



The 1st APSCO & ISSI-BJ Space Science School

« *How to design a Space Science Mission* »

This is the first announcement for an international 10 days school on « How to design a Space Science Mission ». The school will be held at the Geo-informatics and Space Technology Development Agency ([GISTDA](#)), in Si Racha, Chon Buri Province, Thailand from October 17 - 26, 2016. Full information is available at http://www.apsco.int/APSCO_ISSI-BJ_SS.

Please download the poster for advertising the School: [Poster.pdf](#)

Introduction to the School

This is the first joint space science school organized between the Asia-Pacific Space Cooperation Organization ([APSCO](#)) and the International Space Science Institute in Beijing ([ISSI-BJ](#)). It is intended to promote a biennial School on space sciences and space science missions for master, Ph.D. or Post-doc students or early career scientists or engineers. The School will provide the students with in-depth knowledge on specific space science topics and on space mission engineering. It will also acquaint them with the leading experts in the field and will motivate them to pursue a career in space sciences. The School intends to build links between the students from different countries, where they may have the potential to become leaders in the future by developing their abilities to work in a multidisciplinary international team.

The School will teach the students to develop the connections between scientific objectives and requirements, mission and spacecraft design and mission cost. The aim is to develop a comprehensive approach for designing a space science mission. The students will be provided with the required scientific background relevant to produce a report, outlining a possible space science mission concept in the future. The School will also facilitate and initiate different discussions in an international and multi-disciplinary way; it will encourage creativity and provide the contacts for the participants to develop a professional network. International collaboration will also be an important theme at the school. This school will make the participants aware that successful space science mission projects always face big challenges, but nevertheless, space sciences and space projects provide exciting and challenging opportunities. The participants are also invited to submit a title and abstract in order to give an oral presentation or just to provide a poster.

Invited speakers will give lectures, with a substantial amount of time left at the end of each lecture for questions and discussions with the students. The speakers will be chosen among experts and well-recognized scientists, engineers, and space managers with an excellent reputation in teaching and supervising young scientists. At the end of every day a joint dinner is planned where the students, teachers and organizers reflect on the day and interact with each other on a more social level.

The lecturers are expected to cover the following general themes

- Past, present and future space science missions for different space agencies
- Scientific objectives: from the science case to the scientific requirements
- Payload design: achieving state of the art instruments in space
- Orbital constraints
- Spacecraft AOCS (attitude & orbit control system & Service module), Solar panels, thrusters & Sails
- GNC (Guidance, Navigation, & Control & communications)
- Spacecraft design and optimization
- Operations ground segment: spacecraft and payload health monitoring
- Scientific management: data rights and policy (observatories vs PI missions)
- Project management: planning and mission cost & risk management
- Micro-satellite launching and operation
- Cubesat mission design and integration
- Designing of space science experiment to be done in China Space Station
- International collaborations

The lectures are thus expected to include both scientific and engineering themes and depend on the specific topic of the school. The full program with the lectures will be available very soon on the school webpage.

The School is open to 60 selected young science and engineering students and graduates especially from Asian-pacific member states, Russia, Australia, and from the USA. The working language of the School is English.

Location & Local arrangement

The school will take place at the Sirindhorn Center for Geo-Informatics ([SCGI](#)) located in Space Krenovation Park ([SKP](#)), Si Racha district, Chon Buri province, Thailand.

Duration, Date

This is a 10 days School (Monday, October 17 - Wednesday, October 26, 2016)

The number of participants will be limited to 60, and the students will be hosted mainly at the Centre, in double rooms.

Deadlines and Announcements

Terms	Dates
First announcement	May 27, 2016
Second announcement	June 15, 2016
Registration deadline	July 29, 2016
Selected participants	August 15, 2016
First circular	August 30, 2016
Second circular	October 1, 2016
School	October 17 - 26, 2016

Registration and registration fee

The registration to the school is now open, and will be closed on July 29th 2016. If you are interested to participate, please register at [Registration Form.pdf](#).

At the same time, due to the limited number of places, we ask the participants to provide their short CV (including the names of two reference persons). Note however, that priority will also be given on the basis of the registration date. Selected participants will be informed soon after July 29th, 2016.

In the registration form participants will also be able to indicate if they are interested in giving a presentation or in presenting a poster. In this case they shall provide a title and an abstract.

Applicants under APSCO are fully Support. For all other participants the registration fee is 200\$ (US Dollars) or 1300 CNY (Chinese RMB), which includes 10 days of housing at the school, meals, social dinner, coffee breaks, and all social excursion, and the transport from the airport to the school. The payment of the fee will be done at arrival to the school in cash only.

Some travel subsidies and registration-fee waivers are available for participants with limited support from their institution. In case you want to apply for financial support, please mention it in the registration form. While ISSI-BJ is able to provide support to some students, we strongly encourage all students to explore sources of funding from their home institutes or countries.

Publications

The presentations given by the different lecturers will be stored electronically on the school webpage and will be accessible to the school participants.

Contact persons:

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