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NEWSLETTER

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ISDE SUMMIT 22 : Digital Earth to Bridge Digital Divide

6th - 8th September, 2022

From September 6 to September 8, 2022, the 9th Digital Earth Summit was held successfully in Chennai, India. The theme of the summit is "Digital Earth to Bridge Digital Divide for Attainment of Sustainable Development Goals". The Institute of Remote Sensing at Anna University in Chennai, India, served as the host for the Summit, which was organized by the International Society for Digital Earth (ISDE). The inauguration was presided over by Dr. Alessandro Annoni, former President of ISDE in Italy. Former VC of Anna University in Chennai, Dr. Velraj; former Director of the NIAS, Dr. Shailesh Nayak, who was previously secretary of the MoES, GoI; VP-ISDE Dr. Zaffar Sadiq Mohamed Ghouse and Director-IRS at Anna University in Chennai, Dr. D. Thirumulaivasan. During this three-day summit, more than 200 people from various institutes participated.

In three plenary sessions, prominent academics and researchers gave six plenary talks on a variety of topics, including Earth observation, remote sensing, big data, digital resilience, and so on. During this summit, which lasted three days, researchers presented 45 technical papers in eight technical sessions on various subthemes. The large number of young people who are actively participating, most of whom have completed bachelor's or master's degrees in geospatial technology, is one of the Digital Earth Summit's special draws. To raise awareness of the Digital Earth technology among the youth in the community, Youth volunteers organized exclusive events for these young people. Digital Earth technologies like satellite data, spatial analysis, and geolocations are used to solve simple problems at these events, as is discussion about how to inspire young minds with events like Geopreneur.

MITACS Application nears deadline!

MITACS is a prestigious and extremely competitive abroad research internship opportunity in interdisciplinary domains. Spanning 12 weeks (about 3 months), the fully funded internship takes place at various reputed universities and research organizations across Canada during the months of June to August. The registrations for the Summer 2023 have started and the deadline for registration is September 27, 2022 (1:30 AM IST). Interested applicants are encouraged to apply.

Space and Sustainability - SGE Celebrates World Space Week

6th and 7th October, 2022

World Space Week 2022 – 4th to 10th October'22, was celebrated at Institute of Remote Sensing, Anna University on 6th and 7th October'22, following the theme – “Space and Sustainability”. Plenary session on ‘Geospatial Technology for Climate Studies’ was conducted by Emeritus Professor, Dr. A. Ramachandran, Centre for Climate Change and Disaster Management, Anna University. The second day of Space Week went on with a workshop on ‘Mental Health Awareness and Coping Skills for Students’ by Dr. Sandhya Rani, Organization and Counselling Psychologist.



An online lecture on ‘Space Law and Policy Matters at ISRO’ was also organized by Mr. V. Gopalakrishnan, Advisor in the VS Mani Centre for Air & Space Law at GNLU, Gandhinagar.

Article from members: Parker's Probe

On Dec. 14, 2021, NASA announced that they marked the first time in history, a spacecraft had touched the Sun (not literally). Parker probe had flown through sun's upper atmosphere – the corona – and sampled particles and magnetic fields there. Parker Solar Probe is designed to swoop within about 4 million miles (6.5 million kilometres) of the Sun's surface to trace the flow of energy, to study the heating of the solar corona, and to explore what accelerates the solar wind. During its journey, the mission will provide answers to long-standing questions that have puzzled scientists for more than 60 years: Why is the corona much hotter than the Sun's surface (the photosphere)? How does the solar wind accelerate? What are the sources of high-energy solar particles?. Data from Parker probe will be a key to understanding and, perhaps, forecasting space weather since it can change the orbits of satellites, shorten their lifetimes, or interfere with onboard electronics.



SGE organizes a two-day intra-college symposium - Celestia

2nd and 3rd December, 2022

The Society of Geoinformatics Engineers hosted CELESTIA'22, an annual symposium, on December 2nd and 3rd, 2022. Over two days, a variety of tech and non-tech events aimed at raising awareness about Geoinformatics were held. Key technical highlights included paper and poster presentations, where students showcased original research on remote sensing and GIS topics. The event kicked off with an inauguration by distinguished professors and faculty from the IRS and the Department of Civil Engineering, and concluded with a Valedictory Ceremony. CELESTIA provided a valuable glimpse into the world of remote sensing and GIS. Stay tuned for more exciting events in the upcoming semester!

Aerial Imaging Market size surpassed USD 3 billion in 2022 and is projected to record 22% CAGR during 2023 to 2032.

The aerial imaging market, valued at over USD 3 billion in 2022, is projected to grow at a 22% CAGR from 2023 to 2032. Key applications include military and defence sectors, with technologies like UAVs and aircraft-mounted camera systems enabling surveillance, mission simulation, and air-defence planning. The fixed-wing aircraft segment, valued at over USD 400 million in 2022, is essential for tasks like geospatial mapping and surveillance. Oblique imaging technology, expected to grow by 25%, offers better subject perspectives for mapping and civil functions. The urban planning sector is set to exceed USD 5 billion by 2032, driven by smart city initiatives. The Asia-Pacific region is forecasted to grow by 25%, with drones increasingly used in agriculture, defence, and crisis management.

SOCIETY MEMBERSHIPS

- Dr. R. Murugasan, Professor, IRS has become a life member in Indian Society of Remote Sensing (ISRS)
- Dr. D. Thirumalaivasan, Professor & Director, IRS has become a life member in Indian Society of Geomatics (ISG).
- Dr. K. Srinivasan, Assistant Professor, IRS has renewed his membership in IEEE Madras Chapter.

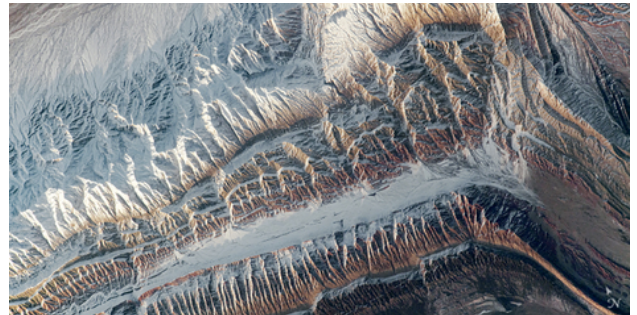
MoU SIGNED

On the sidelines of 9th Digital Earth Summit of iSDE during September 6-8, 2022, addendum to MoU with Chubu University, Japan was signed by Honorable Vice Chancellor of Anna University and International Digital Earth Science Applied Research Center of Chubu University

Celestial Mountains of China

A photograph taken from the International Space Station on February 9, 2022, shows the snow and ice-covered Tien Shan mountains in Central Asia, which stretch 2,500 kilometers along the Kyrgyzstan-China border. Glaciers cover 13,000 square kilometers of the Tien Shan, providing vital meltwater for agriculture in northwest China, Kazakhstan, Kyrgyzstan, and Uzbekistan. Cotton production in northwest China, which produces 85% of the nation's cotton, relies heavily on this meltwater, as the region receives minimal precipitation.

However, increasing water demands and expanding irrigated croplands threaten water sustainability. Additionally, warming temperatures are accelerating glacier melt, reducing glacier volume by 18% from 1961 to 2012. While this meltwater benefits farmers in the short term, it poses long-term challenges for regional water supplies.



How ESA works with the EU to advance European space

The European Space Agency (ESA) has strengthened its partnership with the EU to secure Europe's space future, focusing on Earth observation, navigation, secure connectivity, and space entrepreneurship. At the 15th European Space Conference, ESA's Director General, Josef Aschbacher, emphasized the need for Europe's independent access to space, vital for benefits like climate monitoring, secure communications, and crisis response. Key projects include the Galileo navigation system and Copernicus Earth observation satellites. ESA is supporting the EU's Iris2 program, a secure satellite connectivity system set for 2027. ESA is also advancing next-generation Galileo satellites and enhancing Copernicus data for Europe's net-zero goal by 2050. Efforts to foster space innovation, launch a European space stock index, and plan future exploration missions were also highlighted. Space traffic management and cybersecurity were key topics discussed by other ESA leaders.

