

SPACE COMMUNICATIONS AND NAVIGATION SYMPOSIUM (B2)  
Advanced Satellite Services (4)

Author: Mr. SAQIB NISAR  
Beihang University (BUAA), Pakistan, navy\_blueus@hotmail.com

AN INTEGRATED SPACE TECHNOLOGY AND GLOBAL NAVIGATION SATELLITE SYSTEMS  
APPLICATION FOR AGRICULTURE MONITORING

**Abstract**

Pakistan is an agriculture country and majority of its population is directly dependent on earning from agriculture and livestock. Useful Information is needed to be collected from field for yield estimation, problems being faced by formers and effective utilization of resources. For this purpose paper based surveys are conducted for monitoring, which take huge time for collection and compilation. This paper presents real time field data collection and analysis system using integrated space technology application, GNSS positioning and information and communication technologies. The system comprises android app, customized GIS application and communication module for real time transmission of field data through GSM/broadband. Customized GIS application is designed for analysis and querying spatial database. The system developed for application of GIS and associated technologies for crop estimation can be adopted anywhere in the world.