REPORT on Local knowledge sharing, my experience at Geo-Information for Disaster Management (Gi4DM 2024) and ISPRS-SELPER Technical Commission III Symposium in Belém, Brazil from November 2nd-8th 2024.





"ISPRS-SELPER is the best, ready and always bringing students, professionals, and industries together"



This is going to be my first international conference in South America; the city of mango trees,

it was an amazing conference, and I had the opportunity to meet with different people from all over the world. After attending the Gi4DM and ISPRS conferences, I will say it is the best so far. Attending the Gi4DM and ISPRS Technical Commission III Symposium in Belém, Brazil, was an invaluable experience, expanding my knowledge in remote sensing technologies and providing me with insights to advance my work in geospatial disaster response and resilience.



The symposium brought together a global community of remote sensing professionals, academics, and practitioners to share advancements and innovations across fields like environmental monitoring, disaster response, and climate change resilience. With a particular focus on tropical environments, the event highlighted the Amazon region's role in

global ecological and environmental health, underscoring remote sensing's capacity to address critical environmental challenges.

I had the opportunity to present my research through both a poster and an oral presentation. The poster, titled "Enhancing Disaster Response and Resilience through Near-Time GIS for Flood Monitoring and Analysis in the Niger River Basin, Nigeria," highlighted an integrated approach leveraging Google Earth Engine (GEE) for flood mapping.

By showcasing multi-temporal satellite data analysis, I discussed how GEE's cloud computing platform enables near-real-time flood monitoring over extensive areas, offering critical support for emergency planning and response. The presentation drew interest from attendees, sparking discussions around methods for improving flood analytics and



exploring potential adaptations for similar flood-prone regions globally.

Less I forget, I spent some quality time at the ISPRS booth stand, meeting with different individuals and student representative learning more about ISPRS and SELPER.

The symposium offered a comprehensive

program with a mix of oral presentations, poster sessions, keynote lectures, and panel discussions. Opening with a keynote by Dr. Thelma Krug, Chair of the Global Climate Observing System (GCOS), the session addressed "Space-based Observations for Monitoring Climate Change Indicators," where she discussed the opportunities and challenges for satellite-based monitoring in climate science. The opening ceremony, hosted at the Federal University of Pará's Centro de Evento Benedito Nunes, included welcome addresses from ISPRS and SELPER representatives, establishing a foundation of international collaboration in remote sensing and geospatial sciences.

Throughout the week, the symposium featured sessions on diverse topics like planetary studies, health and security applications, hydrology, fire hazard management, and agriculture. I attended sessions particularly relevant to my work, such as "Hydrology and Floods," "Environmental Applications," and "AI for Image Analysis." These sessions offered insights into the latest methods for flood prediction, drought monitoring, and leveraging machine learning for high-precision image analysis. The plenary session's panel, "Initiatives for the Environment and Climate," stood out as an inspiring discussion, with experts

sharing their experiences in remote sensing applications for sustainability and climate resilience

Participating in the ISPRS Symposium has greatly benefited my professional journey and career trajectory. I gained exposure to cutting-edge techniques, like the application of AI for large-scale image analysis and real-time processing in environmental monitoring, which will enhance my current work on disaster resilience and urban heat modeling. The symposium allowed me to connect with peers from around the world, fostering connections that may



lead to future collaborations on global geospatial challenges.

Moreover, presenting my work to an international audience was a formative experience that boosted my confidence and reinforced my commitment to leveraging geospatial tools for environmental protection and disaster mitigation. The feedback received on my presentations underscored the importance of translating complex spatial

data into actionable insights, a goal that I will carry forward into my research and professional development.

While at the conference I realized that I have mapped over 58 countries in the world, and I realized that I haven't mapped Brazil, in general, I had no idea what the area looks like in an Aerial view until I visited the place and I was surprised.

Attending and presenting at the Gi4DM and ISPRS Technical Commission III Symposium has been a significant step in my career, providing insights, connections, and technical knowledge that I can immediately apply to my work. The sessions, presentations, and discussions were not only technically enriching but also inspiring, as they highlighted



remote sensing's role in tackling some of the most pressing environmental issues of our time. I am grateful for the opportunity to represent my research on a global stage and am excited to integrate the skills and insights gained from this experience into my ongoing projects

All thanks to Gi4DM, ISPRS-SELPER for inviting me to join the conferences and providing me with a

conference travel grant. Also, I would like to thank the local organizers for giving me a full hospitality throughout the conference and my stay in Belem, Brazil.





