

MAHESH KUMAR TRIPATHI

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GEOLOGIST & GIS AND REMOTE SENSING (GEOSCIENCES)

F- NAME:-PARAS NATH TRIPATHI

DOB-15/11/1981

P. ADDRESS-HANSRAJPUR HOLAGARH PRAYAGRAJ U.P. INDIA-212503

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SPECIALIZATION-

1. Mineral Identification and Mapping by applications of Hyperspectral image
2. Leica Photogrammetric Suite (LPS) Eradas (Orthorectification, Contour, Slope, Aspect, DEM/DTM generation through, contour map, stereo pair image in Eradas & Geomatica)
3. Spatial Analyst Tool Arc GIS (Numerical modeling as Index Overlay Method, Information Value Method, Fuzzy logic Method)
4. Visual Image Interpretation and Classification (Eradas/Arc GIS)
5. Preparation of Lithological, Structural, Geomorphological, Regolith, Lineaments and Drainage, Land use/Land cover LC maps under RS and GIS Platform
6. Ground water quality and GIS/GPS mapping

PROJECT WORK

1. Mineral identification, mapping and spectral library generation through hyper spectral and multispectral image (SAC, Ahmadabad AVIRIS-NG Project)-2016-2021
2. Ground water quality analysis and mapping under RS & GIS Environment (UPRSAC, LUCKNOW)-2013-2015
3. National land record modernization project under RS & GIS Environment (NLRMP PROJECT NRSC, HRSAC)-2012
4. Geo-sciences/Earth-sciences map classification (Geofacets, INNODATA, NOIDA)-2011
5. Landslide hazard zonation mapping under statistical and RS & GIS Environment (IIRS, DEHRADUN)- 2010-2011
6. Digital terrain modeling (DTM) under RS and GIS Environment (IIRS, DEHRADUN, DRDO) 2010-2011

SKILLS

MAPPING IN RS AND GIS ENVIRONMENT PREPARATION OF THEMATIC MAPS (GEOLOGICAL, GEOPHYSICAL, GEOGRAPHICAL) AS WELL AS SIMPLE AND COMPOSITE AT VARIOUS SCALES USING MATHEMATICAL MODEL	DIGITAL IMAGE PROCESSING GEOREFERENCING, ORTHORECTIFICATION, DEM GENERATION, GEOCODING, MOSAICING, RECTIFICATION, SPATIAL AND RADIOMETRIC (PCA, NDVI, FILTERING, HAZE, NOISE) CORRECTION OF SATELLITE IMAGE	LPS, GIS AND GPS UTILITY DEM/ORTHO IMAGE /CONTOUR GENERATION BY STEREO PAIR OF SATELLITE IMAGE AND GPS SURVEY	MINERAL MAPPING BSQ/BIP TO BIL CONVERSION, RADIANCE TO REFLECTANCE CONVERSION, MNF, PPI, N-D ISUALISATION, SAM SFF Classification
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TECHNICAL

ERADASE IMAGINE	ARC GIS	LPS	ENVI	GEOMATICA	PHOTOSHOP
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EXPERIENCE (3.5+ YEARS)

1. STESALIT PVT. LTD. 2011
Designation-Jr. GIS Executive
2. INNODATA ISOGEN PVT.LTD. 2011
Designation-Geologist and GIS Executive
3. PAN INDIA CONSULTANTS PVT. LTD. 2012
Designation-GIS Executive
4. GUJARAT INFOTECH PVT.LTD 2013
Designation-Project Scientist
5. AURIC SOLUTION PVT.LTD. 2015

Designation-Sr. Consultant

CURRENT PROJECT WORK- SAC-AHEMADABAD (ISRO-NASA) PROJECT 2016-2021
DEPARTMENT OF APPLIED GEOLOGY, NATIONAL INSTITUTE OF TECHNOLOGY RAIPUR

Identification, mapping and spectral library generation for hydrothermally altered and weathered clay minerals for Jahajpur region of Bhilwara district, Rajasthan. (Using AVIRIS-NG hyperspectral remote sensing data)

Job-Responsibility-

1. Mineral identification and mapping
2. Geological field survey and sample collection
3. Minerals verification and validation (Spectroscopy, XRD, XRF, ICPMS, Grain size analysis, Petrography)
4. Minerals spectral library generation
5. Report writing

EDUCATIONAL QUALIFICATION

Sr. No.	DEGREE	BOARD/UNIVERSITY	YEAR	DIVISION	SUBJECTS
1	HIGH SCHOOL	UP	1996	I (62%)	HINDI, ENGLISH, MATH.-2, SCIENCE-2, BIOLOGY, SOCIAL SCIENCES
2	INTERMEDIATE	UP	1998	II(58.6%)	MATH, PHYSICS, CHEMISTRY, HINDI, ENGLISH
3	B.Sc.	ALLAHABAD UNIV.	2004	III(44.2%)	MATH, PHY., COMP. APPLICATION
4	M.Sc.	ALLAHABAD UNIV.	2006	I (60%)	APPLIED GEOLOGY
5	M.Tech.	ANDHRA UNIV. (IIRS, DEHRADUN)	2011	I (7.46 CGPA/74.6%)	GIS AND REMOTE SENSING
6	Ph.D.	NIT RAIPUR	2021(Submitted)	I(7.33 CGPA)	REMOTE SENSING, GIS AND GEOLOGY

Year	Orcid Id	Google Scholar h-index	Google Scholar i 10-index	Google Scholar Citations	Scopus h-index	Web of Science h-index	Research Gate Score	No. of Papers (SCI/ESCI/SCIE)	No. of Papers (Scopus)	No. of Book Chapters
2021	0000-0002-4033-2566	5	2	65	4	2	12.67	5	19	2

Online Course Edusat (2016-2019)	National Conference		International Conference		Workshop	Seminar
	Attended	Presented	Attended	Presented		
7	1	1	1	8	3	0

PROFESIONAL /TRAINING/CERTIFICATE COURSES

1. Applications of geophysical techniques in ground water prospecting/mapping (Resistivity method) CGWB, Raipur, Ministry of Ground Water
2. Microwave remote sensing and its application National Institute of Technology Raipur
3. Hyperspectral remote sensing applications in mineral mapping edusat course program Dehradun

Publications

Research Papers in Referred Journals:

1. S.S.Das, Mahesh Kumar Tripathi (2009): "Trace fossils from Talchir Carbonate Concretions, Giridih basin, Jharkhand, Earth System Science Junction Journal, Feb. 2009, Volume 118, Page 88-100.

2. Mahesh Kumar Tripathi, H.Govil (2019): "Evaluation of AVIRIS-NG hyperspectral images for mineral identification and mapping", *Heliyon* (5) e02931.
3. Mahesh Kumar Tripathi, H.Govil, S.L.Chattoraj (2020): "Identification of hydrothermally altered weathered and clay minerals using AVIRIS-NG hyperspectral images for western Jahajpur belt Bhilwara India", *Heliyon*.
4. Mahesh Kumar Tripathi, H.Govil (2020): Regolith mapping and geochemistry of hydrothermally altered weathered and clay minerals of western Jahajpur belt Bhilwara India.
5. Mahesh Kumar Tripathi*, H. Govil (2021): "Inter-correlation of hydrothermal mineral alteration zone in vicinity of lineaments: A case study" *Current Science*, Volume 121, 2021.(Accepted/In Press)

Book Chapters

1. Mahesh Kumar Tripathi*, Himanshu Govil, P.K. Champatiray, Monika (2018): "Assessment and Verification of rainfall threshold through antecedent soil-moisture model in Lambagarh, Pipalkoti, Tangni and Chamoli landslides of Garhwal Himalaya in GIS & remote sensing environment" 1st International Conference on New Frontiers in Engineering, Science & Technology, New Delhi, India, January 8-12, 2018
2. Himanshu Govil, Mahesh Kumar Tripathi*, Prabhat Diwan, Monika (2018): "Comparative Evaluation of AVIRIS-NG and Hyperion Hyperspectral Image for Talc mineral Identification", 4th International Conference on Data Management, Analytics and Innovation (ICDMAI-2019) from 18-20 January 2019 in Kuala Lumpur, Malaysia.

Papers in Conference/Symposia :(Paper Publication)

1. Mahesh Kumar Tripathi*, Himanshu Govil, P.K. Champatiray, I.C.Das (2018): "Landslide hazard zonation mapping of Chamoli landslides in remote sensing and GIS environment" The International Archives of the Photogrammetry, Remote Sensing and Spatial Information Sciences, Volume XLII-5, 2018,ISPRS TC V Mid-term Symposium "Geospatial Technology – Pixel to People", 20–23 November 2018, Dehradun, India.
2. S. Guha, H. Govil, M. Tripathi, M. Besoya (2018): "Evaluation of crosta techniques for alteration mineral mapping in Malanjkhanda copper mines, India". The International Archives of the Photogrammetry, Remote Sensing and Spatial Information Sciences, Volume XLII-5, 2018,ISPRS TC V Mid-term Symposium "Geospatial Technology – Pixel to People", 20–23 November 2018, Dehradun, India.
3. S. Guha, H. Govil, M. Tripathi, M. Besoya (2018): "Identification of rocks and their quartz content in Amarkantak using ASTER TIR data". The International Archives of the Photogrammetry, Remote Sensing and Spatial Information Sciences, Volume XLII-5, 2018,ISPRS TC V Mid-term Symposium "Geospatial Technology – Pixel to People", 20–23 November 2018, Dehradun, India.
4. Monika*, H. Govil, R.S.Chatterjee, Kapil Malik, P. Diwan, Mahesh Kumar Tripathi, Subhanil Guha (2018): "Identification and measurement of deformation using Sentinel data and PSINSAR techniques in coal mines of Korba". The International Archives of the Photogrammetry, Remote Sensing and Spatial Information Sciences, Volume XLII-5, 2018,ISPRS TC V Mid-term Symposium "Geospatial Technology – Pixel to People", 20–23 November 2018, Dehradun, India.
5. Monika*, H. Govil, Claudia Meisina, P. Diwan, Mahesh Kumar Tripathi, Subhanil Guha, Neetu Gill (2018): "Deformation monitoring in and around the national capital region of India using DINSAR techniques". The International Archives of the Photogrammetry, Remote Sensing and Spatial Information Sciences, Volume XLII-5, 2018,ISPRS TC V Mid-term Symposium "Geospatial Technology – Pixel to People", 20–23 November 2018, Dehradun, India.
6. Himanshu Govil, Mahesh Kumar Tripathi*, Prabhat Diwan, Subhanil Guha, Monika (2018): "Identification of iron oxides minerals in western Jahajpur region, India using AVIRIS-NG hyperspectral remote sensing" The International Archives of the Photogrammetry, Remote Sensing and Spatial Information Sciences, Volume XLII-5, 2018,ISPRS TC V Mid-term Symposium "Geospatial Technology – Pixel to People", 20–23 November 2018, Dehradun, India.
7. Himanshu Govil, Monika *, Prabhat Diwan, Mahesh Kumar Tripathi, Subhanil Guha(2019): "Deformation monitoring using D-Insar techniques in coal field of Korba, Chhattisgarh, India", ECTI-CON 2019 July 10-13, Pattaya, Thailand. Himanshu Govil, Subhanil Guha *, Mahesh Kumar Tripathi, Monika., "Comparing ASTER TIR data based lithological indices in Malanjkhanda copper mines, India, Chhattisgarh, India", ECTI-CON 2019 International conference July10-13, Pattaya, Thailand.
8. Himanshu Govil, Subhanil Guha *, Prabhat Diwan, Monika. Mahesh Kumar Tripathi (2019): "Analyzing the relationship between urban vegetation and land surface temperature Raipur City India, Chhattisgarh, India", ECTI-CON 2019 International conference July10-13, Pattaya, Thailand.
9. M. K. Tripathi, H. Govil, P. Diwan (2019): "Lithological mapping using digital image processing techniques on Landsat 8 OLI remote sensing data in Jahajpur, Bhilwara, Rajasthan", ICCT'19: Second International conference on intelligent communication and computational techniques" Manipal University Jaipur, India, September 28-29, 2019.
10. M. K. Tripathi, H. Govil, P. Diwan (2019): "Comparative evaluation threshold parameters of Spectral Angle Mapper (SAM) for mapping of Chhabadiya Talc minerals, Jahajpur, Bhilwara, India using Hyperion hyperspectral remote sensing data" ICCT'19: Second International conference on intelligent communication and computational techniques Manipal University Jaipur, Jaipur, India, September 28-29, 2019.

11. M. K. Tripathi, H. Govil, P. Diwan (2019): “ Petrography, XRD analysis and identification of Talc minerals near Chhabadiya village of Jahajpur region, Bhilwara, India through Hyperion hyperspectral remote sensing data” ICCT'19: Second International conference on intelligent communication and computational techniques Manipal University Jaipur, Jaipur, India, September 28-29, 2019.
12. M. K. Tripathi, H. Govil (2019): “Evaluation of analogical analysis techniques in interpretation of lineaments and litho-boundaries using Landsat 7 ETM+ imagery of western Jahajpur belt, Bhilwara, Rajasthan, India” ,4th IEEE International Conference on Information Systems and Computer Networks ISCON 2019, November, 21st-22nd 2019, GLA University Mathura-281406(UP), India.
13. M. Tripathi, **H. Govil**, S. Guha, Monika, P. Bhoumik, G. Misra, A. Shahi (2020) Comparative Evalution Of Flaash (Scaled Disort) And Quac Based Atmospheric Corrections On AVIRIS-NG Hyperspectral Data, ACRS-2020 (<http://toc.proceedings.com/58852webtoc.pdf>)
14. M. Tripathi, **H. Govil**, S. Guha, Monika, P. Bhoumik, G. Misra, A. Shahi (2020), Implication Of Spectral Resolution In Iron Oxides/Hydroxides Discrimination And Mapping: An Application Of Aviris-Ng Hyperspectral Data, ACRS-2020 (<http://toc.proceedings.com/58852webtoc.pdf>)
15. G. Mishra, **H. Govil**, M. Tripathi, S. Guha, Monika, A. Shahi (2020), Comparative Analysis Of Spectral Feature Fitting (Sff) And Spectral Angle Mapper (Sam) In The Delineation Of Hydrothermally Altered Mineral In Jahazpur, Rajasthan, India Using Aviris-Ng Hyperspectral Data, ACRS-2020 (<http://toc.proceedings.com/58852webtoc.pdf>)
16. G. Mishra, **H. Govil**, S. Guha, Monika, M. Tripathi, A. Shahi (2020), Comparative Evaluation Of Thermal Imagery Of Landsat-8 And Aster In The Delineation Of Lithology In Jahajpur, Rajasthan, India, ACRS-2020 (<http://toc.proceedings.com/58852webtoc.pdf>)
17. S. Guha, **H. Govil**, Monika, M. Tripathi, A. Shahi, G. Mishra (2020), Analyzing The Relationship Between Urban Vegetation And Land Surface Temperature In Raipur City, India, ACRS-2020 (<http://toc.proceedings.com/58852webtoc.pdf>)
18. S. Guha, **H. Govil**, M. Tripathi, Monika, G. Mishra, A. Shahi (2020) Applicability Of Landsat-8 Oli And Aster Data For Lithological Mapping In Parts Of Naga Hills Ophiolite Belt, India, ACRS-2020 (<http://toc.proceedings.com/58852webtoc.pdf>)
19. A. Shahi, **H. Govil**, R. Bhambri, S. Guha, M. Tripathi, M. Besoya, P. Bhaumik, G. Mishra (2020) Geometric Evolution Of West Chamshen Glacier, East Karakoram ACRS-2020 (<http://toc.proceedings.com/58852webtoc.pdf>)



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References

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