

# Curriculum Vitae



**Name** Dr. HUIDROM LOKESHWOR SINGH

**Post/Designation** SENIOR TECHNICAL OFFICER (3)

**Office Address** INFORMATION, LIAISON & TRAINING DIVISION  
CSIR-CENTRAL ROAD RESEARCH INSTITUTE (CRRI),  
P.O. CRRI, NEW DELHI-110025, INDIA

**Telephone No.** 011- 26832173 Ext.323

**Mobile No.** +91 8800830458

**E-Mail** [hlokeshwor@gmail.com](mailto:hlokeshwor@gmail.com) / [hlokeshwor.crri@csir.res.in](mailto:hlokeshwor.crri@csir.res.in)

**Nationality** Indian

**Date of Birth** 01-08-1980

**Date of Joining in CRRI** 28-01-2005

## Educational Qualification

Sl.No.	Degree	Subject	Division	Year	University
1.	Ph.D	Road Video Image Processing		2012*	IIT-Delhi, New Delhi
2.	M.Sc.	Electronics	1 <sup>st</sup>	2002	J.M.I, New Delhi
3.	B.Sc.	Instrumentation	1 <sup>st</sup>	2000	J.M.I, New Delhi
4.	10+2	P,C,M,B,E	1 <sup>st</sup>	1997	JNVK, CBSE, All India
5.	10	E,H,M,Sc,SST	1 <sup>st</sup>	1995	JNVK, CBSE, All India

\*Thesis submitted in 2012 and Degree awarded in 2013

**Field of Interest** Science & Technology Communication / System Integration / Automation / Intelligent Transportation Systems / Road & Traffic Surveys and Information / Asset Management / Digital Image Processing / Artificial Intelligence / GIS

## Employment

SI.	Employer	Post held	Period of From	Employment To
1.	CSIR-CRRI	Senior Technical Officer (3)	Jan 2025	Till Date
2.	CSIR-CRRI	Senior Technical Officer (2)	Jan 2020	Jan 2025
3.	CSIR-CRRI	Senior Technical Officer (1)	Jan 2015	Jan 2020
4.	CSIR-CRRI	Technical Officer	Jan 2012	Jan 2015
5.	CSIR-CRRI	Technical Assistant	Jan 2005	Jan 2012
6.	Agaram Industries	Service Engineer	Mar 2004	Dec 2004

**Membership to Professional Bodies:** Life Member, Indian Roads Congress

### ***Contribution / Work Experiences***

1. Designed and developed automated systems for health monitoring of Indian civil infrastructure
2. Completed extensive R&D and consultancy / technical services projects for the Ministry and Industry has been completed successfully. (Total 31 Nos.)
3. Possess vast experience in design, installation and commissioning of equipment for both academic and industry applications ranging from Analytical instruments to Network Survey Vehicles (NSV)
4. Learned extensive engineering course works related to Instrumentation, Electronics, Computers, Electrical, Civil Engineering and Industrial Design (More than 55 Subjects / Courses).
5. Published papers in refereed journals (6 Nos.), conferences (8 Nos.). (14 Numbers)
6. Reviewed various manuscripts for publications in International Conferences / Journals
7. Documented / published CSIR-CRRI documents (Annual Report-5 Nos., Newsletter-8 Nos. & Others)

### ***Recognition / Awards***

1. Qualified for Rashtriya Indian Military College (RIMC), Dehradun, 1993 August Term
2. Awarded CSIR-CRRI Outstanding Young Technical Officer of the Year, 2011-2012

### ***Title of PhD Thesis***

The title of Ph.D thesis submitted to Instrument Design Development Centre of IIT-Delhi in November, 2012 is "An Improved Method for Automated Evaluation of Critical Road Surface Distresses using Video Image Based Techniques".

### ***Workshops / Conferences Attended***

1. 8<sup>th</sup> Conference of Transportation Research Group of India (CTRG-2025) jointly organised by TRG and IIT Guwahati during December 17-20, 2025 at IIT Guwahati, Assam
2. 11<sup>th</sup> Edition of India International Science Festival (IISF)-2025 organized during December 06-09, 2025 at Panchkula, Haryana
3. Global Road Infratech Summit & Expo 2025, organized by the International Road Federation – India Chapter (IRF-IC), during 06-07 March 2025 at The Lalit Hotel, New Delhi, India.
4. One-day national workshop on "Automatic Vehicle Counting and Classification (AVCC) Systems: Technologies on February 28, 2025, CSIR-CRRI, New Delhi
5. One-day National Conference on "ICC Conference 2025: Emerging Technologies Redefining Highways, Rural Roads and Infrastructure" was jointly organized by CIDC-ICC and CSIR-CRRI, New Delhi on February 07, 2025 at CSIR-IGIB Auditorium, New Delhi
6. 10th Edition of India International Science Festival (IISF)-2024 organized during November 30- December 03, 2024 at IIT Guwahati, Assam
7. CSIR One Week One Theme (OWOT) Campaign, September 06, 2024, Bhopal
8. One-day Workshop on Electrical mobility, September 01, 2023, CSIR-CRRI, New Delhi
9. CSIR One Week One Theme (OWOT) Campaign (September 02-06, 2024), September 02, 2024, New Delhi
10. One-Day International Conference on "Steel Slag Road: A Sustainable Green Infrastructure, Transforming Waste to Wealth" was organized jointly by CSIR-CRRI and PHD Chamber of Commerce and Industry (PHDCCI) on June 29, 2024 at Hotel The Oberoi, New Delhi.
11. CSIR-CRRI One Week One Lab Campaign (July 16-22, 2023), Convention Centre, Lokaseva Bhavan, Bhubaneswar, July 20, 2023
12. 11th Edition Traffic Infratech Expo, October 10-12, 2023, Pragati Maidan, New Delhi
13. 82<sup>nd</sup> Annual Session of Indian Roads Congress, December 02-05, 2023, Gandhinagar, Gujarat
14. CSIR-CRRI One Week One Lab Campaign (July 16-22, 2023), July 16, New Delhi
15. All India Adhiveshan, August 23-25, 2023, New Delhi
16. 10<sup>th</sup> Edition Traffic Infratech Expo, November 16-18, 2022, Bombay Exhibition Centre, Mumbai
17. 81<sup>st</sup> Annual Session of Indian Roads Congress, October 08-12, 2022, Lucknow, Uttar Pradesh

18. Workshop on “Intelligent Solutions for Road Safety through Technology & Engineering (iRASTE)” June 13-14, 2022, CSIR-CRRI, New Delhi
19. 9th Edition of Traffic Infratech Expo & Conference, November 26 to 28, 2021, Pragati Maidan, New Delhi
20. National Conference on Bitumen & Road Sector with the theme “New Technologies for Better Roads”, November 25, 2021, at Taj Palace, New Delhi
21. International Webinar on “Utilization of Steel Slag in Road Construction” during April 24-25, 2020, CSIR-CRRI, New Delhi
22. 80th Annual Session of Indian Roads Congress Session (IRC), December 12-15, 2019, Patna,
23. 79<sup>th</sup> Annual IRC Session, 22-25 November 2018 at Nagpur
24. International conference on "Pavements and Computational Approaches (ICOPAC) 2018, 16 -17 November 2018 at CSIR-CRRI, New Delhi
25. International Conference on “Safe Riding Initiative”, 12-13 April 2018, CRRI, New Delhi, India
26. National IPR Conference on “Expanding IP Ecosystem in Industry”, 27 April 2017, New Delhi, India
27. National Workshop on “Establishing a research network on vehicular emission reduction”, 17 Feb 2017, CRRI, Delhi, India
28. Delhi, India
29. 4. National Conference on Fifteen Years of PMGSY (FYPMGSY), 6-7 August 2016 IIT-Roorkee, India
30. 74<sup>th</sup> Annual Session of Indian Roads Congress, Ministry of Road Transport and Highways, 18 -22 January 2014 at Guwahati, India
31. 2014 at Guwahati, India
32. International Conference on "Sustainable Innovative Techniques in Civil and Environmental Engineering (SITCEE – 2014)", Krishi Sanskriti, India 4-5 January 2014 at New Delhi, India
33. 2nd Conference of the Transportation Research Group of India (2nd CTRG), Transportation Research Group of India, 12 -15 December 2013 at Agra, India
34. Conference on Road and Transportation Technologies for North-East Region (CORTNE 2013), 22 -24 February 2013 at Guwahati, India
35. Seminar on Recent Trends in Highway Development, Indian Roads Congress, Ministry of Road Transport and Highways, 10 -11 October 2012 at Delhi, India
36. 3<sup>rd</sup> International Conference on Pattern Recognition and Machine Intelligence (PReMI 2009), 15 -18 December 2009 at IIT Delhi, India
37. 12<sup>th</sup> International Conference on Rough Sets, Fuzzy Sets, Data Mining & Granular Computing (RSFDGrC'09), 15 -18 December 2009 at IIT Delhi, India
38. Indo-US Workshop on Designing Sustainable Products, Services and Manufacturing Systems, 18 -20 August 2009 at IISc Bangalore, India
39. International Conference on Research into Design (ICoRD'09), 7-9 January 2009 at IISc Bangalore, India
40. DST-Royal Society (UK) Workshop on National Geotechnical Centrifuge Facility, 16-18 March 2006 at IIT- Mumbai, India
41. DST-Royal Society (UK) Workshop on National Geotechnical Centrifuge Facility, 16-18 March 2006 at IIT- Mumbai, India

### ***Consultancy / Technical Services Projects Undertaken***

- 1. Project: Calibration of ROMDAS make Bump Integrator using Dipstick**  
 Client: M/s SAI Consulting Services Ltd, Gujarat and M/s ICT Pvt. Ltd., Delhi  
 Role: Project Leader / Principal Investigator
- 2. Project: Calibration of VEC make Automatic Road Unevenness Recorder (ARUR) using Dipstick**  
 Client: M/s Ved Engineering Co. Ltd, New Delhi  
 Role: Project Leader / Principal Investigator
- 3. Project: Calibration of STECO make Automatic Road Unevenness Recorder (ARUR) using Dipstick**  
 Client: M/s Scientific & Technological Equipment Corporation Ltd, New Delhi  
 Role: Project Leader / Principal Investigator
- 4. Project: Technical Feasibility Study of the Proposed U-Turn Provision on the Delhi-Noida Flyway at the Delhi Border merging with Inner Ring Road**  
 Client: DND Flyway Noida Toll Bridge Company Limited (NTBC), New Delhi  
 Role: Project Member

- 5. Project: Evaluation of Retro-reflective Sheets of White Colour of Type IX**  
Client: PWD, CRM, New Delhi  
Role: Project Member
- 6. Project: Consultancy Services for Developing Thematic GIS Database for Integrating Road Management System of Road Construction Department**  
Client: RCD, Govt. of Bihar  
Role: Project Member
- 7. Project: Third Party Inspection Quality Assurance for Comprehensive Development of Corridor (Outer Ring Road) between Madhuban Chowk to Mukarba Chowk New Delhi**  
Client: PWD, Govt. of Delhi NCT  
Role: Project Member
- 8. Project: Customized Training Programs conducted by CSIR-CRRI**  
Client: NRIDA and various State PWDs  
Role: Project / Faculty Member
- 9. Project: Regular Training Programs conducted by CSIR-CRRI**  
Client: NRIDA and various State PWDs  
Role: Project Member

#### ***R&D / Sponsored Projects Undertaken***

- 1. Title: Development of GIS based National Highways Information System (SSP-4444)**  
Client: Ministry of Road Transport and National Highways, Govt. of India  
Investigators: CSIR-CRRI  
Role: Member (Implementation and maintenance of ARRB Hawkeye Roads Survey Vehicle, Field Data Collection & Analysis for many highways on the capacity of Team Leader)
- 2. Title: Design & Development and Installations of Instrumentation for Detection and Early Warning of Landslides (COR-0007)**  
Client: CSIR Planning Commission, India  
Investigators: CSIR-CRRI  
Role : Member (Laboratory investigations of artificial rainfall induced landslides through Instrumentation)
- 3. Title: Automated Measurement of Deflection Basin under Truck Dual Tyres Assembly (COR13D2)**  
Client: CSIR, Planning Commission, India  
Investigators: CSIR-CRRI  
Role: Member (Development and implementation of an automated system for measuring deflection basin)
- 4. Title: Intelligent Remote Health Monitoring for Bridge System (GAP-4539)**  
Client: Department of Science Technology, Govt. of India  
Investigator: Dr. R.K. Garg (jointly with CSIR-SERC)  
Role: Member (Development of a system for automated measurement of vehicle axle loads on bridges)
- 5. Title: Automated Detection and Analysis of Road User Information and Distresses using Digital Image Processing Techniques (OLP-526)**  
Client: CSIR-CRRI  
Role: Project Leader / Principal Investigator
- 5. Title: Trip Pattern and its Implications on Intermediate Public Transport Services in Imphal, Manipur (GAP-4644)**  
Client: National Mission on Himalayan Studies  
Role: Project Member

## PUBLICATIONS

### *In Refereed Journals*

1. **Title:** *Automated detection and measurement of potholes from road surface video clips*  
**Author:** Huidrom Lokeshwor, L.K. Das, S.K. Sud  
**Journal:** Journal of Highways Research, Vol. 5(2), July-December 2012, pp.9-18.
2. **Title:** *Automated detection and measurement of cracks from monochrome video clips captured by a Road Network Survey Vehicle*  
**Author:** Huidrom Lokeshwor, L.K.Das, S.K. Sud  
**Journal:** Indian Highways Journal, Vol. 41(1), January 2013, pp.91-103.
3. **Title:** *An automated system for measuring pavement deflection basin parameters under dual tyres assembly of a vehicle*  
**Author:** Huidrom Lokeshwor, G.K. Vij, D.C. Sharma  
**Journal:** Indian Highways Journal, Vol. 41(71), July 2013, pp.11-16.
4. **Title:** *Robust method for automated segmentation of frames with/without distresses from road surface video clips*  
**Author:** Huidrom Lokeshwor, L.K. Das, Savita Goel  
**Journal:** ASCE Journal of Transportation Engineering, Vol. 140(1), January 2014, pp. 31–41
5. **Title:** *A portable low-cost system framework for automated road distress assessment*  
**Author:** Huidrom Lokeshwor, L.K. Das, Namita Akoijam  
**Journal:** Indian Highways Journal, Vol. 42(6), June 2014, pp.43-55.
6. **Title:** *Method for automated assessment of potholes, cracks and patches from road surface video clips*  
**Author:** Huidrom Lokeshwor, L.K. Das, S.K. Sud  
**Journal:** Social and Behavioral Sciences, Elsevier, Vol.104, 2 December 2013, Pages 312–321

### *In Conference / Seminar*

7. **Title:** *Automated road distress data collection and analysis using videography*  
**Author:** Huidrom Lokeshwor, L.K. Das, S.K. Sud  
**Seminar:** Seminar on Recent Trends in Highway Development, Indian Roads Congress, Ministry of Road Transport and Highways, India  
**Year:** 10-11 October 2012
8. **Title:** *Towards automated road distress assessment: A low-cost solution for north-east region of India*  
**Author:** Huidrom Lokeshwor Singh  
**Conference:** Conference on Road and Transportation Technologies for North-East Region (CORTNE 2013), India  
**Year:** 22-24 February 2013 (presented)
9. **Title:** *Automated Detection of Potholes, Cracks and Patches using Imaging Systems: A sustainable approach*  
**Author:** Huidrom Lokeshwor Singh  
**Conference:** International Conference On "Sustainable Innovative Techniques in Civil and Environmental Engineering (SITCEE – 2014)", Krishi Sanskriti, India  
**Year:** 4 -5 January 2014 (Keynote Speaker)
10. **Title:** *Automated detection and measurement of pavement distresses using imaging systems*  
**Author:** Huidrom Lokeshwor Singh  
**Conference:** 74<sup>th</sup> Annual Session of Indian Roads Congress, Ministry of Road Transport and Highways, India  
**Year:** 18-22 January 2014 (presented)
11. **Title:** *Review and Analysis of Digital Image Processing Methods in Pavement Distress Assessment*  
**Author:** Huidrom Lokeshwor, L.K.Das, D.C. Sharma, Namita Akoijam  
**Conference:** International Conference on Emerging Trends in Science and Engineering research (ETSER-2015), NIT-Manipur, India  
**Year:** 2-4, December 2015 (presented)

- 12. Title:** *An approach towards automated determination of pavement condition index (PCI) using videography*  
Author: Huidrom Lokeshwor Singh  
Conference: A National Conference on Fifteen Years of PMGSY (FYPMGSY), IIT-Roorkee, India  
Year: 6-7, August 2016 (presented)
- 13. Title:** *An approach towards automated estimation of pavement condition index (PCI) for PMGSY roads*  
Author: Huidrom Lokeshwor, L.K. Das, Namita Akoijam  
Conference: International Road Federation (IRF) World Road Meeting 2017, Delhi NCR, India  
Year: 14-17, November 2017
- 14. Title:** *Improved Relation for Calibration of Fifth Wheel Bump Integrator in Indian conditions*  
Author: Lalita Jangpangi, Huidrom Lokeshwor, Y.C. Tiwari  
Conference: International Road Federation (IRF) World Road Meeting 2017, Delhi NCR, India  
Year: 14-17, November 2017
- 15. Title:** *PMGSY road asset inventory and condition data assessment using a portable low-cost video imaging based system*  
Author: Namita Akoijam, L.K. Das, Huidrom Lokeshwor  
Conference: International Road Federation (IRF) World Road Meeting 2017, Delhi NCR, India  
Year: 14-17, November 2017
- 16. Title:** *Development of computerized / centralized road database for Manipur state*  
Author: Huidrom Lokeshwor  
Newspaper: The Sangai Express ( <http://epaper.thesangaiexpress.com/wp-content/uploads/2018/09/TSE-EE-6-9-2018-P-4.pdf> ) & The Imphal Free Press (<https://www.ifp.co.in/page/items/52377/development-of-computerised-centralised-road-database-for-manipur-state>)  
Year: 06 & 28 September 2018

***It is certified that the above particulars submitted are true to the best of my knowledge and belief.***

**(Dr. Huidrom Lokeshwor Singh)**

**Date: 22-12-2025**