

DST SPONSORED
INDO-SRI LANKA JOINT
S&T WORKSHOP
ON

ENSEMBLE BASED EARLY WARNING SYSTEMS FOR FLOOD DISASTER MANAGEMENT



DURING
SEPTEMBER 21 - 25, 2026 (TENTATIVE)
JOINTLY ORGANIZED BY
DEPARTMENT OF CIVIL ENGINEERING, SVNIT
SURAT, INDIA
DEPARTMENT OF CIVIL ENGINEERING,
UNIVERSITY OF PERADENIYA, PERADENIYA,
SRI LANKA



About the Institutions

Sardar Vallabhbhai National Institute of Technology (SVNIT), Surat, India

SVNIT Surat is one of India's premier National Institutes of Technology, recognized for excellence in engineering education, cutting-edge research, and strong industry-academia collaboration. The institute has made significant contributions in the areas of water resources engineering, hydrology, flood modeling, and disaster management, with active involvement in nationally funded research projects.

University of Peradeniya, Sri Lanka

The University of Peradeniya is Sri Lanka's oldest and most prestigious university, internationally recognized for its academic excellence and research contributions. The Department of Engineering has a strong legacy in hydrology, climate impact studies, flood risk assessment, and disaster resilience, with extensive experience in regional and international collaborative research.

Patrons

Prof. Anupam Shukla, Director, SVNIT Surat, India
Prof. Terrence Madhujith, Vice-Chancellor, University
of Peradeniya, Sri Lanka

PI

Dr. Sanjakumar M Yadav, Professor, SVNIT Surat, India
Dr. Panduka Neluwala, Senior Lecturer, University of
Peradeniya, Sri Lanka

Co-PI

Dr. P V Timbadiya, Professor, SVNIT Surat, India
Dr. Gouri de Silva, Senior Lecturer, University of
Peradeniya, Sri Lanka



Venue of Workshop

University of Peradeniya,
Sri Lanka

OBJECTIVES OF WORKSHOP

1. DEVELOPMENT OF ENSEMBLE-BASED EARLY WARNING
2. DEVELOPMENT OF FLOOD HAZARD MAPS
3. DEVELOPMENT OF FLOOD RISK MAPS
4. FLOOD RISK MANAGEMENT
5. DISASTER PREPAREDNESS

List of Resource person

1. Dr. Sanjaykumar M Yadav, SVNIT Surat, India
2. Dr. P V Timbadiya, SVNIT Surat, India
3. Dr. Panduka Neluwala, UOP, Sri Lanka
4. Dr. Gouri de Silavea UOP, Sri Lanka



TOPICS TO BE COVERED

- Extreme precipitation, ensemble-based flood forecasting and basics of flood disaster management
- Ensemble Prediction Systems and its products.
- Flood forecasting Techniques including advanced ensemble forecasting using various precipitation datasets by Ensemble Prediction data centers
- Development of Hydrologic and Hydrodynamic models
- Enhancing Real-time flood forecasting and warning systems up to the lead time of 7 days by integrating ensemble techniques.
- Flood disaster management by flood hazard mapping and risk assessment.



PURPOSE OF WORKSHOP

The workshop is planned to train the participants for developing higher daytime flood forecasting systems. Conventionally, the flood warning is issued hardly 24 or 48 hours before, i.e. 1 to 2 days lead time. This is not enough from a disaster management point of view. The shifting of people in livestock needs higher lead time forecasts. The higher lead time of two to seven days or even more will help in reducing the losses of life and damages due to floods. The workshop intends to train the participants to develop hydrologic and hydraulic models that can forecast with higher lead time (2 to 7 days). The participants will learn about various ensemble center data which can be useful for early warning of higher day lead times. India has developed two centres as National Centre for Medium-Range Weather Forecast (NCMRWF), Noida, India, and the Indian Institute of Tropical Meteorology (IITM), Pune, India. These ensemble data can be used for higher lead time warnings of floods. These ensemble centre data of India, namely NCMRWF and IITM are available on a common platform named as TIGGE.

During Hands-on session, participants will learn to download these ensemble data. The participants will post-process this data during their hands-on session and later on use it in the developed hydrological model to generate the ensemble forecast of higher lead times. The participants will also be trained for the development of flood inundation and flood risk maps. These maps are an integral part of flood disaster management. These maps can be prepared well in advance so that with the issue of heavy rainfall warning, one can use it to visualize the extent of inundation in the particular area overall. This five-day training will be helpful in developing higher lead time flood forecasts along with preparing various hazard maps of the regions which will be extremely useful during flood disasters.

Eligibility

We are seeking high-caliber researchers to participate in this intensive joint program.

- Academic Background: Preferably a Post Graduate in Water Resources Engineering.
- Academic Standing: Strong credentials.
- Affiliation: Currently carrying out research at prestigious Institutes.
- Research Focus: Active work in Ensemble Forecasting, Flood Modeling, or Disaster Management.
- Publication Record: At least one SCOPUS/SCI/SCIE indexed publication is required.

Registration

- To register your willingness to participate in the workshop, please fill out the Google form.

Link to Google Form :

<https://forms.gle/mdyCjubLmWfxyV9L8>

- Last date to apply: 10th March 2026.
- Selected participants will be informed through email.
- The expenditure towards travel, accommodation, local transport, and hospitality will be covered under the DST grant.

Contact Us

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