

RAMJI DWIVEDI

NAME : Ramji Dwivedi
DATE OF BIRTH : 7 September 1988
PRESENT STATUS: Assistant Professor, GIS Cell
MNNIT Allahabad



EDUCATIONAL BACKGROUND

- (1) *PhD* (2016), MNNIT Allahabad
Thesis title: Multi-temporal SAR Interferometry for deformation analysis of landslide
Thesis supervisor: Prof. A. K. Singh (MNNIT Allahabad) and Prof. Onkar Dikshit (IITK)
- (2) *MTech* (2012), Geoinformatics, Civil Engineering, IIT Kanpur
Thesis title: Efficacy of the particle swarm optimization (PSO) and genetic algorithm (GA) in second order design (SOD) of GPS networks
Thesis supervisor: Prof. Onkar Dikshit (IITK)
- (3) *BTech* (2010), Civil Engineering, BIET Jhansi, UPTU Lucknow (First division with Honours)

APPOINTMENTS

- (1) Assistant Professor, GIS Cell, MNNIT Allahabad, Since 18 October 2012

AREA OF STUDY

Geoinformatics: Surveying, Remote Sensing, GNSS, Advanced SAR Interferometry, Natural Hazard Monitoring

TEACHING

Sr. No.	Course No. and Title	Level
1.	OE Fundamentals of GIS and RS	UG
2.	GI2113 Geospatial Data Processing	PG
3.	GI2212 Principles of GPS	PG
5.	GI2151 Geoinformatics Lab I	PG
6.	GI2252 Geoinformatics Lab II	PG
7.	GI2114 Disaster and Hazard Mitigation, Assessment and Management	PG
8.	GI2216 Microwave Remote Sensing	PG

PUBLICATIONS

Papers in Peer-reviewed International Journals/Book chapter

1. **Dwivedi, R.**, Dikshit, O., A Comparison of Particle swarm optimization and Genetic algorithm in second order design of GPS networks, *Journal of Applied Geodesy*, Vol. 7, 2013, (IF: NA)
2. Tiwari, A., **Dwivedi, R.**, Dikshit, O. and Singh, A. K., A study on measuring surface deformation of L'Aquila region using StaMPS technique, *International Journal of Remote Sensing*, Vol. 37, Issue 4, 2016 (IF: 1.640)
3. Singh, V., **Dwivedi, R.**, Dikshit, O. and Singh, A. K., First Order Design of GPS networks using particle swarm optimization, *ASCE Journal of surveying Engineering*, Vol. 142, Issue 3, 2016 (IF: 1.55)
4. **Dwivedi, R.**, Narayan, A. B., Tiwari, A. Singh, A. K., and Dikshit, O., Optimal estimation of interferometric phase for measuring surface deformation, *International Journal of Remote Sensing*, 2016 (Accepted, In Press) (IF:1.640)

Papers in Peer-reviewed International Conference/Symposium proceedings

1. **Dwivedi, R.**, Varshney, P., Tiwari, A., Narayan, A.B., Singh, A. K. and Dikshit, O. (2014), Assessment of slope stability using PS-InSAR technique, *International Archives of the Photogrammetry, Remote Sensing and Spatial Information Science*, vol. XL-8, ISPRS technical commission VIII symposium, 09-12 December 2014, Hyderabad, India
2. Tiwari, A., **Dwivedi, R.**, Narayan, A.B., Dikshit, O. and Singh, A. K. (2014), Efficacy OF StaMPS Technique for monitoring surface deformation in L'Aquila, Italy, *International Archives of the Photogrammetry, Remote Sensing and Spatial Information Science*, vol. XL-8, ISPRS technical commission VIII symposium, 09 - 12 December 2014, Hyderabad, India.
3. **Dwivedi, R.**, Varshney, P., Tiwari, A., Narayan, A.B., Singh, A. K. and Dikshit, O., Pallav, K. (2015), Monitoring of landslides in Nainital, Uttarakhand, India: Validation of PS-InSAR results, *Proceeding of IEEE JURSE*, DOI: 10.1109/JURSE.2015.7120538, Lausanne, Switzerland.
4. **Dwivedi, R.**, Narayan, A.B., Tiwari, A., Dikshit, O., and Singh, A. K. (2016), Multi-temporal SAR Interferometry for landslide monitoring, *International Archives of the Photogrammetry, Remote Sensing and Spatial Information Science*, vol. XLI-B8, XXIII ISPRS Congress 2016, 12-19 July 2016, Prague, Czech Republic.
5. Pandey, D., **Dwivedi, R.**, Dikshit, O., and Singh, A. K. (2016), GPS and GLONASS combined static Precise Point Positioning (PPP), *International Archives of the Photogrammetry, Remote Sensing and Spatial Information Science*, vol. XLI-B1, XXIII ISPRS Congress 2016, 12-19 July 2016, Prague, Czech Republic.
6. **Dwivedi, R.**, Singh, V., Dikshit, O., and Singh, A. K. (2016), Design of Cost Effective Disaster Monitoring GPS Network, *ISPRS WG VIII/1 Workshop on Geospatial Technology for Disaster Risk Reduction*, 17th December 2015, Jaipur, India.

Papers in National Conference/Symposium proceedings

1. Pillai, A., Dikshit, O., Dwivedi, R., Rai, G.K., Fonia, R.S., Prabhakar, V.N., and Vikram, B.: Cultural Resource Management System for Indian Archaeology, proceedings 38th Annual Convention of ISRS-2011 (accepted)

SUPERVISION (M.Tech.)

M.Tech. Supervision (8 Completed)

1. Tiwari, A., A study of recurring mass movements using StaMPS technique, 2014
2. Singh, V., A study of vertical deformation monitoring using GPS, 2014
3. Varshney, P., Land subsidence monitoring using differential SAR interferometry, 2015
4. Narayan, A., An advanced InSAR algorithm for surface monitoring: SqueeSAR, 2015
5. Dikshit, S., Acquisition and tracking of weak GPS signal, 2015
6. Pandey, D., Precise Point Positioning (PPP) for Dual-frequency GPS receiver, 2016
7. Srivastava, R., GPS Precise Point Positioning (PPP) using Kalman Filtering, 2016
8. Meghnath, D., DEM generation using InSAR, 2016

SPONSERED RESEARCH PROJECT

1. Principal Investigator (PI), NRDMS (DST) funded project on "Landslide inventory preparation using Multi-temporal SAR Interferometry" (ongoing)
2. Co-PI, NRDMS (DST) funded project on "Multi-sensor approach for landslide monitoring" (2015-2018) (ongoing)
3. PI, MNNIT Allahabad funded under Institute plan grant "A study of slope monitoring using PS-InSAR approach" (ongoing)
4. PI, TEQIP-II funded project on "A study of crustal deformation monitoring using PS-InSAR approach" (Completed)~INR 2,00,000/-
5. PI, TEQIP-II funded project on "A study of recurring mass movements using PS-InSAR". (Completed) ~INR 70,000/-
6. PI, TEOIP-II funded project on "A study of vertical motions using GPS." (Completed) ~INR 80,000/-

AWARDS AND RECOGNITION

1. DST International Travel Fellowship to attend XXIII ISPRS Congress 2016.
2. The ISPRS Foundation (TIF) award to attend XXIII ISPRS Congress 2016.
3. Ministry of Human Resource and Development Scholarship for doing Master of Technology Degree in Civil Engineering (2010-2012).
4. Secured 10th Position overall in University ranking for Civil Engineering, UPTU, 2010.
5. Institute level Merit-cum-Means Scholarship for the B.Tech., 2006-2010.

VISITS ABROAD

1. Visited EOS, NTU Singapore under TEQIP-II International travel grant to explore the possibility of MNNIT and NTU Singapore.
2. Visited Lausanne, Switzerland and Prague, Czech Republic to present research paper in IEEE JURSE 2015 and ISPRS Congress 2016 respectively.

EXPERT LECTURES/INVITED LECTURE

1. **Resource person** for delivering expert lectures in DST sponsored short term course titled **Introduction to Landslide Site Mapping 2016** (organized by IIT Kanpur) at IITK Outreach center, Noida from 24th - 28th Oct 2016. Various Principal Investigators (PI) and students of DST sponsored research project attended this short term course for better understanding of Geospatial technologies in understanding Landslide phenomena.
2. Delivered expert lectures in self-financed short term course Numerical and Optimization Techniques (NOT)-2014, 2015 and 2016 organised by CED, MNNIT Allahabad.

MEMBERSHIP OF COMMITTEES/PROFESSIONAL BODIES

1. Associate Member, Institution of Engineer, India
2. Affiliate Member, ASCE

SESSION CHAIR/CO-CHAIR

1. Session Chair, VIII/1 - Disaster and Risk Reduction 2, XXIII ISPRS Congress 2016, Prague, Czech Republic, 12th - 19th July 2016.

SHORT TERM COURSE/WOKSHOP/ TRAINING/CONFERENCE CONDUCTED

1. Member, Organising Committee, Course Curriculum Development workshop, MNNIT Allahabad, 25 June 2013
2. Member, Organising Committee, A Workshop on GIS and GPS technologies, MNNIT Allahabad, 20-21 November 2012
3. Coordinator, A Two Day training programme on Handheld DGPS, MNNIT Allahabad, April 29-30, 2014
4. Coordinator, A four Day training programme on GNSS Receiver and Total Station, MNNIT Allahabad, May 5-8, 2015

OTHER ADMINISTRATIVE RESPONSIBILITY

1. Member, Institute Planning Board, October 2016- till date
2. Member, Training and Placement Task force, MNNIT Allahabad, October 2016- till date
3. Officer-In-Charge, GIS Cell Laboratory, September 2013- September 2015
Following instruments were purchased as per the teaching and research requirement:
 - (i) Motorized Total Station
 - (ii) Robotic Total Station
 - (iii) Dual frequency GNSS receivers

- (iv) Permanent GNSS base station
- (v) Short distance laser scanner
- (vi) IBM blade server
- (vii) Handheld GPS

(Developed State-of-the-art GIS Cell Laboratory to compete with the reputed IITs)

4. Member, committee to establish an advance centre for research in Climate Change, Energy, Environment and Disaster Monitoring
5. Officer-In-Charge, Time Table, July 2013- July 2014
6. Convener, Cell Purchase Committee, July 2014- July 2016
7. Member, DMPC, GIS Cell, July 2013- till date
8. Member DMSC, GIS Cell, July 2013- till date
9. Member, various GIS Cell committees of administration and academics