

## BIO - DATA

**Name:** Lalita Jangpangi

**Designation :** Senior Principle Scientist & Head Knowledge Resource Centre

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**Educational Qualifications:** M.E.(Instrumentation & Control), Delhi College of Engineering

### EMPLOYMENT DETAILS:

Grade/Post	Estt./Lab/Instt.	Duration from	Duration to	Remarks
Scientist 'B'	CSIR-CRRI	9 Feb 1996	8 Feb 2003	Direct Selection
Scientist C	CSIR-CRRI	9 Feb 2003	8 Feb 2008	Assessment Promotion
Scientist E-I	CSIR-CRRI	9 Feb 2008	8 Feb 2013	Assessment Promotion
Pr.Scientist	CSIR-CRRI	9 Feb 2013	8 Feb 2020	Assessment Promotion
Sr. Pr. Scientist	CSIR-CRRI	9 Feb 2020	Till Date	Assessment Promotion

**Professional Experience:** Instrumentation of Highway and bridges and analysis of data. Calibration of Bump Integrator. Non Destructive Testing. Relational Database Management System , GIS based Projects

**Membership of Professional Bodies:** Indian Road Congress

### Research Projects:

1. Field investigation and experimentation on prevention of premature longitudinal cracking in concrete pavement highways, SSP, MORTH.
2. Study of thermal Behavior of Rigid Pavement through instrumentation of CRRI Campus Road
3. Investigation and suggestion for remedial measures for distress of cement concrete pavement in Firozabad (U.P)

4. To study the development of shrinkage cracks under saw cuts in cement concrete pavements and white topping using Ultra Sonic Wave Propagation
5. Repair and Restoration of Expansion Joints of Runway at VSS Airport, Jharsuguda, Odisha
6. Design and Evaluation of pavement quality concrete mixes using ground granulated blast furnace slag a partial replacement of cement
7. Evaluation of IMS K100 as a chemically active admixture for cement concrete mixes
8. Development of Database Management System of Performance Monitoring of Instrumented Bridges.
9. Development of a Prototype for Collision Prevention at Road Rail intersection using Embedded System.
10. Structural Safety Audit and Rehabilitation Measures of the 4-laning of Jetpur - Somnath Section of NH-8D from km 0/000 to km 127/000 in the state of Gujrat
11. Structural Safety Audit of major bridges at Km 938+485 across the river Gothami on NH-16 in the state of Andhra Pradesh.
12. Quality & Structural Safety audit of Six Laning of Saamkhiali Gandhi-Dham section of N-H-8 , Gujarat.
13. Evaluation of Bridges for increased axle loads of freight wagons on iron ore routes of South-Eastern Railways
14. Evaluation of Bridges for increased axle loads of freight wagons on iron ore routes of Eastern Railways.
15. Evaluation of Bridges for increased axle loads of freight wagons on iron ore routes of Northern Railways.
16. GIS based geotechnical subsurface Map of Delhi.
17. Quality assurance and Health Monitoring of 6 lane road way bridge over Palam drain through Instrumentation at Dwarka , N-Delhi.
18. Long term Performance Monitoring of Lok- Nayak- Setu, through Instrumentation, N-Delhi.
19. Performance Monitoring of Ganga Bridge at Varanasi.
20. Calibration of Automatic Road Unevenness Recorder (ARUR) with Dipstick.

21. Development of Management System for Maintenance Planning and Budgeting of High speed Corridors (SIP-30).Sub module: Study of landslide problem along high speed corridor.
22. Design and Evaluation of Pavement Quality Concrete Mixes using Ground Granulated Blast Furnace Slag as Partial replacement of Cement.
23. Development of warm mix technology for road construction under 12<sup>th</sup> Five Year Plan activity WP-13.
24. Project Monitoring and Quality Assurance of Hindan Bridge at Ghaziabad.
25. Assurance of Quality Construction of Corridor of elevated road on outer Ring Road from Madhuban Chowk to Mukarba Chowk, Delhi.
26. Instrumentation of Railway Bridge near Jamshedpur.
27. Preparation of Microzonation Map of Delhi Region.
28. Engineering of landslide mitigation and post disaster shelter planning (12<sup>th</sup> five year plan project).Sub module: Detailed Geotechnical Investigation & Design of innovative measures for landslide.
29. Quality assurance of 4-Bridges across Agra Canal at Faridabad

#### **Research Publications in Journals and Conferences:**

1. Lalita Jangpangi "Study of Joint Conditions and In-Situ Strength of Concrete Pavement using Ultrasonic Pulse Velocity Technique", Asian Conference on Ecstasy in Concrete: ICI-ACECON: Revolutions in Concrete Construction :Vision 2050, 23-24 September 2022 at Eros Hotel, Nehru Place, New Delhi.
2. Kishor Kumar, Yogita Garbyal and Lalita Jangpangi, "Societal Impact of Frequent Highways Upgradation in the Himalayan Region ", NIU Journal of Social Sciences ISSN:2347-9795 ,Volume 8, 2020.
3. Lalita Jangpangi and Binod Kumar," Identification of Full Depth Cracks in Concrete by Ultrasonic Pulse Velocity" , Indian Highways, March 2020.
4. ललिता जंगपांगी, योगिता गर्ब्याल "राजमार्गों में भूस्खलन का प्रभाव तथा नियंत्रण"(Impact of landslides on highways and their control),NESCAIR Journal 'Bharatiya Vaigyanik evam Audyogik Anusandhan Patrika,BVAAP Vol.28(1),June 2020(15).

5. Lalita Jangpangi, Yogita Garbyal and Kishor Kumar "Slope failure and Highway Management in Hilly area", IEEE International Conference on Engineering Science & Advance Research, Rama University, Kanpur, U.P. 2019.
6. ललिता जंगपांगी और अन्य "रेल-रोड चौराहे के लिए टक्कर निवारक प्रोटोटाइप के विकास हेतु कम्प्यूटर अनुरूपण", सड़क दर्पण, 2018
7. Lalita Jangpangi, Hudrom Lokeshwar, Yogesh C. Tewari. "Improved Relation for Calibration of Fifth Wheel Bump Integrator In Indian Conditions", IRF, World Road Meeting 2017, Greater Noida, U.P., 14-17 Nov. 2017.
8. Ganesh K. Sahu, Rajeev K. Garg, Lalita Jangpangi et.al, "Performance Monitoring of Bridges through Instrumentation", Advance Science and Technology in experimental Mechanics, New Delhi, Nov. 2014.
9. Kishore Kumar, Lalita Jangpangi and Shubhmay Gangopadhyay "Highway vs Landslides and their Consequences in Himalaya", World Landslide Forum 3-Landslide Risk Mitigation towards a Safer Geo- Environment, Beijing, 2-6 June 2014.
10. Lalita Jangpangi and Shobhit Singhal, "A review of Instrumentation, Monitoring and Early warning for Landslides", Landslide Hazard- Consequences & Challenges, CBRI Roorkee, September 2011. Yogesh C. Tewari and Lalita Jangpangi "Optical Fibre Sensors for Concrete Structures" Indian Highways, October 2010.
11. Kishor Kumar, Lalita Jangpangi and Sudhir Mathur, "Prominence and state of the landslide hazard inventory and zonation along highways in Uttarakhand Himalayas", Proc of the Conf. Geomatics and Impact of Climate Change with Specific reference to Mountain Ecosystem", 2008.
12. Yogesh C. Tewari, Lalita Jangpangi & Renu Chadha "Sensors for seasonal Monitoring", International Seminar held at Vigyan Bhawan, N-Delhi. 2006.
13. Lalita Jangpangi, Ram Kumar and Ganesh K. Sahu "A Database Management System for Performance Monitoring of Bridges", Current Trends in Aqueducts, Road, Rail & Marine Bridges, International Conference at Hyderabad, 18-21 December 2004.
14. Yogesh C. Tewari, Lalita Jangpangi "Optical Fibre Sensors for Highways", International Conference on Instrumentation (INCON-2004) at Pune, 18-21 December 2004.
15. Kishor Kumar, Lalita Jangpangi and Sudhir Mathur "Landslide Database and Inventory – A Prerequisite for any landslide & Management Program", National Seminar on Disaster Management with special reference to Land Slides and Snow Avalanches held at Vigyan Bhawan, N-Delhi, 29<sup>th</sup> October 2003.

16. Kishor Kumar, Rajkishor Panigrahi, Lalita Jangpangi and others "Geotechnical Map of Delhi- An input for Microzonation", Workshop on Methodology for Seismic Microzonation (MAMAS), held at Indian Institute of Remote Sensing, Dehradun, 10-11 November 2003.
17. Yogesh C. Tewari, Lalita Jangpangi "Application of Optical Fibre Sensors for Highway Engineering", International Conference on "Advances in Civil Engineering", 2001, IIT Kharakpur.

**Book publication:**

1. Vol. 1: Part VII, pp 389-395, Chapter "Highway vs Landslides and their Consequences in Himalaya" By Dr. Kishore Kumar, Lalita Jangpangi and Shubhmay Gangopadhyay, Book titled "Landslide Science for a Safer Geoenvironment", Publisher Springer, China 2014.