



Prof. (Dr.) Ashok Kumar Gupta (At JUIT since 2007)  
 Professor of Civil Engineering and Dean (Academics and Research)  
 Jaypee University of Information Technology  
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1. **Qualifications:**

<i>S. No.</i>	<i>Qualification</i>	<i>Institute / College</i>	<i>University</i>	<i>Performance (CGPA, % Marks, Class, Div)</i>
1.	Ph.D. Civil Engg.	I.I.T.Delhi	I.I.T.Delhi	CGPA 10.0 (on 10 point scale)
2.	M.E. Civil Engg (Geotechnical Engineering)	University of Roorkee (Now IIT, Roorkee)	University of Roorkee (now IIT, Roorkee)	First
3.	B.E. Civil Engg	University of Roorkee (Now IIT, Roorkee)	University of Roorkee (now IIT, Roorkee)	First with Honours

2. **Interest Research Area(s)**

Testing and modeling of geotechnical materials, FEM and its applications to Geotechnical Engineering and Continuum damage mechanics and its application to rockfill materials modeling and Engineering Rock Mechanics, Environmental Geotechnology and Highway Geotechniques.

3. **TOTAL TEACHING EXPERIENCE: 34 years**

4. **Ph.D Guidance \***

<i>S. No.</i>	<i>Scholar's Name</i>	<i>PhD Topic</i>	<i>Year of Completion</i>
1.	Yashpal Vasishta	Testing and Study the Behavior of rockfill Materials	2013
2.	Rishi Rana	Municipal Solid Waste characterization and analysis in Tricity	2017
3.	Saurav	Experimental studies of strength and Durability Analysis of concrete incorporating ultrafine slag	2018
4.	Saurabh Rawat	Testing and Modeling of Soil-Nailed Slopes	2017
5.	Anchal Sharma	Municipal Solid Waste characterization and Analysis in HP	2019
6.	Aakash Gupta	Prioritization of Rural Roads Maintenance in Hilly Terrain	2020
7.	Disha Thakur	Characterization and Settlement Analysis of Municipal Solid Waste	2020
8.	Ankit Thakur	Ground Improvement using Encased Stone Columns	2021
9.	Aditya Kumar Tiwary	Post Fire Exposure Behavior of Concrete filled steel tube column under Axial Loading	2021
10	Pankaj Sharma	Behavior of Helical Soil Nail: An Experimental & Theoretical Study	2021(submitted)

\* 4 more research scholars are pursuing Ph D under my guidance.

\*\* More than 35 M.Tech. Dissertations supervised.

\*\*\* More than 210 B.Tech. Major projects and M. Tech. Capstone projects supervised

#### 5. **Sponsored Projects**

<i>S. No.</i>	<i>Topic</i>	<i>Details of Sponsoring Agency</i>	<i>Duration</i>	<i>Progress</i>
1.	Landslide Hazard Zonation/ Risk Mapping of Dharamshala area in HP and Geotechnical Investigations of Selected	DST, GOI, New Delhi.	Four Years	completed

	Landslides.			
2.	Upgradation of Geotechnical Engineering Lab.	MODROBS MHRD, New Delhi	One year	completed
3.	Retaining Walls for Hilly Areas – A Dynamic Analysis.	HP State Council for Science, Technology and Environment	Two years	completed
4.	Use of Non-Conventional Material for Low cost Road Construction.	HP State Council for Science, Technology and Environment	Two Years	completed
5.	Geological Hazards mitigation using stone concrete block retaining walls and helical soil nailing.	DDMA	Three Years	Ongoing

6. **List of few Selected publications ( Total 89 Publications in reputed Journals)**

SL NO.	TITLE	Citations	YEAR
1	Testing and modeling two rockfill materials A Varadarajan, KG Sharma, K Venkatachalam, AK Gupta Journal of geotechnical and geoenvironmental engineering 129 (3), 206-218	378	2003
2	Effect of particle size and confining pressure on breakage and strength parameters of rockfill materials AK Gupta Electronic Journal of Geotechnical Engineering 14 (Bund. H), 1-12	81	2009
3	Triaxial behavior of rockfill materials AK Gupta Electronics Journal of Geotechnical Engineering 14 (J), 1-18	68	2009
4	An Assessment of Solid Waste Management System in Chandigarh City, India R Rana, R Ganguly, AK Gupta Electron. J. Geotech. Eng 20 (6), 1547-1572	41	2015
5	Constitutive modelling of rockfill materials AK Gupta	36	2000
6	Study of response of structurally irregular building frames to seismic excitations AK Poonam, AK Gupta International Journal of Civil, Structural, Environmental and	29	2012

	Infrastructure ...		
7	Physico-chemical characterization of municipal solid waste from Tricity region of Northern India: a case study R Rana, R Ganguly, AK Gupta Journal of Material Cycles and Waste Management 20 (1), 678-689	17	2018
8	Medium triaxial testing of some rockfill materials Y Vasistha, AK Gupta, V Kanwar Electron. J. Geotech. Eng 18 (D), 923-964	17	2013
9	Analysis of a nailed soil slope using limit equilibrium and finite element methods S Rawat, AK Gupta International Journal of Geosynthetics and Ground Engineering 2 (4), 34	16	2016
10	Evaluation of solid waste management in satellite Towns of Mohali and Panchkula–India R Rana, R Ganguly, A Kumar Gupta The Journal of Solid Waste Technology and Management 43 (4), 280-294	15	2017
11	An experimental and analytical study of slope stability by soil nailing S Rawat, AK Gupta Electron J Geotech Eng 21 (17), 5577-5597	13	2016
12	Matrix method for evaluation of existing solid waste management system in Himachal Pradesh, India A Sharma, R Ganguly, AK Gupta Journal of Material Cycles and Waste Management 20 (3), 1813-1831	12	2018
13	Effects of particle size and confining pressure on breakage factor of rockfill materials using medium triaxial test AK Gupta Journal of Rock Mechanics and Geotechnical Engineering 8 (3), 378-388	11	2016
14	Experimental study of strength relationship of concrete cube and concrete cylinder using ultrafine slag Alccofine AK Gupta	10	2014
15	Constitutive modelling of a rockfill materials A Varadarajan, KG Sharma, K Venkatachalam, AK Gupta Proc., 4th Int. Conf. on Constitutive Laws for Engineering Materials	10	1999
16	Prediction of shear strength parameters of two rockfill materials Y Vasistha, AK Gupta, V Kanwar Electron. J. Geotech. Eng 17 (W), 3221-3232	9	2012
17	Impact of open dumping of municipal solid waste on soil properties in mountainous region A Sharma, AK Gupta, R Ganguly	8	2018

	Journal of Rock Mechanics and Geotechnical Engineering 10 (4), 725-739		
18	Bamboo as Green Alternative to Steel for Reinforced Concrete Elements of a Low Cost Residential Building AK Gupta, R Ganguly, AS Mehra The Electronic Journal of Geotechnical Engineering 20 (6), 1523-1545	8	2015
19	Constitutive modeling of a rockfill material using HISS model A Varadarajan, KG Sharma, K Venkatachalam, AK Gupta Proc., Indian Geotechnical Conf, 153-156	8	1997
20	Testing and modelling of screw nailed soil slopes S Rawat, AK Gupta Indian Geotechnical Journal 48 (1), 52-71	6	2018
21	Biomedical waste generation and management in Public Sector Hospital in Shimla City P Vasistha, R Ganguly, AK Gupta Environmental Pollution, 225-232	5	2018
22	Characterization of municipal solid waste in Sunder Nagar, Himachal Pradesh, India A Sharma, R Ganguly, AK Gupta RESEARCH JOURNAL OF PHARMACEUTICAL BIOLOGICAL AND CHEMICAL SCIENCES 8 (3S ...	4	2017
23	Numerical modelling of pullout of helical soil nail S Rawat, AK Gupta Journal of Rock Mechanics and Geotechnical Engineering 9 (4), 648-658	4	2017
24	Solid Waste Management in Chandigarh–A Case Study R Rana, R Ganguly, AK Gupta Journal of Civil Engineering and Environmental Technology: ISSN: 2349-8404 1 ...	4	2014
25	Spectral characterization and quality assessment of organic compost for agricultural purposes A Sharma, R Ganguly, AK Gupta International Journal of Recycling of Organic Waste in Agriculture 8 (2 ...	3	2019
26	Indexing method for assessment of pollution potential of leachate from non-engineered landfill sites and its effect on ground water quality R Rana, R Ganguly, AK Gupta Environmental monitoring and assessment 190 (1), 46	3	2018
27	Evaluation of Existing Solid Waste Management System in Una Town, India GV Thakur D., Ganguly R., Gupta A.K. Ghosh S. (eds) Sustainable Waste Management: Policies and Case Studies ...	2	2020
28	Life-cycle assessment of municipal solid-waste management	2	2019

	strategies in Tricity region of India R Rana, R Ganguly, AK Gupta Journal of Material Cycles and Waste Management 21 (3), 606-623		
29	Pullout of soil nail with circular discs: A three-dimensional finite element analysis S Rawat, AK Gupta, A Kumar Journal of Rock Mechanics and Geotechnical Engineering 9 (5), 967-980	2	2017
30	Characterization and Energy Generation Potential of Municipal Solid Waste from Nonengineered Landfill Sites in Himachal Pradesh, India A Sharma, R Ganguly, AK Gupta Journal of Hazardous, Toxic, and Radioactive Waste 23 (4), 04019008	1	2019
31	Stabilization of Expansive Soil Using Potassium Chloride R Shukla, NS Parihar, AK Gupta Civil Engineering Journal 1, 25-33	1	2018
32	Design of an incinerator to treat combined biomedical wastes generated from four major hospitals in Chandigarh and Shimla City, India R Ganguly, P Vasistha, AK Gupta	1	2017
33	Impact of Leachate from Non-Engineered Landfill Sites on Groundwater Quality-A Case Study in Northern India R Rana, R Ganguly, AK Gupta	1	2016
34	Compaction parameters of geotextile reinforced soil NS Parihar, RP Shukla, S Dhawan, AK Gupta 50th Indian Geotechnical Conference	1	2015
35	Traffic Volume and Accident Studies on Nh-22 Between Solan and Shimla, India R Ganguly, AK Gupta, M Mishra European Scientific Journal	1	2014
36	Loose Ash Fills Reinforced With the High Confined Encased Stone Columns: Experimental and Numerical Investigation SK Jala, S Rawat, AK Gupta Geotechnical and Geological Engineering		2020
37	Laboratory investigation of pullout behavior of hollow and solid shaft helical nail in frictional soil P Sharma, S Rawat, AK Gupta Acta Geotechnica, 1-26	2	2020

## 7. Book Chapters

- i. Disha Thakur, Rajiv Ganguly, Ashok Kumar Gupta, Veeresh Gali (2020). Evaluation of Existing Solid Waste Management System in Una Town, India. In Ghosh S., Sustainable Waste Management: Policies and Case

Studies (pp. 367-381). Singapore : Springer. [ISBN : 9789811370700] .

- ii. Anchal Sharma, Rajiv Ganguly, Ashok Kumar Gupta (2019). Comparative Analysis of Solid Waste Management Processes in Himachal Pradesh and Punjab.. In Singh H., Garg P., Kaur I., Proceedings of the 1st International Conference on Sustainable Waste Management through Design. ICSWMD 2018. Lecture Notes in Civil Engineering, vol 21. (pp. 343-352). Switzerland: Springer, Cham. [ISBN : 9783030027063] .
- iii. Rajiv Ganguly, Deepika Sharma, Anchal Sharma, Ashok Kumar Gupta, B.R. Gurjar (2019). Parametric Evaluation of Leachate Generated from a Non-engineered Landfill Site and Its Contamination Potential of Surrounding Soil and Water Bodies.. In Agarwal R., Agarwal A., Gupta T., Sharma N., Pollutants from Energy Sources: energy, environment, and sustainability. (pp. 307-322). Singapore: Springer. [ISBN : 9789811332807] .
- iv. Anchal Sharma, Rajiv Ganguly, Ashok Kumar Gupta (2018). Matrix Method for Evaluation of Existing Solid Waste Management Processes in Jalandhar City, Punjab, India.. In Agarwal R., Agarwal A., Gupta T., Sharma N., Pollutants from Energy Sources: energy, environment, and sustainability. (pp. 253-268). Singapore: Springer. [ISBN : 9789811332807] .
- v. Ankur Choudhary, Rajiv Ganguly, Ashok Kumar Gupta (2018). A Framework for Assessment of Existing Solid Waste Management Practices and Characterization of Municipal Solid Waste in Muzaffarnagar City, India. In Ahmet Ozan Gezerman, Burcu Didem Corbacioglu, Bhola R. Gurjar, Effective Solutions to Pollution Mitigation for Public Welfare (First Edition, pp. 1-18). : IGI-Global Productions. [ISBN : 9781522533795] .
- vi. Prachi Vasistha, Rajiv Ganguly, Ashok Kumar Gupta (2018). Biomedical Waste Generation and Management in Public Sector Hospital in Shimla City. In Singh V., Yadav S., Yadava R, Environmental Pollution (1st Ed., pp. 225-232). Singapore: Springer. [ISBN : 978-981-10-5791-5] .

#### 8. **Conferences/workshops/seminars organized (Partial List)**

1. *“Waste Management – Issues and Concerns”*, a two-day Workshop organized by the Department of Civil Engineering, Jaypee University of Information Technology (JUIT), Waknaghat from 20<sup>th</sup> to 21<sup>st</sup> August 2020. Program Chair.
2. *“Sustainable Construction Practices for Civil Engineers”*, one week workshop organized by the Department of Civil Engineering, Jaypee University of Information Technology (JUIT), Waknaghat from 3<sup>rd</sup> -8<sup>th</sup> August 2020. Program Chair.

3. “*Current Aspects and Research Opportunities in Civil Engineering*”, a five-day Continuous Education Program organized by the Department of Civil Engineering, Jaypee University of Information Technology (JUIT), Wagnaghat from 20<sup>th</sup> to 24<sup>th</sup> July 2020. Program Chair.
4. “*Mix-Design methodology for Concrete and Bitumen*”, a six-day Workshop organized by the Department of Civil Engineering, Jaypee University of Information Technology (JUIT), Wagnaghat from 23<sup>rd</sup> to 28<sup>th</sup> September, 2019. Program Chair.
5. “*Mix-Design methodology for Concrete and Bitumen*”, a six-day Workshop organized by the Department of Civil Engineering, Jaypee University of Information Technology (JUIT), Wagnaghat from 2<sup>nd</sup> to 7<sup>th</sup> September, 2019. Program Chair.
6. “*Mix-Design methodology for Concrete and Bitumen*”, a six-day Workshop organized by the Department of Civil Engineering, Jaypee University of Information Technology (JUIT), Wagnaghat from 24<sup>th</sup> to 29<sup>th</sup> June, 2019. Program Chair.
7. “*Mix-Design methodology for Concrete and Bitumen*”, a six-day Workshop organized by the Department of Civil Engineering, Jaypee University of Information Technology (JUIT), Wagnaghat from 10<sup>th</sup> to 15<sup>th</sup> June, 2019. Program Chair.
8. “*Training for masons on Hazard resistant construction*”, a three-day training programme organized by the Department of Civil Engineering, Jaypee University of Information Technology (JUIT), Wagnaghat in collaboration with HPDDMA, Solan from 25<sup>th</sup> to 27<sup>th</sup> February, 2019. Program Chair.
9. “*Advances in Civil Engineering*”, a five-day Faculty Development Program organized by the Department of Civil Engineering, Jaypee University of Information Technology (JUIT), Wagnaghat from 14<sup>th</sup> to 19<sup>th</sup> January, 2019. Program Chair.
10. A five-day AutoCAD training workshop organized by the Civil Engineering Consortium, Department of Civil Engineering, Jaypee University of Information Technology (JUIT), Wagnaghat from 17<sup>th</sup> to 21<sup>st</sup> December, 2018. Program Chair.
11. Autodesk Seminar and Workshop organized by the Civil Engineering Consortium, Department of Civil Engineering, Jaypee University of Information Technology (JUIT), Wagnaghat on 10<sup>th</sup> August, 2018. Program Chair.
12. Workshop on “*Basic Surveying and Remote Sensing*” organized by the Civil Engineering Consortium, Department of Civil Engineering, Jaypee University of Information Technology (JUIT), Wagnaghat on 7<sup>th</sup> May, 2018. Program Chair.
13. Workshop on REVIT organized by the Civil Engineering Consortium, Department of Civil Engineering, Jaypee University of Information Technology (JUIT), Wagnaghat from 16<sup>th</sup> to 22<sup>nd</sup> April, 2018. Program Chair.
14. A two-day Workshop on “*Design of Tall Buildings*” organized by the Civil Engineering Consortium, Department of Civil Engineering, Jaypee University of Information Technology (JUIT), Wagnaghat from 10<sup>th</sup> -11<sup>th</sup> March, 2018. Program Chair.



15. *“Recent Trends In Civil Engineering Towards Sustainable Environment”*, a two-day symposium organized by the Department of Civil Engineering, Jaypee University of Information Technology (JUIT), Waknaghat from 16<sup>th</sup> to 17<sup>th</sup> October 2017. Program Chair.
16. 2<sup>nd</sup> International Convention of Engineering and Management (iCEM), JUIT Waknaghat, April 4-5, 2015.
17. 5<sup>th</sup> Techno-Cultural Symposium of Civil Engineering Department, SANRACHNA-2015, JUIT Waknaghat, April 3-5, 2015.
18. One-week Workshop on “Primavera for Civil Engineers”, JUIT Waknaghat, February, 2-6, 2015.
19. Workshop on CAD Softwares, JUIT Waknaghat, August 27, 2014.
20. 1<sup>st</sup> International Convention of Engineering and Management (iCEM), JUIT Waknaghat, April 26-27, 2014.
21. 2-day National Workshop on Rock Mechanics and Dam Foundations, JUIT Waknaghat, March 29-30, 2014.
22. 2-day Workshop on Rock Mechanics and Dam foundations, JUIT Waknaghat, March 29-30, 2014.
23. 5-day IUCEE workshop on “Introduction to Finite Element Analysis for Civil Engineers” JUIT Waknaghat, July 30 - August 3, 2012.
24. 2-day Workshop on “Critical State Soil Mechanics” (CSSM) – 2012, organized by IGS-Shimla Chapter and JUIT Waknaghat during May 30-31, 2012.
25. National Conference on Recent Technological Advancements in Civil Engineering, JUIT Waknaghat, March 31, 2012.
26. IUCEE (Indo-US Collaboration for Engineering Education) Workshop on “Heavy Construction Equipment and Construction Management” held at JUIT Waknaghat, August 8 – 12, 2011.
27. 2-day Workshop on “Construction of Dams and Tunnels in Weak Rocks,” organized by Jaypee University of Information Technology in collaboration with the Central Board of Irrigation and Power (CBIP), during 25-26 May 2011, at JUIT.
28. 3-day International Convention of Engineering and Management (iCEM), during 18-20 Feb, 2011.
29. A one-day training programme on FEM based geotechnical software PLAXIS 2D during Jan-2011.

#### **14. Invited Talks / Guest Lectures (Partial List)**

1. "Construction Aspects for Energy-efficient Buildings in Hilly Regions" at 2<sup>nd</sup> International Convention of Engineering and Management (iCEM), JUIT Waknaghat, April 5, 2015.
2. "Constitutive Modeling of Geotechnical Materials" at 1<sup>st</sup> International Convention of Engineering and Management (iCEM), JUIT Waknaghat, April 27, 2014.
3. "Sustainable Infrastructure Development: Use of Fly ash and Micro Silica in Construction Materials" at Bells Institute of Management and Technology, Shimla, May 4, 2013.

4. "Soil Nailing Techniques for Slope Stability in Hilly Regions" at Bells Institute of Management and Technology, Shimla, December 21, 2012.
5. "Use of Geotextiles in Slope Stability of Embankment Dams" at National Conference on Emerging Trends in Civil Engineering organized by the E-Max Group of Institutions, Kalpi, Ambala, August 25, 2011.
6. "Experimental Design Aspects of High Strength Concrete for Hydroelectric Projects" at NTPC-Kol Dam, Bilaspur, H.P., July 8, 2011.
7. "Use of Non- Conventional Material for Low cost Road Construction" at National Workshop on Civil Engineering, Himalayan Institute of Engineering and Technology, Kala Amb (H.P.), May 30, 2011.
8. "Rock-fill Materials and their Modeling using FEM" at Desh Bhagat Engineering College (DBEC), Mandi Gobindgarh, Punjab, March 15, 2011.
9. "Project Management Strategies for Large-scale CE projects", Desh Bhagat Engineering College (DBEC), Mandi Gobindgarh, Punjab, March 14, 2011.
10. "Landslide Hazard Zonation and Risk Mapping" at Geotechnology for Infrastructure Development (GID-2008), PEC Chandigarh, October 31, 2008.
11. "Sustainable Design and Construction for Indian Roads" at World Standards Day, BIS, Parwanoo Div. October 14, 2008.

#### 15. Books

- i. Rajbal Singh, Hari Dev, Ashok Kumar Gupta, Subodh Kumar Jain (2013). INDOROCK-2013, Proceeding of the 4th Indian Rock Conference. Delhi: Indian Society of Rock Mechanics & Tunnelling Technology.
- ii. K.G. Sharma, V.K. Kanjlia, A.C. Gupta, Ashok Kumar Gupta, Subodh Kumar Jain (2011). Proceedings of Workshop on Construction of Dams & Tunnels in Weak Rocks. New Delhi: Central Board of Irrigation & Power.

#### 16. Details of experience other than teaching

- HOD Civil Engineering, JUITW
- Chief Warden Hostels, JUITW
- Controller of Examination, NITH
- Chief Warden Hostels, NITH
- Chairman Disciplinary Committee (Proctorial Board)
- Member Board of Governors, REC Hamirpur Society
- Member Faculty of Engg. and Technology, H.P. University
- OIC, College Time Table and Registration-in-charge, NITH

- Superintendent, CPET-2000 and 2001 at NITH
- Coordinator to IGNOU for PGDCM course.
- Coordinator for Status Survey of DW, NCRS, MORD, Govt. of India.

#### 17. Awards/ Achievements

- IGS-Shri R N Prasad Biennial Prize for the best paper on “Slope Stability and Land Slides” for the years 2017-2018.
- ASCE outstanding Reviewer award for Journal of Geomechanics for three consecutive years (2016-2018).
- Introduce two more M Tech programmes (SE, and EE) in CED, JUIT.
- Started PhD registration in CED, JUIT.
- Outstanding Teacher award
- Best Faculty Mentor award
- Founder Chairman IGS Shimla HP chapter.

#### 18. Google Scholar Link: h-index 16, i10 index 21

<https://scholar.google.com/citations?user=FxMBuCQAAAAJ>

#### 19. Membership of Professional Bodies :

S. No.	Members Grade	From	To	Organization /Body
1.	Life Member	1987	Till date	Indian Geotechnical Society (IGS)
2.	Life Member	1987	Till date	Indian Society of Rock Mechanics and Tunneling Technology (ISRMTT)
3.	Life Member	1987	Till date	Indian Society of Technical Education (ISTE)

#### 20. Professional Review Boards

- Journal of Geotechnical and Geoenvironmental Engineering, ASCE
- International Journal of Geomechanics, ASCE
- KSCE Journal of Civil Engineering- Springer
- International Journal on Advances in Materials
- International Journal of Geosynthetics and Ground Engineering

- International Journal of Civil Engineering
- Construction and Building Materials
- Journal of Rock Mechanics and Geotechnical Engineering

**21. Subjects Taught At UG and PG Level (Partial List)**

- Geotechnical Engineering
- Foundation Engineering
- Structural Analysis
- Engineering Mechanics
- Finite Element Method
- Fluid Mechanics
- CPM and PERT
- Estimation and Costing
- Engineering Geology
- Rock Mechanics
- Underground Technology
- Construction Cost Analysis
- Construction Techniques
- Construction Planning & Control
- Sustainable Design and Construction
- Construction Contracts and Laws
- Constitutive Modelling
- Construction Financial management
- Soil Dynamics.

02/07/2021  
JUIT Waknaghat

(Ashok Kumar Gupta)