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24-25, September 2021

India-International Online Event

9th Indian Technology Congress

Satellites for Everyone and Space for Everyone

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Benefitting 75 Countries on the eve of Celebrating India's Freedom 75 Years! (1947-2022)

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Space Industry Partners

Find below link the Points of Contact (PoC) for World CanSat/Rocketry Consortium/Championship (WCRC)!

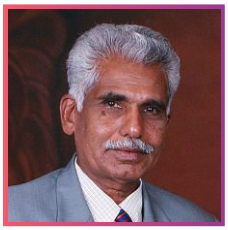
https:/www.wcrc.world/Files/WCRC_POC.pdf

53+ Countries are actively involved with World CanSat/Rocketry Consortium/Championship (WCRC)!

Also they are eager to be part of **World-UNITYsat** Programme, which is aiming to launch an Unique Satellite to provide an opportunity for learning Space Technology under Collaboration for under privileged Countries!

Eminent Invited Speakers of ITC 2021

Padma Shri. Prof. R.M. Vasagam



Former Project Director,
India's First GEO Stationary Communication Satellite "APPLE",
Eminent Scientist, ISRO,
Former Vice Chancellor,
Anna University

Padma Shri. Dr. Y.S. Rajan

Honorary Distinguished Professor and Scientist, ISRO,
Former Vice Chancellor,
Punjab Technical University,
Author of INDIA 2020: A Vision for New Millennium along with Dr. APJ Abdul Kalam,
Former President of India

Padma Shri. Dr. Mylswamy Annadurai

Outstanding Scientist, ISRO,
Former Director, ISRO Satellite Centre,
Project Director, Chandrayaan 1 & 2 and Mangalyaan (Mars Orbiter Mission),
Chairman,
National Design and Research Forum

Dr. L. V. Muralikrishna Reddy

President,
Indian Technology Congress Association,
President,
BRICS Federation of Engineering Organisations and
President, University Space Engineering Consortium-India

Brig Gen (res) Prof Chaim Eshed

Co-Founder,
Israel Space Agency
Retd Brigadier General,
Israel's Military
Intelligence Directorate

Dr Meir Ariel

Director General,
Herzliya Science Center
Director, Tel Aviv University
Nano-Satellite Center, Israel

Dušan Radosavljević

Founder and Head,
Committee for Space Programme Development (CSPD), Serbia
Founder, World CanSat/Rocketry Championship,
Advisor, TSC Technologies Private Ltd

Dr. Ing. Daniel Hahn

Global Expert and Leader in Robotics and Industrial Automation
VSTP PVT. Ltd,
United Kingdom/Germany

Maria Tvardovskaya

Russia/Europe,
Head,
"Profi2Profit Education Project"

Ms. Rei Kawashima

Secretary General,
University Space Engineering Consortium (UNISEC) Global,
Japan

Dr. Guido Parissenti

Aerospace Professional
Co-Founder and CEO,
GP Advanced Projects and Dronedesign, Italy

Prof. Fabio Santoni

Associate Professor in Aerospace Systems,
Department of Astronautic Electric and Energy Engineering (DIAEE),
Sapienza University of Rome, Italy

Eminent Invited Speakers of ITC 2021

Dr. Simonetta Di Pippo

Director, UN Office for Outer Space Affairs (UNOOSA)
Director, Human Spaceflight (D/HSF), European Space Agency (ESA)

Dr. Meyya Meyyappan

Former Chief Scientist for Exploration Technology, Center for Nanotechnology, NASA Ames Research Center, USA

Mr. Juan de Dalmau

President,
International Space University (ISU)
France

Yari Bussi

Chair,
IEEE Student Branch,
Brescia

Ms. Ivana Tadic

Member of Committee for Space Programme Development, Serbia
Airline Transport Pilot

Samer Lahouar

Assistant Professor,
Microelectronics and Nanotechnology
Research Center (CRMN)

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Research Assistant,
University of Alberta Research Laboratory of Artificial Intelligence, Robotics and Image Processing - UNI

Ms. Lucille Baudet

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Russia
Visiting Professor,
Indian Institute of Astrophysics

Jorge Monteiro

CEO, Spaceway Ptd.
National Point of Contact in Portugal for Space Generation Advisory Council
Fellow Researcher at C-MAST (Centre for Mechanical and Aerospace Science and Technologies), University of Beira Interior

Dr. Javeed Ahmed Khan

Professor,
Engineering and Environmental Technologies, Georgian College, Canada

Shaun Whitehead

Beng CEng FIMechE,
Founder Creationeer/Scoutek Ltd,
London, UK

Eminent Invited Speakers of ITC 2021

Mr. R.K. Rajangam

Outstanding Scientist,
ISRO Satellite Centre (ISAC) and
Formerly Prof. Satish Dhawan
Visiting Professor,
President, Planet Aerospace
Mentor, IIT Madras/MSRIT StudentsSats

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Professor, Department of Mechanical Engineering, Indian Institute of Technology (IIT)- Kanpur
Chairman, Institution of Engineers (India) Kanpur Chapter

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Scientist G, National Institute of Ocean Technology, Ministry of Earth Sciences, Government of India and
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Secretary General, UNISEC India and
Professor and Dean (R&D),
New Horizon College of Engineering

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President
Indian Technology Congress Association (ITCA)

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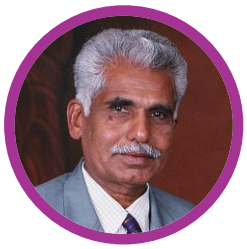

Padma Shri.
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Dr. Y.S. Rajan

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Launching of
75 Satellites of Karnataka Institutions (Schools & Colleges)

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UNITED NATIONS
Office for Outer Space Affairs

Space Technology and the Implementation of the 2030 Agenda

Simonetta Di Pippo, Director of the United Nations Office for Outer Space Affairs

Ref: UN: https:/www.un.org/en/chronicle/article/space-technology-and-implementation-2030-agenda

Last year, which marked the sixtieth anniversary of the first artificial satellite in orbit, a record number of orbiting objects were registered with the United Nations, reflecting the growing interest of all types of actors in participating in the frontier field of space exploration and innovation. The United Nations Office for Outer Space Affairs (UNOOSA), established in 1958, works with Governments and the wider space community across policy, legal and technical capacity-building aspects of supporting global activities in the space environment. It also engages actors in discussions on how to best address the fact that space is becoming more congested and contested while offering a growing pool of benefits to humanity.

Space for Sustainable Development

Utilizing space contributes positively to a range of policy areas, including climate and weather monitoring, access to health care and education, water management, efficiency in transportation and agriculture, peacekeeping, security and humanitarian assistance. The list of earth-impacting space applications is nearly endless, and many other valuable contributions are currently in development or being researched....

One of the most important issues we are tackling in this regard is addressing the significant gender gap through the "Space for Women" Project to promote and enable more women and girls to play an active and equal role in space science, technology, innovation and exploration. In the context of SDG 11 on sustainable cities and communities, UNOOSA maintains the United Nations Platform for Space-based Information for Disaster Management and Emergency Response (UN-SPIDER), which is used to enhance the use of space technology for disaster risk reduction and emergency operations aimed at saving lives and preventing property damage. Utilizing outer space not only holds promise for humanity but also contributes to improved "Life on land" (SDG 15) for all beings through monitoring ecosystems, protecting wildlife, and keeping track of and raising awareness about deforestation and desertification in order to preserve natural habitats and halt the loss of biodiversity.

Space for Everyone

Since space has far-reaching applications, all countries should be supported in accessing the benefits of space-based technology that facilitates sustainable development. As more countries invest financial and political capital in the space environment, and the world becomes increasingly dependent on space, UNOOSA is committed to delivering the benefits of space to everyone everywhere.

In order to help countries obtain access to the benefits of space technologies and applications, in 2010, UNOOSA launched the Human Space Technology Initiative (HSTI), involving more nations in human spaceflight and other space exploration-related activities. HSTI provides a platform for exchanging information, fostering collaboration between spacefaring and non-spacefaring countries, and encouraging emerging and developing countries to take part in space research and benefit from space applications. The Initiative is part of the effort to allow access to space education, data, technology and research, and creating access to space for all.

In coordination with United Nations-wide activities, such as the Secretary-General's Strategy on New

Technologies, UNOOSA identifies the best use of advances in technology to deliver the mandates of the Organization as a whole...

The (R)evolution in the Space Sector

There are already many tangible changes and challenges to the traditional ways of conducting space activities, with many new actors entering the field and new technologies affecting our efforts. When the space age began with the launch of Sputnik 1 in 1957, only two countries were active in the space environment. Today, we have over 70 national and regional space agencies working to extend our knowledge of space, and apply space science and technology to improve the lives of people worldwide. Thousands of other actors are also joining the space community, with a well-established private space sector.

The growing number of actors has implications for the very nature of space activities, which is clearly supported by recent statistics and milestones. As UNOOSA discharges the responsibilities of the United Nations Secretary-General stemming from international space law adopted under the auspices of the Organization, we maintain the Register of Objects Launched into Outer Space. Last year, of the record number of 553 objects registered with UNOOSA, 489 were satellites.3 With an improved capacity to release multiple satellites with a single launch, the total number of such objects almost doubled the previous record of 242 from 2014.4Today, over 1,800 operational objects are in orbit,5 many of which provide services and data driving sustainable development around the world.

Launching a number of satellites with the same purpose, forming a 'constellation', is another evolution of the traditional way in which such objects are deployed. In 2017, the Indian Space Research Organization (ISRO), using one of its most reliable rockets, launched from the Satish Dhawan Space Centre a record 104 satellites in a single flight;6 88 of the satellites were to form a constellation that would be used to image the Earth at low cost.7Such developments show how space technology is evolving and serve as a pertinent example of how the governance of the space environment is becoming increasingly multifaceted.

With the rapid expansion of stakeholders accessing space, the estimated value of the space sector reached an all-time high of $383.5 billion8 in 2017, with commercial space activities accounting for over 75 per cent of that value. Such statistics demonstrate the extent to which private entities have become major players in the field. Projections for the future value of the sector show it rising at an exponential pace, reaching $1.1 trillion to $2.7 trillion over the next 30 years.9 Such numbers make space an even more attractive venture while creating additional challenges to policy, law, science and technology.

Debating New Realities in Space

Since the beginning of the space age, effective international cooperation has been fundamental to ensuring the safe, secure and sustainable use of space. The governance of space, described as humanity's most expansive global commons, has become increasingly mature due to the growing number of actors, both governmental and non-governmental, as well as new technologies and approaches such as public-private partnerships and private funding initiatives...

The Global Goals are designed to collectively address global challenges. Space technology can and will be used to support such endeavours. But while recent developments in outer space strengthen our efforts to attain a sustainable world, space remains a limited

resource that must be protected through one joint vision. With an increasing number of actors, including more and more States and private entities entering the space arena, the world today finds itself at the same decisive crossroads as in 1957, shortly after the launch of Sputnik.

From supporting global efforts, to the use of space technology for sustainable development, to maintaining the normative framework governing activities in the space environment, the United Nations has a long legacy of facilitating international cooperation in outer space. UNOOSA is proud to represent such a legacy as we continue to work to bring the benefits of space exploration to everyone everywhere.

The author acknowledges the contributions from Ian Freeman, Markus Woltran, and Martin Stasko (all UNOOSA), in the preparation of this paper.

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