SOCIETY OF GEOINFORMATICS ENGINEERS
INSTITUTE OF REMOTE SENSING

Publishes

NEWSLETTER

VOLUME 20, ISSUE 2

JULY-DECEMBER, 2024

EDITORIAL BOARD

VOLUME 20 ; ISSUE 2

JULY 16, 2024

LECTURE ON BIG DATA, HYPER SPECTRAL REMOTE SENSING AND BIODIVERSITY

Dr.Suresh Vannan
Mission manager for EMIT mission on ISS space station and project manager, PODAAC

Dr. Lathamalar
Remote sensing scientist
NASA, JPL,USA

The event featured an engaging session where our alumni from NASA interacted with faculty and research scholars, providing a unique platform for knowledge exchange and networking.

The speakers emphasized the importance of integrating big data analytics with environmental studies to address pressing global challenges such as climate change, habitat loss, and species extinction. By utilizing hyperspectral imaging, researchers can capture detailed information across various wavelengths, allowing for more precise monitoring of ecosystems. The event underscored the transformative potential of combining these technologies, highlighting ongoing projects that utilize big data to support biodiversity conservation efforts.

This lecture explored the critical role of advanced data technologies in enhancing our understanding of ecological systems and promoting sustainable practices.Overall the event fostered meaningful interactions between experienced professionals and emerging scholars.

COLIN MACKENZIE AUDITORIUM, IRS

VOLUME 20 ; ISSUE 2

JULY 25-27, 2024

GEO INNOVATION CHALLENGE

The Geo-Innovation Challenge, held from July 25-27, 2024, at Anna University, Chennai, aimed to foster innovative ideas using geospatial technologies to address critical ecosystem challenges

- Organized by the National Geospatial Program (NGP) under the Department of Science and Technology (DST), Government of India.
- The program seeked to encourage creative problem-solving among participants from diverse fields, emphasizing the integration of geospatial technologies with advancements like AI, IoT, and big data

The challenge was open to individuals under the age of 40, including students and professionals. Selected ideas were presented at the event, with top 3 ideas were awarded cash prizes worth Rs. 12000,8000,5000 respectively .

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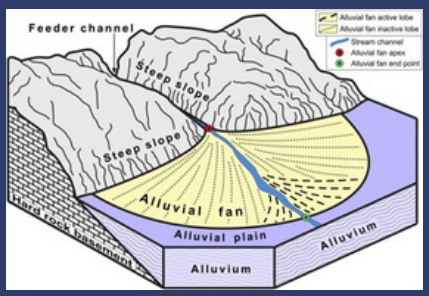
>>> VOLUME 20 ; ISSUE 2

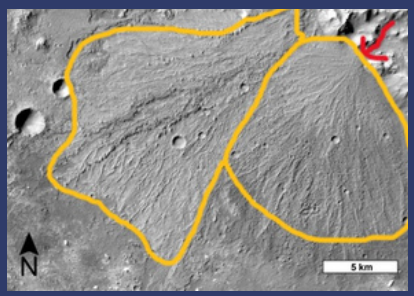
FEATURED ARTICLE

ALLUVIAL FANS ON MARS: A SIGN OF PAST WATER AND POTENTIAL LIFE

BALA SABARISH SH, 3rd YEAR

Alluvial fans are the striking fan-shaped deposits of sediment.They're windows into the watery pasts of other worlds. These features, commonly found on Earth where rivers or streams flow out of mountains and lose energy, have also been identified on Mars and Titan, Saturn's largest moon. The discovery of these fans on other celestial bodies is more than a mere curiosity. It's a significant clue in the search for past water activity and, potentially, life beyond Earth. On Mars, alluvial fans are evidence to a time when water flowed freely across the planet's surface. High-resolution imagery from orbiters like the Mars Reconnaissance Orbiter (MRO) has revealed these fans in stunning detail, mapping out regions where ancient rivers once deposited sediments. But it's not just about mapping spectroscopically; hyperspectral band analysis of these fans has identified minerals like clays and sulphates, which are strong indicators that water was involved in their formation. Titan, with its frigid temperatures and methane-rich atmosphere, also contains alluvial fans, though here they're formed by liquid hydrocarbons like methane or ethane. Using radar and infrared imaging from the Cassini spacecraft (1997), scientists have detected these features, pointing to periods of active fluid flow that shaped Titan's landscape in ways remarkably similar to Earth and Mars. The exploration of these alluvial fans relies heavily on advanced remote sensing techniques. High-resolution imagery allows for detailed mapping, while spectroscopy provides insights into mineral composition. Radar helps to monitor the elevation profile of the fan, revealing subsurface structures, and thermal infrared imaging offers clues about temperature variations and the presence of buried ice or other materials. Together, these methods are painting a clearer picture of the dynamic histories of Mars and Titan, offering evidence for potential life beyond our planet.





VOLUME 20 ; ISSUE 2

AUGUST 7, 2024

GEOSPATIAL APPLICATIONS FOR NATURE BASED SOLUTIONS

Dr. M. Muneeswaran
Senior Programme Officer
IUCN , Switzerland

Dr. M. Muneeswaran delivered a special lecture on 'Geospatial applications for Nature Based Solutions'. Serving as a senior program officer at International Union for Conservation of Nature, he emphasized on implementing actions that use natural processes and features to address environmental and social challenges.

Dr. S. Jayalakshmi, Professor
Institute of Remote Sensing
Anna University

Dr. S. Jayalakshmi, Professor, Institute of Remote Sensing, had participated in International Geosciences and Remote Sensing Symposium in Athens, Greece at July 2024 and shared her experiences with the UG and PG students of Geoinformatics.

She emphasized the importance of networking with geospatial domain experts and alumnus and attending the conferences. She had also disseminated information on the importance of being a part of Student Chapter of such conferences. This talk motivated the students to be part of such conferences.

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VOLUME 20 ; ISSUE 2

AUGUST 13, 2024

EMERGING FIELDS OF RESEARCH ON GEOINFORMATICS

Maj, Gen, Dr. B. Nagarajan
Ph.D. Ohio State University
Visiting Professor
National Centre for Geodesy (NCG)
Indian Institute of Technology, Kanpur (IIT-K)

Institute of Remote Sensing has organized a tech-talk on 'Emerging Fields of Research on Geoinformatics' from the domain expert Maj. Gen. Dr. B. Nagarajan, a visiting professor at National Center for Geodesy at Indian Institute of Technology, Kanpur on August 13, 2024. Dr. B. Nagarajan elaborated on the needs of research on the field of Geodesy and the scopes of research in Geospatial domain in relation to Geodesy.

Dr. B. Nagarajan discussed the postgraduate programs and Ph. D programs that are available in Indian Institute of Technology, Kanpur. His tech-talk sparked an interest in the young minds to pursue a career path in Geodesy research and be a part of the scientific research that are going under the Indian Army.

COLIN MACKENZIE AUDITORIUM, IRS

>>> VOLUME 20 ; ISSUE 2

NATIONAL SPACE DAY CELEBRATION

Theme: Touching Lives while Touching the Moon: India's Space Saga

On August 23, 2024, India celebrated its first "National Space Day" (NSpD-2024), marking a year since the successful Chandrayaan-3 mission that made India the first country to reach the Moon's southern polar region. The celebrations at Bharat Mandapam, New Delhi, featured exhibitions, panel discussions, and interactive sessions showcased India's space journey from Aryabhata to Chandrayaan-3. The day also set the stage for India's ambitious future in space exploration, including the upcoming Gaganyaan mission to send Indian astronauts to space. The day was a proud reminder of India's achievements and a call to inspire future generations to explore the unknown and contribute to the nation's space saga.

REUSABLE ROCKET RHUMI

Space Zone India successfully launched Mission RHUMI – 2024, marking the world's first mobile launch of a hybrid rocket

The mission, guided by Dr. Mylswamy Annadurai and directed by Dr. Anand Megalingam, took place on August 24, 2024, from Thiruvidanthai, Chennai.RHUMI carried 3 Cube Satellites and 50 PICO Satellites to study global warming and climate change. The rocket, equipped with a generic-fuel-based hybrid motor and an electrically triggered parachute deployer, was 100% pyrotechnic-free.

The initiative "Space Science for All" learning module engaged aspiring students and scientists worldwide by providing hands-on learning opportunities and encouraging participation in satellite technology.

VOLUME 20 ; ISSUE 2

AUGUST 29-30,2024

INDUCTION PROGRAMME FOR UG FIRST YEARS

Faculty interaction with first-year B.E. Geoinformatics students of the Institute of Remote Sensing (IRS) at Anna University, held on August 29 and 30, 2024, as a part of induction program. On August 29, the event began in Colin Auditorium, where the Dr. R. Vidhya, Professor and Director, IRS introduced the curriculum and engaged students in an interactive session, exploring their motivations for choosing geoinformatics. Faculty members, including Dr. C. Udhayakumar, President of the Society of Geoinformatics Engineers (SGE); Dr. K. Srinivasa Raju, Professor; and Dr. R. Kanmani Shanmuga Priya, Assistant Professor shared valuable insights. Dr. Divya Priya B, Treasurer of SGE, introduced the society and encouraged student participation in its activities.

The program continued on August 30 with a guided tour of the Institute of Ocean Management and the Water Resources Laboratory, offering students an opportunity to explore cutting-edge research facilities and connect theory to real-world applications. As part of the induction, students participated in Universal Human Values (UHV) sessions focused on ethical grounding, empathy, and self-awareness.

VOLUME 20 ; ISSUE 2

AUGUST 31, 2024

ST.THOMAS MOUNT
FIELD VISIT

The 7th and 5th-semester B.E. Geoinformatics students visited St. Thomas Mount, Chennai, on 31st August 2024 to study about one of the major geodetic projects of British india, The Great Trigonometric Survey (GTS).

- The GTS project was Initiated in 1802 by Colonel William Lambton. It was a significant project, aiming to accurately measure and map the Indian subcontinent.
- St. Thomas Mount was chosen as the first benchmark in the triangulation network due to its high elevation and strategic location, highlighting its geographical and historical importance.

The site served as a key point in the vast triangulation network, essential for creating accurate maps and understanding India's terrain. During the visit, students learned about the historical methods and instruments used, such as the theodolite, which were revolutionary for their time. This field study provided the students with practical insights into the challenges and precision of early geodetic surveys.

VOLUME 20 ; ISSUE 2

Registration started

IMPORTANT DATES FOR GATE 2025

GATE 2025 will be a computer-based test (CBT) and is being organized by Indian Institutes of Technology Roorkee

IMPORTANT DATES

Opening dates for online application	**28th August 2024**
Closing date of registration (without fine)	**26th September 2024**
Closing date with fine	**7th October 2024**
Exam dates	**1st February 2025 – Saturday** **2nd February 2025 – Sunday** **15th February 2025 – Saturday** **16th February 2025 – Sunday**

NPTEL is offering a Mock Test Series for GATE 2025, covering subjects like Biotechnology, Chemistry, Civil Engineering, and more. These practice exams, designed to simulate the GATE experience, will help improve study techniques and boost confidence. The mock tests will be conducted from September 15 2024 on every Sunday from 2:00 PM to 5:00 PM

The Graduate Aptitude Test in Engineering (GATE) 2025 is a national-level exam that tests the comprehensive understanding of various undergraduate subjects in engineering and science for admission to postgraduate programs and recruitment by some public sector companies.

For queries visit https://gate2025.iitr.ac.in/

VOLUME 20 ; ISSUE 2

FEATURED ARTICLE

PREDICTION OF LANDSLIDES USING GROUND BASED INTEGRATED SENSORS IN RURAL VILLAGES NEAR MOUNTAINS AND LANDSLIDE RISK ZONES

SANJAYKUMAR E, 2nd YEAR

Climate change has increased the frequency of natural disasters, including landslides, which have caused significant loss of life and property, as seen in Wayanad, Kerala. Traditional monitoring methods using satellite imagery lack the precision needed to predict specific impacts accurately. The aim is to predict landslides in rural villages near mountains and risk zones using ground-based integration sensors, providing real-time alerts to save lives and property.

A comprehensive landslide monitoring system can address this by integrating six key sensors: vibration, pH, methane, angle, gamma radiation, and moisture sensors. These sensors, placed every 100 meters in rural hot spots, detect environmental changes and provide real-time data for proactive monitoring and alerts. The vibration sensor detects seismic activity above 10Hz, triggering an alarm for potential landslides. Gamma radiation sensors monitor elevated radiation levels, which can precede landslide conditions.

Moisture sensors track soil saturation levels, triggering an alarm when levels exceed 60%. Each sensor has a set threshold, and if four or more exceed their limits, a high-decibel alarm is triggered to signal a high-risk landslide scenario. This early warning system is vital for rural areas near mountains, enabling timely evacuations and reducing risks when emergency services are limited. Implementing such proactive measures can significantly mitigate the impact of natural disasters in vulnerable regions.

>>> VOLUME 20 ; ISSUE 2

FEATURED ARTICLE

INTEGRATION OF REMOTE SENSING AND MACHINE LEARNING IN CLIMATE CHANGE STUDIES

Kashika V, 2nd YEAR

The integration of remote sensing with machine learning is crucial in studying climate change. In order to fully understand climate change, remote sensing and machine learning must be combined. Machine learning models are able to identify minute variations in the Earth's climate system by examining enormous volumes of satellite data.

This method aids in tracking the dynamics of ice sheets, identifying change in plant patterns, and evaluating how ecosystems are affected by climate change.

For example, remote sensing data paired with machine learning algorithms can track changes in sea ice extent and thickness, both of which are important indications of global warming. Furthermore, these technologies can forecast future climate scenarios by evaluating historical climate data, allowing for more precise modeling of temperature and precipitation changes.
In agriculture, these methods are used to assess the impact of climate change on crop yields and food security by predicting drought conditions and identifying areas at risk of desertification.

APPLICATIONS:

1.Arctic Ice Melt: In 2020, scientists utilized remote sensing and computer learning to forecast Arctic ice melt, giving critical data for understanding rapid climate change in polar regions.

2. Amazon Deforestation: Since 2015, Brazil has used satellite data and machine learning to track illicit deforestation in the Amazon, thereby boosting climate protection efforts.

VOLUME 20 ; ISSUE 2

SEPTEMBER 6, 2024

INAUGURATION OF SOCIETY OF GEOINFORMATICS ENGINEERS

On September 6, 2024, the Society of Geoinformatics Engineers (SGE) was officially inaugurated at Vivekananda Auditorium, Anna University. The event marked a significant milestone with the foundation stone laying for Anna University's first Continuously Operating Reference Station (CORS) by Dr. Prakash Chauhan, Director, NRSC, Dr. K.P. Jaya, Professor and Head of the Civil Engineering, Dr. R. Vidhya, Director, IRS, Dr. C. Udhayakumar, President of SGE, and Dr. Divya Priya B, Treasurer of SGE.

Dr. Chauhan's keynote highlighted the importance of glacier monitoring, space-based geoinformation systems, and communication satellites in India's defense and development. Esteemed guests like Dr. J. Prakash, Registrar, and Dr. K. P. Jaya, Head of Civil Engineering, reinforced the university's commitment to innovation.

The event also celebrated the launch of the PG Project Lab, equipped for advanced geoinformatics research, and showcased student projects and industrial exhibits that bridged academia and industry. These efforts underscore Anna University's dedication to fostering talent and advancing geospatial technologies. The inauguration set the stage for SGE to be a hub of excellence, collaboration, and innovation, inspiring the next generation of Geoinformatics engineers.

VIVEKANANDA AUDITORIUM, ANNA UNIVERSITY

VOLUME 20 ; ISSUE 2

SEPTEMBER 6, 2024

INAUGURATION OF CORS FOUNDATION STONE

The foundation stone for the Continuously Operating Reference Station (CORS) at Anna University was officially laid, marking a significant milestone in enhancing geospatial research and applications at the university. The inauguration ceremony was graced by the presence of esteemed dignitaries, Dr. Prakash Chauhan, Director of the National Remote Sensing Centre (NRSC), Dr. K. P. Jaya, Professer& Head, Department of Civil Engineering, Dr. R. Vidhya, Professor and Director of the Institute of Remote Sensing (IRS), Dr. J. Prakash, Registrar and Dr. S. Karthikeyan, Estate Officer.

The CORS system is a network of GPS or GNSS base stations that provides real-time, accurate positioning information for a specific region, offering local coverage. This network plays a crucial role in a range of applications, such as surveying, mapping, and geodetic research. The establishment of the CORS station at Anna University will significantly contribute to the university's ongoing research efforts in geospatial sciences and will be an invaluable resource for students and researchers alike. The inauguration of the CORS Foundation Stone underscores Anna University's commitment to advancing geospatial technology and providing cutting-edge infrastructure for its academic and research community.

VOLUME 20 ; ISSUE 2

SEPTEMBER 11, 2024

OPEN-SOURCE DATA FOR CLIMATE SOLUTIONS

Dr. Pennan Chinnasamy, Associate Professor, Center for Technology Alternatives for Rural Areas (CTARA), Indian Institute of Technology, Bombay

The Society of Geoinformatics Engineers hosted an insightful webinar on "Generating Open-Source Bottom-Up Data for Climate Change Solutions" on September 11, 2024, led by Dr.Pennan Chinnasamy from IIT Bombay. Dr. Chinnasamy emphasized the importance of grassroots engagement in addressing climate change, showcasing how open-source platforms democratize access to data and empower local communities. He shared real-world examples from rural India where collaborations between farmers, NGOs, and governments improved data accuracy and fostered sustainable solutions. Dr. Chinnasamy highlighted the transformative role of technologies like IoT and GIS, illustrating their use in monitoring groundwater, rainfall, and crop health. Projects in Maharashtra and Tamil Nadu demonstrated how these tools aid in predicting droughts and designing climate-resilient farming practices. He stressed the need for aligning advanced technologies like remote sensing with local knowledge and encouraged the use of open-source tools such as QGIS and OpenStreetMap.

Participants gained valuable insights into combining community-driven efforts with cutting-edge technologies to tackle climate challenges effectively. The webinar inspired a collaborative approach to building a sustainable future, leaving attendees motivated to apply these learnings in real-world scenarios.

COLIN MACKENZIE AUDITORIUM, IRS

VOLUME 20 ; ISSUE 2

CELEBRATION OF WORLD SPACE WEEK'24 AND CELESTIA

OCTOBER 8-10, 2024

Celestia 2024, organized from October 8 to 10 during World Space Week, highlighted the theme "Space and Climate Change," offering a dynamic mix of educational sessions, inspiring talks, and engaging hands-on activities. The event commenced with a keynote by Dr. Manju Sarma, highlighting advancements in space technologies like the Bhoonidhi Satellite, and an inspiring talk by Ms. Durgamoorthi, I.A.S., on resilience and determination.

Engaging events like "Capture the Planet" and "Space Escape Room" tested participants' problem-solving skills, while carnival games such as "Blind Pictionary" and "Map Puzzle" added a playful touch. Strategic thinking was showcased in "Bidscape," a space-themed auction that challenged teams to build colonies using Galactic Credits. The Paper and Poster Presentations provided a platform for participants to showcase innovative research and design solutions, adding an academic dimension to the symposium.

The 360-degree Dome Show, presented in collaboration with The Astro Club of CEG and BM Birla Planetarium, offered an immersive journey through space, complemented by the Space Expo with hands-on exhibits and virtual missions. A UAV workshop by Land Coordinates Technology demonstrated the transformative applications of unmanned aerial vehicles.

Dr.Mruthyunjaya Reddy's lecture on Touching Moon While Touching Lives – A Space Sage and Geospatial Technologies for Rural Development concluded with a Valediction Ceremony, celebrating winners of competitions and recognizing the efforts of all participants. Celestia 2024 exemplified the spirit of exploration, leaving attendees inspired and enriched.

VIVEKANANDA AUDITORIUM, ANNA UNIVERSITY

VOLUME 20 ; ISSUE 2

SEPTEMBER 19, 2024

HEXAMAP PLACEMENT TALK

Hexamap Solutions Pvt. Ltd. conducted a Placement Talk on September 19th, 2024, at Anna University, providing students with an insightful overview of the company's role in geospatial intelligence. The session highlighted the company's contributions to sectors such as mining, construction, and defense, showcasing how GIS, remote sensing, and spatial analytics are applied to solve complex real-world challenges.

The talk included a discussion on key projects and the company's client base, offering students a deeper understanding of the practical impact of geospatial solutions. Hexamap Solutions also emphasized the importance of programming skills for geospatial applications, covering languages like Java, Python, and C++ and highlighting the need for expertise in both client-side and server-side platforms. The session was interactive, with students engaging in discussions and gaining valuable insights into the industry's demands. Overall, the talk helped students better understand the applications of geospatial technologies and the essential software skills required in the field.

COLIN MACKENZIE AUDITORIUM, IRS

VOLUME 20 ; ISSUE 2

OCTOBER 8, 2024

CEG IRS GEOSPATIAL MAPATHON 2024

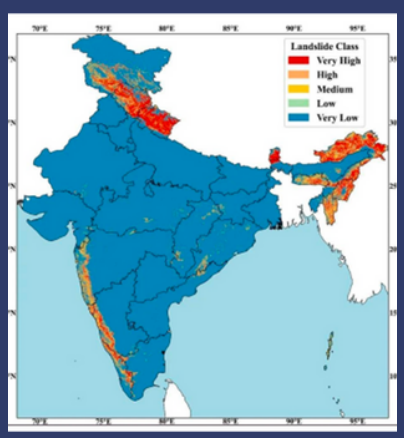
The prestigious CEG IRS Geospatial Mapathon was officially unveiled during Celestia'24 by Dr. R. Vidhya, Professor and Director of the Institute of Remote Sensing (IRS), Anna University. This pioneering initiative underscores the commitment of IRS to advancing geospatial technology and fostering innovation.

The Mapathon offers participants the opportunity to tackle one of two challenging problem statements:

1. **Cleaning Crowdsourced Data:** Participants are tasked with automating the process of cleaning and refining crowdsourced geospatial data.
2. **GIS Based Landslide Susceptibility Mapping:** Using machine learning algorithms, participants will develop models to assess landslide susceptibility, addressing a critical real-world problem.

Open to participants nationwide, the Mapathon has garnered significant interest from geospatial enthusiasts, researchers, and students. Registration closed on November 10, 2024, and the competition is now in full swing. Participants are diligently working on their chosen problem statements, with the final deadline for submitting results set for December 31, 2024.

This initiative serves as a platform for collaboration and innovation, encouraging participants to push the boundaries of geospatial technology while addressing pressing societal and environmental challenges.



VOLUME 20 ; ISSUE 2

NOVEMBER 6, 2024

INDUSTRIAL VISIT TO IFP

On November 6, 2024, 3rd year UG Geoinformatics students, accompanied by Assistant Professor Mrs. M. Navamuniyammal, visited the French Institute of Pondicherry (IFP) for an insightful one-day industrial visit. The visit aimed to explore the applications of remote sensing, GIS, and geospatial data in environmental and coastal monitoring. The day began with Mr. Samuel Corgne, who discussed the role of remote sensing in monitoring environmental changes and coastal processes along the Southeast coast of India. This was followed by Mr. Chadi Jadraque, who highlighted the use of Google Earth Engine and the Otsu algorithm for efficient shoreline monitoring. Finally, Ms. Srilatha introduced the French Institute's Online Data Portal (FIPOD), emphasizing its role in making geospatial data accessible to researchers and policymakers. The visit was well-organized, with a warm welcome from the staff and engaging sessions that bridged academic knowledge with real-world applications in coastal management and environmental research.

>>> VOLUME 20 ; ISSUE 2

NOVEMBER 12-15, 2024

INDUSTRIAL VISIT TO TRIVANDRUM

4th year B.E. Geoinformatics students made a visit to the Indian Institute of Space Science and Technology (IIST) in Trivandrum provided valuable insights into the convergence of Earth and Space Sciences. We attended lecture by Dr. Ramiya, who explained the application of LiDAR technology in mapping and space research. We toured several research labs, including the Remote Sensing Lab, which focuses on satellite data for environmental and urban studies, and the LiDAR Lab, where we learned about SLAM technology for 3D terrain mapping. The Atmospheric Science Lab provided insights into space weather research, while the Geology Lab demonstrated the study of sediment and stone samples for planetary exploration. The Student Satellite Monitoring and Research Lab showcased real-time satellite tracking and payload research.

The visit culminated with a trip to the Ponmudi Hills IIST Observatory, where we observed instruments used for space weather studies and celestial research. This experience underscored the critical role of space science in addressing global challenges and reinforced IIST's commitment to advancing technological innovation in this field.

VOLUME 20 ; ISSUE 2

INDUSTRIAL VISIT TO GTS POINT

NOVEMBER 23, 2024

On November 23, 2024, second-year students of B. E. Geoinformatics visited the GTS Benchmark at St. Thomas Mount, Chennai. Divided into two sessions, the visit explored both historical and practical aspects of trigonometric surveying. In the morning, Dr. Shoba Periyasamy guided students through the historical context of the Great Trigonometrical Survey, highlighting Col. William Lambton's contributions and the surveying techniques used during the British colonial period. The afternoon session, led by Dr. C. Udhayakumar, focused on the modern applications of the GTS Benchmark in geospatial technologies such as GIS and remote sensing, particularly in urban planning. Students had the chance to interact with the benchmark, learning hands-on data collection methods and understanding the ongoing relevance of historical surveying practices. The visit also included a scenic viewpoint offering a visual perspective of Chennai, reinforcing the practical applications of surveying in contemporary geospatial work. Overall, the visit provided a valuable learning experience, bridging theoretical knowledge with real-world applications in the field of geoinformatics.

VOLUME 20 ; ISSUE 2

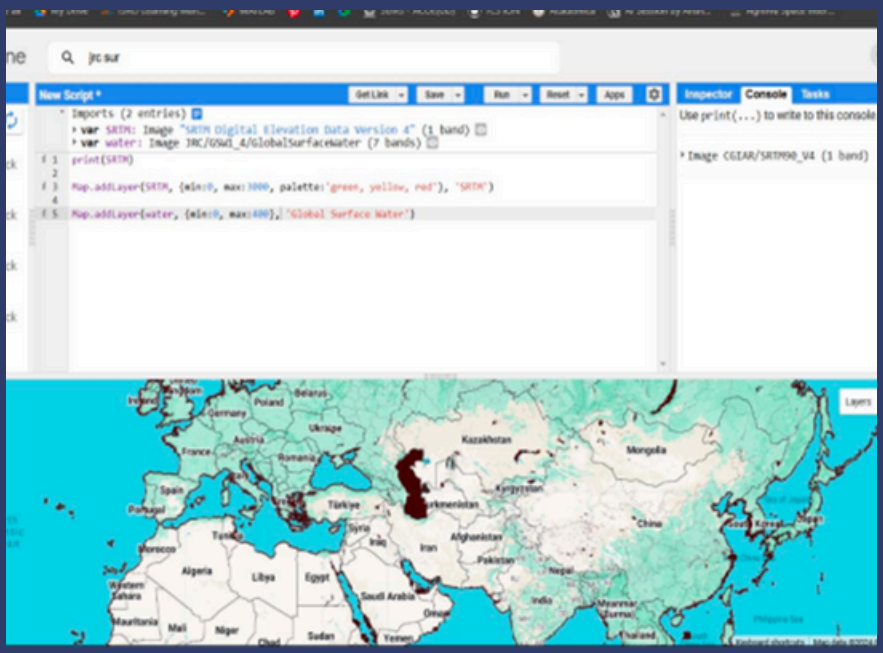
SATELLITE IMAGE ANALYSIS USING GOOGLE EARTH ENGINE AND JAVASCRIPT

NOVEMBER 24, 2024

Mr. S. Balasubramaniyam
XR Developer
Laursen and Toubro Technology Services

The workshop on "Satellite Image Analysis with Google Earth Engine and JavaScript," led by Balasubramaniyam Sundaram from L&T Technology Services, introduced participants to geospatial data analysis using the Google Earth Engine (GEE) platform. The session focused on using satellite imagery for applications like environmental monitoring and vegetation analysis. Participants learned how to navigate GEE, access datasets like Sentinel-2 and Landsat, and use JavaScript for data processing. They engaged in hands-on activities such as visualizing satellite imagery, calculating indices like NDVI, and performing change detection to identify environmental changes over time.

The workshop also covered exporting processed data to Google Drive for further analysis. Real-world applications in agriculture, conservation, urban planning, and disaster management were highlighted. Feedback from participants was positive, with many expressing interests in further workshops to deepen their knowledge of geospatial analysis.



The session concluded with encouragement to explore GEE further and apply the knowledge to solve real-world challenges

MICROSOFT TEAMS

VOLUME 20 ; ISSUE 2

NOVEMBER 27, 2024

GIS MEME CONTEST

The GIS Meme Contest, organized by the Society of Geo-Informatics Engineers (SGE), ran from November 27th for a month, engaging students in a creative and fun way to explore geoinformatics concepts. Participants created original memes about GIS, remote sensing, and related topics, sharing them on social media to gain likes and reactions. The contest aimed to promote creative learning, raise awareness about geoinformatics, and engage students in an innovative manner.

The contest saw a great response, with memes about satellite imagery, data processing, and GIS careers gaining significant traction online. The winners were selected based on social media engagement: First Place went to Kalaiarasi.G, Second Place to Semmozhi Selvam.S.P, and Third Place to Kalimuthu.A. Their memes showcased both creativity and the ability to explain complex topics humorously.

VOLUME 20 ; ISSUE 2

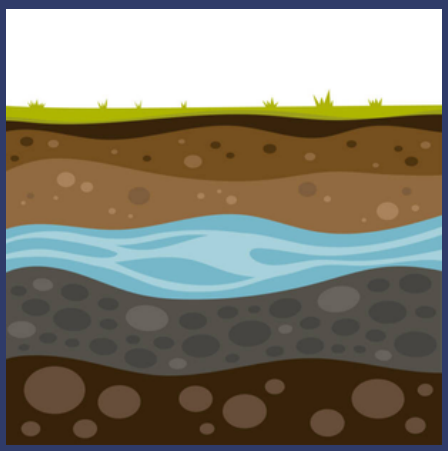
RESEARCH PROJECTS BY STUDENTS AT CTF

Ambulance Monitoring System

An innovative application enhancing emergency response systems by leveraging real-time GPS tracking, optimal route planning, and traffic management integration. It aims to save lives through improved ambulance access and timely medical assistance.

Precision Agriculture Using Satellite Imagery

A project utilizing satellite imagery and ground-based data to improve predictive modelling for crop health and land degradation, fostering sustainability in agriculture.



Ground Water Mapping Using Multifactor Analysis

This research focuses on assessing groundwater quality through remote sensing and multifactor analysis, contributing to sustainable water resource management and agricultural planning.

Glacial Motion

A study employing advanced remote sensing techniques to monitor glacial dynamics and assess the impacts of climate change, providing valuable insights for policymakers and researchers.

PROJECTS OF IRS

LANDSLIDE INVENTORY MAPPING FOR POST MONSOON 2023

IRS partners with National Remote Sensing Center of Hyderabad (NRSC) for the duration of one year to deliver the landslide inventory maps for Tamilnadu with standard attributes to the database. The project is funded by NRSC and ISRO.

TRAINING PROVIDED BY IRS

EXPLORATION OF GEODETIC MEASUREMENT TECHNIQUES

Institute of Remote Sensing conducted a short term training program on 'Exploration of Geodetic Measurement techniques' sponsored by Department of Science and Technology, Govt. of India from August 19-24, 2024. This is open for all the research scholars in the field of Civil Engineering at any institution.

SOCIETY MEMBERSHIPS

- Mrs. M. Navamuniyammal, Assistant Professor, IRS has become a life member in **Indian Society of Geomatics (ISG).**
- Dr. S. Jayalakshmi, Professor, IRS has become a life member in **Indian Society of Remote Sensing (ISRS)**
- Dr. R. Kanmani Shanmuga Priya, Assistant Professor, IRS has become the members of **IEEE Madras Chapter.**