Programme

Austrian Academy of Sciences, Institute for Space Research
Schmiedlstrasse 6, Graz, Austria

Hosted by the Austrian Federal Ministry for European and International Affairs,
State of Styria and City of Graz
and co-sponsored by the European Space Agency

13 - 16 September 2011
Honorary Committee (in alphabetical order):

- H. Böck  
  Federal Ministry for European and International Affairs, Austria
- J.J. Dordain  
  European Space Agency
- K. Edlinger-Ploder  
  Member of the Government, State of Styria, Austria
- S. Nagl  
  Mayor, City of Graz, Austria
- M. Othman  
  Director, Office for Outer Space Affairs, United Nations
- F. Voves  
  Governor, State of Styria, Austria

Programme Committee (in alphabetical order):

- A. Abiodun/C. Francis  
  NASRDA, Nigeria
- J. Aigner  
  Federal Ministry for European and International Affairs, Austria
- W. Balogh  
  Office for Outer Space Affairs, United Nations
- J.-C. Bigot  
  European Space Agency
- H. Böck  
  Federal Ministry for European and International Affairs, Austria  
  (Chairman of the Programme Committee)
- S. Camacho  
  CRECTEALC, Mexico
- S. Chernikov  
  Office for Outer Space Affairs, United Nations
- J.M. Contant/R. Sandau  
  IAA, France
- M. Hucteau  
  CNES, France
- O. Koudelka  
  Joanneum Research and Graz University of Technology, Austria
- P. Martinez  
  SAAO, South Africa
- J. Ortner  
  EURISY, Austria
- W. Riedler  
  Austrian Academy of Sciences, Austria
- R. Yoshida  
  MOFA, Japan

Local Organizing Committee (in alphabetical order):

- A. Edler  
  Joanneum Research
- A. Fuchs-Fehringer  
  Graz Tourism
- G. Haubenhofer  
  City of Graz
- O. Koudelka  
  Joanneum Research
- W. Riedler  
  Austrian Academy of Sciences (Chairman)
- A. Rupprecht  
  State of Styria
- B. Kössler  
  Joanneum Research

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- United Nations Office at Vienna
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  Email: birgit.koessler@joanneum.at
Tuesday, 13 September 2011

Morning
08:00 Registration

09:00 Opening Ceremony
Master of Ceremony: Willibald Riedler, Austrian Academy of Sciences

09:00 Welcome / Opening Remarks
Wolfgang Baumjohann, Austrian Academy of Sciences
Frederic Nordlund, European Space Agency
Peter Piffl-Perčević, City of Graz
Helmut Böck, Austrian Federal Ministry for European and International Affairs
Mazlan Othman, United Nations Office for Outer Space Affairs

10:00 Keynote Addresses
10:00 Small satellites and the long-term sustainability of outer space activities
Paul Brooks
University of Surrey
United Kingdom

10:30 ESA’s Small Satellite Activities
Frederic Nordlund
European Space Agency

11:00 Coffee/Tea Break

11:00-12:30 Press Conference
(by invitation)

11:30 United Nations Basic Space Technology Initiative and Objectives of the 2011 Symposium
Werner Balogh
United Nations Office for Outer Space Affairs

12:15 Practical arrangements for the Symposium
Ayoni Oyeneyin
United Nations Office for Outer Space Affairs

12:30 Lunch

Afternoon
13:30 Session 1: Review of Small Satellite Activities
Chairperson: Johannes Ortner, Eurisy
Rapporteur: Danielle Renee Wood, Massachussets Institute of Technology

13:30 Collaborative nano-satellite programmes for socio-economic development in Africa
Robert Van Zyl
Cape Peninsula University of Technology
South Africa

13:50 Small Sat Programmes in Asia Pacific Region UNIFORM/STARS
Hiroaki Akiyama
Wakayama University
Japan
14:10 Small Satellite Programmes in the Latin America and the Caribbean Region
Esau Vicente Vivas
Universidad Nacional Autónoma de México
Mexico

14:30 Small Sat Programmes in the Western Asian Region: Dubai-Sat2 Program and Design Developments
Hamad Al-Jaziri and Abdulla Saif Harmoul
Emirates Institute for Advanced Science and Technology, United Arab Emirates

14:50 Coffee/Tea Break

15:30 HUMSAT
Fernando Aguado Agelet
University of Vigo, Spain

15:50 Nano-satellite Mission Idea Contest
Rei Kawashima, Japan

16.10 Presentations by Participants on their Small Satellite Activities (approx. 5 min each, 8 slots)
Symposium Participants (a sign-up list will be made available at the Symposium)

17:30 Transfer to the hotel

19:00 Transfer from the hotel to the “Burgring” (center of Graz)

19:30 Reception by the Governor of the State of Styria F. Voves
(Orangerie Graz Burg)

Wednesday, 14 September 2011

Morning
09:00 Session 2: Programmatic and Managerial Issues
Chairperson: Otto Koudelka, TU Graz
Rapporteur: Maria Victoria Alonsoperez, Universidad de la Republica, Uruguay

09:00 GENSO Network
Lars Mehnen
FH-Technikum Wien, Austria

09:20 Launch Opportunity for Small Satellites by PSLV
R. Sateesh Kumar
Indian Space Research Organisation, India

09:40 Technology Transfer in Small Satellite Programmes
Tom Segert
Berlin Space Industry Association, Germany

10:00 International Standardization of Nanosatellite Technologies
Mengu Cho
Kyushu Institute of Technology, Japan

10:20 Coffee/Tea Break

10:40 Small satellite project in Nigeria - Challenges and opportunities
Spencer Onuh
National Space Research and Development Agency, Nigeria
11:00  Small satellite development in Vietnam, from education to potential application  
*Thu Vu Trong*  
FSpace laboratory, FPT Technology Research Institute, FPT University, Viet Nam

11:20  International University Collaboration for the Development of Small Satellites Activities  
*Ramón Martínez*  
Universidad Politécnica de Madrid, Spain

11:40  Architecting Small Satellite Programs: Opportunities for Capability Building and Spinoff Benefits  
*Danielle Wood*  
Massachusetts Institute of Technology, United States of America

12.00  Presentations by Participants on their Small Satellite Activities (approx. 5 min each, 4 slots)  
Symposium Participants (a sign-up list will be made available at the Symposium)

12:30  Lunch

*Afternoon*

**Session 3: Programmatic and Managerial Issues**  
Chairperson: Robert Ryk Van Zyl, African Institute of Technology  
Rapporteur: Thu Vu Trong, FSpace laboratory

13:30  Management experience on a small satellite project involving the participation of 4 universities in Northwest part of Mexico, using certified management tools  
*Enrique Pacheco*  
Centro de Investigacion Cientifica y educacion Superior de Ensenada (CICESE)  
Mexico

13:50  United Nations/Japan Fellowship Programme on Nano-Satellite Technologies  
*Mengu Cho*  
Kyushu Institute of Technology  
Japan

14:10  Experiences of the managerial aspects of the UNOSAT project  
*Fernando Stancato*  
Universidade de São Paulo, Brazil

14:30  Space mission management for nano- and small satellite programmes  
*Daniel Rockberger*  
Israel Aerospace Industries, Israel

14:50  Management and operational aspect of the BRITE constellation  
*Otto Koudelka*  
TU Graz, Austria

15:10  Coffee/Tea Break and departure for TU Graz

15:30  TU Graz Small Satellite Ground Station  
Symposium Participants

16:45  Transfer to city and free time until 18:30

18:30  Meeting Point "Hauptplatz - Brunnen"

19:00  Reception by the Mayor of the City of Graz S. Nagl (Rathaus)
Thursday, 15 September 2011

Morning
9:00  **Session 4: Regulatory and Legal Issues**  
*Chairperson: Irmgard Marboe, University of Vienna*  
*Rapporteur: Rei Kawashima, UNISEC*

9:00  Regulatory/Legal Issues of Small Satellites  
*Mildred Troegeler*  
*European Space Policy Institute*

9:20  Frequency Registration for Small Satellite Missions  
*Chuen-Chern Loo*  
*International Telecommunications Union*

10:30  **Coffee/Tea Break**

11:00  Discussion: “Experiences with frequency coordination in small satellite programmes”  
*Symposium Participants*

11:45  Presentations by Participants on their Small Satellite Activities (approx. 5 min each, 6 slots)  
*Symposium Participants (a sign-up list will be made available at the Symposium)*

12:30  **Lunch**

Afternoon
13:30  **Session 5: Small Satellites and Long-term Sustainability of Outer Space Activities**  
*Chairperson: Mengu Cho, Kyushu Institute of Technology*  
*Rapporteur: Fernando Stancato, Universidade de São Paulo, Brazil*

13:30  Satellite Registration, Launching State and Space Debris Mitigation Issues  
*Werner Balogh*  
*United Nations Office for Outer Space Affairs*

13:50  Technical measures for space-debris mitigation in small satellite missions  
*Alex Da Silva Curiel*  
*Surrey Satellite Technology Ltd, United Kingdom*

14:10  National Space Law and Small Satellite Programmes  
*Irmgard Marboe*  
*University of Vienna, Austria*

14:30  Discussion on experiences with satellite registration/space debris mitigation and on possible voluntary guidelines for the implementation of small satellite missions  
*Symposium Participants*

15:30  **Coffee/Tea Break**

16:00  Presentations by Participants on their Small Satellite Activities (approx. 5 min each, 12 slots)  
*Symposium Participants (a sign-up list will be made available at the Symposium)*

17:30  *Transfer to the "Andreas Hofer Platz" (City of Graz)*

18:00  *Visit of the Needle at the Kunsthau and Dinner at the "iku" in the "Kunsthaus***
Friday, 16 September 2011

**Morning**

<table>
<thead>
<tr>
<th>Time</th>
<th>Event</th>
<th>Presenter/Details</th>
</tr>
</thead>
<tbody>
<tr>
<td>9:00</td>
<td><strong>Session 6: Working Groups on the Future of the Basic Space Technology Initiative</strong>&lt;br&gt;Chairperson: Werner Balogh, United Nations Office for Outer Space Affairs</td>
<td>Participants in the Team Project Small Satellites of the 2011 Space Studies Programme of the International Space University</td>
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<tr>
<td>9:00</td>
<td>Presentation of the results of the ISU Space Studies Programme Team Project on Small Satellites</td>
<td>Participants in the Team Project Small Satellites of the 2011 Space Studies Programme of the International Space University</td>
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<tr>
<td>9:20</td>
<td>Discussion on the Basic Space Technology Initiative and on the observations and recommendations to be included in the report to the United Nations Committee on the Peaceful Uses of Outer Space</td>
<td>All Symposium Participants</td>
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<td></td>
<td>Discussion on the Establishment of a Working Group for a Space Technology Development Education Curriculum</td>
<td>All Symposium Participants</td>
</tr>
<tr>
<td></td>
<td>Presentations by Participants on their Small Satellite Activities (time permitting)</td>
<td>Symposium Participants (a sign-up list will be made available at the Symposium)</td>
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12:30  Lunch

**Afternoon**

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<th>Time</th>
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<tbody>
<tr>
<td>13:30</td>
<td><strong>Session 7: Way Forward</strong></td>
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<tr>
<td>13:30</td>
<td>Symposium Review and discussion of forthcoming future activities under the Basic Space Technology Initiative</td>
<td>All Symposium Participants</td>
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<td></td>
<td>Remaining Presentations by Participants on their Small Satellite Activities (time permitting)</td>
<td>Symposium Participants (a sign-up list will be made available at the Symposium)</td>
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15:00  Coffee/Tea Break

**15:30  Closing Session**

*Master of Ceremony: Willibald Riedler, Austrian Academy of Sciences*

15:30  Distribution of Certificates and Closing Remarks

- Austrian Academy of Sciences
- Austrian Federal Ministry for European and International Affairs
- United Nations Office for Outer Space Affairs

16:30  Transfer to the hotel and end of the Symposium