

CURRICULUM VITAE

Name : **Dr Surjit Singh Saini**
Current Organisation : Jalandhar Smart City Limited (Municipal Corporation Jalandhar)
Profession Title : Urban Planner Cum GIS Expert
Date of Birth : 2nd January 1974
Permanent Address : H.No. 744, Bishan Garh Colony, Ambala Road, Kaithal-136027
Correspondence Address : H. No 577, Mota Singh Nagar, Jalandhar City, Punjab-144001
Email Id : saini.surjit@gmail.com
Contact No : 91-11-9311666939
Nationality : Indian

Membership of Professional Institute/Societies

- Life Member, Indian Society of Remote Sensing (ISRS), Dehradun <https://www.isrs-india.org/>
- Association of American Geographers (AAG)
- Life Member, Association of Punjab Geographer (APG),
- Associate Member, Institute of Town Planners India (ITPI), Delhi

Summary:

Dr. Saini has more than 15-years professional experience of applied **GIS and Remote Sensing (i.e.Satellite/LiDAR/Drone) Technologies in planning, design,construction supervision** for multi-sector projects which included **Smart City Planning, Master Planning, SEZ Planning, Solid-waste management, utility network planning & asset management (water supply, drainage & sewer), roads & highways, Disaster Management in Flood hazard Context, Disaster risk reduction (DRR), Environment & Social Impact Assessment, GIS-based institutional strengthening & capacity building etc.** He is also Functional Area Expert (FAE) accredited by National Accreditation Board for Education and Training (NABET) Quality Council of India for assessment of Land use impact of construction projects (as component of EIA) .

Also, as a resource person for Geospatial applications in above mentioned sectors, Dr Saini has been visiting faculty to many renowned institutions which includes School of Planning & Architecture Delhi, Central Road Research Institute (CRRI), Haryana Institute of Public Administration (HIPA) and Department of Geography, Himachal Pradesh University Shimla, Department of Geography, Kurukshetra University Kurukshetra, Haryana.

In addition to India, he has been visited and worked in countries including **Afghanistan and Mongolia.**

Key Technical Skills

- **Riverine Flood Risk and Flood Inundation Modeling & GIS Mapping**
- **Setting up flood risk management methodologies suitable to local & regional context**
- **Conducting vulnerability assessment in riverine flood hazard context**
- **Community awareness program on the underlying factors crucial to reduce vulnerability**
- **Flood hazard risk modeling and hazard sensitive land use planning**
- **Hazard specific social-economic vulnerability assessment,**

- GIS-based Project management and coordinate with stakeholders
- Project management and supervising project team
- GIS-based **Discharge/HFL** calculation for cross-drainage work for roads and highways
- **Command & Control Center (CCC) integrated with flood risk management and emergency response**
- **Perform high-end GIS-based spatial analysis & modelling, mapping and report writing**
- **GIS based natural hazard/risk modelling and impact assessment**
- **Understanding of NDMA policies, plans and guidelines for disaster management and its compliance**
- Report writing (Concept note, DPR, RfP etc.) on GIS involved projects
- **Hazard-of-place (HoP) modeling for different natural hazard**
- **Environmental-risk sensitive and climate responsive land use planning**
- **Methodology development for assessment of bio-physical and socio-economic vulnerability to climate change impact**

Software Skills

- **GIS Software:** ESRI ArcGISPro, Erdas Imagine, Q-GIS, TransCAD, Global Mapper, AutoCad, Google Earth Pro.
- **Hydrologic Modeling Software:** HEC-RAS, HEC-GeoRAS, Arc Hydro
- **Statistical Software:** IBM SPSS
- **MS Office** (MS Word, Excel, Power Point)

Academic Qualifications

- 2011-2017: **Ph.D (Geography)**, Research Topic- **“Risk and Vulnerability Assessment of Flood Hazard in Ghaggar River Basin”** from Kurukshetra University Kurukshetra, Haryana, India
- 2013-2015: **Master Degree in Town & Country Planning**, Institute of Town Planners India (ITPI, New Delhi, India
- 2002-2002: **One-year Post Graduate Diploma in Remote Sensing & GIS specialization** in Urban and Regional Planning, Indian Institute of Remote Sensing (IIRS), Dehradun, Uttarakhand, India
- 1998-2000: **M.Sc. (Geography)**, Kurukshetra University Kurukshetra, Haryana, India
- 1994-1997: **Graduation (Geography)** Kurukshetra University Kurukshetra, Haryana, India

Published Research Work

1. **District Disaster Management Plan** 2018-19 (Flood Hazard Context) for Kaithal District, Government of Haryana Department of Revenue & Disaster Management
2. Surjit Singh Saini, S.P Kaushik (2016),” **Flood-risk assessment in urban environment by geospatial approach: a case study of Ambala City, India.** “Springer’s Applied Geomatics Vol. 8: pages 163–190. Available on <http://link.springer.com/article/10.1007/s12518-016-0174-7>
3. Surjit Singh Saini, Ravinder Jangra and S.P Kaushik (2014),” **Vulnerability Assessment of Soil Erosion Using Geospatial Techniques-A Pilot Study of Upper Catchment of Markanda River**, *International Journal of Advancement in Remote Sensing, GIS and Geography (IJARSGG)*, Vol.2, pages 9-21
https://www.researchgate.net/publication/271208477_VULNERABILITY_ASSESSMENT_OF_SOIL_EROSION_USING_GEOSPATIAL_TECHNIQUES-A_PILOT_STUDY_OF_UPPER_CATCHMENT_OF_MARKANDA_RIVER

4. Surjit Singh Saini and S.P Kaushik (2013),” **Population Growth, Pattern of Expansion and Direction of Urban Development: A Spatio-Temporal Study of Kaithal City (Haryana) using GIS & Remote Sensing**, *Population Geography, Journal of the Association of Population Geographers of India*, Vol.35(1&2), pages 49-58.
5. Saini, S.S, Kaushik S.P (2012), “**Risk and vulnerability assessment of flood hazard in part of Ghaggar Basin: A case study of Guhla block, Kaithal, Haryana, India**” , *Intl. Journal of Geomatics and Geosciences*, Vol.3 (1) , Pages 42-54
<http://www.ipublishing.co.in/jggsvol1no12010/volthree/EIJGGS3104.pdf>
6. Saini, S.S, Kaushik S.P (2011), “**Land use Change in Haryana Sub-Region Chandigarh Periphery Controlled Area- A Spatio-Temporal Study Using GIS**”, *Journal of the Institute of Town Planners, India Journal*”Vol.8 (4). http://www.itpi.org.in/uploads/journalfiles/oct8_11.pdf
7. Saini, S.S and Thakur, B.R (2011), “**Morphometric Analysis of Kaushalaya River Watershed Using Geospatial Techniques**”, *Deccan Geographer Journal*” Vol.49 (1), pages 1-7
8. Saini, S.S and Gupta, M.P, (2009), “**Relief Analysis of Kaushalaya River Watershed Using GIS & RS Techniques**”, *Punjab Geographer*, Vol(5), pages 61-78
<http://apgorg.org/apgorg/journals/jrnvol5.aspx#p5>

Paper Presented in National & International Conferences & Seminars

1. **Comprehensive Vulnerability Assessment Approach to Flood Hazard in Ghaggar River Basin: A Case Study of Moonak Tehsil of District Sangrur in Punjab State, India**, presented in 37th Indian Geographers Meet, 2016 & International conference on Land Resource policies, agriculture and expanding urban-industrial spaces held on February 11-13, 2016 at Kurukshetra University Kurukshetra, Haryana, India.
2. **GIS Based Modeling of River Flood Impacts in Urban Areas a Case Study of Ambala City in Haryana**, presented in 36th Indian Geography Congress organized by National Association of Geographers India (NAGI) held on 17-19 November, 2014 at Department of Geography, Rajasthan University, Jaipur.
3. **Physical and Social Vulnerability Assessment to Flood Hazard Using Geospatial Techniques: A Pilot Study of Guhla Census Block in District Kaithal** presented in International Conference on Development, Bio-diversity and climate change: Issues and Challenges held on 3-5 October, 2014, at Department of Sociology, Govt. PG College Chamba, Himachal Pradesh.
4. **Floodplain Delineation and Simulating Impact of Urban Flood on Land Use Pattern**, presented in National Seminar on Urbanization and Environmental Change in India: Problem & Challenges Sponsored by ICSSR, Organized by Department of Geography, Meerut College Meerut, Uttar Pradesh, held on 29-30 March, 2014
5. **Urban Flooding: it's Causes and Consequences-A Case Study of Ambala City in Haryana**, presented in 1st International Conference of Association of Punjab Geographers on Disasters, Natural Resource Management and Socio-Economic Development, organized by Department of Geography, Kurukshetra University Kurukshetra, Haryana. Held on 3-4 October, 2013
6. **Vulnerability Assessment for Soil Erosion Using Geospatial Techniques: A Geographical Study of Upper Catchment of Markanda River**, presented in International Geography Congress organized by Center for Water Resource Development and Management (CWRDM), Kozhikode, held on 6th-8th May, 2011 at Kozhikode, Kerala.
7. **Urbanization and Land use Change Impact on Urban Flood Risk in Ambala City, Haryana, India** presented in National Seminar organized by Department of Geography Punjab University Chandigarh, on 07-08 February, 2013 sponsored by ICSSR. Northwestern Centre, Chandigarh.

8. **Risk and Vulnerability Assessment of Flood Hazard in Ghaggar Basin: A Study of Guhla Block in Kaithal District, Haryana** Presented in a seminar entitled “Applications of Geospatial Technology in Teaching and Research” organized by Department of Geography RKMV, Shimla on 27-28 February, 2011 sponsored by ICSSR. Northwestern Centre, Chandigarh.
9. **Facilities Analysis and Developing Level of Social Infrastructure Indicators, Hisar Municipality, Haryana**, Presented in a seminar entitled “Applications of Remote Sensing and GIS in Land Resource and Infrastructure Management” organized in Department of Geography, Kurukshetra University Haryana on February 26, 2007 sponsored by ICSSR. Northwestern Centre, Chandigarh.

Professional Experience and Employment Record

April 2023- Till date, Urban Planner cum GIS Expert, Jalandhar Smart City Limited, Jalandhar, Punjab

February 2008 – March-2023, General Manager- Intercontinental Consultants and Technocrats Pvt. Ltd., New Delhi. www.ictonline.com

January, 2007 – February, 2008, Associate Director-Research- Institute for Spatial Planning & Environment Research, India, Panchkula-Haryana, India. <http://isperonline.com>

July, 2004 - December, 2006, Deputy Manager, Intercontinental Consultants and Technocrats Pvt. Ltd., New Delhi, India. www.ictonline.com

December, 2002 – March, 2004, GIS & Remote Sensing Engineer, SGS InfoTech Pvt. Ltd. 407, Phase- IV, Udyog Vihar, Delhi NCR, Haryana, India. <http://www.sgsinfotech.com>

Languages Proficiency

	<u>Speaking</u>	<u>Reading</u>	<u>Writing</u>
English	Excellent	Excellent	Excellent
Hindi	Excellent	Excellent	Excellent
Punjabi	Fair	Fair	Fair

Certification

I, the undersigned, certify that to the best of my knowledge and belief, this biodata correctly describes me, my qualifications, and my experience .

Date: 01-10-2023



Signature