

# INDIAN SOCIETY OF GEOMATICS



## National Geomatics Award : Technology CITATION

Dr Ashish Kumar Shukla is scientist at Space Applications Centre (SAC), ISRO, Ahmedabad, since May 2005. He received his Ph. D. Degree in Applied Mathematics (Fluid Mechanics) from Lucknow University, Lucknow in the year 2003. He has contributed significantly in Satellite navigation programs of ISRO. He has made significant contributions in India's two major navigation programs: GAGAN and IRNSS since their inception. Currently, he is working in IRNSS User Receiver Development project and is a member of the team which has developed IRNSS User Receiver and IRNSS Payload Test Receiver. His major contributions in user receiver development include design & development of navigation processing algorithms such as algorithms for pseudo-range and carrier-phase observables from decoded navigation signals from GPS and IRNSS satellites. He has also designed & developed Position, Velocity and Time algorithms for IRNSS and GPS receivers.

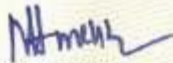


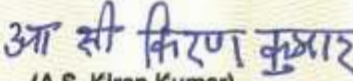
Dr Shukla is working towards spreading of IRNSS and GAGAN applications in various academic institutes of India through the IRNSS-GAGAN Utilization Program. He has also contributed immensely in the development of differential positioning algorithms using precise carrier-phase measurements for achieving cm level positioning accuracy. It has wide implications in Geodetic and Survey applications and disaster management.

He is also leading the team at SAC which is currently developing an innovative navigation application called pseudolite based terrestrial navigation system for precise landing of aircrafts and Unmanned Aerial Vehicles (UAV). This system aims to provide better position accuracy for landing applications than the existing systems.

Dr Shukla is the recipient of ISRO Team Excellence Award for the year 2013 for the development of IRNSS Payload Test Receiver. He has represented India in Ionospheric Study Task Force (ISTF), an International Civil Aviation Organization (ICAO) forum. He has more than 25 publications in peer reviewed journals. One of his works on design & development of ionospheric model for GAGAN has been cited by European Space Agency (ESA) web portal on Navigation.

**IN RECOGNITION OF HIS OUTSTANDING CONTRIBUTION IN THE FIELD OF NAVIGATION, DESIGN AND DEVELOPMENT OF ALGORITHMS AND APPLICATIONS FOR NAVIGATION PROGRAMS OF ISRO: IRNSS AND GAGAN, THE INDIAN SOCIETY OF GEOMATICS CONFERS "NATIONAL GEOMATICS AWARD – APPLICATIONS" FOR THE YEAR 2016 ON DR. ASHISH KUMAR SHUKLA.**

  
(N.S. Mehta)  
Secretary, ISG

  
(A.S. Kiran Kumar)  
President, ISG

December 07, 2016  
Dehradun