

1. Name and Photograph : Dr. AJAY KUMAR JAIN
2. Designation and complete address : Senior Principal Scientist
Pavement Evaluation Division
CSIR – CRRI, Delhi – Mathura Road
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3. Areas of Interest :
1. Flexible Pavements Construction and Materials
 2. Rigid Pavements Construction and Materials
 3. Highway Construction Procurement & Contract Management
 4. Quality Management System

4. Educational Qualification – starting from the highest degree

Class	Year of Passing	Board / University/ Institution	Subject	Division
Ph. D. in Civil Engg.	2025	L. N. C. T. University, Bhopal	Civil Engineering	-----
M.E. (Civil)	1990	I.I.T, Roorkee (formerly University of Roorkee)	Transportation Engineering	79%, 1 st (with Honours)
B. Tech (Civil)	1988	K. N. I. T, Sultanpur (Awadh University, Faizabad)	Civil Engineering	82.35% 1 st (with Honours)
Intermediate	1984	U.P. Board, Allahabad	Hindi, English, Maths, Physics, Chemistry	78%, 1 st (with Honours)
High School	1982	U.P. Board, Allahabad	Hindi, English, Maths, Science, Geo. Drawing	76%, 1 st (with Honours)

5. Professional Experience - in reverse chronological order

Sl.No.	Period	Name of Organisation	Position held
1	04.06.2022 to till date	CSIR-Central Road Research Institute, New Delhi	Senior Principal Scientist
2	04.06.2015 to 03.06.2022	CSIR-Central Road Research Institute, New Delhi	Principal Scientist
3	14.01.2013 to 03.06.2015 (Promoted to the post of Sr. Scientist w.e.f. 04.06.2010)	CSIR-Central Road Research Institute, New Delhi	Senior Scientist
4	16.05.2008 to 13.01.2013	National Highways Authority of India (NHAI), New Delhi	DGM (Tech)

Sl.No.	Period	Name of Organisation	Position held
5	04.10.2004 to 15.05.2008 (Promoted to the post of Scientist 'C' w.e.f.04.06.2002	CSIR-Central Road Research Institute, New Delhi	Scientist 'C'
6	23.03.2001 to 03.10.2004	National Highways Authority of India (NHAI), New Delhi	Manager (Tech), Manager (Tech) cum Project Director from 12.03.2004 to 03.10.2004
7	04.06.1997 to 22.03.2001	CSIR-Central Road Research Institute, New Delhi	Scientist 'B'
8	18.10.1996 to 03.06.1997	CSIR-Central Road Research Institute, New Delhi	Project Assistant-II
9	22.10.1991 to 31.10.1995	CSIR-Central Road Research Institute, New Delhi	Senior Research Fellow (SRF) CSIR

6. Membership to Professional Bodies : (i) Member, Indian Roads Congress
(ii) Associate Member, Institution of Engineers (India)
(iii) Life Member, Indian Geotechnical Society (Delhi Chapter)

7. Achievements

a. Patent : INTERLOCKING CONCRETE PAVEMENT, Design No. : 439610-001
(The Patent Office, GOI)

b. Research Projects :

1. Condition Assessment using Modern Data Collection Techniques and Preparation of Annual Maintenance Plan using HDM-4 of Odisha PWD Roads
2. Development of UER-II (NH-344M & NH-344N) and Dwarka Expressway (NH-248BB) - External Technical Quality Audit Related to Flexible Pavement Evaluation in Packages 1, 2 & 5 of UER-II and Packages 1 & 2 of Dwarka Expressway
3. Evaluation of NDMC Roads for suggesting recommendations for suitable maintenance and rehabilitation measures and Third party Construction Quality supervision works under the jurisdiction of SE (Road) North & South
4. Calibration of Automatic Road Unevenness Recorder (ARUR), Fifth wheel Bump Integrator (FWBI) / Car Axle Mounted Bump Integrator (CAMBI) and other Road Roughness Measuring Equipments
5. Investigation of Bihta – Samera Section of SH-78 in Bihar for Needed Remedial Measures for already constructed Pavement Layers and Improvement Measures for the ongoing Construction in the Project Section

6. Evaluation of Asaf Ali Road and Chaman Lal Marg for needed Strengthening and Remedial Measures in Jurisdiction of PWD SRD Division 1
7. Evaluation of Road from Sector – 14A to Film City Flyover connecting Noida to Greater Noida Expressway for needed Strengthening and Remedial Measures
8. Evaluation of G. T. Road from Shahdara Flyover to Apsara Border for needed Overlay and Remedial Measures
9. Detailed Investigations to find reasons for Premature Pavement failure at various locations on Pali - Pindwara (131.12 Km in Length) section of NH - 14 in the State of Rajasthan
10. Restoration / Upgradation of Internal Roads at Facility Centre, Khajoori Khas, Delhi
11. External Party Quality Checking of Construction of Inner Ring Road (Phase-I) from Kuberpur to Fatehabad Road, Agra
12. Examination of Works as per the directions of Hon'ble High Court of Delhi regarding four laning of Gujarat/Maharashtra Border – Surat -Hazira port section of NH-6 in the State of Gujarat
13. Quality Assurance of Construction of 4 – bridges across Agra Canal at Faridabad
14. Quality Assurance of Construction of Fly Over at Meerut Road T-Point in Ghaziabad
15. Project Monitoring and Quality Assurance of Construction of additional two lane Hindan Bridge on NH-58E in Ghaziabad
16. Evaluation of Recycled Concrete Aggregates for Use in Pavement Construction
17. Field Trials on Use of Rubber and Polymer Modified Binders in Bituminous Road Surfacing
18. Field Trials on Use of Geosynthetic Pavement Reinforcing Fabric Interlayer to Control Cracking in Bituminous Overlays
19. Techno – Economic Feasibility of Micro surfacing Sections Constructed in the State of Assam near Guwahati on NH-37
20. Pavement Performance Study : Study on Existing Pavement Sections
21. Maintenance Cost Studies for Pavements under Different Conditions
22. Criteria for Choice of Type of Bituminous Surface Courses for Flexible Pavements
23. Performance of Some Recycled Bituminous Roads in Delhi and Recycling as Alternative Pavement Maintenance Technology in Indian Context
24. Third Party Quality Checking of Concrete Roads in Adarsh Nagar Area of Delhi
25. Third Party Quality Control for the Construction of Internal Roads of Derawal Nagar and Gujrawala Town, Delhi
26. Third Party Quality Assurance of Road Works in fruit, vegetable and grain market at IFC Ghazipur New Delhi

27. Field Trials on Use of Ethylene Vinyl Acetate (EVA) Modified Bitumen in Flexible Pavements
28. Field Trials on Use of Styrene Butadiene-Styrene block Copolymer (SBS) Modified Bitumen in Flexible Pavements
29. Evaluation of Pond Ash – Soil Subgrade Materials for Design of Flexible Pavement of LPG Bottling Plant Complex at Madanpur Khadar, New Delhi
30. Design of Flexible Pavement for Roads and Parking Area of LPG Bottling Plant Complex at Trisundi (Sultanpur) U.P
31. ISO – 9001 Quality Management System Implementation in the Institute
32. CRRI Employee's Data Base in the form of two separate Volumes on "Scientific & Technical Manpower".

c. Research Publications

Papers in Journals

1. Jain Ajay Kumar, Sagar Ashok Kumar, Meshram Prakash Chandra and Parihar Rajeev Singh (2024), “Evolution of A Extensive Rupture Fatigue Destruction Model for Concrete Pavements”, Journal of Emerging Technologies and Innovative Research (JETIR), January, 2024
2. Sagar Ashok Kumar, Jain Ajay Kumar, Meshram Prakash Chandra and Parihar Rajeev Singh (2024), “Design Criteria of Concrete Pavement for Plain and Lean Concrete Roads”, Journal of Emerging Technologies and Innovative Research (JETIR), January, 2024
3. Jain, A.K., Jain, P.K. and Gupta, A.K., (2000), “Design, Construction and Performance of Flexible Pavement Constructed over Pond Ash Fills”, “Indian Highways” Indian Roads Congress Publication, March, 2000

Papers in Conferences

1. Jain Ajay Kumar (Dr.), Sagar Ashok Kumar (Dr.) and Meshram Prakash Chandra (Dr.) (2026) “Performance Evaluation of Sustainable Pavement Materials Utilizing Industrial Waste Products for Highway Applications”, International Conference on Recent Advances in Civil Engineering (ICRACE 2026), 1 – 3 April 2026, Kochi, Kerala
2. Jain Ajay Kumar, Sagar Ashok Kumar and Meshram Prakash Chandra (2025) “Evolution of a Extensive Rupture Fatigue Destruction Model for Jointed Concrete Pavements using the Principles of Similarity”, International Conference on Advances in Science and Engineering, 28 - 30 April, 2025, BHOPAL
3. Meshram Prakash Chandra, Jain Ajay Kumar, Sagar Ashok Kumar (2025) “Photoconductive Dipole Antenna for Terahertz Frequency for imaging Applications”, International Conference on Advances in Science and Engineering, 28 - 30 April, 2025, BHOPAL
4. Tiwari, Prabhat Kumar, Sagar, Ashok Kumar and Jain, Ajay Kumar, Meshram, Prakash Chandra (2025) “Removal of Fluoride from Wastewater by using Clay as Unconventional Adsorbent”, International Conference on Sustainable Materials and Manufacturing For Industry 5.0, ICSMMI 2025, MREC, Hyderabad, 21 – 22 February, 2025
5. Sangita Dr., Pandey Yash, Tare Vandana (Dr.) and Jain, A. K., (2015) “Environment Friendly Road Construction Approach Used for Reducing Global Warming” Proceedings of Bhartiya Vigyan Sammelan (BVS) -235, held at GOA,
6. Jain, P. K., Jain, A. K. and Kamaraj, C., (2008) “Pavement Preservation Utilizing Cost Effective Modified Bitumen Seals – A Pilot Study” 23rd ARRB Conference, Adelaide, Australia.
7. Jain, A. K. and Gupta, Saroj (Dr.), (2006) “Recycled Concrete as a Source of Aggregates for Concrete Pavements – A Strategic Review” National Seminar on Concrete Pavements; Design, Construction and its Repair, organized by Indian Concrete Institute, Allahabad,.
8. Jain, P.K., Jain, A.K. and Sharma, S.D., (2000) “Full Scale Performance Studies and Specifications of Rubberised Bitumen for Works in India-Status Report”, 18th Rubber Conference organised by IRMRA.
9. Jain, A.K. and Bharadwaj, R.S., (1999) “Development of Suitable and Economical Specifications for Rural Roads and Appropriate Rural Road Technologies”, Second All India People’s Technology Congress, Calcutta.

10. Jain, A.K. and Bharadwaj, R.S.,(1998) “Privatisation in Highway Sector- A Need of Today”, National Seminar on Road Transportation - Issues & Strategies (RTIS-98), organised by Thaper Institute of Engineering and Technology, Patiala.
11. Jain, A.K., Gupta, A.K. and Yadav Rajesh, (1997) “Some Significant Considerations in Bitumen Emulsions and Mix Technology - An Overview”, National Workshop on Use of Bitumen Emulsion in Road Construction – Problems & Prospects, organised by Central Road Research Institute, New Delhi.
12. Chandra, Satish, Mehndiratta, H.C. and Jain, A.K., (1995) “Some Aspects of Flexible Pavement Reinforced with Geotextile”, International Conference on Roads and Road Transport Problems (ICORT-95), organised by Department of Civil Engineering, University of Roorkee.
13. Jan, P.K., Jain, A.K. and Arya, I.R., (1995) “Polymer Modified Binders and Their Application in Flexible Pavements”, International Conference on Roads and Road Transport Problems (ICORT-95), organised by Department of Civil Engineering, University of Roorkee.
14. Jain, P.K. and Jain, A.K., (1995) “Eco-Friendly Disposal of Non-Biodegradable Polymeric Wastes by Their Use in Bituminous Road Construction”, All India Symposium on “Converting Waste into Wealth” organised by Bihar Institute of Technology, Sindri, Dhanbad.

d. Any Other information:

Having more than 30 years experience in the field of Roads and Highways. Out of the total experience of more than 30 years, about 8 years experience of working in National Highways Authority of India (NHAI) in the capacity of Manager (Tech) at NHAI HQ and Project Implementation Unit (PIU) and Deputy General Manager (Tech) at NHAI HQ. Having about 5 years experience in the procurement and implementation of Highway Projects under Public Private Partnership (PPP). Besides this, broad experience in Research & Development and Consultancy assignments in the area of Roads and Highways in various positions at CSIR-Central Road Research Institute, New Delhi. Also attended various National and International training programmes, Seminars and Conferences in the area of Roads and Highways.