

Cost-effective indigenous Drishti Transmissometer for airport operation installed at Kempegowda International Airport

The Drishti is a very cost-effective indigenous sophisticated instrument developed by CSIR-National Aerospace Laboratories, Bengaluru. The Complete system is engineered in such a way to enable easy installation and maintenance may be carried out from any location in the country. It is useful for airport operations and gives information to pilots on the visibility at the runway.

The 50th Drishti Transmissometer was installed for India Meteorological Department (IMD) at Kempegowda International Airport (KIA), Bengaluru, on 29-11-2019. Four Drishti systems are being installed for the new runway at Kempegowda International Airport. According to sources, two aviation weather monitoring systems will be installed next week and will be made available on a single computer for air traffic control room and pilots. The system has also been installed at 54 airports managed by the Indian Air Force (IAF).



Drishti Transmissometer installed for India Meteorological Department at KIA Airport, Bengaluru

A transmissometer is an instrument for measuring the extinction coefficient of the atmosphere and sea water, and for the determination of visual range. It operates by sending a narrow, collimated beam of energy (usually a laser) through the propagation medium. A narrow field of view receiver at the designated measurement distance determines how much energy is arriving at the detector, and determines the path transmission and/or extinction coefficient. Atmospheric extinction is a wavelength dependent phenomenon, but the most common wavelength in use for transmissometers is 550 nm, which is in the middle of the visible waveband, and allows a good approximation of visual range.

Dr. Faizal Anwar
Project Scientist, Vigyan Prasar