



Faculty of Engineering and Built Environment

# **PROGRAMME**

## **NANOSATELLITE SEMINAR SERIES**



08 - 13 September 2025



09:00



Mining Engineering Boardroom, Lower Campus

in conjuction with







## **Director of Ceremonies:**

## **Dr Smita Francis**

Senior Lecturer: Coordinator, Namibia Institute of Space Technology

Monday	y, 08 September 2025 DAY 1	
Presenter: Prof Anjana Vyas, PhD		
08:30	Registration and Introduction	
08:45	Welcome Address: Prof Harmony Musiyarira, Executive Dean: Faculty of Engineering and Built Environment	
09:00	Fundamentals of Remote Sensing	
10:00	Q&A	
10:15	Satellite Imagery: An Overview	
11:30	Tea Break	
Presenter: Ms Sweata Katwal		
11:45	Satellite Imagery: Image Interpretation	
12:45	Q&A	

Tuesday, 09 September 2025 DAY 2			
Presenter: Prof Anjana Vyas, PhD			
09:00	Online Portals for Data Downloads		
10:00	Q & A		
10:15	Data Download Exercise		
11:30	Tea Break		
Presenter: Ms Sweata Katwal			
11:45	Satellite Data		
12:45	Q&A		

Wed	Wednesday, 10 September 2025 DAY 3		
Presenter: Prof Anjana Vyas, PhD			
09:0	00	Introduction of QGIS	
10:0	00	Q & A	
10:	15	Surface Creation	
11:3	80	Tea Break	
Presenter: Ms Sweata Katwal			
11:4	15	Satellite Data Analysis	
12:4	15	Q&A	

Thursd	Thursday, 11 September 2025 DAY 4		
Presenter: Prof Anjana Vyas, PhD			
09:00	Creation of Watershed:Demonstration and Practical		
10:00	Q & A		
10:15	Integration of Spatial:Socio-Economic Data		
11:30	Tea Break		
Presenter: Ms Sweata Katwal			
11:45	Flood Influence Zones and Impact Analysis		
12:45	Q&A		

Friday, 12 September 2025 DAY 5			
Presenter: Prof Anjana Vyas, PhD			
09:00	Advanced Methods for Flood Analysis [MCA]		
10:00	A&D		
10:15	Damage Assessment / Hazard Mapping		
11:30	Tea Break		
Present	Presenter: Ms Sweata Katwal		
11:45	Participants' Presentation and Concluding Ceremony		
12:45	Q8A		

#### Note:

- 1. Number of Seats: 25
- 2. Trainee participants to bring their own laptops.
- 3. Trainee Participants may download QGIS from

## https://ggis.org/download/

- 4. The use of Open-Source software will be done extensively, practised and discussed in the training.
- 5. Open Data Sources will be explored and downloaded for learning.



## NIST Namibia Institute of Space Technology

## **PRESENTERS**



Prof Anjana Vyas, PhD has made an outstanding contribution to the fields of education and skills development. She was honoured with the prestigious Satish Dhawan Award, a symbol of national pride. Prof Vyas is a member of the Academic Network of UN-GGIM, Chair of the ICWG TC V/IV on Spatial Information Science Education (ISPRS 2022-2026), and serves as an expert member on several national committees under the Department of Science and Technology, as well as the Research Advisory Committee of the Ministry of Earth and Atmospheric Sciences, Government of India

She has held various senior roles including Dean, Executive Director, Professor, Advisor, and Expert Committee Member, leveraging her expertise in remote sensing, GIS, urban planning, and data science. She has led over 80 research projects and published more than 100 research papers and book chapters.

A key aspect of her work is focused on training, capacity building, and motivating women in STEM. In recognition of her contributions, Prof Vyas was conferred the title of Fellow by both the Indian Society of Remote Sensing and the Indian Society of Geomatics in 2022.

She was also awarded the President's Honorary Citation for her exceptional and meritorious service to the activities of the ISPRS Technical Commission and the advancement of its mission.



Ms Sweata Katwala is a dynamic GIS Analyst from Vadodara, India, with expertise in satellite imagery analysis, urban infrastructure planning, safety, and geospatial intelligence. She holds a Master's degree in Geomatics from CEPT University, India, where she graduated with distinction and was awarded a merit scholarship.

Currently serving at the Vadodara Urban Development Authority, she specialises in the application of GIS, remote sensing, and artificial intelligence techniques to support urban resilience strategies. Sweata is also a published researcher and has won several national and international geospatial competitions. She remains actively engaged in activities of the International Society for Photogrammetry and Remote Sensing (ISPRS)..

