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## SIPGA-Satellite image processing & GIS applications

**Anand N Khobragade**

Maharashtra Remote Sensing Applications Centre, India

Prior to be acquainted with satellite image processing, it is essential to drill down to remote sensing technology and structure of satellite images. The storage pattern of remote sensing images, the machine learning approaches, platforms used for processing, memory, etc., are major factors affecting satellite image processing. Better interpretation of satellite images possible only when it is converted from True Color Composite (TCC) to False Color Composite (FCC). Image ortho-rectification is emerging process using which satellite image can be made more geometrically accurate by means of reference Digital Elevation Model (DEM). More the correctness of reference as well as control points better will be the geometric precision of rectified images. Image Classification is another prominent area where more meticulous satellite image processing is anticipated. Vegetation analysis is essentially required in government domain for strategic decision upon agriculture and forest policies. Numerous machine learning approaches could be the best choice for surmount the processing constraints of the satellite images, and hence it matters contemplating upon the same. Remote sensing images have wide spectrum of applications in rural and urban sectors as well, viz. land information systems, village level micro-planning (smart villages), crop acreage & production estimation, urban sprawl, municipal management system (smart cities), property tax management, road development plan, asset mapping, environmental planning, disaster management & mitigation plan, drought monitoring, wetland & wastelands management, mining & mineral mapping, mangrove & coastal zone mapping, etc. Last but not the least, 3-D visualization of satellite images be means of DEM, DSM, DTM, and Anaglyphs from stereo pair images. In near future, UAV/Drone will be the best source of remote sensing images in terms of temporal resolution, spatial resolution, radiometry, availability, archival, processing, and may be cost feasibility.

### Biography

Anand N Khobragade received PhD and MTech in Computer Science & Engineering from Nagpur University and Pune University respectively. He completed Professional Doctorate in Management from National Institute of Management, India through Distance learning mode. He has presented more than 25 papers in National & International Conferences/Journals including IEEE and Springer publications. He served as the Editorial Board Member of various national/international journals including "International Journal of Advanced Remote Sensing and GIS". He has received best Doctoral Research Award in Research Symposium at 11<sup>th</sup> IEEE Conference INDICON 2014, India and best poster presentation award in IEEE INDICON 2014 under track of Big Data Mining. He is a recognized Project Guide for M.E. Program for faculty of Computer Science & Engineering (Nagpur University) and guided almost 40 students from versatile discipline for UG and PG programs Institutions across India.

[anand.khobragade@mrsac.maharashtra.gov.in](mailto:anand.khobragade@mrsac.maharashtra.gov.in)

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