

Revathy S Ajayakumar

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Educational qualifications

Degree Institute/University	Year	Division	
M.Phil (Physics)	2010	A Grade	Dept.Of.Physics, University of Kerala
M.Sc (Physics)	2008	87%	Dept.Of.Physics, University of Kerala
B.Sc (Physics)	2006	95.2%	St.John's College, University of Kerala
HSE	2003	74%	Govt.H.S.S, Punalur
SSLC	2001	87%	A.M.M.H.S, Karavalur

Professional Experience

Period	Position	Organization/Institute
Scientist-SD	2015-present	SPL, VSSC, ISRO
Scientist-SC	2014-2015	SPL, VSSC, ISRO
Scientist-SC	2010-2013	NRSC, ISRO

Software skills

1. Programming Languages : C,C++
2. Software tools : MATLAB, ERDAS, ENVI, ArcGIS, GEOMATICA, Origin
3. Operating Systems exposure : Linux/ Windows

Training Attended

1. MATLAB training program
2. ERDAS/ Leica Photogrammetric Suite (LPS) Training
3. Training Programme on Technical activities of NRSC

Projects

1. Studies on Solar Wind
2. Study of Earth's Magnetosphere using SWIM data of SARA sensor on board Chandrayaan-1 mission.
3. Extraction and validation of terrain parameters from cartosat-1 data.

Major Responsibilities carried out at NRSC

1. Systematic and continuous analysis of geometric and radiometric quality parameters for sensor/ satellite stabilization analysis.
2. Time series data analysis of Ocean Color Monitor-1&2 sensors over Thar Desert for studying radiometric stability of Thar Desert.
3. Spatial qualification of Resourcesat-2 sensor data by estimating geolocation error using precise Ground Control Point Library for various Indian terrains.
4. Performance Oceansat-2 Scatterometer has been analyzed using Sigma Naught values of level 2 data over Amazon forest and South Pole snow.
5. Mass changes of the Greenland Ice Sheet have been analyzed using Oceansat-2 scatterometer data.
6. RISAT-1 calibration: Point target analysis has been done using Level-1 Single Look Complex (SLC) data products over the scenes carrying corner reflectors deployed over the four sites for the FRS-1 mode in circular and vertical polarizations.
7. RISAT-1 Polarization misregistration: Analysis completed for dual polarization misregistration, and values have been summarized for RISAT-1 Fine Resolution (FRS) data for horizontal, vertical & circular transmissions.
8. Calibration Test site Design: Team member for the design and development of calibration test site for high and medium resolution satellites at IMGEOs, Shadnagar
9. Generation of value added image products like precision geocoded, ortho rectified products, mosaics and merged products using interactive image processing.
10. National Resource Census project: Generation of ortho-rectified Advanced Wide Field Sensor (AWiFS) images, covering whole India for three different seasons.
11. Snow-Melt Run off Study Project: Generated temporal full scene ortho-rectified AWiFS products for total Himalayas as per project specifications and deadlines

12. BHUVAN Project: Performed Natural Color Composite generation, ortho rectification, Edge matching and Image Enhancements and Mosaicing activities for Bhuvan project

Major Responsibility at SPL

Scientific studies on Atmospheric Trace Gases (O_3 , NO_x , CO , SO_2 , CH_4 and CO_2) to understand their concentration levels, temporal (diurnal/seasonal) characteristics, spatial variations and environmental/climatic impacts utilizing the ground based as well as remote-sensing observations.