

**CURRICULUM VITAE OF KEY STAFF**

1. Proposed position: **Material Engineer**
2. Name of Firm: CSIR-Central Road Research Institute, Delhi-Mathura Road, New Delhi-110025
3. Name of Staff: **Sanjay Singh Gaharwar**
4. Date of Birth: 22/06/1964
5. Nationality: Indian
6. Education:

<b>Class</b>	<b>Year of Passing</b>	<b>Board / University/ Institution</b>	<b>Subject</b>	<b>Division</b>
H.S.S.C.	1981	Madhyamic Shiksha Mandal Bhopal (M.P.)	Maths Group Subjects	First (78.75 % of Marks)
B.E. (Civil)	1986	Guru Ghasiadas University, Bilaspur (C.G.)	Civil Engineering Subjects	First (85.25 % of Marks)
M.E. (Structures)	1989	Devi Ahilya University, Indore (M.P.)	Structural Engineering Subjects	First (74 % of Marks)

7. Membership of Professional Associations:

<b>Sl. No.</b>	<b>Name of Institution/Society</b>	<b>Membership Number</b>	<b>Year</b>	<b>Type of Membership (Life/Annual)</b>
1.	Indian Road Congress (IRC)	LM26289	-	Life Membership
2.	Indian Concrete Institute (ICI)	5320	-	-do-
3.	Indian Society for Construction Materials & Structures (ISCMS)		-	-do-
4.	Indian Geological Society			-do-

5.	(IGS) – Delhi Chapter - Life Member  Indian Science Congress Association (ISCA)		-  -	-do-
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#### 8. Other Training:

- (i) Advance Research Training on ‘Residual Service Life Assessment of Concrete Bridges’, at the Institute of Structural Concrete, University of Essen, Germany, from 07.06.1999 to 31.12.2000, under CSIR-DAAD (German Academic Exchange Service) Long Term Fellowship Program 1999 – 2000.
- (ii) First World Engineers’ Convention’, Hannover (Germany), organized by the Association of Engineers (Verein Deutscher Ingenieure (VDI)) and Expo 2000 GmbH, 18<sup>th</sup> – 21<sup>st</sup> June 2000.
- (iii) Workshop on ‘Fatigue and Durability’, organized by M/s PROSIM, at I.I.Sc., Bangalore, 8<sup>th</sup>- 10<sup>th</sup> May 2007.
- (iv) ‘Orientation Programme for GMs, DGMs, and Managers of NHAI’, organized by National Institute for Highway Engineers (NITHE), at NITHE Campus, NOIDA (U.P.), 14.09.2009 – 19.09.2009.
- (v) FIDIC Training Programme on ‘Management of Contract Claims & Resolution of Disputes’ organized by M/s CEAI & FIDIC at NHAI HQ, New Delhi, 18<sup>th</sup>- 19<sup>th</sup> November 2009.
- (vi) Workshop on ‘Promoting Usage of New Materials / Technologies / Equipment’, organized by IRC at Hotel Janapath, New Delhi, 5<sup>th</sup> October 2010.
- (vii) International Training Course on ‘Transportation Planning and Road Safety’, organized by I.I.T. Delhi, 29<sup>th</sup> Nov. – 7<sup>th</sup> Dec. 2010.
- (viii) Training Programme on ‘Appoitment of Safety Consultants for PPP Projects on DBFO basis for Packages No. 7, 9, 13, & 14 for NHAI Officials, Independent Engineers, Concesionaires and CRRI Staff involved in above Projects’, organized by Central Road Research Institute (CRRI), at CRRI campus, New Delhi, 13<sup>th</sup> - 14<sup>th</sup> January 2011.
- (ix) Training cum Workshop on ‘Road Safety Audit’, organized by Indian Academy of Highway Engineers, NOIDA, 20<sup>th</sup> – 24<sup>th</sup> June 2011.
- (x) Field Training on ‘Tunnel Engineering’ in the NHAI’s NH Projects in Srinagar in the State of J&K, organized by NHAI, 2<sup>nd</sup> March 2012 – 4<sup>th</sup> March 2012.
- (xi) National Training Programme on Entrepreneurship Development & Management for Scientists & Technologists in Govt. Sector, sponsored by Department of Science & Technology organized by Entrepreneurship Development Institute of India (EDI), Ahmedabad, 8<sup>th</sup> – 12<sup>th</sup> December 2014.
- (xii) Workshop on ‘Bridge Bearings, Expansion Joints & Seismic Devices’, organized by ING-IABSE and MPRDC at Bhopal, 15<sup>th</sup>-16<sup>th</sup> January 2016.

#### 9. Countries of Work Experience:

- (i) India
- (ii) Germany (07/06/1999 – 11/01/2001)

10. Languages:

- (i) Hindi – Good (Speaking, Reading, Writing)
- (ii) English – Good (Speaking, Reading, Writing)
- (iii) German – Fair (Speaking, Reading, Writing)

11. Employment Record:

**Having more than 25 years of Work Experience which covers Research & Development, Teaching, and Consultancy Assignments including Project Planning, Execution and Monitoring, Quality Assurance of Bridges and other Civil Engineering Structures including Highways, Reviewing of DPRs and Feasibility Reports, Procurement and Implementation of Highways Projects including Bridges and other Civil Engineering Structures.**

Sl. No.	Period	Name of Organization	Position held
1.	15/05/2012 – till date	CSIR-Central Road Research Institute (CRRI), New Delhi	Senior Principal Scientist
2.	10/06/2008 – 16/09/2013 (on Deputation)	National Highways Authority of India (NHAI), New Delhi	General Manager (Technical)
3.	15.05.2006 – 14/05/2012	CSIR-Central Road Research Institute (CRRI), New Delhi	Principal Scientist
4.	10.05.2001- 14/05/2006	Central Road Research Institute (CRRI), New Delhi	Scientist EI
5.	15.05.2000 – 09/05/2001	Erstwhile Structural Engineering Research Centre (SERC), Ghaziabad	Scientist EI
6.	15.05.1995 – 14/05/2000	Structural Engineering Research Centre (SERC), Ghaziabad	Scientist C
7.	15.05.1990 – 14/05/1995	-do-	Scientist B
8.	10.01.1989 - 08.05.1990	Bhilai Institute of Technology, Durg (C.G.)	Lecturer (Civil Engineering)
9.	01.09.1988 - 02.01.1989	North Eastern Electric Power Corporation, Shillong (Meghalaya)	Sub-Divisional Officer (Civil)

10.	Feb. 1988 - September 1988	M/s Chetak Constructions Pvt. Ltd., Indore (M.P.)	Planning Engineer
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#### 12. Detailed Tasks Assigned:

- Review of Detailed Project Report comprises of checking of design and estimate as per code provisions/guidelines, checking of soil reports and traffic estimates, suitability of materials and optimum use of local materials, checking of drainage plan, suitable proposal for improvements.
- Preparation of Quality Control manual, including sampling method and acceptance criteria based on standards/codes
- Proposal of traffic management plan including improvement of existing roads and facilities
- Project mile stones and review of progress
- Day-to-day construction supervision as per specifications and standards, Testing of coarse and fine aggregates, Testing of steel reinforcement, checking of Design of concrete mixes, Checking of drawing of detailing of steel reinforcement before concreting, review of detailed drawings
- Review of contractors work plan, methodology, plant and machinery, material resources and manpower, environment and safety aspects
- Inspection of all materials including cement, steel, pre stressing cables
- Review of the test results/certificates of all construction material
- Assessment of workability of fresh concrete, Assessment of Hardened concrete, Assessment of quality of construction for durability of the structure
- Random sampling of materials for independent testing

- Guiding contractor for establishment of site laboratory
- To prepare a realistic cash flow and expenses on the budget head for the project
- To review the measurement of works done and scrutinize the construction bill as per contract, review of the proposed variation works
- Coordination between design firms for timely completion of the project
- To maintain adequate records of laboratory and field test, correspondences, drawings
- Implementation of various labour laws, rules and regulations

### 13. Work undertaken that best Illustrates Capability to handle the Tasks Assigned

Brief details of some of the similar Assignment/jobs carried out are described below

Sl. No.	Name of Assignment/job or project	Year	Location	Employer	Main project features	Position held	Activities performed
1.	Assurance of Quality construction of four number of six lane bridges over Agra canal in Faridabad	Nov, 2013 To Dec 2015	Faridabad	U P Irrigation	All the four bridges are simply supported PSC Girder Bridge of 44 meters length (two span of 22 m each) with three lane carriageway in both the direction. Substructure consists of RCC piers/abutments resting over well foundation.	Team Member	Overall monitoring of the project activities
2.	Project monitoring and assurance of Quality construction of additional two lane bridge over Hindon on NH58E, Ghaziabad	April, 2014 To Sept 2015	Ghaziabad	Ghaziabad Development Authority	The bridge comprises of six simply supported span with total length 172.50 m (25.40 x2 +26 x3 +32.7 and expansion joints 2m x 5 + 0.5mx 2).. Substructure consists of RCC	Team Member	Overall monitoring of the project activities for quality assurance

					piers/abutments resting over well foundations.		
3.	<b>Third Party Inspection / Quality Control/Assurance Of “Comprehensive Development of Corridor (Outer Ring Road) between Mangol Puri to Madhuban Chowk on outer Ring Road, New Delhi. SH:- C/o. Elevated Road, FOB, RCC drain, Footpath, cycle track, widening/strengthening of road, rain water harvesting scheme, electrical works and other allied works”.</b> Sponsored by PWD Delhi (F134)	from Nov 2013 to Mar 2016.	Delhi	CRRRI	The length of the bridge/ elevated road is 2555.0 m having PSC wing spans with the span of 36.0 m and the width of carriageway as 24.2 m.	Team Member	Work involved as listed in para 12 of project activities
4.	<b>Third Party Inspection / Quality Control/Assurance Of “Construction of six lane link road between NH24 bypass and NH 58 at Ghaziabad including ROB (excluding railway portion) on Delhi Howrah rail track”.</b> Sponsored by Ghaziabad Development Authority (GDA), Ghaziabad from Jul 2013 to Mar 2016.	from Nov. 2013 to Mar 2016.	Ghaz iabad	CRRRI	The cost of construction is Rs 116.0 crore. The length of the bridge/ elevated road is 3590.0 m having PSC girders with the typical span of 35.0 m and the width of carriageway as 11 m (total width of 13.5 m).	Team member	Work involved as listed in para 12 of project activities
5.	<b>Third Party Inspection / Quality Control/Assurance Of “Comprehensive Development of Corridor (Outer Ring Road) between Madhuban Chowk to Mukarba Chowk on outer Ring Road, New Delhi. SH:- C/o. Elevated Road, FOB, RCC drain, Footpath, cycle track,</b>	from Nov. 2013 to Mar 2016.	Delhi	CRRRI	The awarded cost of construction is Rs 279.0 crore. The length of the bridge/ elevated road is 2150.0 m having PSC wing spans	Team member	Work involved as listed in para 12 of project activities

	widening/strengthening of road, rain water harvesting scheme, electrical works and other allied works". Sponsored by PWD Delhi (F131)				with the span of 36.0 m and the width of carriageway as 24.2 m.		
6.	<p>Third Party Quality Supervision Consultant for the project 'Construction of Inner Ring Road (1<sup>st</sup> Phase) from Kuberpur to Fatehabad in Agra'</p> <p>Sponsored by Agra Development Authority, Agra</p>	2014-16	Agra	CRRI	<p>Eight-lane elevated road (dual carriageways with four lanes in each carriageway) of 10.9km length which includes 1 number of Flyover, 8 numbers of Vehicular underpasses, 2 numbers of Pedestrian underpasses, 15 numbers of box culverts, 5 numbers of pipe culverts, drains and two-lane service road on both sides of elevated road.</p>	Team Member	<p>Time to time site visit for inspection of ongoing works, attending progress review meetings, discussion on the site specific problem and other project activities.</p>
7.	<p>General Manager (Technical) on deputation basis in National Highway Highways Authority of India (NHAI)</p> <p>During the reported period, I was involved in the Procurement and Implementation of NHDP Projects of NHAI in the States of Madhya Pradesh, Chhattisgarh, Orissa, Punjab and Haryana. In addition to the above, I was also involved in the Commercial</p>	10 <sup>th</sup> June 2008 to 15 <sup>th</sup> September 2013	Delhi & NE Region	NHAI, New Delhi	<p>During the reported period, I was involved in the Procurement and Implementation of NHDP Projects of NHAI in the States of Madhya Pradesh, Chhattisgarh, Orissa, Punjab and Haryana. In addition to the above, I was also involved in the Commercial Operation of the</p>	Worked as a General Manager, (Technical)	<p>Monitoring of pre construction activities, utility shifting, land acquisition, Reviewing of DPRs and Feasibility Reports, Procurement and Implementation of NHDP Projects of NHAI, Reviewing</p>

	Operation of the NHAI's Projects in the States of Punjab, Haryana, Gujarat, Maharashtra, Jammu & Kashmir.				NHAI's Projects in the States of Punjab, Haryana, Gujarat, Maharashtra, Jammu & Kashmir.		g of the Financial Analysis of Highway Projects, selection of bypasses, traffic management plan during construction, monitoring during construction of roads and various structures. Scrutiny of variation proposals, & processing for approvals, Processing of miscellaneous implementation related issues, Monitoring of the physical and Financial Progress of the Highway Projects.
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14. Certification:

I, the undersigned, certify that to the best of my knowledge and belief, this CV correctly describes myself, my qualifications, and my experience. I understand any willful misstatement described herein may lead to my disqualification or dismissal, if engaged.

Enclosed:

1. Self-attested copy of Date of Birth Certificate (1 No)



2. Self-attested copies of Educational Qualification Certificates (2 Nos.)

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[Signature of staff member]

Full name of staff member - **Sanjay Singh Gaharwar**

Date:

Place:

Signature of the Authorised Signatory

# माध्यमिक शिक्षा मण्डल, मध्यप्रदेश, भोपाल

190

018908

बुक क्रमांक

सरल क्रमांक



## हायर सेकण्डरी स्कूल सर्टीफिकेट परीक्षा, 1981 प्रमाण-पत्र

अनुक्रमांक 266905

प्रमाणित किया जाता है कि

संजय सिंह गहवरवार

ने जिनके पिता/पति का नाम

श्री डी.एस. गहवरवार

है और जन्मतिथि (अंको में)

22-8-1964

(शब्दों में)

बाइस जून

सन् उन्नीस सौ

चौसठ

है, नियमित/स्वाध्यायी रूप से

मिशन

उच्चतर माध्यमिक विद्यालय

विलासपुर

(केन्द्र/संस्था) से सन् 1981

की हायर सेकण्डरी स्कूल सर्टीफिकेट परीक्षा

प्रथम

श्रेणी में निम्नांकित विषयों में उत्तीर्ण की है:-

माध्यम

अतिरिक्त विषय:-

(1) इंग्लिश

(विशिष्ट)

(2) हिन्दी

(सामान्य)

(3) नवीन गणित

(4) भौतिक शास्त्र

(5) रसायन शास्त्र

(1)

(2)

(3)

इन्होंने निम्नांकित विषयों में विशेष योग्यता प्राप्त की है:-

(1) गणित (2) भौतिक शास्त्र (3) रसायन शास्त्र

छात्र ने आन्तरिक परीक्षा में निम्नांकित विषयों में निर्धारित निपुणता प्राप्त की है (केवल नियमित छात्रों के लिये)

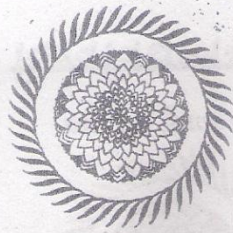
संस्था  
की  
मुद्रा

मिशन उच्चतर माध्यमिक विद्यालय  
विलासपुर (म.प्र.)

भोपाल, दिनांक 23 जून, 1981

(दीप चन्द जैन)  
सचिव





ज्ञान पंथ कृपान कैधारा

गुरु घासीदास विश्वविद्यालय, बिलासपुर (म. प्र.)  
GURU GHASIDAS UNIVERSITY, BILASPUR (M.P.)

बैचलर ऑफ इंजीनियरिंग

प्रमाणित किया जाता है कि

संजय सिंह गहरवार

ने 1986 में इस विश्वविद्यालय की  
बैचलर ऑफ इंजीनियरिंग परीक्षा प्रथम (ऑनर्स) श्रेणी में  
उत्तीर्ण की।

उन्हें

बैचलर ऑफ इंजीनियरिंग  
की

उपाधि प्रदान की जाती है।

उनके अध्ययन की शाखा सिविल थी।

BACHELOR OF ENGINEERING

This is to certify that

*Sanjay Singh Gaharwar*

having passed the

Bachelor of Engineering

Examination of 1986 of the University in the *First (Honours)* Division  
is admitted to the Degree of the

BACHELOR OF ENGINEERING.

His branch of study was

*Civil*

बिलासपुर,  
BILASPUR,

7 DEC 1987

*R. Singh*  
(डॉ. राज लखन सिंह)  
कुलपति,  
Vice-Chancellor



Roll No 19

ENGLISH TRANSLATION

FORMERLY KNOWN AS UNIVERSITY OF INDORE, INDORE



### Master of Engineering

Certified that Sanjay Singh Gaharwar  
obtained the degree of **MASTER OF ENGINEERING**  
in this University at the Examination held in May-1989  
and was placed in the First Division.

Name of the Institution Shri G. S. J. T. & Science  
Indore

The subject in which he/she was examined was :

Civil in Structure

Dated Dec-4, 1989

Date of Issu

28 JUN 2012

Signature  
Vice-Chancellor





ए. के. उपाध्याय, आई.ए.एस.  
अध्यक्ष

A. K. UPADHYAY, I.A.S.  
CHAIRMAN

दूरभाष/ Tel. (Dir.) : +91-11-25093503  
दूरभाष/ Tel. : +91-11-25074100/4200  
एक्स./ Extn. : 1601  
फैक्स/ Fax : +91-11-25093505  
ई-मेल/ E-mail : chairman@nhai.org  
वेबसाइट/ Website : http://www.nhai.org

भारतीय राष्ट्रीय राजमार्ग प्राधिकरण  
NATIONAL HIGHWAYS AUTHORITY OF INDIA

(सड़क परिवहन और राजमार्ग मंत्रालय)  
(MINISTRY OF ROAD TRANSPORT AND HIGHWAYS)  
जी-5 एवं 6, सेक्टर-10, द्वारका, नई दिल्ली-110075  
G-5 & 6, SECTOR-10, DWARKA, NEW DELHI-110075

DO No. 11041/230/2007-Coord

May 15, 2012

Dear *Shri S S Gaharwar*

We had set for ourselves target of 7,300 kms of award and 2500 kms of construction of road length under NHDP in 2011-12. We have been able to achieve 6491 km of award and 2,248 kms of road length constructed against these targets. Even though this is somewhat less than the set target, this has been the highest ever achievement in NHAI in terms of award and significant increase over last year in terms of construction of road length.

This has been possible due to your efforts and dedication to duty and the excellent team work that was put in place. I congratulate you for this achievement and hope this would inspire confidence amongst all of us in NHAI to achieve still higher in terms of award and length of construction.

*with best wishes,*

Yours sincerely,

*A K Upadhyay*

(A K Upadhyay)

Shri S S Gaharwar  
General Manager(Tech)  
NHAI  
New Delhi