

## CURRICULUM VITAE

**Name** : Dr. SHAMSHAD AHMAD  
**Father's Name** : Mr. Nazeer Ahmad  
**Office Address** : Professor, Department of Civil Engineering  
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### Educational Qualification:

S.No.	Name of Examination	University	Year	Div. with % age
1.	B.Sc. Engineering (Civil)	AMU Aligarh, India	1984	I ( Hons), 83.1%
2.	M.E. (Surveying, Photogrammetry and Remote Sensing)	University of Roorkee, India	1986	I (Hons.), 75.0%
3.	Ph.D. (Use of stochastic Models and GIS for Management of River Water Quality)	Jamia Millia Islamia, New Delhi, India	2000	

### Employment

11/3/1986 - 1/3/1990 :	Lecturer, Department of Civil Engineering, College of Engineering & Technology, Aligarh Muslim University, Aligarh, India
2/3/1990 - 10/3/1992 :	Lecturer, Department of Civil Engineering, Faculty of Engineering & Technology, Jamia Millia Islamia (JMI) , New Delhi, INDIA
11/3/1992 - 1/2/1995 :	Senior Lecturer, Department of Civil Engineering, Faculty of Engineering & Technology, Jamia Millia Islamia (JMI), New Delhi, INDIA
2/2/1995- 29/4/2005 :	Reader, Department of Civil Engineering, Faculty of Engineering & Technology, Jamia Millia Islamia (JMI), New Delhi, INDIA
30/4/2005 - till date :	Professor, Department of Civil Engineering, Faculty of Engineering & Technology, Jamia Millia Islamia (JMI), New Delhi, INDIA
2/5/2002- 1/5/2007	Contract Faculty, School of Civil Engineering, Engineering Campus, University of Science Malaysia (USM), Pulau Penang, Malaysia
18/10/2015 – 26/01/2016	Professor, Department of Civil Engineering, King Abdulaziz University Jeddah, Saudi Arabia

## Subjects Taught

### *UG Level*

- Surveying I: Introduction to surveying, Levelling, Plane Tabling, Theodolite/traverse surveying, Curve Ranging, and Tacheometry
- Surveying II: Theory of errors and adjustments, Triangulation, Trigonometrical Levelling, Setting out of tunnels, buildings, culverts, bridges, Total Station/EDM/GPS surveying, Elements of Astronomy, Elements of Photogrammetry
- Geomatics
- Remote Sensing & GIS
- Management Information System

### Survey Camp Organized

- (i) Organised Survey Camp every year from 1990 to 2002 for B. Tech (Civil) students in Jamia Milia Islamia, New Delhi.
- (ii) Organised Survey Camp every year from 2002 to 2007 for B. E. (Civil Engg.) students in University of Science Malaysia (USM), Malaysia
- (iii) Organised Survey Camp every year from 2007 till date for B. Tech (Civil) students in Jamia Milia Islamia, New Delhi.

### *PG Level*

- Remote Sensing and GIS for Environmental Management
- Remote Sensing for Transportation Engineering

## PUBLICATIONS

- 1) **Shamshad A.**, K.P. Sharma and O.P. Dubey; *Evaluation of Strength Properties of Rock in a Part of Tehri Garhwal Region Using Remote Sensing Techniques*, Proc. Seminar on Rural Buildings and Environment, CBRI, Roorkee, India, 1987.
- 2) **Shamshad A.**, K.P. Sharma and O.P. Dubey. (1987). *Determination of Permeability of Rock in a Part of Tehri Garhwal Region Using Remote Sensing Techniques*, Proc. Sixth Congress APD-IAHR, Japan, 1987.
- 3) Badruddin Ahmad M., **Shamshad A.** (1989). *Across Flow Response of Flexible Circular Cylindrical Structure due to Vortex Shedding*, Proc. Symposium APSOWE-II, Chinese Society for Wind Engineering and Industrial Aerodynamics, Beijing, China, 1989
- 4) M. D. Joshi and **Shamshad A.** (1992). *Performance of EDM for Short Range Distance and Area Calculation*, Indian surveyor, The Journal of Institution of Surveyors, India, July 1992.
- 5) **Shamshad A.** and M. D. Joshi; *Possibility of Preparing Guide Map by Using Satellite Data-A case Study of Delhi*, Proc. 12th International Conference of INCA, New Delhi, India, 1992.
- 6) M. D. Joshi and **Shamshad A.** (1996). *Remote Sensing Education, Need and Importance*, Proc. Indo-US Symposium-Workshop on Remote Sensing and its Applications, Mumbai, India, 1996.

- 7) Iqbal H. Khan, M. D. Joshi and **Shamshad A.** (1996). *Environmental Impact Assessment in Ghaziabad Area using Remote Sensing*, Proc. Workshop on Remote Sensing for Environmental Management, Jamia Millia Islamia, New Delhi, India, 1996.
- 8) **Shamshad A.**, Iqbal H. Khan and B. P. Parida. (1999). *River Water Quality Management Using Techniques of Trend Analysis and Geographical Information System*, Proc. International Conference on Environmental Challenges for the New Millennium, New Delhi, India, 1999.
- 9) **Shamshad A.** (2001). *Use of Remote Sensing and GIS in Natural Disaster Management*, Proc. Workshop on Disaster Management, Indian Society for Environmental Management, New Delhi, India, 2001.
- 10) **Shamshad A.**, Iqbal H. Khan and B. P. Parida (2001). *Performance of Stochastic Approaches for Forecasting River Water Quality*, Elsevier Science International Journal, Water Research, Vol. 35, No. 18, pp4261-4266. **Scopus**
- 11) **Shamshad A.**, Wan Hussin W. M. A. and Mohd. Sanusi S. A. (2002). *A Holistic Approach Towards Cluster Research in Solid Waste Management Using GPS and GIS*, Proc. International Symposium and Exhibition on Geoinformation , Malaysia , 2002.
- 12) **Shamshad A.**, Wan Hussin W. M. A. and Mohd. Sanusi S. A. (2003). *The Need for Up-to-date Geospatial Information in the Effective Management of Solid Waste*, Proc. Environmental Management and Sustainable Development for better Future Growth, Malaysia, 2003.
- 13) Bawadi M. A., Wan Hussin W. M. A., T. A. Majid and **Shamshad A.** (2003). *Assessment and Development of Wind Energy in the East Coast of Peninsular Malaysia*, Proc. Environmental Management and Sustainable Development for better Future Growth , Malaysia, 2003.
- 14) **Shamshad A.**, Wan Hussin W. M. A., Bawadi M. A. and Mohd. Sanusi S. A. (2003). *Modelling of Wind Speed Data at Mersing for Forecasting: Box-Jenkins Approach*, Proc. 2<sup>nd</sup> Annual Seminar on Sustainability Science and Management, Kuala Terengganu, Malaysia, 2003.
- 15) **Shamshad A.**, Wan Hussin W. M. A., Bawadi M. A. and Mohd. Sanusi S. A. (2003). *Analysis of wind speed variations and Estimation of Weibull Parameters for Wind Power Generation in Malaysia*, Proc. The 2<sup>nd</sup> Dubrovnik Conference on Sustainable Development of Energy, Water and Environment Systems, Dubrovnik, Croatia, 2003.
- 16) **Shamshad A.**, Wan Hussin W. M. A., Bawadi M. A. and Mohd. Sanusi S. A. (2003). *Autoregressive Integrated Moving Average Model (ARIMA) for Forecasting Wind Speed*, Proc. The 3<sup>rd</sup> International Conference on Advances in Strategic Technologies, ICAST 2003, Malaysia, 2003.
- 17) Bawadi M. A., Wan Hussin W. M. A., T. A. Majid and **Shamshad A.** (2003). *Evaluation of Wind Turbine Potentiality at Wind Sites in Malaysia*, Proc. The 3<sup>rd</sup> International Conference on Advances in Strategic Technologies, ICAST 2003, Malaysia, 12-14 August 2003.
- 18) **Shamshad A.**, Wan Hussin W. M. A., Bawadi M. A. and Mohd. Sanusi S. A (2003). *Stochastic Generation of Hourly Wind Speed Time Series*, Proc. International Symposium & Exhibition In Renewable Energy Environment Protection & Energy Solution For Sustainable Development, 14 - 17 September 2003, Malaysia.
- 19) Bawadi M. A., Wan Hussin W. M. A., T. A. Majid and **Shamshad A.** (2003). *Analysis of prevailing Wind Speed and Direction at Mersing and Possibility of Wind Speed Installation*,

Proc. International Symposium & Exhibition In Renewable Energy Environment Protection & Energy Solution For Sustainable Development, 14 - 17 September 2003, Malaysia.

- 20) **Shamshad A.**, Bawadi M. A. and Wan Hussin W. M. A. (2003). *Location of Suitable Sites for Wind Farms Using Tools of Spatial Information*, Proc. International Symposium and Exhibition on Geoinformation 2003 (ISGO3), 13-15 October 2003, Malaysia.
- 21) Mohd Sanusi S. Ahamad, Wan Muhd Aminuddin Wan Hussin, and **Shamshad A.** (2003). *Comparison of Normal AHP with Multiplicative AHP in Criterion Weighting for GIS Based Suitability Analysis*, Proc. International Symposium and Exhibition on Geoinformation 2003 (ISGO3), 13-15 October 2003, Malaysia.
- 22) Bawadi M. A., Wan Hussin W. M. A., T. A. Majid and **Shamshad A.** (2003). *Wind Flow and Terrain Analysis for Wind Farming Using GIS*, Proc. International Symposium and Exhibition on Geoinformation 2003 (ISGO3), 13-15 October 2003, Malaysia.
- 23) Wan Muhd Aminuddin Wan Hussin, Mohd Sanusi S. Ahamad, **Shamshad A.** and Sharifah Akmam Syed Zakaria (2003). *Jet Stress and Flying Land Surveyors*, Proc. International Symposium and Exhibition on Geoinformation 2003 (ISGO3), 13-15 October 2003, Malaysia.
- 24) **Shamshad A.**, Wan Hussin W. M. A., Bawadi M. A. and Mohd. Sanusi S. A. (2003). *Simulating Wind Speed Data by Stochastic Markov Chain Model*, Proc. International Conference on Energy and Environment, China, 11-13 December 2003. **Scopus**
- 25) **Shamshad A.**, Azianabiha Halip, Mohd. Sanusi Bin S. A., Wan Muhd Aminuddin Wan Hussin. (2004). *Role of geographic information system (GIS) for selecting the residential site - A case study*. Third Global Conference on Flexible Systems and Management: Technology Transfer Innovation and Flexibility for Reshaping the World. March 13-15, 2004, New Delhi, India.
- 26) Wan Hussin W.M.A., **Shamshad A.**, Mohd. Sanusi S.A. (2004). *Stress management and its relevance to the performance of site and land surveyors: A case study in Malaysia*, Proc. Third Global Conference on Flexible Systems and Management: Technology Transfer Innovation and Flexibility for Reshaping the World. March 13-15, 2004, New Delhi, India.
- 27) Wan Hussin, W.M.A., **Shamshad A.**, Mohd. Sanusi S.A. (2004). *Stress Management and Its Effects on the Performance of Young Site Engineers and Land Surveyors in Malaysia*, Pranjana: The Journal of Management awareness, Vol. 7, No.1, pp. 77-89, 2004.
- 28) **Shamshad A.** (2004). Mohd. Sanusi Bin S. Ahamad, Wan Muhd Aminuddin Wan Hussin; *Urban Features Extraction Using QuickBird High Resolution Satellite Image*. AWAM 2004, 20-22 July, 2004, Malaysia.
- 29) Mohd. Sanusi Bin S. Ahamad, Mohd Ghazali A.S., Wan Muhd Aminuddin Wan Hussin, **Shamshad A.** (2004). *Integrated GIS-Based MCE/Fuzzy Approach for Site Selection of New Landfill*. AWAM 2004, 20-22 July, 2004, Malaysia.
- 30) Wan Muhd Aminuddin Wan Hussin, Mohd Sanusi S. Ahamad, **Shamshad A.** and Sharifah Akmam Syed Zakaria. (2004). *Flying Engineers and the Need to Cope With Jet Stress*. AWAM 2004, 20-22 July, 2004, Malaysia.
- 31) **Shamshad A.**, Mohd. Sanusi Bin S. Ahamad, Wan Muhd Aminuddin Wan Hussin. (2004). *Comparison of Different Data Fusion Approaches for Surface Features Extraction Using QuickBird Images*. Geoinformatics for Spatial-Infrastructure Development in Earth & Allied Sciences: GIS-IDEAS 2004, September 16-18, 2004, Vietnam.
- 32) **Shamshad A.**, Mohd. Sanusi Bin S. Ahamad, Wan Muhd Aminuddin Wan Hussin. (2004). *Incineration Site Selection Using Multi-Criteria Evaluation in GIS- A case Study- Penang*

*Island, Malaysia*. International Conference on: Spatial Planning and Decision Support System 2004' 7-8 September, Kuala Lumpur, Malaysia.

- 33) Wan Hussin, W.M.A., **Shamshad A.**, Mohd. Sanusi S.A (2004). *Globalisation and the Need to Cope with Jet Stress*. 2<sup>nd</sup> Seminar on Human Capital Management 2004, 7-8 October, 2004, Kota Kinabalu, Sabah, Malaysia.
- 34) **Shamshad A.**, Wan Hussin W. M. A., Bawadi M. A. and Mohd. Sanusi S. A. (2005). *First and Second order Markov Chain Models for Synthetic Generation of Wind Speed Time Series*, Elsevier Science International Journal-Energy, Vol. 30. No. 5, pp 693-708. ISSN: 0360-5442 **Scopus indexed**
- 35) **Shamshad A.**, M. N. Azhari, M.H. Isa, W.M.A Wan Hussin and Mohd Sanusi S. A.. (2005). *Rainfall erosivity from limited pluviographic data in a part of Peninsular Malaysia*. International Symposium and Exhibition on Geoinformation 2005 (ISG 2005), Pinang, Malaysia 27 -29 September 2005
- 36) Bawadi M.A., Wan Hussin W.M.A, **Shamshad A.** and Taksiah A.M. (2005). *Characteristics of prevailing wind speed and direction at windy sites in Malaysia and the evaluation of wind turbine potentiality*. International Symposium and Exhibition on Geoinformation 2005 (ISG 2005), Pinang, Malaysia 27 -29 September 2005
- 37) Mohd Sanusi S. Ahamad, Wan Muhd Aminuddin Wan Hussin and **Shamshad A.** (2005). *The sensitivity of AHP weightings as applied in GIS land suitability model*. International Symposium and Exhibition on Geoinformation 2005 (ISG 2005), Pinang, Malaysia 27 -29 September 2005
- 38) Bawadi M.A , Wan Hussin W.M.A, **Shamshad A.** and Taksiah A.M. (2005). *Wind farm site suitability study using GIS*. International Symposium and Exhibition on Geoinformation 2005 (ISG 2005), Pinang, Malaysia 27 -29 September 2005
- 39) Bawadi M.A, Wan Hussin W.M.A, **Shamshad A.** and Taksiah A.M. (2005). *Optimization and maximization of energy yield in low wind speed regions - A case study in Malaysia*. International Symposium and Exhibition on Geoinformation 2005 (ISG 2005), Pinang, Malaysia 27 -29 September 2005
- 40) M. Hasnain Isa, Faridah A. H. Asaari, **Shamshad A.** and Tan S. Siew. (2005). *Solid Waste collection and Recycling in Nibong Tebal, Penang, Malaysia – A Case Study*. Waste Management & Research 23, pp. 565-570. **Scopus**
- 41) **Shamshad A.**, M.A. Megat Johari, W.M.A. Wan Hussin, S.A. Mohd. Sanusi, and Taksiah A. M. (2005). *Digital image analysis of cracks in concrete of different grades*. The international Conference on concrete Repair, Rehabilitation & Retrofitting, Capetown, South Africa, 21-23 November, 2005. **Scopus indexed**
- 42) **Shamshad, A.**, Wan Hussin, W.M.A, Sanusi, S.A.M., Isa, M.H. (2006). *Spatial and Temporal Distribution of Rainfall and EI<sub>30</sub> Values in a Part of Peninsular Malaysia*, Malaysian Surveyor, Vol 41.1, pp. 18-23.

- 43) Bawadi M. A., Shamshad A., Wan Hussin W. M. A and Taksiah A. M. (2006). Selection of Suitable sites for Wind Farms Using GIS. The Engineering Journal of the University of Qatar, Doha-Qatar9, Volume 1, pp. 51-58.
- 44) **Shamshad A.**, Nizar Alwi, M.T., Wan Ibrahim, W.H., Wan Hussin, W.M.A., Sanusi, S.A.M.. (2007). *Road Network Mapping and Speed Data Collection for Field Traffic Studies Using GPS in Non-differential Mode*. Malaysian Surveyor 41.2, pp. 15-20
- 45) Ramlah A, **Shamshad A.** and Mohd Sanusi S.A, (2006). *Application of Annualized Agricultural Non-point Source (AnnAGNPS) Pollution Model to Study the Effect of Catchment Characteristics on River Water*. Colloquium, Organised by School of Civil Engineering, USM, 2006.
- 46) **Shamshad A.**, Wan Hussin W.M.A., Mohd. Sanusi S.A. (2006). *Development of GUI for Runoff Estimation by SCS Curve Number Method Using MapObjectS and Visual Basic*. International Symposium and Exhibition on Geoinformation 2006 (ISG06), September 19-21, 2006, Kuala Lumpur.
- 47) Ramlah A., **Shamshad A.** and Mohd Sanusi S.A. (2006). *Effect of Pixel Sizes on Slope Length (LS) Factor for Soil Erosion by RUSLE*. International Symposium and Exhibition on Geoinformation 2006 (ISG06), September 19-21, 2006, Kuala Lumpur.
- 48) Mohd Sanusi S. A, W.M.A Wan Hussin, and **Shamshad A.** (2006). *Layout error analysis by comparing architectural plan with "As Built Map" derived from satellite data*. International Symposium and Exhibition on Geoinformation 2006 (ISG06), September 19-21, 2006, Kuala Lumpur.
- 49) **Shamshad A.**, Mohd Sanusi S. Ahmad, M. Hasnain Isa and Wan Hussin W.M.A. (2006) *Evaluation of the relationship between land use and surface water quality in Seberang Perai Selatan, Penang, Malaysia*. International Conference on Environment 2006 (ICEN2006), November 13, 15, 2006, Penang Malaysia
- 50) **Shamshad A.**, Wan Hussin W.M.A., Mohd. Sanusi S.A. (2007). Soil loss estimation and nutrient loading using AnnAGNPS in a small watershed of Malaysia, 7<sup>th</sup> International River Engineering Conference, Ahvaz, Iran, February 13-15, 2007.
- 51) **Shamshad A.**, Bawadi M.A Wan Hussin W.M.A, and Taksiah A.M. (2007). *Analysis of Prevailing Wind Speed and Direction for Wind Energy Potential at Windy Site in Malaysia*. The International Journal of Ecodynamics 2 (1), pp. 10-23. **Scopus indexed**
- 52) **Shamshad A.**, M. N. Azhari, Isa, M.H, Wan Hussin, W.M.A., and Parida, B. P. (2008). *Comparison of procedures to estimate RUSLE  $EI_{30}$  index for monthly rainfall data of Peninsular Malaysia*. CATENA 72, 423-432. **Scopus indexed**
- 53) **Shamshad A.**, Leow, C.S., Ramlah A., Wan Hussin W.M.A., Mohd. Sanusi S.A. (2008). *Applications of AnnAGNPS model for soil loss estimation and nutrient loading for Malaysian conditions*. International Journal of Applied Earth Observation and Geoinformation 10 (3), 239-252.
- 54) Manish, W. and **Shamshad A.** (2010). *Changes in Land use Pattern due to Mining in Faridabad (Haryana)*, 11th ESRI User Conference 2010, NOIDA, NCR, April 21-22, 2010.

- 55) Manish, W. and **Shamshad A.** (2010). *Changes in vegetation Pattern, Surface Water Bodies and Mining in Faridabad (Haryana)*, Conference on Remote Sensing and GIS for Environmental Management, JMI, New Delhi, August 10, 2010.
- 56) S.M. Muddassir, Shamshad Ahmad, Khalid Moin (2013) *Use of Satellite Images for Seismic Risk Assessment of an Unauthorised Urban Area*, Conference “Architecture for Masses V- A National Seminar on Architecture” 13-14 February 2013 Organised by Department of Architecture, Jamia Millia Islamia , New Delhi
- 57) Shamshad Ahmad, Muddassir S.M. (2014) *Digital Image Processing of Remote Sensing Satellite Data for Information Extraction*, 1st International Conference on Modern Communication & Computing Technologies (MCCT’14) Quaid-e-Awam University of Engineering, Science & Technology, Nawabshah, Sindh, Pakistan, February 26-28, 2014.
- 58) Kanika Taneja, Shamshad Ahmad, M Kafeel (2016), Time series analysis of aerosol optical depth over New Delhi using Box-Jenkins ARIMA Modeling approach, Atmospheric Pollution Research, Atmospheric Pollution Research, 7 (4) , pp. 585-596. ISSN :1309-1042  
**Scopus**
- 59) Farhat Rafiq, Sirajuddin Ahmed, Shamshad Ahmad, Amir Ali Khan (2016). Urban flood hazard modeling for Noida city, Journal of Remote Sensing & GIS, VOL 7, NO 1. ISSN: 2469-413
- 60) Farhat Rafiq, Sirajuddin Ahmed, Shamshad Ahmad, Amir Ali Khan (2016) Urban Floods in India, International Journal of Scientific & Engineering Research, Volume 7, Issue 1, January-2016 721 8 IJSER © 2016 <http://www.ijser.org> ISSN 2229-551
- 61) Masood, A., Kafeel A., Shamshad A. (2017) Urban Roadside Monitoring, Modeling and Mapping of Air Pollution: A case study of New Delhi, India, Appl. J. Envir. Eng. Sci. 3 N°2(2017) 179-194. ISSN: 2509-2065
- 62) Taneja, K., Attri, S.D., Shamshad, A., Mor, V., Dhankhar, R. (2017) Comparative assessment of aerosol optical properties over a mega city and an adjacent urban area in India, Mausam, 68(4), pp. 673-688. ISSN: 02529416. **Scopus Indexed**
- 63) Taneja K., Ahmad S., Ahmad K., Attri S.D., 2018. Monitoring and modeling of atmospheric aerosols during an intense dust storm over Delhi, India. Presented poster at Workshop on 'An introduction to Earth Observation Techniques: Application to the Land and Atmosphere' by UK-India Education and Research Initiative. March 26-28, IIT-Kanpur, India.
- 64) Taneja K., Ahmad S., Ahmad K., Attri S.D., 2018. Variability of aerosol optical properties during different seasons over North India. Presented poster at Conference on Aerosol Technology (AT2018), June 17-20, Bilbao, Spain.
- 65) Taneja K., Ahmad S., Ahmad K., Attri S.D., 2018. Assessment of optical properties of aerosols over North India. Presented poster at RICTA2018, the 6th Iberian Meeting on Aerosol Science and Technology June 20-22, Bilbao, Spain.

- 66) Kanika Taneja, Shamshad Ahmad, Kafeel Ahmad, Attri, S.D. (2019) Spatio-Temporal Analysis of Urban Air Quality: A Comprehensive Approach Towards Building a Smart City, International Conference Smart Cities, Jamia Millia Islamia , New Delhi, March 14-16, 2019. **Scopus Indexed**
- 67) Neeraj ,M.R., Shamshad, A (2019) Effect of Normalized Difference Vegetation Index (NDVI) on Land Surface Temperature (LST) - A Case Study, International Conference Smart Cities, Jamia Millia Islamia , New Delhi, March 14-16, 2019.
- 68) Tripti Dimri, Shamshad, A., Sharif, M. (2019) A Review of Lake City Tehri as Smart City Tehri, International Conference Smart Cities, Jamia Millia Islamia , New Delhi, March 14-16, 2019. **Scopus Indexed**
- 69) Ekta Baranwal, Shamshad Ahmad, Sher Sigh Baghel, (2019). Spatiotemporal Analysis for Urban Pattern Evolution in Sacred District Mathura of India through K-means Classification, International Journal of Town Planning and Management, 5 (1), ISSN: 2456-5253, pp: 26-35.
- 70) Taneja K., Ahmad S., Ahmad K., Attri S.D., (2020). Impact assessment of a severe dust storm on atmospheric aerosols over an urban site in India. Current Science, 118(5), pp: 737-749. **Scopus indexed**  
<https://www.currentscience.ac.in/Volumes/118/05/0737.pdf>
- 71) Dimri, T., Ahmad, S. & Sharif, M. (2020) Time series analysis of climate variables using seasonal ARIMA approach. J Earth Syst Sci 129 (1), **Scopus and SCI Indexed**. pp: 1-16,  
<https://doi.org/10.1007/s12040-020-01408-x>.
- 72) Dimri T., Ahmad S., Sharif M. (2020) “A Review of Lake City Tehri as Smart City Tehri”. In: Ahmed S., Abbas S., Zia H. (eds) Smart Cities—Opportunities and Challenges. Lecture Notes in Civil Engineering, vol 58. Springer, Singapore. **Scopus indexed**  
[https://doi.org/10.1007/978-981-15-2545-2\\_24](https://doi.org/10.1007/978-981-15-2545-2_24)
- 73) Ahzam Shadab, Shamshad Ahmad, Saif Said (2020) Box–Jenkins multiplicative ARIMA modeling for prediction of solar radiation: a case study, International Journal of Energy and Water Resources 3, 305–318 (2019). Springer Nature.  
[https://www.researchgate.net/publication/335968210\\_Box-Jenkins\\_multiplicative\\_ARIMA\\_modeling\\_for\\_prediction\\_of\\_solar\\_radiation\\_a\\_case\\_study](https://www.researchgate.net/publication/335968210_Box-Jenkins_multiplicative_ARIMA_modeling_for_prediction_of_solar_radiation_a_case_study)
- 74) Ahzam Shadab, Shamshad Ahmad, Saif Said (2020) Spatial forecasting of solar radiation using ARIMA model, Remote Sensing Applications: Society and Environment, 20, 100427, (2020). Elsevier IF: 2.24. **Scopus indexed** <https://doi.org/10.1016/j.rsase.2020.100427>
- 75) Ekta Baranwal, Shamshad Ahmad (2021) Urban pattern extraction within high and medium vegetated terrain through satellite image processing using the index-based built-up index and LANDSAT OLI/TIRS imageries, International Conference on Innovative Practices in Technology and Management (ICIPTM), 17-19 Feb. 2021, Noida, India, pp: 6-9. Electronic ISBN:978-1-6654-2530-8, Print on Demand(PoD) ISBN:978-1-6654-3093-7, **Scopus indexed** <https://ieeexplore.ieee.org/xpl/conhome/9388215/proceeding>



- 76) Ekta Baranwal, Shamshad Ahmad (2021) Retrieving Spatial Pattern of Urban Using Spectral Ratios for Major Features of an Urban Ecosystem with Satellite Image Processing, IOP Conf. Series: Earth Environment Science 795 (2021), ISSEEGT 2021, **Scopus Indexed**
- 77) Tripti Dimri, Shamshad Ahmad, M Sharif (2022) Sediment Yield Estimation and Reservoir Sedimentation Assessment Using Geospatial Tools: A Case Study of Tehri Dam Reservoir, Geohazard Mitigation, 55-68. **Scopus Indexed**  
[https://DOI:10.1007/978-981-16-6140-2\\_6](https://DOI:10.1007/978-981-16-6140-2_6)
- 78) E Baranwal, S Ahmad, SM Mudassir (2022) Using new independent component analysis (ICA) based spectral index to extract and map built-ups of India's sacred district 'Mathura', Physics and Chemistry of the Earth, Parts A/B/C, V 126, 103-118. **Scopus Indexed**  
<https://doi.org/10.1016/j.pce.2022.103118>
- 79) Tripti Dimri, Shamshad Ahmad, M Sharif (2022): Statistical analysis of precipitation, temperature and snow cover in Bhagirathi River basin, MAUSAM 73 (2), 263-272 **Scopus Indexed** <https://doi.org/10.54302/mausam.v73i2.5477>
- 80) Tripti Dimri, Shamshad Ahmad, M Sharif (2023): Hydrological modelling of Bhagirathi River basin using HEC-HMS, Journal of Applied Water Engineering and Research, 2022 <https://doi.org/10.1080/23249676.2022.2099471>
- 81) E Baranwal, S Ahmad, SM Mudassir (2022): New independent component-based spectral index for precise extraction of impervious surfaces through Landsat-8 images, Geocarto International <https://doi.org/10.1080/10106049.2022.2102244>
- 82) Tripti Dimri, Shamshad Ahmad & Mohammad Sharif (2023): Impact of climate change on water availability in Bhagirathi, <https://doi.org/10.1080/09715010.2022.2128905>
- 83) Shadab, A. Ahmad, S and Said, S. 2024. Comparative Evaluation of ARIMA and ARCGIS Solar Analyst for Spatial Insolation Forecasts - A Case Study. Water and Energy International, Journal of CBIP, Vol 64, p29-36 (April 2024) SCI and Scopus

#### **Book Published/Edited**

- Iqbal H. Khan and **Shamshad Ahmad**, *Remote Sensing for Environmental Management*, Venus Publication House, New Delhi, 1996.
- *International Symposium and Exhibition on Geoinformation 2006*, Malaysia, 27-29 September 2005, Penang, Malaysia.
- **Shamshad Ahmad**, Saif Said, SM Muddassir, *Remote Sensing and GIS for Environmental Management*, World Education, New Delhi, 2011. ISBN 978-81-90987-31-8.
- NA Azhari, **Shamshad Ahmad**, Sanusi S Ahmad, *Non-Point Source Pollution Modelling with GIS: Development of Appropriate Procedure for Estimation of RUSLE EI30 Index and Validation of AGNPS/ANNAGNPS Model*, LAP LAMBERT. 2011.

- Ekta Baranwal, Shamsad Ahmad (2021) Chapter 7: Spectral Ratioing: A Computational Model for Quick Information Retrieval of Earth's Surface Dynamics, in Geographic Information Science for Land Resource Management, Book Editor(s): Suraj Kumar Singh, Shruti Kanga, Gowhar Meraj, Majid Farooq,  
<https://doi.org/10.1002/9781119786375.ch7>

## **SPECIAL PRESENTATION/LECTURES**

- *GPS in Civil Engineering Application*, Department of Civil Engineering, UiTM, Pulau Pinang Campus, Malaysia, March 04, 2006.
- *Advances in GPS technology*, University Polytechnic, Jamia Millis Islamia, New Delhi, 2007
- *Remote Sensing and GIS applications for Rainwater Harvesting*: Training Program on Rainwater Harvesting for Municipal Corporation Gurgaon (MCG), Gurgaon, Haryana, Organised by Deptt of Civil Engg., JMI, New Delhi, March 13, 2010.
- *Advances in Geomatics for Teaching and Research*, Department of Civil Engineering, IFTM University, Moradabad, March 18, 2013.
- *Advancement in the field of Engineering Survey*, Department of Civil Engineering, School of Engineering & Technology IFTM University, Moradabad, April 4, 2014
- *Summer Surveying Camp*, Department of Civil Engineering, School of Engineering & Technology IFTM University, Moradabad, June 5-11, 2015
- *Control Survey for Civil Engineers*, Department of Civil Engineering, KCC ITM Geater Noida, April 7, 2016.
- *Application of Spatial Technology in Civil Engineering*, Department of Civil Engineering, KCC ITM Geater Noida, October 26, 2016.
- *Expert Lecture on Survey Camp*, Department of Civil Engineering, School of Engineering & Technology IFTM University, Moradabad, March 5, 2018.
- *Conduction of Survey Camp*, Department of Civil Engineering, KCC ITM Geater Noida, March 21-22, 2018.
- *Expert Lecture on Application of Digital Elevation Model (DEM)*, Faculty development program (FDP) organised by Department of Civil Engineering & Information Technology, IMSEC, Ghaziabad on Geo Informatics, sponsored by Dr. A.P.J Abdul Kalam Technical University, Lucknow during 11-15th June, 2018.
- Online interaction with trainees in a two-day training program on “Principles & methods of Surveying, under Centre for Urban Governance, Haryana Institute of Public Administration (HIPA), Gurugram, November 17-18, 2021.
- Interaction with trainees in a two-day training program on “Principles and Methods of Surveying” Haryana Institute of Public Administration (HIPA), Gurugram, September 20, 2022

- Interaction with trainees in a two-day training program on “Principles and Methods of Surveying” in Haryana Institute of Public Administration (HIPA), Gurugram, September 20, 2023
- Interaction with trainees in a two-day training program on “Principles and Methods of Surveying” in Haryana Institute of Public Administration (HIPA), Gurugram, February 29, 2024.
- Resource Person for a Skill Enhancement Workshop on the theme “Advanced Land Surveying using Remote Sensing, Total Station & GPS” organized by the Department of Geography & Disaster Management, University of Kashmir, Srinagar from 18th to 27th of March, 2024.

#### **Conference/Workshop Organized**

- Organising Secretary, *One day Workshop on Remote Sensing for Environmental Management*, Department of Civil Engineering, Jamia Millia Islamia, New Delhi, India, 1996.
- Editor, *International Symposium and Exhibition on Geoinformation 2006*, Malaysia, 27-29 September 2005, Penang, Malaysia.
- Organizing Secretary, Conference on *Remote Sensing and GIS for Environmental Management (RSGIS-EM2010)* to be organized by Department of Civil Engineering, Jamia Millia Islamia, New Delhi, India on August 10, 2010.
- Vice Chairmen, International Conference on Sustainable Technologies (ICST-2013), Organized by Jamia Millia Islamia, January 18-20, 2013, New Delhi, India.

#### **Seminar/Symposium/Workshop Attended**

- 1) *12th International Conference of INCA*, the Department of Geography, Jamia Millia Islamia, New Delhi, 1992.
- 2) *International Conference on New Challenges for Civil Engineers of Developing Countries in the 21st Century (NCCDC-96)*, Department of Civil Engineering, Jamia Millia Islamia, New Delhi in Collaboration with Indian Society of Environmental Management, New Delhi, 1996.
- 3) *International Conference INCARF*, Department of Mechanical Engineering, Jamia Millia Islamia, New Delhi, 1996.
- 4) *National Symposium on GIS for Business and Environmental Planning: A review*, GIS@development in collaboration with Delhi University, September, 1997.
- 5) *International Conference on Environmental Challenges for the New Millennium*, New Delhi, India, 1999.
- 6) *Workshop on Disaster Management*, Indian Society for Environmental Management, New Delhi, India, 2000.
- 7) *Workshop on Patent Awareness*, Jamia Millia Islamia, New Delhi in collaboration with TIFAC-DST on Oct 11, 2000.
- 8) *Workshop on IT for All-Emerging Challenges: Part I*, Faculty of Engineering & Technology, Jamia Millia Islamia, New Delhi, India, November 9, 2000.

- 9) *Workshop on IT for All-Emerging Challenges: Part II*, Faculty of Engineering & Technology, Jamia Millia Islamia, New Delhi, India, February 7, 2001.
- 10) *International Symposium and Exhibition on Geoinformation 2002*, Malaysia, 22-24 October 2002.
- 11) *Environmental Management and Sustainable Development for Better Future Growth Environment 2003*, University of Science Malaysia, Penang, Malaysia, 18-19 February 2003.
- 12) *Workshop on Graduate Supervision*, Institute of Graduate Studies, University of Science Malaysia, Malaysia, August 11, 2003.
- 13) *The 3<sup>rd</sup> International Conference on Advances in Strategic Technologies, ICAST 2003*, Kuala Lumpur, Malaysia, 12-14 August 2003.
- 14) *AWAM 2004*, School of Civil Engineering, University of Science Malaysia, Penang, Malaysia, 20-22 July, 2004.
- 15) *International Conference on: Spatial Planning and Decision Support System 2004*, International Islamic University, Kuala Lumpur, Malaysia, 7-8 September, 2004.
- 16) *International Symposium and Exhibition on Geoinformation 2005 (ISG 2005)*, Pulau Pinang, Malaysia, 27-29 September 2005.
- 17) *International Symposium and Exhibition on Geoinformation 2006*, Shahalam, Malaysia, 19-21 September 2006.
- 18) *7<sup>th</sup> International River Engineering Conference*, Ahvaz, Iran, February 13-15, 2007.
- 19) *International Conference on Sustainable Technologies (ICST-2013)*, Organized by Jamia Millia Islamia, New Delhi, India, January 18-20, 2013.
- 20) *Virtual Lab in Surveying*, Department of Civil Engineering, IIT Roorkee, April 26, 2013.
- 21) *Ist International Conference on Modern Communication & Computing Technologies (MCCT'14)* Quaid-e-Awam University of Engineering, Science & Technology, Nawabshah, Sindh, Pakistan, February 26-28, 2014.
- 22) *Survey of India's Inauguration of Nationwide CORS Network and Stakeholder Conference*, 12 October 2023, India Habitat Centre, New Delhi

## **Research Supervision**

### **PhD Completed**

- Mohammad Ahmad Mubarak Bawadi: *Evaluation of Wind Turbine Potentiality and its Feasibility in Generating Energy in low Wind Speed Regions*, 2006
- SM Muddassir: *Seismic Risk Assessment of an Urban Area*, 2017
- Farhat Rafiq: *Flood Rise Assessment And Its Mitigation for Sustainable Development in an Urban Areas*, 2017
- Kanika Taneja: *Spatial Distribution and Time Series Analysis of Atmospheric Aerosol in Delhi*, February 2021
- Ahzam Shadab: *Modelling of Solar Radiation Using Remote Sensing Data for Assessment of Energy Potential*, June 2021

- Tripti Dimri: *Impact of Climate Change on Hydropower Generation in Tehri Garhwal Region using Remotely Sensed Data*, December 2021
- Ekta Baranwal: *Developing a new approach for detection of impervious surfaces and extraction of buildings from satellite imageries*, June 2024

#### **Master's Degree**

- Mohamed Nor Azhari bin Azman: *Non Point Source Pollution Modelling Using GIS* by Research Mode. Completed in 2008
- Ramlah Binti Ahmad: *Integration of non-point source pollution model with GIS to study the effect of catchment characteristics on river water* for Master Mode. Completed in 2008.
- Manish Wadhawan: *Environment Impact of Mining in Faridabad Using GIS and Remote Sensing Techniques*, completed 2010.
- Uroos Choudhary: *River Meandering Characteristics of "Yamuna River" (Using RS & GIS Techniques)* Completed 2016
- Neeraj MR: *Analytical Study Of Remote Sensing Images*, 2018
- Shahbaz Alam: *Flood Management In East Champaran District Of Bihar*, 2021
- Deepak Nautiyal, *Assessment of Urban Development and Change Detection in land use land cover of River Yamuna in Delhi Region*, September 2022
- Amit Kumar, *Spatiotemporal Analysis of Wetland in Delhi*, 2022
- Peeyoos, *Spatio-Temporal Analysis of Air Pollution in Delhi Region Using Landsat 9 imagery*, August 2023

#### **Short term course attended**

- 1) *Remote Sensing from Space to Class Room*, organized by Quality Improvement Programme Centre, University of Roorkee, India, June 22 to July 6, 1993.
- 2) *Improvement of Instruction through Educational Technology*, organized by Centre for Educational Technology I. I. T. Delhi and Jamia Millia Islamia, New Delhi, 25-31 July 1995.
- 3) *Artificial Intelligence, Expert Systems and Programming in PROLOG*, organized by IDDC, IIT Delhi, 3-7 June, 1996.
- 4) *Application of Remote Sensing and GIS in Water Resources*, organized by Indian Institute of Remote Sensing, National Remote Sensing Agency, Department of Space, Govt. of India, Dehradun, June 4 to July 27, 2001.
- 5) *ERDAS IMAGINE Training Course*, Erdas, The Earth to Business Company, Gurgaon Haryana, 4-5 December 2008.

#### **Research Projects**

- *Creation of Infrastructure in the Field of Remote Sensing*, AICTE Project (MODROB), 1998 Amount INR 6,50,000/- (In India)

- *Efficient Development of Wind Farms in East Coast Peninsular Malaysia*, University of Science Malaysia Short Term Project, 2003, Amount RM 19,000/- (INR 2,40,000/-). (In Malaysia)
- *GIS Based Watershed Management System for Non Point Source (NPS) Pollution Modelling*, IRPA, RM, 194,000 (INR 20, 00,000) from 2003-2007. (In Malaysia)
- *Fusion of satellite data for urban features extraction*, AICTE Project, RS 9.5 lacs, 2008-2011. (In India)
- *Strengthening of Geomatics Laboratory*, AICTE Project (MODROB), 2012-2013 Amount INR 14,20,000/- (In India)

#### **Life Membership of Professional Bodies**

- Indian Society for Technical Education (ISTE), India.
- Indian Society for Remote Sensing (ISRS), India

#### **Member of academic bodies**

- Member of International Symposium and Exhibition on Geoinformation (ISG) for 2 years from January 2010 to December 2011.
- International Advisory Board (IAB) Members, 11th International Symposium & Exhibition on Geoinformation (ISG2012), 25-26 September 2012, Kuala Lumpur, Malaysia
- International Adviser Committee Member, AWAM International Conference on Civil Engineering 2015 (AICCE'15), 9-11 September 2015, School of Civil Engineering, Universiti Sains Malaysia, Pulau Pinang, MALAYSIA

**(Prof. Shamshad Ahmad)**