

## Bio-Data



1. Name: **Manoj Kumar Shukla**
2. Designation: **Principal Scientist**, HoD Flexible Pavements Division  
**Address:** Flat No. 225 Pocket L, Sarita Vihar, New Delhi -110076,  
manojshukla1307@gmail.com
3. Areas of Interest: Flexible Pavement, Design Maintenance and Rehabilitation.
4. Educational Qualification –

Class	Year of Passing	Board / University/ Institution	Subject	Division
M.E	1995	Roorkee University (now IIT Roorkee)	Transportation Engineering	I Div.
B.E.	1993	M.M.M. Engg. College Gorakhpur.	Civil Engineering	I Div (Hons)

5. Professional Experience -

Sl. No.	Period	Name of Organisation	Position held
1.	28.05.2013 till date	CRRI	Principal Scientist
2.	11.12.2012 to 27.05.2013	CRRI	Senior Scientist
3.	02.05.2008 to 10.12.2012	NHAI	DGM (Tech)
4.	28.05.2003 to 01.05.2008	CRRI	Scientist
5.	28.05.1998 to 27.05.2003	CRRI	Jr. Scientist
6.	21.10.1997 to 27.05.1998	CRRI	Fellow Scientist
7.	16.12.1996 to 31.05.1997	IIT Kanpur	Project Associate

6. Membership to Professional Bodies: **IRC**

7. **(a)Research Projects:**

- 1) Development of Technology Superior Performing Bituminous Pavements (SUPERPAVE)
- 2) Development of Warm Mix Technology for Road Construction
- 3) DEVELOPMENT OF MASTER CURVES USING DYNAMIC MODULUS FOR INDIAN BITUMINOUS MIXTURES.
- 4) Application of Geotextile for checking the Reflective cracking in Bituminous Pavements.
- 5) Field trials on Use of Multigrade Bitumen in India

- 6) Design, Field trials and construction of Stone Matrix Asphalt in India.
- 7) Hot in Place recycling of PWD Roads
- 8) I have been involved as committee member for more than 20 Evaluation Committees for Procurement of the BOT projects for award of works to Concessionaire and Independent Engineers.
- 9) Guidance imparted to B. Tech. / M. Tech students from different educational Institutes such as Government and Private Engineering Colleges, as an individual. (As individual)
- 10) I was Task Force Leader for the new Technology i.e. SMA in India for bituminous Pavements.
- 11) I contributed/ assisted to Ministry of External Affairs (MEA) for their Road Projects in Nepal and Myanmar

(b) The work was related to Planning, Pre-qualification / Appointment of consultants for preparation of DPR/ Feasibility Reports. Finalization of Feasibility Reports, detailed designing, techno financial reviews; financial appraisal of Built Operate & Transfer (BOT) projects to Public Private Partnership Appraisal Committee (PPPAC), Approval from PPPAC, Approval from Cabinet Committee of Economic Affairs (CCEA). Pre-Qualification of Bidders, Invitation of RFP, evaluation of Bids, Appointment of Concessionaire & Award of Work, Financial Closure of Project and Declaration of Appointed Date. During Implementation of Projects, I have dealt Contracts management, monitoring, liaison with major construction agencies/Govt. bodies; performance appraisal of major highway / bridge projects:

- 1) Pavement Design of 260 t capacity dumper at coal mines area at Gevra, Bilaspur.
- 2) Evaluation of quality of PMB and mixes in bituminous concrete at Mahatma Gandhi Expressway, Vadodara, Gujarat
- 3) Evaluation of milled material collected from Kotputali-Kishangarh section of NH-8 ( Km 163.5 to 176.5) in the state of Rajasthan
- 4) Investigation for Strengthening of flexible pavement at Srinagar Airport, Srinagar
- 5) Prioritisation of road network for strengthening and rehabilitation of roads under Mizoram State Roads Project
- 6) Technical Audit of Surat-Manor Construction Package I,II and III for IA & AD, CAG under NHDP project implementation unit, Vadodara
- 7) Technical Audit of Jaipur-Kishangarh BOT-Toll project implementation unit, Jaipur under GQ,NHDP
- 8) Six-laning of Ahmedabad-Vadodara section of NH-8 (from km 6.400 to km 108.700) (Length 102.300 km) and improvement of Ahmedabad Vadodara Expressway from km 0.000 to km 93.302 in the state of Gujarat
- 9) Design, Engineering Construction, Development, Finance, Operation and Maintenance of Four/six laning of Gandhidham (Kandla) – Mundra Section from km. 0.000 to km. 71.400 of NH 8A in the state of Gujarat
- 10) Six laning of Samakhiali–Gandhidham section of NH- 8A from km 306.000 to km 362.160 in the state of Gujarat
- 11) Four laning of Ahmedabad to Godhra Section of NH-59 from km. 129.300 to km 215.900 in the state of Gujarat
- 12) Four laning of Godhra to Gujarat/Madhya Pradesh Border Section of NH-59 (package-II)
- 13) Four laning of Jetpur-Somnath Section of NH-8D
- 14) Four laning of Guj/Mah Border to Surat Hazira section of NH 6

- 15) Design, Engineering, Construction, Development, Finance, Operation and Maintenance of Km 340.00 to Km 264.00 on Palanpur-Swaroopganj Section of NH-14 in the State of Gujarat and Rajasthan on BOT (Annuity) basis
- 16) Evaluation of Various PWD Roads in Delhi for strengthening and Rehabilitations
- 17) Quality Assurance of Bituminous and Cement Concrete Pavement of Agra Ring Road (phase I)
- 18) Investigation for Failure of Orai Bhognipur Section of NH -25 and suggestion for Remedial Measures.
- 19) Design of Flexible Pavements and Quality Supervision for Service Road for Metro Line between NOIDA and Greater Noida.

## **8. PAPERS PRESENTED/ PUBLISHED in CONFERENCES & JOURNALS**

- 1) Shukla Manoj, "Use of Flyash in construction of Flexible Pavements" Seminar on Utilisation of Flyash, Vishakapattanam, Dec. 2000.
- 2) "Rutting Susceptibility of Large size Aggregates Mixes" National seminar on Emerging Trends and Techniques in India at IIT Kharagpur, Sept. 2002.
- 3) Sikdar P.K., Bose Sunil., Shukla Manoj. "Mechanistic Approach of Design for Flexible Pavements for Rural Roads – A Comparison of AASHTO and IRC Method". Seminar on Integrated Development of Rural and Arterial Road Network for Socio-Economic Growth at New Delhi, December 5 –6, 2003.
- 4) Shukla Manoj., Bose Sunil., Sikdar P.K., "Bio-enzyme for Stabilization of Soil in Road Construction – A cost Effective Approach." Seminar on Integrated Development of Rural Road and Arterial Road network for Socio-Economic growth at New Delhi, December 5 –6, 2003.
- 5) Sangita, Bose Sunil , Shukla Manoj, Kumar Pawan, Singh M.P., "Evaluation of Dense and Open Graded Mixes Containing Rubberised bitumen " National Conference on Modern Cement Concrete and Bituminous Roads, Visakapattanam Dec 18-19, 2003.
- 6) Shukla Manoj, Bose, S., "Investigation on Fatigue & Rutting Potential of Bituminous Mixes using Large Size Aggregate Mixes", Highway Research Bulletin No 69, IRC Dec 2003.
- 7) Shukla Manoj, Bose Sunil, Sikdar P.K., Abhishek Dhawan, "Investigation on use of Geosynthetics/Jute Fabric for Retardation of Reflective Cracking in Bituminous overlays" International Conference on Geosynthetics and Geoenvironmental Engineering (ICGGE-2004), IIT Powai. Dec 8-10,2004
- 8) Shukla Manoj., Sikdar P.K., Bose Sunil "Mechanistic Approach of Design for flexible pavements -A comparison of AASHTO and IRC Method of Pavement Design" International Conference on Structural and Road Transportation Engineering (START 2005) at IIT Kharagpur, January 3-5, 2005.
- 9) Sangita, Bose Sunil, Shukla Manoj, Kumar Pawan, Singh M.P. "Evaluation of Dense and Open Graded Mixes Containing Rubberised Bitumen (Part II)", 8<sup>th</sup> International Conference on Application of Advance Technologies in Transportation, Beijing, China May 26-28, 2004.
- 10) Avinash M Potdar, Shukla Manoj " Implication of GIS Spatial Data in Assessing functional Design of Pavements" 5<sup>th</sup> International conference on Management & Instrumentation in Transportation System, Malaga, Spain, September 13-15,2004.
- 11) Sangita, Shukla Manoj, Singh M.P., Dr. V.K.Sood "Evaluation of Rubberised Bituminous Mixes" Published in IRC.

- 12) Shukla Manoj & Bose Sunil “ Laboratory Evaluation of Bituminous Mixes using Warm Asphalt” International Seminar on Innovations in construction and maintenance of Flexible Pavements, Agra IRC, 2-4 September,2006
- 13) *Shukla Manoj, Dr. Devesh Tiwari and K. Sitramanjaneyulu “PERFORMANCE CHARACTERISTICS OF GLASS FIBER MODIFIED ASPHALT CONCRETE MIXES” accepted for presentation in 13<sup>th</sup> International conference in Pavement Engg. At Sao Paulo Brazil.Dec. 8-9, 2013*
- 14) Shukla Manoj, Dr. Devesh Tiwari and K. Sitramanjaneyulu “PERFORMANCE CHARACTERISTICS OF FIBER MODIFIED ASPHALT CONCRETE MIXES” accepted for publication in Journal of Pavement Engineering and Asphalt Technologies. U.K. 2014.
- 15) Shukla Manoj, Nagabhushana MN, Verma Sagar “Cement Treated Grouted Macadam – A New Concept of Long Lasting Pavement”.

Soft copy must be sent to CCN at [vivek.crrri@nic.in](mailto:vivek.crrri@nic.in), latest by April 20, 2016.