

SPS-2018

International Solar Power Satellite Symposium & Workshop – 2018

Call for Abstracts

**INTRODUCTION**

Beginning in the early 1990s, every few years the international space solar power (SSP) community has come together to organize a symposium on the topic of the Solar Power Satellite (SPS). For example, SPS 2004 was held in Granada, Spain in Europe; then SPS 2009 was held at the Ontario Science Center in Toronto, Canada, and SPS 2014 was held in Kobe, Japan. Tragically, since 2014 we have lost both the inventor of the solar power satellite, Dr. Peter Glaser, and the leading international champion of the SPS concept, former President of India, Dr. Abdul Kalam.

However, next year – 2018 – is the **50th Anniversary** of Dr. Peter Glaser's initial invention and his first paper in the Journal "Science" on the topic of the **Solar Power Satellite**. (See the attached file.) This anniversary is especially timely.

We are at a turning point in progress toward the realizing of the SPS. Increased availability of affordable energy has never been more important to economic growth. And, it has never been clearer that the prospect of human-caused Climate Change represents a major risk to global security and prosperity. Moreover, as outlined in recent works (e.g., "*The Case for Space Solar Power*", 2014), the economic viability of SPS concepts in the nearer term (e.g., within the next two decades) has never been more achievable – particularly in light of the dramatic reductions in the cost of access to space that are now occurring. And finally, the availability of affordable and abundant SSP has never been more important to advancing humanity's ambitions *vis-a-vis* the development of space resources for the benefit of humanity.

In light of the above, an **SPS 2018 International Symposium and Workshop** will be held during **May 2018** in concert with the National Space Society (NSS) International Space Development Conference (**ISDC 2018**), which will be held at the **Sheraton Gateway Hotel in Los Angeles, California, USA** during **23-26 May 2018**. Several organizations are participating in the organization of this event, including the International Astronautical Federation (IAF) Power Committee, the International Academy of Astronautics (IAA), the National Space Society (NSS), and SPACE Canada (a non-governmental organization (NGO) that is promoting international dialogue on the topic of space solar power).

**SPS-2018 CALL**

The following document is the Call for abstracts representing proposed presentations to be made at the planned May 2018 International Solar Power Satellite Symposium & Workshop – 2018.

The SPS-2018 event will be held in conjunction with the National Space Society (NSS) International Space Development Conference (ISDC). (See <http://isdc2018.nss.org/>.)

## **EVENT ORGANIZATION**

This event, taking place over three days will comprise three primary components: (1) an international symposium, including SME speakers from a variety of countries and organizations on the topic of SPS; (2) a number of working meeting “breakout sessions” involving presentations and focused discussions that address key topics related to space solar power (SSP); and, (3) presentations by undergraduate and graduate teams from various academic institutions participating in the 2<sup>nd</sup> Annual International Space Solar Power Student Competition. (See [www.spacecanada.org](http://www.spacecanada.org).)

The following topics will be addressed during the event:

- SPS system / architecture concepts;
- Key technologies for SPS;
- Supporting infrastructure requirements and progress;
- Special Topic: the critical issue of Spectrum for wireless power transmission (WPT);
- Missions and markets for space solar power;
- The potential role of space resources (materials and manufactured items) in future SPS; and,
- Roadmaps to space solar power systems: past and present.

Abstracts are invited in all of the above areas.

## **PROGRAM COMMITTEE**

The SPS-2018 is being organized by an International Program Committee (IPC), including the following individuals:

- John C. MANKINS, NASA Retired / MST, Inc. (Co-Chair);
- Gary BARNHARD, XISP, Inc. (Co-Chair);
- Richard (Dick) DICKINSON, JPL retired (Member);
- Dr. Paul JAFFE, NRL (Member);
- Dr. James McSPADDEN, Raytheon (Member);
- Dr. LI, Ming, CAST (Member);
- Guy PIGNOLET, CNES retired (Member)
- Dr. RAMAKRISHNAN, Sundaram, ISRO retired (Member);
- Dr. TANAKA, Koji, JAXA/ISAS (Member); and
- Haroon OQAB, SPACE Canada (IPC Executive Secretary)

## **ABSTRACT SUBMISSIONS**

Abstract submissions should comprise the following information for the proposed presentation: (1) the title; (2) the Abstract itself, i.e., a summary description of not less than 200 words, nor more than 600 words, any figures, etc.); (3) the author(s), including professional title(s) and affiliation(s); and, (4) contact information (e.g. email address) for at least one of the proposing authors. Please submit Abstracts as either MS Word Documents or PDF files to:

[contact.sps2018@gmail.com](mailto:contact.sps2018@gmail.com)

Please indicate in the email your suggestions, if any, regarding which topic areas, described previously would be addressed by your presentation. **Abstract submissions should be provided by not later than 15 January 2018.**

#### **SPECIAL REQUEST: REMEMBERING THE GIANTS OF SPS**

As noted above, an important goal of SPS-2018 is to commemorate the 50<sup>th</sup> Anniversary of the invention of the solar power satellite concept. As a result, a special plenary panel is being organized to celebrate the lives and contributions of three “giants” in this field: first and foremost, Dr. Peter Glaser (inventor and life-long champion of the SPS concept); second, William R. Brown (inventor and developer of microwave wireless power transmission (WPT) in the 1960s) and third, Dr. Abdul Kalam (former President of India and a tireless advocate of humanity and space, including SPS).

If you wish to contribute photos, documents, personal stories or other materials concerning one or more of these seminal contributors to the field of space solar power, please let the International Program Committee know (via email to the address above) and we will endeavor to incorporate your contribution into the event in an appropriate fashion.

#### **EVENT LOGISTICS**

The SPS-2018 event will take place from the morning of Wednesday, 23 May 2017 through Friday, 25 May 2017. Participants will be required to register as attendees of the ISDC 2018, and will have access to discounted rooms at the Sheraton Gateway LAX. (Details concerning the rooms, and a website with those data will be available circa December 2017; these details will be emailed to all of those who submit accepted Abstracts.)