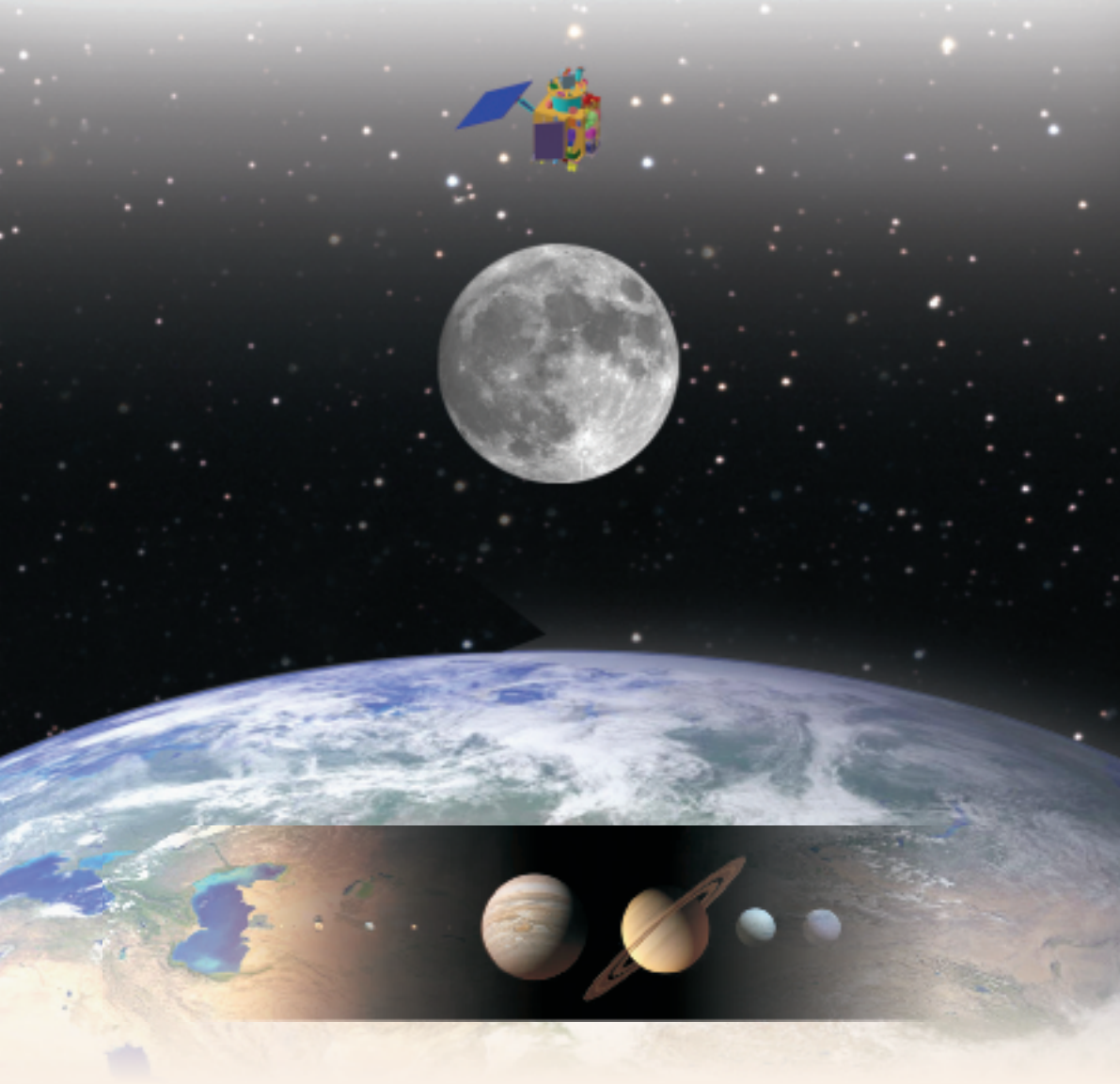
LCPM-8, Goa, India

Eighth IAA International Conference on Low-Cost Planetary Missions

Grande Sala Hall, Hotel Cidade de Goa

31st August – 04th September 2009, Goa, India

Second Announcement



Indian Space Research Organisation

International Academy of Astronautics

Astronautical Society of India

CHIEF PATRONS

Dr. G. Madhavan Nair (Chairman, ISRO)

Dr. Edward C. Stone (President, IAA)

INTERNATIONAL PROGRAM COMMITTEE (IPC)

Co-Chairs:

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2. Gregg Vane (NASA, JPL)

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4. M.Y.S. Prasad (ISRO, SHAR)
5. Junichiro Kawaguchi (JAXA)
6. Bernard Foing (ESA)
7. David Kendall (Canada)
8. Walter Faulconer (USA, APL)
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10. Hajime Yano (JAXA)
11. Peter Falkner (ESA)
12. Chris R Webster (NASA, JPL)
13. Wu Ji (China, CSSAR)
14. Lev Zelenyi (Russia, IKI)

LOCAL ORGANISING COMMITTEE (LOC)

1.	JN Goswami, PRL, Ahmedabad	Chairman
2.	MYS Prasad, SDSC, Sriharikota	Co-Chairman
3.	R Sridharan, SPL, Thiruvananthapuram	Member
4.	EV Ramana Reddy, DOS, Bangalore	Member
5.	HN Madhusudhana, ISRO HQ, Bangalore	Member
6.	S Satish, ISRO HQ, Bangalore	Member
7.	Jayati Datta, ISRO HQ, Bangalore	Member
8.	V Koteshwara Rao, ISAC, Bangalore	Member
9.	M Annadurai, ISAC, Bangalore	Member
10.	SVS Murty, PRL, Ahmedabad	Member
11.	Samir Pal, SAC, Ahmedabad	Member
12.	V P Balagangadharan, VSSC, Thiruvananthapuram	Member
13.	T Parimalarangan, ISTRAC, Bangalore	Member
14.	D Gowrisankar, ISRO HQ, Bangalore	Member-Secretary

THEME

The Eighth IAA International Conference on Low-Cost Planetary Missions (LCPM-8) is aimed to provide a platform for planetary scientists, technologists, engineers, managers and agency representatives to present and exchange new results and discoveries from low cost planetary missions. The primary focus of the LCPM-8 will be on the recent and proposed “low-cost” planetary missions, as defined by agencies sponsoring such missions. The discussions during the Conference will be primarily on the most recent missions and related activities including scientific research, science instruments and enabling technologies for upcoming and future low-cost missions.

This series of IAA conferences focus on remote-sensing and robotic scientific exploration of the solar system. Exploration of the solar system has been a prime motivating force shaping the space programs of various nations. Beginning with the exploration of the Moon in the sixties, dedicated space missions to most of the planets and their major satellites in our solar system have been accomplished. Results obtained from these missions led to major advances in our understanding of the origin, evolution and the current state of the solar system.

The possibility of making significant strides in exploring and understanding the evolution of the solar system objects with low-cost remote sensing and robotic missions is gaining momentum with missions such as ESA's Venus Express, JAXA's Hayabusa and NASA's Phoenix.

Chandrayaan-1, India's first mission to Moon has successfully completed six months in lunar orbit and already collected large volume of data is another example of such a mission with significant international participation.

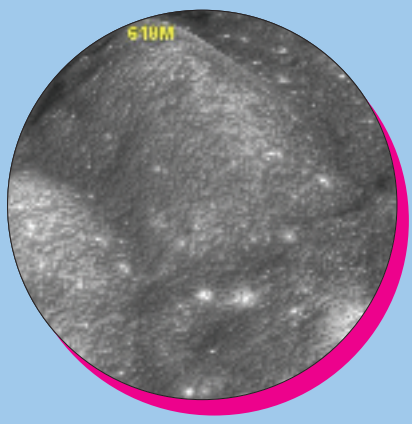
PROGRAM STRUCTURE

- **Registration and Welcome Dinner**
- **Inauguration**
- **Technical Sessions**

Session 1: National and joint International programs for robotic space science
Session 2: New results and discoveries in planetary science that have been achieved with low-cost missions
Session 3: Low-cost missions currently in development
Session 4: Science instruments for low-cost missions
Session 5: Reduction and optimization of the cost of planetary missions
Session 6: Commercial and Educational low-cost planetary missions
Session 7: Advanced technologies for future low-cost missions
Session 8: Advanced concepts for future low-cost missions

- **Round Table Panel Discussions**
- **Poster Session**
- **Concluding Ceremony**

Sponsored Dinners and Cultural Program are also arranged for registered participants.



BRIEF ON TECHNICAL SESSIONS

The Conference will consist of :

- Invited Lectures
- Contributed Papers
- Poster Sessions
- Panel Discussions

TECHNICAL SESSIONS:

Session 1:

National and joint International programs for robotic exploration of planets

Session abstract: Invited lectures by Agency representatives on programs for robotic planetary exploration and program goals for the coming few years, including highlights of recent missions and plans for current and future low-cost missions.

Inivited Speakers: *J.N.Goswami*, ISRO; Jim Green, NASA; David Kendall*, CSA; Marcello Coradini, ESA; Junichiro Kawaguchi*, JAXA, Wu Ji*, China; Alexander Zakharov*, Russia*

Session 2:

New results and discoveries in planetary science that have been achieved with low-cost missions

Session Abstract: Invited speakers will present the latest scientific results from low cost planetary missions that have been completed in the recent past or that are currently in operation.

Invited Speakers: *Peter Smith, Univ. of Arizona, USA; JAXA*; CNSA*, J. N. Goswami*, ISRO; Ralph McNutt*, APL, USA; NASA-Ames*

Session 3:

Low-cost missions currently in development

Session abstract: Invited speakers will discuss low-cost planetary missions that are fully funded and under development, and that will be launched within the next 3-4 years.

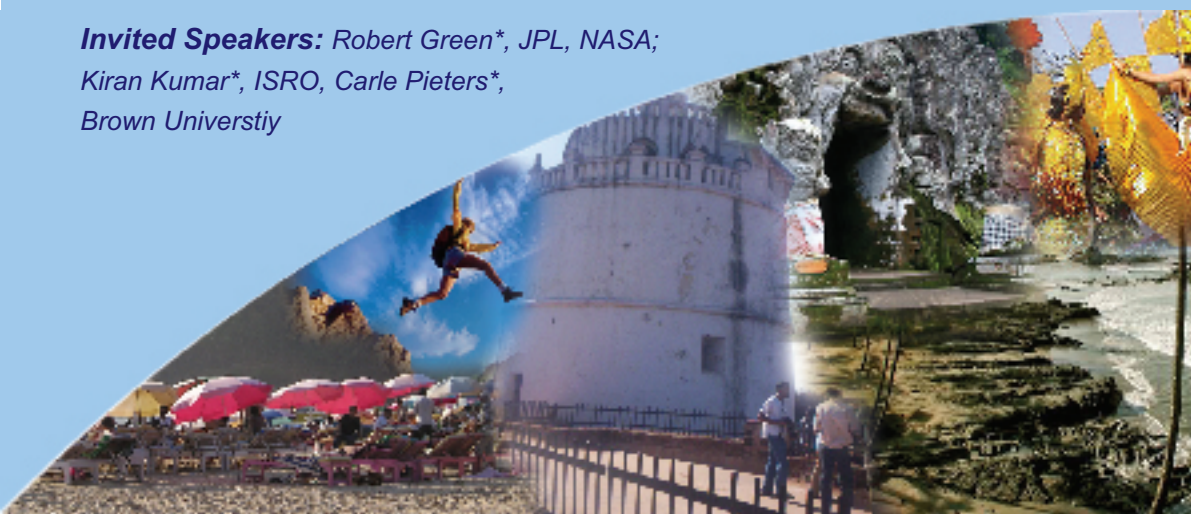
Invited Speakers: *Maria Zuber*, MIT, USA; Bruce Jakoski, Univ. of Colorado; JAXA*, ISRO*, CNSA*, Russia*

Session 4:

Science instruments for low cost missions

Session abstract: Primarily, contributed presentations on the scientific results and/or instrument designs for the new generation of low-cost, low-mass, low-power planetary instruments that help to enable low-cost scientific exploration of our solar system.

Invited Speakers: *Robert Green*, JPL, NASA; Kiran Kumar*, ISRO, Carle Pieters*, Brown Universtiy*



Session 5:

Reduction and optimization of the cost of planetary missions

Session abstract: Invited and contributed presentations on topics that have enabled agencies to reduce or maintain low mission cost while still achieving a high science return. Topics will include new spacecraft bus design, launch vehicles, new approaches to mission operation etc.

Invited Speakers: *M. Annadurai*, ISRO; Barry Goldstein*, JPL, NASA; Makoto Yoshikawa, JAXA; M. Y. S. Prasad*, ISRO*

Session 6:

Commercial and Educational Low-cost planetary missions

Session abstract: Innovative approaches such as "Lunar X-Prize", ESA's student satellite program, UK's "Beagle Moon" mission for low-cost planetary exploration will be discussed in contributed presentations.

Session 7:

Advanced technologies for future low-cost missions

Session abstract: New technologies and key mission sub-systems that are enabling elements to reduce the cost of planetary missions. Presentations are solicited.

Session 8:

Advanced concepts for future low-cost mission

Session abstract: Contributed papers by individuals and agencies on concepts for the next generation of innovative low-cost mission other than those currently funded.

Round Table Panel Discussion: Lessons Learned on Recent Low-Cost Missions

Experienced program and project managers and mission lead scientists from various organizations will share their insights on important lessons learned and experience gained from low-cost missions to various solar system bodies and suggest recommendations.

* Confirmed Speakers.

ABSTRACT SUBMISSION

The deadline for submission of abstracts is 30th June 2009.

Abstract should be prepared as per the abstract template given in the Conference website **http://lcpm8.isro.gov.in** and email to *lcpm2009@isro.gov.in.* Receipt of abstract would be confirmed by email only.

REGISTRATION

Participation in the Conference is by registration only. Kindly register in advance through Conference website **http://lcpm8.isro.gov.in**

Registration Fee:

Registration Category	On or before July 15, 2009	On or before August 25, 2009	On-Site Registration*
Conference Delegate – From Outside India	350 Euros	400 Euros	400 Euros
Conference Delegate – From India	INR 12,000/-	INR 14,000/-	INR 14,000/-

** On-site Registration will be very limited.*

There are no other categories of registration.

Conference registration fee include: Permission to attend all the Technical Sessions, Registration kit with Abstract CD, Welcome Reception, Cultural Program and Conference Lunch

ACCOMMODATION

Rooms for the benefit of the participants have been secured at the following 2 hotels in Goa with special pre-negotiated rates. To ensure assured accommodation, participants are strongly advised to book at the earliest at the preferred hotel

1. Hotel Cidade de Goa
   Vainguinim Beach
   Goa – 403004
   India
   Tel: +91-832-2454545
   Fax: +91-832-2454541/42
   URL: **www.cidadedegoa.com**

2. Goa Marriott Resort
   PO Box 64, Miramar
   Goa – 403001
   India
   Tel: +91-832-2463333
   Fax: +91-832-2463300
   URL: **www.marriott.com/hotels/travel/goimc-goamarrioresort/**

The special hotel rates are only for registered delegates of LCPM 8 and their accompanying persons. After paying the registration fees, you can book your accommodation through our website, which would be informed to the hotels. Participants will pay the Accommodation charges on their arrival at the respective hotels directly. Bookings can also be made offline by sending email/ fax to LCPM Secretariat (Fax: +91 80 23513930; email: *lcpm2009@isro.gov.in*) with required information like number of rooms, duration of requirement, etc.

For more details visit the conference website **http://lcpm8.isro.gov.in**

ABOUT GOA

Goa, a tiny emerald land on the west coast of India, the 25th State in the Union Government of India, is also known as “Rome of the East”, “Tourist Paradise” and “Pearl of the Orient”. The magnificent scenic beauty and the architectural splendors of its temples, churches and old houses have made Goa a firm favorite with travelers around the world.

Panaji (also referred to as Panjim) is the state's capital. Vasco da Gama (sometimes shortened to Vasco) is the largest city. The historic city of Margao still exhibits the influence the Portuguese culture. Renowned for its beaches, places of worship and world heritage architecture, Goa is visited by hundreds of thousands of international and domestic tourists each year. It also has rich flora and fauna, owing to its location on the Western Ghats Range, which is classified as a biodiversity hotspot.

The vainguinim beach is just about 7 km from the heart of the city of Panaji. The enormous stretch of seashore where the sun, sand and sea conjugate into crystal turquoise waters is a true experience of living life to the fullest. The trip to this beach, just opposite to the Conference venue, is sure to be one of the most memorable memories of all the trips.

HOW TO REACH GOA

By Air:

Goa is well connected with major airports in India with daily flights available from Mumbai, Bangalore, Chennai etc. The Dabolim Airport in Vasco is about 28 km from the Conference Venue and can be reached by road in 30- 40 minutes.

By Rail:

Goa has 2 major railway station viz., Karmali and Margoa. Karmali Railway Station (Old Goa) is about 14 km from the Conference Hotel and can be reached by road in 20-30 minutes. Margoa Railway Station is about 35 km from the Conference Venue and can be reached by road in 45 minutes.

Direct train services are available from Mumbai, Bangalore, Trivandrum & several other cities.

By Road:

Goa has two National Highways passing through it. NH-17 runs along India's west coast and links Goa to Mumbai in the north and Mangalore to the south. Mumbai is 594 km from Goa and Mangalore is 402 km from Goa.

TRAVEL FORMALITIES TO VISIT INDIA - Visa Information

Foreign Nationals desirous of coming into India are required to possess a valid passport of their country and a valid Visa for India. There is NO provision of 'Visa on Arrival' in India. Foreign passengers should ensure that they are in possession of valid Visa for India before they start their journey to India.

The Consular, Passport and Visa (CPV) Division of Indian Embassy is responsible for issuance of Indian visas to the foreign nationals for their visit for various purposes. This facility is granted through various Indian missions abroad. Since it may take time to process, it is advised to apply early.

For more detail, visit

http://india.gov.in/overseas/passport.php

Other information like weather and facilities available, tourist places surrounding the venue are available in the Conference website **http://lcpm8.isro.gov.in**

CONTACT

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For further details visit Conference Website: **http://lcpm8.isro.gov.in**