

The First UNISEC-Global Meeting

23 to 24 November 2013, Tokyo, Japan

Organized by University Space Engineering Consortium (UNISEC) in cooperation with the University of Tokyo

Programme

Background

Our planet has no national boundaries as seen from outer space. Recent globalization has been demonstrated in many areas, such as financial markets, air pollution, and global warming. The University Space Engineering Consortium (UNISEC1) believes that providing good educational opportunities to future generations worldwide will lead to a better future, as the resolution of global problems requires a cooperative effort. UNISEC has provided practical space engineering education since 2002 in Japan, and its activities have been spread to the rest of the world through international programs, such as the Mission Idea Contest (MIC2), CanSat Leader Training Program (CLTP3), and Nano-satellite Symposium, with warm support from many individuals and institutions in various regions around the globe. Under circumstances where university associations have been formed in several countries, UNISEC believes that it is now time to establish UNISEC-Global, where collaborative efforts will be facilitated beyond national boundaries, and to contribute to the development of solutions to global issues.

1. Objective of the 1st Meeting

Armed with more than ten years of experience in outreach activities in the field of space science and technology, UNISEC is pleased to announce its first UNSEC-Global Meeting. The meeting will include the MIC3 pre-proposal presentation sessions on Saturday, November 23, 2013. MIC is one of the main international activities and an indispensable element for the future UNISEC-Global organization. It is planned to declare the establishment of UNISEC-Global at the end of this meeting.

2. Venue: Takeda Hall, 5th Floor, the Takeda Bldg., Asano Campus, the University of Tokyo

3. Participants

The target audience includes international space technology experts and students, including from developing countries, involved with capacity building.

4. Language

The language used at the Meeting is English.



5. Organization for the 1st UNISEC-Global Meeting

♦ General Chairperson

Shinichi Nakasuka, the University of Tokyo, Japan

♦ Honorary advisors

Sir Martin Sweeting, Surrey Satellite Technology Ltd (SSTL); and Surrey Space Centre (SSC), UK Rainer Sandau, International Academy of Astronautics (IAA)

♦ Programme Committee

A. Rüstem Aslan, Istanbul Technical University, Turkey

Werner Balogh, United Nations

Mengu Cho, Kyushu Institute of Technology, Japan

Rei Kawashima, UNISEC, Japan

Mohammed Khalil Ibrahim, Cairo University, Egypt

Shinichi Kimura, Tokyo University of Science, Japan

Masashi Miura, Tottori University, Japan

Yasuyuki Miyazaki, Nihon University, Japan

Harunori Nagata, Hokkaido University, Japan; and President of UNISEC Japan

Yohsuke Nambu, Osaka Prefecture University, Japan

Hironori Sahara, Tokyo Metropolitan University, Japan

Klaus Schilling, University Wuerzburg, Germany

Seiko Shirasaka, Keio University, Japan

Herman Steyn, Stellenbosch University, South Africa

Jordi Puig-Suari, Cal Poly, USA

Masahiko Yamazaki, Nihon University, Japan

Kazuya Yoshida, Tohoku University, Japan

♦ Members to Promote the Establishment of UNISON-Global

Yasuo Arai, Tokyo Metropolitan University, Japan

Misuzu Haruki, JAXA; former UNISON Student Representative (2011)

Takahiro Ito, Osaka Prefecture University, Japan; and former UNISON Student Representative (2011)

Ryuichiro Kanai, Hokkaido University, Japan; and former UNISON Student Representative (2012)

Keisuke Kondo, Tokai University, Japan

Ryusuke Konishi, Keio University, Japan; and UNISON Student Representative

Yuta Kusano, Tokai University, Japan

Mitsuhiro Masuda, Tokyo Metropolitan University, Japan

Azusa Muta, NEC Corporation, Japan; and former UNISON Student Representative (2011)

Kenji Nakajima, Tokyo Metropolitan University, Japan

Kentaro Nishi, Tokyo Metropolitan University, Japan

Shutaro Nishikizawa, Tokyo Metropolitan University, Japan

Jumpei Oguro, Tokai University, Japan



Takehiro Ohira, Tokyo Metropolitan University, Japan

Masaru Ohsaki, Tokai University, Japan; and UNISON Student Representative

Takeshi Sakuma, Tokyo Metropolitan University, Japan

Shingo Shimazaki, Nihon University, Japan; and UNISON Student Representative

Jun'ichi Takisawa, the University of Tokyo, Japan; and former UNISON Student Representative (2012)

Shizuku Tsukishima, Tokai University, Japan

Herbert Akihito Uchida, Tokai University, Japan

Masaki Watanabe, Tokyo Metropolitan University, Japan

♦ Local Organizing Committee

Etsuko Adachi, UNISEC Japan

Emiko Ando, UNISEC Japan

Michio Ozawa, UNISEC Japan

Takeo Tokiwa, UNISEC Japan

Note: The committees are listed in alphabetical order.

6. Sponsors and Partners

This meeting is financially supported by



Japan Science and Technology Agency (JST)

Mitsubishi UFJ Foundation

Cooperated by

Office of National Space Policy, Cabinet Office, Government of Japan











Supported by

United Nations Programme on Space Applications Basic Space Technology Initiative



International Academy of Astronautics



7. Tentative Programme

Master of Ceremony: Seiko Shirasaka, Keio University, Japan

| Day1 - Saturday, 23 November 2013 | | |
|-----------------------------------|---|---|
| 8:30 -9:00 | Registration of participants | |
| 9:00-9:50 <i>Openi</i> | ng Session | |
| 9:00-9:10 | Opening and Introductory Remarks | -Shinichi Nakasuka, General |
| | Background and objectives of the 1 st UNISEC-Global Meeting and Introduction | Chairperson of the 1 st UNISEC-Global Meeting; and University of Tokyo |
| 9:10 -9:15 | of Sponsors and Cooperating Organizations Opening Remarks I | (Japan) -Jordi Puig-Suari, Calpoly, (USA) |
| 9:15-9:20 | Special Remarks I | - Sir Martin Sweeting, Surrey Satellite Technology Ltd (SSTL); and Surrey Space Centre (SSC) (UK) |
| 9:20-9:25 | Special Remarks II | -Yoshinari Akeno, Cabinet Office, Government of Japan |
| 9:25-9:30 | Special Remarks III | -Werner Balogh, UN/OOSA |
| 9:30-9:35 | Special Remarks IV | -Hiroshi Nagano, Program Officer, Japan Science and Technology Agency |
| 9:35-9:40 | Special Remarks V | -Rainer Sandau, International Academy of Astronautics |
| 9:40-10:20 Bes | t Practice Reports on Space Engineering Consorti | i |
| 9:40-10:00 | UNISEC activities – Past, Present and Future | -Harunori Nagata, President, UNISEC Japan; and Hokkaido University (Japan) |
| 10:00-10:10 | UNISEC-Turkey | -A. Rüstem Aslan, Istanbul Technical University (Turkey) |
| 10:10-10:20 | UNISEC-Egypt | -Ayman H. Kassem, Cairo University (Egypt) |
| 10:20 -10:40 <i>Gra</i> | pup-photo Chance | |
| 10:40-12:00 <i>Cou</i> | ntry Reports/Student Presentations - Part I (each | 8min.x10 reports/presentations) |
| 10:40-10:50 | Bangladesh | -Tilok Kumar Das, Hokkaido University And Tarekul Islam, Bangladesh University of Engineering and Technology (BUET) (Bangladesh) |
| 10:50-10:58 | Brazil | -Fernando Stancato, EMBRAER (Brazil) |
| 10:58-11:06 | Canada | -Terryl Brennan, University Of Victoria (Canada) |
| 11:06-11:14 | Germany | - Klaus Schilling, University of Wuerzburg (Germany) |
| 11:14-11:24 | Ghana | -Aaron Yankey Antwi and Manfred Quarshie, All Nations University College, Koforidua (Ghana) |
| 11:24-11:32 | Italy | -Davide Rastelli, University of Bologna / NPC Spacemind (Italy) |
| 11:32-11:40 | Japan | - Ryusuke Konishi, Keio University; and UNISON Student Representative (Japan) |



| 11:40-11:50 | Korea | -Ji Hyun Park and In-Seuck Jeung, |
|----------------------------|---|---|
| 11:50-12:00 | Mexico | Seoul National university (Korea) -Rigoberto Reyes Morales, The National |
| | | Autonomous University of Mexico and Blanca Rebollar Trejor, Mexican Space Agency (Mexico) |
| 12:00-13:10 Welcom | e Lunch (at Foyer) | |
| 13:10-18:00 <i>Pre-Mis</i> | ssion Idea Contest 3 | |
| | Moderator. | : Seiko Shirasaka, Keio University |
| 13:10-13:25 | Pre- Mission Idea Contest 3(Pre-MIC3) Opening remarks- from the Chair of Review Team and Introductory RemarksOverview of MIC and Pre-MIC3 Background and objectives | - Herman Steyn, Chair, the Review team of PreMIC3; and Stellenbosch University, South Africa |
| 13:25-13:50 | MIC Presentation #1 Microgravity Experiment Recovery Satellite (MERS) | -Terryl Brennan, Cass Hussmann Simon Moffatt and Devin Pelletier, University of Victoria, Canada -Sean Tuttle, The University of New South Wales at Canberra, Australia |
| 13:50-14:15 | MIC Presentation #2 6S Initiative (Satellites - Schools - Science - Simple - Space – Students) | -Joao Dallamuta, Dallamuta Consultoria, Brazil -Marcello Valdatta, Niccolo' Bellini, and Davide Rastelli, University of Bologna / NPC Spacemind, Italy |
| 14:15-14:40 | MIC Presentation #3 Utilizing Nano Satellites for water monitoring for Nile River | -Ahraf Nabil Rashwan, Cairo University, Egypt -Ayumu Tokaji, University of Tokyo, Japan |
| 14:40-15:05 | MIC Presentation #4 Monitoring Natural Disasters with Small Satellites | -Kristof Ostir, Space-SI, Slovenia, -Lori Solberg, DRD Ltd., Israel |
| 15:05-15:20 | MIC Presentation #5 PHASES: ultra-precise absolute flux spectroscopy of stars from space | -Carlos del Burgo, Instituto Nacional de Astrofísica, Óptica y Electrónica (INAOE), Mexico |
| 15:20-15:50 Coffee | e/Tea break (at Foyer) | |
| 15:50 -17:30 | MIC Review at Room # 309 on the 3 rd Fl. | MIC Reviewer |
| | of Takeda Bldg. (Closed Session) | |
| 15:50-17:30 <i>Count</i> | try Reports/Student Presentations – Part II (each | 8min.x10reports/presentations) |
| 15:50-16:00 | Mongolia | - Enkhjargal Natsagdorj and Tsolmon Renchin, National University of Mongolia-ITC-UNESCO (Mongolia) |
| 16:00-16:08 | Nigeria | -Obasi, Casmir Oluabuchukwu, Centre For Satellite Technology Development (CSTD) FCT Abuja Nigeria |
| 16:08-16:16 | Peru | -Manasses Antoni Mauricio, National University of Engineering (Peru) |
| 16:16-16:24 | The Philippines | -Stephanie Tumampos, Regulus Spacetech Inc. (The Philippines) |
| 16:24-16:32 | Russia | -Igor Belokonov, Samara Space Aerospace University (Russia) |
| 16:32-16:40 | Saudi Arabia | -Sultan Hasan AlSultan, Qassim University (Saudi Arabia) |
| 16:40-16:48 | Southern African Region | -Tadadjeu Sokeng Ifriky, Cape Peninsula |
| | | |



| | | University of Technology (Came loon/Southern African Region) |
|------------------------------|--|--|
| 16:48-16:56 | Taiwan R.O.C. | -Jordan Vannisten, National Cheng |
| | | Kung University (Taiwan R.O.C.) |
| 16:56-17:04 | Tunisia | -Kamel Besbes, University of Monastir |
| | | (Tunisia) |
| 17:04-17:12 | Bulgaria | -Plamen Dankov, Sofia University |
| | | (Bulgaria) |
| 17:12-17:30 | QA Session | |
| 17:30 - 18:00 | Pre-MIC3 Announcement of the reviewer's final decision and Awarding Ceremony | MIC Reviewer |
| 18:30 – 20:30 <i>Standir</i> | ng Buffet Style Dinner Reception at "Dai-ni Sho | okudo (Second Student Cafeteria), Hongo |
| | us, the University of Tokyo | , |
| 1 | *Note: The place is usually used by UNISEC | for reception. |
| | | |

Master of Ceremony: Shinichi Kimura, Tokyo University of Science, Japan

| | Day2 - Sunday, 24 Novem | her 2013 |
|--------------------------|---|---|
| 8:30-9:00 | Registration of participants | |
| 9:00-10:30 | CanSat Education Session | |
| 7.00-10.30 | | d Khalil Ibrahim, Cairo University, Egypt |
| 9:00–10:00 | CanSat Lecture | -Shinichi Nakasuka, University of |
| | Note: including Q&A session | Tokyo (Japan) |
| 10:00-10:10 | Announcement of The 5 th CanSat Leader | -Harunori Nagata, President, |
| | Training Program (CLTP5) | UNISEC-Japan; and Hokkaido |
| | | University as CLTP5 Host Univ. (Japan) |
| 10:10-10:20 | Launch Announcement and Demonstration | -Yasuyuki Miyazaki, Nihon University |
| | of CanSat Information Center Website | (Japan) |
| 10:20-16:30 <i>Small</i> | Group Discussion Session | |
| | | imura, Tokyo University of Science, Japan |
| 10:20-10:30 | Introductory Remarks | -Rei Kawashima, UNISEC, Japan |
| | -Briefing | |
| | (Overview, Background and objectives, | |
| | Role of Moderator, Procedure, Schedule, | |
| | Expectations, etc.) | |
| 10:30-11:15 | Short Briefing on each Group Discussion | Moderators of each Group |
| 10:30-10:35 | Applications for "Store and Forward" | Ayumu Tokaji, University of Tokyo, |
| | communication | Japan |
| 10:35-10:40 | Opportunities and shallonges of a university | Ertan Umit, Istanbul Technical |
| | Opportunities and challenges of a university satellite project. | University, Turkey |
| | | • |
| 10:40-10:45 | Micro-Satellite Constellation for Earthquake | Masashi Kamogawa, Tokyo Gakugei |
| | Precursor Study | University, Japan |
| 10:45-10:50 | Successfully launching university satellites: | Roland Coelho, Cal Poly, USA |
| | From design to orbit | • |
| 10:50-10:55 | | Ahmed Saieed - Mentor, Space Tech |
| | Open-Source Space Exploration | Program, BA Planetarium Science |
| | | Center, Egypt |
| 10:55-11:00 | CanSat Activities in UNISEC | Ryusuke Konishi, Keio University, |
| 44.00.11.05 | | Japan |
| 11:00-11:05 | How to manage UNISON in each | Azusa Muta, NEC, Japan (UNISEC |
| | region/country and future possibility on | Student representative in 2011) and |
| | UNISON-Global. (target participants: | Takahiro Ito, Osaka Prefecture |



| | students) | University, Japan (UNISEC Student representative in 2011) |
|----------------------------|---|--|
| 11:05-11:10 | Ground Station Network (GSN) through UNISEC-Global network | Naomi Kurahara, Integral Systems Japan |
| 11:10-11:15 | CanSat and Rocket Collaboration | Ryuichiro Kanai, Hokkaido University, Japan |
| 11:15-15:20 | Discussions by each small group (including lunch time) | |
| 15:00-15:45 | Coffee/Tea Break | |
| 15:45-16:30 | Presentations by each group (each 5min x 9 Selected Speakers) | |
| 16:30-17:00 <i>Conclud</i> | O . | uyuki Miyazaki, Nihon University, Japan |
| 16:30-16:45 | Adoption of General Declaration | -Shinichi Nakasuka, General Chairperson of the 1st UNISEC-Global Meeting; and University of Tokyo (Japan) |
| 16:45-16:55 | Comments from participants | TBD |
| 16:55-17:00 | Closing Remarks | -Harunori Nagata, President, UNISEC-Japan; and Hokkaido University (Japan) |

Note

- Congress Kit, Lunch, Coffee/Tea break during the Meeting and Reception Dinner on the 1st night (Nov.23) at Second Student Cafeteria will be provided by UNISEC.
- The Symposium Exhibition will be held at the same venue from November 20-24.
- Information in this document is subject to change without notice.
- This meeting is broadcasted through Ustream. http://www.ustream.tv/channel/unisec-global

Contact UNISEC-Global Office

c/o UNISEC

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