

Abdhesh Kumar Sinha

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Civil Engineering Department
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Specialization: Transportation Engineering

Areas of Interest:

- *Low cost roads**
- *Pavement Material Characterization**
- *Pavement Analysis and Design**
- *Highway Construction and Quality Control**
- *Pavement Evaluation and Maintenance**
- *Traffic Engineering**

Educational Qualifications:

- Ph.D. in Transportation Engineering from IIT, Roorkee-247667, Uttarakhand, India.
- M.E. (Engg.) in 1994 in Civil Engineering from BIT, Mesra (Ranchi), Jharkhand, India.
- B.E. (Engg.) in 1988 in Civil Engineering from BIT, Mesra (Ranchi), Jharkhand, India.

Membership of Professional Bodies/ Societies:

- Life membership of The Indian Geotechnical Society - (LM-1771)
- Fellow membership of The Institution of Engineers (India) - (F-1236357)
- Life membership of Indian Roads Congress (India) - (LM- 38676)

Testing & Consultancy Undertaken : 32

Participation in Seminar/Symposium/Workshop : 04

Participation in Short Term Courses: 22

Research Guidance/Dissertation Supervised: (Details enclose as Annexure- I)

Doctoral Level: 02 (In Progress)

Masters Level: 11 (Completed) & ***04*** (In Progress)

Undergraduate level: 19 (Completed) & ***01*** (In Progress)

Research Publications: (Details enclose as Annexure- II)

- International / National Journals: **03**
- International/National Conferences/Seminars: **22**

Book Chapters in the Book Published by reputed International Publishers:

- **Sinha, A.K., J. N.Jha and Choudhary, A.K, (2018) “A Study on CBR Behaviour of Waste Pet Strip Reinforced Stone Dust”** Chapter No: 14, of the Proceedings of the ‘1st International Conference on Sustainable Waste Management through Design’ Book ID: 466378_1_En, published by Springer Nature Switzerland AG.

Testing & Consultancy Undertaken: 31 Nos. (Rs. 43.3 Lakhs /Details enclosed as Annexure- III)

Traning Programmes/Summer/Winter Schools Attended:

Sl. No.	Name of the Courses	Place & Sponsored by	Dates
1.	“Planning, Design, Construction and Maintenance of Rural Roads”	University Of Roorkee, Roorkee	Two Weeks (June 15-29, 1999)
2.	“Special Training Programme for strengthening The Building Centers”	HUDCO South Zone Training Centre, Chennai	16-25 Aug, 2000
3.	“Teacher’s Role in Engineering Education”	R.I.T., Jamshedpur	Three Weeks (Dec.25-Jan.13, 2001)
4.	“Some Aspect of Modeling and Simulation of Electrical System”	R.I.T., Jamshedpur	Three Weeks (Dec.24-Jan.06, 2002)
5.	“IT-Application in the management of technical Education”	Muzaffarpur Institute of Technology	Two Weeks (16-29 Nov., 2002)
6.	International Conference on “Fibre composites, High performance Concrete and smart materials” and Workshop on “High volume fly ash concrete”	ICFRC, Chennai	8-10 Jan., 2004
7.	“Irrigation Planning and Management for production sustenance in Irrigated areas”	I.I.T, Roorkee	One Week (Dec. 19-25, 2005)
8.	“Advanced Applications of SCS-CN Technique”	I.I.T, Roorkee	Oct. 30-Nov.03, 2006
9.	“Planning, Design, Construction and Maintenance of Rural Roads for PMGSY”	I.I.T, Roorkee	One Week (10-14 Feb., 2007)
10.	“Urban Transportation and Planning”	I.I.T, Roorkee	One Week (24-28 June., 2007)
11.	“Introduction to Abaqus”	I.I.T, Roorkee	One Week (21-25 April, 2008)
12.	“Modelling and Simulation of Renewable Energy Systems”	NIT, Jamshedpur	One Week (18-22 June, 2012)
13.	Second orientation course	Training Orientation and Research Centre, (W.B)	One Week (June30-July06 ,2013)
14.	“Advanced Computational Mathematics”	NIT, Jamshedpur	One Week (23-27 June, 2014)
15.	“Geotechnical Advances and Novel Geomechanical Applications (Ganga)”	IGC Roorkee Chapter, Roorkee	22-24 Dec., 2013
16.	“Geotechnics For Inclusive Development of	IGC Kakinada Chapter	18-20 Dec., 2014

	India 2014 (Geoind)		
17.	“Geotechnical Investigation for Structural Engineering”	I.I.T, Gandhinagar	15-17 Oct., 2015
18.	“Recent Innovation in Earthquake Resistant Techniques”	RVS College of Engineering & Technology, Jamshedpur	09-10 Nov., 2015
19.	“Geotechnics For Infrastructure & Foundation Techniques”	IGC Pune Chapter	17-19 Dec., 2015
20.	“TEQIP-II Management Capacity Enhancement Programme”	IIM, Tiruchirappalli	One Week (25-29 July, 2016)
21.	“Recent Advances in Civil Engineering”	NIT, Jamshedpur	2-4 March, 2017
22.	International Conference on Recent Advances in Civil and Mechanical Engineering Practices”	VVIT, Guntur (A.P)	16-17 Nov. 2018

Participation in Conference/Seminar/Symposium/Workshop:

1. Participated in One Day Workshop on ‘**Forensic Geotechnical Engineering**’ and Nat. Conf. on ‘**Geotechnical Engineering and sustainable Infrastructure Development**’ held during 10-12, October, 2014 at GNDEC, **Ludhiana**.
2. Presented paper in Indian Geotechnical Conference ‘**Geotechnics for Inclusive Development of India 2014 (GEOIND) IGC-2014**’, held during 18-20 Dec. 2014 at JNTU, **Kakinada (A.P)**.
3. Presented paper in Nat. Conf. on ‘**Recent Innovation in Earthquake Resistant Techniques**’, held during 09-10 Nov. 2015 at RVS College of Engg., **Jamshedpur**.

Organization of Short Term Training Programmes :

- Organized Two Weeks Skill Development Programme ‘**Mason Training Programme**’ for Local Masons/ artisans Under Building Centre Project at NIT, Jamshedpur during 05-18th July 2000.
- Organized Three Weeks Skill Development Programme for Unskilled labour/ workers Under Building Centre Project at NIT, Jamshedpur during 15 Dec 2000.-5th Jan 2001.
- Organized Three Weeks Skill Development Programme ‘**Advanced Mason Training Programme**’ for Local Masons/ artisans Under Building Centre Project at NIT, Jamshedpur, during 22.01.2001 to 04.02.2001.

Publications

National Journal

1. **Abdhesh Kumar Sinha**, Praveen Kumar and Satish Chandra “Behaviour of Industrial Waste Materials Under Cyclic Loading” **HIGHWAY RESEARCH JOURNAL**, INDIAN ROAD CONGRESS, VOL. NO.- 2, Special issue(2008), pp. 21-27.
2. **Abdhesh Kumar Sinha**, Satish Chandra and Praveen Kumar “Finite Element Analysis of Flexible Pavement with Different Subbase Materials” **INDIAN HIGHWAYS JOURNAL**, INDIAN ROAD CONGRESS, Feb. 2014, pp. 57-67.
3. Kanaka Prava Mahali and **A. K. Sinha** “Utilization of Stone Dust with Plastic Waste for Improving the Subgrade in Highway Pavement Construction” **IJRET** , International Journal of Research in Engineering and Technology, Volume-4, Issue-06, June-2015, pp. 29-35.

National & International Conference/Seminar

1. Kumar, Virendra; Khan, A.K. and **Sinha, A.K.** - “An Experimental Investigation of Flyash Concrete” Proc. of Nat. Sem. on “Advances in Cement and Concrete (ACC-2000)”, Bundelkhand Institute of Engg. & Technology, Jhansi, India 10-11 March, 2000.
2. Prasad, M.M; **Sinha, A.K.** and Kumar, Virendra - “Socio-Economic Development and Rural Road Construction Technology” Proc. of SemInar on “Rural Development for a Health Rural-Urban Interface”, I.I.T. Kharagpur, India, XVI Indian Engineering Congress, 1- 4 Dec. 2001, pp. 76-81.
3. **A.K. Sinha**, Virendra Kumar and Dr. M.M. Prasad – “Finance and Management of Road Network” Proc. of National Seminar on “Financing, Design, Construction and Operation of Highways” Dept. of Civil Engg. Govt. College of Engg. Aurangabad, India, 7-8 Feb 2002, pp. 175.
4. **Sinha, A.K.**; Kumar, Virendra and Prasad, M.M. – “Utilisation of Flyash in Road Construction” Proc. of National Seminar on “Recent Trends in Civil Engg.” Dept. of Civil Engg., MBM College, Jodhpur, India, 22-23 Feb. 2002.
5. Kumar, Virendra; **Sinha, A.K.** and Prasad, M.M. - “Behaviour of Low Cost Building under Earthquake Conditions” Proc. of Nat. Sem. on “Recent Challenges in Civil Engg. (RCCE-2002)” Association of Consulting Civil Engineers (India), Hyderabad Centre, 21-22 June 2002, pp. 5-10, vol. II.
6. Prasad, M.M; Kumar, Virendra and **Sinha, A.K.** – “Utilisation of Steel Industry Waste by-product” Proc. of All India Seminar on “Development of Road Infrastructure in Jharkhand” The Institution of Engineers (I), Dhanbad Local Centre, India, 29-30 June 2002, pp. 278-284.

7. **A.K. Sinha**, Virendra Kumar and Dr. M.M. Prasad – “Necessity of Road Transport for Infrastructure and Economic Development in India” Proc. of Nat. Sem. on “Civil Engineering Strategies in the Making of India – A Global Giant (CESMIGG)” Dept. of Civil Engg., Crescent Engg. College, Chennai, India, 3-4 Oct. 2002, pp. 1-4.
8. Virendra Kumar; **A.K. Sinha** and Dr. M.M. Prasad – “Role of Structural Engineer in Infrastructure Development” Proc. of Nat. Sem. in “Infrastructure Development Retrospect and Prospects”. The Institution of Engineers (I), Patna, India, XVII Indian Engineering Congress, Digital Printers, Patna, (India) 19-22 Dec 2002, pp. 35-43 .
9. Prasad, M.M., Kumar Virendra and **Sinha A.K.** – “Industrial Waste, Energy, Environment and Management in Infrastructure Development”, Proc. of Global Summit on Infrastructure Development of Jharkhand, N.I.T., Jamshedpur, India, 11-12 Jan. 2003, pp. 68-75.
10. **Sinha, A.K.**; Kumar, Virendra and Prasad, M.M. – “Recent Techniques in Transportation System” Proc. of Nat. Conf. on “ACEDFC” H.B.T.I., Kanpur, India, 15-16 Feb 2003.
11. Kumar, Virendra **Sinha, A.K.** Prasad, M.M. and Jha Shailesh - “Construction Industry and Carnot Cycle – An Analogous Approach”, Proc. Of 6th National conference on “Global Challenges in Project – Design and Construction Management”, India Habitat Centre, New Delhi, India, 11-12 Nov. 2003, pp. 63-71, Session-I.
12. Kumar, Virendra, **Sinha, A.K.** Prasad, M.M. - “Studies on Steel Fiber Reinforced Concrete for Compressive Strength”, Proc. of 8th NCB **International** Seminar on “Cement and Building Materials”, NCB, New Delhi, India, Rakmo Press (P) Ltd, 18-21Nov. 2003, Vol.-4, pp. XI 74-81.
13. Kumar, Virendra, **Sinha, A.K.** Prasad, M.M. - “Flexural and Split Tensile Strength of Steel Fiber Reinforced Concrete”, Proc. Of **International** Conference on “Fiber Composites, High Performance Concretes and Smart Materials” & Workshops on “High- Volume Flyash Concrete”, ICFRC, Chennai, India, Allied Publishers Pvt. Ltd., 8-10 Jan. 2004, Vol.-I, pp.177-188.
14. Kumar, Virendra, **Sinha, A.K.** and Prasad, M.M. - “Fly ash Bricks - An Alternative Construction Materials”, Proc. Of 1st **International** conference and Exhibition on “Building Materials and Construction Technologies”, Pragati Maidan, New Delhi, India, 12-15 Feb. 2004, pp. 99-105.
15. Kumar, Virendra, **Sinha, A.K.** and Prasad, M.M. - “High Volume Utilizations of Fly ash in Bricks”, Proc. of National conference on “Advances in Concrete Technology (ACT 2004)”, T.I.E.T., Patiala, India, 26-27 Feb. 2004.
16. Kumar, Virendra, **Sinha, A.K.** and Prasad, M.M.- “Static Modulus of Elasticity of Steel Fiber Reinforced Concrete” Proc. of 6th **International Congress** on “Global Construction: Ultimate Concrete Opportunities” Dundee, Scotland, U.K., 5-7 July 2005.

17. Dr. Praveen Kumar, Dr. Satish Chandra & **A. K. Sinha** - “Use of Locally Available Materials in Sub-bases” Proc. of **International Seminar** on “Innovations in Construction and Maintenance of Flexible Pavements”, Agra, India, 2-4 Sept. 2006.
18. Choudhary, A.K, Roy, Nimisha and **Sinha, A.K (2014)**,” Utilization of Fly Ash with Plastic Wastes as Construction Materials in Flexible Pavement” Proc. Nat. Conf. on ‘Geotechnical engineering Practices and Sustainable Infrastructure Development (GEPSID-2014)’, GNDEC, **Ludhiana**, 11-12 Oct.2014, pp78-87.
19. A. K. Choudhary and **A. K. Sinha**, - “CBR Behaviour of Waste Plastic Strip –Reinforced Stone Dust” Proc. of **Indian Geotechnical Conference, IGC- 2014**, Kakinada, India,18-20 Dec. 2014, pp.- 635-641.
20. Choudhary, A.K, Roy, Nimisha and **Sinha, A.K (2014)** “CBR Behaviour of Waste Plastic Strip-Reinforced Stone Dust” Proc. (CD-Rome), Indian Geotechnical Conference, **IGC-2014, Kakinada**, 18-20 Dec., 2014.
21. Choudhary, A.K, Roy, Nimisha and **Sinha, A.K (2015)**,” Utilization of Quarry Dust and Plastic Wastes in Highway Pavement Construction” **Geosynthetic 2015, Portland, Oregon, USA**, 15-18, February 2015, pp 80-86, *[Indexed in Google Scholar]*
22. **Sinha, A.K.**, J, N.Jha and Choudhary, A.K, (2018),” A Study on CBR Behaviour of Waste PET Strip Reinforced Stone Dust” **Proc. ‘International Conf. on “Sustainable Waste Management through Design”, GNDEC, Ludhiana**, 2nd -3rd November, 2018 (Acceptance communicated).

TESTING & CONSULTANCY UNDERTAK

Sl No.	Details	Period	Organization	Amount [in Lakhs]	Co-Investigator[s], if any	Role
1	Soil test for the proposed embankment for a private siding at Jamshedpur.	Jan. 2000	M/s RITES, Tatanagar.	0.07	Dr. A. K Choudhary & Sri A K Sinha	Co-PI
2	Soil test for proposed I.C.D. of M/s Container Corporation of India at Jamshedpur.	Feb-March 2000	M/s Container Corporation of India Ltd., Jamshedpur.	0.22	Dr. B P Verma Dr. A. K Choudhary & Sri A K Sinha	Co-PI
3	Soil test for Flyash and Bottom ash from Usha Martin Ltd. Jamshedpur.	Dec., 2000	M/s Usha Martin Ltd., Jamshedpur.	0.19	Dr. A. K Choudhary & Sri A K Sinha	Co-PI
4	Soil Test for the proposed Tailing Dam at Turamdih Project of U.C.I.L., Jadugoda	Dec.- 2008- Jan.2009	UCIL Jadugoda	0.60	Dr. A. K Choudhary Dr. A.K.Sinha	Co-PI
5	Soil Investigation work for the Proposed Multistoried Complex at Plot No. NEW PL.403 at 5J Road, Bistupur, Jsr.	May-June 2010	M/S Bombay Tower, Bistupur, Jsr.	0.79	Dr. A. K Choudhary Dr. A.K.Sinha	Co-PI
6	Soil Test for the Tailing Dam at Turamdih Project of U.C.I.L., Jadugoda	June 2010	M/s U.C.I.L. Jadugoda	0.04	Dr. A. K Choudhary Dr. A.K.Sinha	Co-PI
7	Soil Test for the Tailing Dam at Turamdih Project of U.C.I.L., Jadugoda	Jan. '2011	M/s U.C.I.L. Jadugoda	1.17	Dr. A. K Choudhary Dr. A.K.Sinha	Co-PI
8	Soil Test for the proposed Tailing Dam (Eastern side) at Turamdih Project of U.C.I.L., Jadugoda	March- 2011	M/s Kew Construction Pvt Ltd, Ghatsila , Jharkhand	0.71	Dr. A. K Choudhary Dr. A.K.Sinha	Co-PI
9	Soil Test for the proposed Tailing Dam (Western Side) at Turamdih Project of U.C.I.L., Jadugoda	April- 2011	M/s P.K.Agarwal, East Singhbhum, Jharkhand	0.71	Dr. A. K Choudhary Dr. A.K.Sinha	Co-PI
10	Evaluation of soil parameters for filling work at different locations of Galudih Right Main Canal	May-11	Executive Engineer, Div. No.-1, Mosaboni	0.79	Dr. A. K Choudhary Dr. A.K.Sinha	Co-PI
11	Soil Investigation for the Proposed Foundations for Head gear Frame, Winder House at Mohuldih Mines , U.C.I.L	May-11	Dy. G.M (Mines), Tuamdih Project, U.C.I.L	2.00	Dr. A. K Choudhary Dr. A.K.Sinha	Co-PI

12	Field control of compaction of slag filling for the construction of WTP at Tata Steel, Ltd. Jamshedpur	Aug. 2011	M/S Voltas Limited, Kolkata	0.76	Dr. A. K Choudhary Dr. A.K.Sinha	Co-PI
13	Soil Test for Tailing Dam (Western Side) at Turamdih Project of UCIL Jadugoda	July-Aug. 2013	M/s P.K.Agarwal, East Singhbhum, Jharkhand	0.71	Dr. A. K Choudhary Dr. A.K.Sinha	Co-PI
14	Soil Test for Tailing Dam (Eastern Side) at Turamdih Project of UCIL Jadugoda	July-Aug. 2013	M/s Kew Construction Pvt Ltd, Ghatsila, Jharkhand	0.71	Dr. A. K Choudhary Dr. A.K.Sinha	Co-PI
15	Soil Test for construction of Ambankmend at Tata Joda East Direct Entry Siding	March-April 2014	M/s RITES Ltd., Jsr	0.07	Dr. A. K Choudhary Dr. A.K.Sinha	Co-PI
16	Soil Test for Blanketing Material at Tata Joda East Direct Entry Siding	March-April 2014	M/s RITES Ltd., Jsr	0.07	Dr. A. K Choudhary Dr. A.K.Sinha	Co-PI
17	Soil Test for the proposed Aquaduct at Km 4.350 of Rahabasa Distributory Ex. Km 115.90 from CLMC	Nov. – Dec. 2014	Executive Engineer, M.D.Div-10, Ghatsila, JSR	5.26	Dr. A. K Choudhary Dr. A.K.Sinha	Co-PI
18	Soil Test for Road Construction of JRPICL, Ranchi	March-April 2014	M/s JRPICL, Ranchi	0.08	Dr. A. K Choudhary Dr. A.K.Sinha	Co-PI
19	Soil test for suitability of Fly Ash for Construction of Roads by Tata Sponge Iron Limited	May-June 2014	M/s Tata Spong Iron Limited, Odisha	0.10	Dr. A. K Choudhary Dr. A.K.Sinha	Co-PI
20	Soil Investigation for the proposed Apartment at 174, Dihibari, Bagaan area, Sakchi, Jamshedpur	July-Aug. 2014	M/s Sun N Dew Projects(P) Ltd., Jamshedpur	1.00	Dr. A. K Choudhary Dr. A.K.Sinha	Co-PI
21	Soil Test for Dam Filling at Satnala Dam under SMP, Jamshedpur	Nov. – Dec. 2014	Executive Engineer, M.D.Div-3, Mango, JSR	1.64	Dr. A. K Choudhary Dr. A.K.Sinha	Co-PI
22	Sub-Soil Investigation for the proposed Aqueduct Pier No.1 at Icha Right Main Canal	Sept.- Oct. 2014	Executive Engineer, M.D.Div-4, Galudih	1.08	Dr. A. K Choudhary Dr. A.K.Sinha	Co-PI
23	Test for suitability of Soil for proposed Road construction for Chaibasa-Kandra-Chowka Road of Jharkhand.	Jan.-Feb. 2015	M/s GKC Project Ltd., GKCPL Camp, Kandra	0.13	Dr. A. K Choudhary Dr. A.K.Sinha	Co-PI
24	Sub-Soil Investigation for the proposed Railway Siding at Banspani Railway Station under CKP	March-April 2015	M/s Tata Steel Joda	9.89	Dr. A. K Choudhary Dr. A.K.Sinha	Co-PI

