

SIMMS

Surface Instruments Division has started SIMMS for online monitoring system for maintenance, training and supply of Surface Instruments to all IMD offices.

RECENT ACHIEVEMENTS

Surface Instruments has been augmenting its Observation and Communication System Networks during 2019-2020. The same are given below:

Observation

- ☐ GPRS based AWS and ARG have introducing in IMD Surface Observations.
- ☐ 15 GPRS based AWS have been installed in Kerala during 2020 and have used 10 m Tiltable mast.
- ☐ 6 Satellite based AWS are being installed in J&K meant for Shri Amarnath ji Yatra.
- ☐ Installation of 19 AWS for wind measurement for Indian Railway.
- ☐ Two AWS installed at newly formed UT Ladakh.
- ☐ Installation of High Wind speed recorders at 25 Stations



AWS Kerala

FUTURE PLANS

Establishment of 550 Agro AWS, Urban ARG/AWS, Replacement of PTOs with AWS, AWS for tourism, Automatic Snow Gauges etc. AWS at North East India & Indian Borders etc.

Books and Research Papers

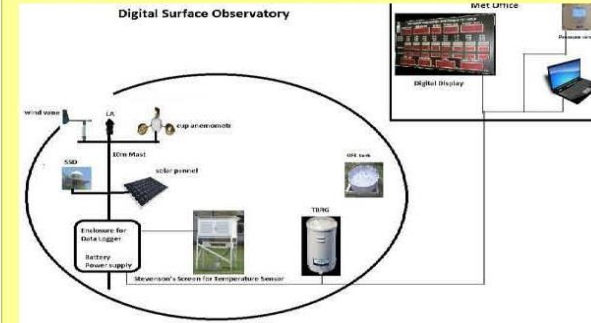
- Surface Meteorological Instruments and Measurement Practice by Shri G. P. Srivastava
- Utility of Automatic Weather Station (AWS) data for monitoring and prediction of cyclonic disturbances during 2010, IMD Met by Dr M. Mohapatra, Dr Naresh Kumar, Dr M. Ranalkar
- Performance of GPRS based AWS over satellite communication across India and its utility by Sh U K Shende, Sh A. Anjan., Dr M. Ranalkar, Sh R.R. Mali
- An indigenous state-of-the-art High Wind Speed Recording (HWSR) system for coastal meteorological observatories by Dr. R. D. Vasistha, Sh K N Mohan, Sh P S Biju

– Website for real time AWS and ARG data

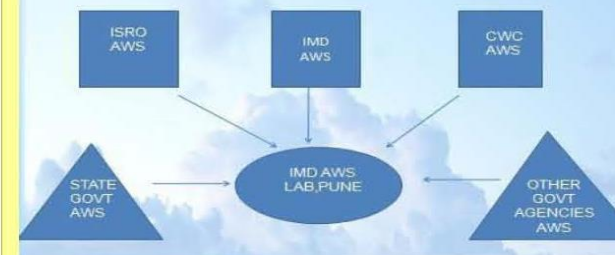
<http://aws.imd.gov.in:8091/>

FUTURE PLAN

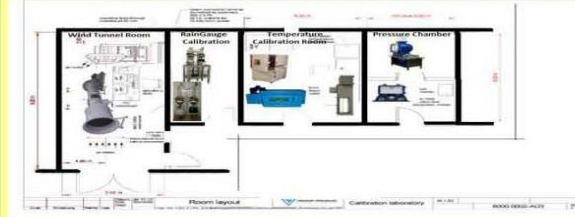
Present Observatory Future Observatory



FUTURE AWS DATA RECEPTION



FUTURE NABL ACCREDITED CALIBRATION LAB



For further details kindly contact

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India Meteorological Department Ministry of Earth Sciences Government of India Surface Observations



Historical Background

The network of surface observatories established since 1875 by India Meteorological Department (IMD). IMD started automation in their surface observational system since 1960s and establish 100 Automatic Weather Station (AWS) in 1980s along coastal districts of India. IMD has established 2000 AWS and ARG network. For High wind speed measurement in coastal stations during cyclone, Dines Pressure Tube Anemograph (DPTA), a conventional instrument used in 1980s. The automation of High Windspeed Recorder is started in 2003 and established a network of 20 Systems along east coast and west coast and further upgraded in 2019-2020 with GPRS technology.

Surface Instrument Division

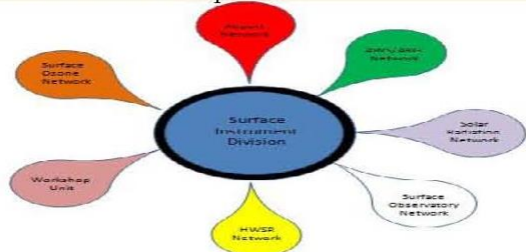
The surface Instrument Division was established at Pune after India became independent country. Conventional Surface Meteorological Instruments, upper air Ozone sonde and Radiometers instruments manufactured at Surface Instrument Division. These instruments are manufactured at well-established and self-sufficient workshop which is ISO: 9001-2008 certified maintained by the division. All manufactured instruments are tested and calibrated in a house calibration laboratory

Vision

A leading establishment for sustenance and modernization of network of surface meteorological Instruments in India and well respected for its data quality.

Mandate

To provide quality Surface meteorological data to meet our National needs and international obligation, and support to delicate weather and climate services to reduce vulnerability and promote sustainable development.



Test and Calibration Facilities

The surface Instrument Division have been providing valuable services in all aspects of testing, calibration and standardization of surface meteorological equipment. This Division maintain National standard and working standard. National Standard are compared against International / WMO Standard. This facility is recognized by Bureau of Indian Standards as the Centre for certification of indigenously made meteorological equipment.



Workshop

IMD Workshop, Pune was established in 1920 and was fully equipped with several shop floors for manufactures of all types of surface meteorological instruments in 1947. In 2010, the workshop unit was awarded with ISO 9001:2008 certifications for manufacture, testing, calibration and supply of Meteorological Instruments.



Modernization of Workshop is under way by purchasing new power coating machine and CNC machine to produce mass production and highly accurate surface meteorological instruments.

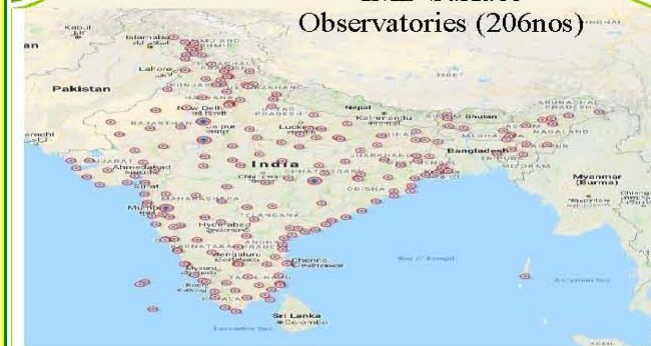


Powder coating machine CNC Machine

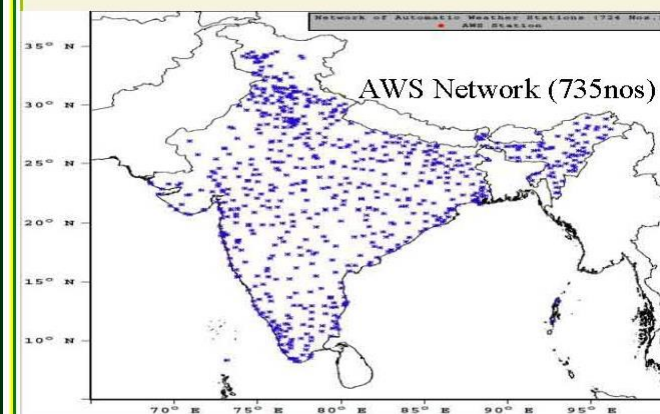
Workshop designed tilttable light weight 10m mast without guy ropes with sustainable winds upto 150Knots.



IMD Surface Observatories (206nos)



AWS Network (735nos)



ARG Network (1350)

