helping me in various aspects and making my stay so enjoyable.

Table 1. List of international MOU in FY2011

No.	Institution	Country
1	Nanjing Forestry University	China
2	Center National de la Recherche Scientifique, Center de Recherches sur les Macromolecules Vegetales	France
3	The National Institute of Aeronautics and Space of the Republic of Indonesia(LAPAN)	Indonesia
4	School of Biological Sciences, Universiti Sains Malaysia	Malaysia
5	VTT Technical Research Centre of Finland	Finland
6	Zhejiang Forestry University	China
7	The Centre for Research in Earth and Space Science(CRESS) of York University	Canada
8	National Atmospheric Research Laboratory (NARL)	India
9	The College of Atmospheric and Geographic Sciences, the University of Oklahoma	USA
10	Institute of Mathematics and Informatics of the Bulgarian Academy of Sciences	Bulgaria
11	Southwest Forestry University	China
12	National Cheng Kung University (College of Planning and Design)	Taiwan
13	Tanjungpura University (Faculty of Forestry)	Indonesia
14	Indonesian Institute of Sciences (LIPI) (Research and Development Unit for Biomaterials)	Indonesia
15	Chulalongkorn University (Faculty of Science)	Thailand

Table 2. Visiting Professors of RISH from November 2010 to January 2012

Name and Affiliation	Research title	Period
Vernard LEWIS, University of California, Berkeley, USA	Novel control strategies of dry-wood termites with low environmental impact	15 January 2011-20 April 2011
Pavel TRAVNICEK, University of California, Berkeley, USA	Moon's near-space plasma environment	21 March 2011-20 July 2011
Dennis Marshall RIGGIN, Colorado Research Associates, USA	Study on the behavior of atmospheric waves in the middle atmosphere using satellite and radar data	16 June 2011-15 December 2011
Chow-Yang LEE, Universiti Sains Malaysia, Malaysia	Establishment of the integrated termite management system in Asia	1 July 2011-30 November 2011
Saip Nami KARTAL, Istanbul University, Turkey	Microbial growth on the wood plastic composites	15 July 2011-15 Oct 2011
Lawrence AWOYEMI, University of Ado Ekiti, Nigeria	Separation of the effects of absorbed oil and thermal modification on the fungal decay resistance of wood thermally modified in oil	1 August 2011-31 January 2012

Table 3. International Symposium from November 2010 to January 2012

Period	Theme	Place
12-13 May 2011	IEEE MTT-S International Microwave Workshop Series (IMWS) on Innovative Wireless Power Transmission: Technologies, Systems, and Applications (IMWS-IWPT2011) (176th RISH symposium)	Kyoto University Uji Campus, Japan
6-9 August 2011	Wood Culture and Science Kyoto 2011 (WCS Kyoto 2011) (177th RISH symposium)	Kyoto University Uji Campus, Japan
3-6 September 2011	The 1st ICSU World Data System Conference - Global Data for Global Science (180th RISH symposium)	Kyoto University Clock Tower Centennial Hall, Japan
14-16 September 2011	International Symposium on Earth-Science Challenges (ISEC) The 2nd Summit Between the University of Oklahoma and Kyoto University (183rd RISH symposium)	National Weather Center, the University of Oklahoma, USA
22-23 September 2011	International Symposium on 10th Anniversary of Equatorial Atmosphere Radar (184th RISH symposium)	The State Ministry of Research and Technology (RISTEK), Indonesia
30 September-3 October 2011	Humanosphere Science School 2011 (HSS2011) (185th RISH symposium)	Baileo Oikumen, Swiss belhotel Ambon, Indonesia
8-9 October 2011	The 2nd International Conference on Sustainable Future for Human Security (Sustain) 2011 (186th RISH symposium)	Kyoto University Uji Campus, Japan
29 November-1 December 2011	6th Atmospheric Limb Conference (172nd RISH symposium)	Kyoto University Yamauchi Hall of Shiran-kaikan, Kyoto University, Japan

The Committee of International Academic Exchange

Mamoru Yamamoto (Chair), Toshitaka Tsuda, Shuichi Kawai, Takashi Watanabe, Hiroshi Yamakawa, Kazufumi Yazaki, Yoshiharu Ohmura, Toshiaki Umezawa, Hiroyuki Yano, Hirotsugu Kojima and Kenshi Takahashi (Chief Editor of the International Newsletter)

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