

*Brief Vitae of S.Mittal*

**BRIEF VITAE OF DR. SATYENDRA MITTAL**  
**ASSTT. PROFESSOR, CIVIL ENGINEERING DEPARTMENT,**  
**INDIAN INSTITUTE OF TECHNOLOGY ROORKEE**

- 1. Name** : Dr. SATYENDRA MITTAL
- 2. Academic Qualifications** :
- a) B.E. (Civil) : 1980, 1st Division from University of Allahabad  
(Merit Scholarship holder in all the four years of B.E.)
- b) M.E. (Earthquake Engg.) : 1986, 1st Division from University of Roorkee
- c) Ph.D. (Civil Engg.) : 1998, from University of Roorkee
- 3. Job Experience** :

(A)	National Institute of Hydrology, Roorkee	As Senior Research Assistant from July 1980 – March 1982
(B)	Shah construction Co. Baghdad, Iraq	As site Engineer April 1982 – Sept. 1982
(C)	GSJ & Associates Roorkee	As Resident Engineer Oct. 1982 – Sept. 1983
(D)	Alternate Hydro Energy Centre, University of Roorkee, Roorkee	As Scientist Since Oct. 1983 to June 2001
(E)	Deptt. of Civil Engineering, University of Roorkee, (Now known as I.I.T. Roorkee)	As Asstt. Professor Since June 2001

#### 4. Foreign Visits :

Sl. No.	Country Visited	Purpose	Duration
1.	Iraq	Job	6 months (year 1982)
2.	United Kingdom	Got GSE Scholarship sponsored by Rotary Foundation for study of Earthquake resistant design of Hydropower Structures. I was attached to Prof. J. Irwin of Bristol University, U.K.	6 weeks (1986)
3.	Singapore	To present paper in international conference.	1 week (1991)
4.	China	Got UNDP fellowship to study advanced designs of Small Hydro Power Projects. Got Best Trainee Officer award amongst participants of 18 countries.	6 weeks (1995)
5.	U.S.A.	To present paper in international conference held in New Orleans, U.S.A.	10 days (1996)
6.	Japan	Got Japanese govt. scholarship to study technical vocational rehabilitation measures to handicapped, in addition to construction projects management. Got special training in construction giants M/s Sumitomo construction Co., Tokyo.	6 weeks (1998)
7.	Bangladesh	Invited by Bangladesh University of Engg. & Technology Dhaka, to deliver key note lectures on Small Hydro Power Projects. All expenses borne by Bangladesh Govt.	1 week (1999)
8.	Nepal	To attend international training programme on sediment management on Hydro Projects. All expenses borne by Norwegian Govt.	2 weeks (2001)

**5. Publications :**

(A) Technical **Books** (Authored) - 2

(B) Technical Book (Edited) - 01

Sl. No.	Title of Publication	Year	Authors	Published by
1.	Lessons for Architects & Engineers from recent Indian Earthquakes	2000	M.P. Jai Singh V.K. Gupta S. Mittal	The Institution of Engineers Roorkee Local Centre

(C) Technical Papers : As per Annexure –

**6. Short Term Courses Organised : 5  
(on Geotechnical Engineering)**

**7. Technical Events/Conference/Symposium organised : 5**

**8. Research Projects Handled as Project Coordinator:**

Sl. No.	Project's Name	Year	Sponsored by	Amount (Rs.)
1.	Stability Studies of Reinforced Earth Retaining wall using geosynthetics on micro hydel project	1996 – 1999	Council of Science & Technology USA	4.78 lacs
2.	Optimum Designs of SHP structures for sub zero temperature areas by Model Studies	2001 – 2004	U.G.C., New Delhi	3.85 lacs

## 9. New Courses Developed

Sl. No.	Course Title	Course level	Course run by
1.	SHP Planning & Management	Undergraduate (Pool elective)	AHEC, IIT Roorkee
2.	Construction, Planning & Management of SHP Projects	Post graduate (M.E.)	AHEC, IIT Roorkee
3.	Civil designs of SHP Projects	Post graduate (M.E.)	AHEC, IIT Roorkee

## 10. Awards

1. Best Trainee Officer award given by Hangzhou Regional Centre, Hangzhou, China.
2. Second Prize, sponsored by Kendriya Sachivalaya Hindi Parishad (Govt. of India) for Technical Paper written in Hindi language.
3. 'Man of the year' sponsored by American Biographical Institute Inc., USA.

## 11. Research Guidance

1. M.E./M.Tech. Thesis - 14 Nos.
2. Ph. D. - One ( in progress)

## 12. Some Notable Achievements :

1. Designed skirted granular pile foundation for a tank of 79 m dia for M/s Indian Oil corporation Haldia refinery.
2. Successfully designed unique small hydropower station for Ladakh area where sub zero temperature (-20°C) exists – wide coverage done by print media also.
3. Constructed India's first prototype retaining wall (10 m long) with flyash backfill.
4. Member of Bureau of Indian Standards Committee BDC : 23 for 2 years for drafting IS code on geotechnical equipments.
5. Experience of supervision of many construction Projects in India and abroad (an added qualification for faculty of Civil Engg)

6. "Man of the year(2002)" award by American biographical Institute, USA

**13. Memberships of Professional Bodies :**

1. (FIE) Executive Committee Member (for last 15 years) of the Institution of Engineers (India) Roorkee Centre.
2. Member of National Executive Committee of Indian Geotechnical Society.
3. Member of National Executive Committee of Indian Society of Earthquake Technology.
4. Life Member – Indian Water Resources Society.
5. Life Member – Indian Society for Technical Education.

**14. Various Positions Held in/Around Campus :**

1. Hony. Secretary of Indian Geotechnical Society Roorkee Chapter for 2 years.
2. Joint Secretary of Managing Committee of "Roorkee School for the Deaf" being run in IIT campus.
3. Dy. O.C. Dairy of University of Roorkee for 5 years.
4. Organising Secretary of IGC 2003 organised by Indian Geotechnical Society at Roorkee in Dec. 2003.

**15. New Labs Developed :**

1. Model test set up for testing Reinforced Earth Retaining Structures and also slope stability Analyses (in AHEC, I.I.T., Roorkee).
2. Model test set up for testing Hydropower Structures in cold regions (sub zero temperature areas) – (in Civil Engg. Deptt., I.I.T., Roorkee).

**16. Technical Film Developed :**

Prepared one technical film titled, "**Reinforced Earth Construction- from concept to Reality**" for Council of Science & Technology U.P. This video film of about 1.5 hours has earned high commendation from CST,UP

**ANNEXURE - I**

**(A) PUBLICATION IN JOURNALS**

<b>Sl. No.</b>	<b>Name of Journal</b>	<b>National/ International</b>	<b>Title of Paper</b>	<b>Issue of Journal</b>	<b>Year of Publication</b>	<b>Name of Author(s)</b>
1.	Builder's Digest	National	"Use of Skirt wall for storage tanks"	Vol. I, No. 12	1983	S. Mittal
2.	Builder's Friend	National	"Role of Scaffolding & Shuttering to prevent accidents on Sites"	Vol. III, No. 1	1983	S. Mittal
3.	Builder's Friend	National	"An experience of managing a housing project in Iraq"	Vol. VI, No. 1	1985	S. Mittal
4.	Builder's Friend	National	"Green Architecture"	Vol. VII, No. 1	1985	S. Mittal & Neeta Mittal
5.	Indian Journal of Power and River Valley Development	National	"Small Hydro Power Development in Human Settlements"	July-Aug. pp 88-91	1996	S. Mittal
6.	Water & Energy International	International	"Improvisation of Plant Load Factor of Small Hydro Power Stations"	Vol. 53, No. 3, pp 41-45	1996	S. Mittal & C. Xialei
7.	Journal of Rural Energy	National	"Economically viable Integrated Renewable Energy Systems"	Vol. 4, No. 1-4, pp 29-39	1997	S. Mittal & M.P. Sharma
8.	Bhagirathi (Hindi Journal)	National	"Laghu Jal Vidyut Pariyojnaon mein personal computer ka prayog"	Jan-Mar issue	1999	S.Mittal & M.K.Singhal
9.	Journal of Indian Water Resources	National	Standardisation of Dicken's Coefficient for catchments of Manipur state of India	April	1999	N.Dwijen Singh, S.Mittal & Singhal M.K.
10	Indian Geotechnical Journal	National	Rigid wall Retaining bottom ash backfill with geogrid Reinforcement	January 2001	2001	S. Mittal, Swami Saran, K.G. Garg & A.N. Pathak

<b>Sl. No.</b>	<b>Name of Journal</b>	<b>National/ International</b>	<b>Title of Paper</b>	<b>Issue of Journal</b>	<b>Year of Publication</b>	<b>Name of Author(s)</b>
11.	American Society of Civil Engineering	International	Innovative Design of Small Hydro Power Project for Sub-zero temperature area in Bogdong	Accepted for publication	-	S.Mittal
12.	Journal of The Institution of Engineers	National	On improvement of Properties of black cotton soil subgrade through synthetic reinforcement	Accepted for publication	2003	M.Gosavi, K.A.Patil, S.Mittal, Swami Saran

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*In addition to above, I have made a technical film on, “Reinforced Earth Construction- from Concept to Reality” for Council of Science & Technology U.P. As per Unin.of Roorkee/IIT norms, approved by Syndicate one technical film is treated equivalent to one technical Paper in journal*

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**(B) PUBLICATIONS IN NATIONAL/INTERNATIONAL SEMINAR/SYMPOSIA/ CONFERENCE**

**Note : [ N : National Conference,**

**IN : International Conference**

<b>Sl. No.</b>	<b>Name of Conference &amp; its place</b>	<b>Title of Paper</b>	<b>Year</b>	<b>Name of Author(s)</b>	<b>Level of Conf.</b>
1.	“All India Seminar on Successful management of Projects”, Lucknow	“Management & Maintenance of Projects through motivation”	1983	S. Mittal	N
2.	“International Conference on Housing for developing countries”, Roorkee	“Management of Mass Housing Projects”	1984	S. Mital	IN
3.	“National Seminar on Project Management”, Kanpur	“Successful Management of Projects’	1985	S. Mittal	N
4.	National Seminar on development of micro hydel energy systems in the Himalayan Regions, Roorkee	“Low Cost Gates & Valves for micro hydro energy systems”	1987	S. Mittal	N
5.	“International Conference on Computer Methods and Water Resources” Rabat, Morocco, Africa	“A Note on planning of micro hydro projects in remote areas”	1987	S. Mittal	IN
6.	Annual Technical Meeting, UP State Centre, IE(I), Lucknow	<b>“Importance of Evaluation of Liquefaction Potential on the Construction Sites”</b>	1988	S. Mittal	N
7.	“Ist Regional Conference in Civil Engineering”, University of Baharin, Baharin	<b>“Liquefaction potential evaluation in the field by vibration table studies”</b>	1988	S. Mittal	IN
8.	Third Indian Engg. Congress, Madras	<b>“Identifying Liquefaction prone sites for hydro energy projects to mitigate the effects of natural hazards”</b>	1989	S. Mittal	N
9.	Seminar on “Potential of development of non-conventional energy technologies in the armed forces” Pune	“Integrated energy approach for making micro hydel economically viable”	1990	S. Mittal & M.P. Sharma	N
10.	Symposium on Planning, Control & Management of Construction Projects, Roorkee	“Evaluation of Optimum installed capacity for micro hydro projects”	1990	S.P. Singh & S. Mittal	N

Sl. No.	Name of Conference & its place	Title of Paper	Year	Name of Author(s)	Level of Conf.
11.	Symposium of "Recent Advances in Geotechnical Engg." Singapore	<b>"Fly ash backfill reinforced with geosynthetics behind Retaining walls"</b>	1991	S. Mittal	IN
12.	"International Conference on Small Hydro", New Delhi	"Field trials of micro hydro design software"	1992	Aliza Kahn, GAWalters & S. Mittal	IN
13.	Annual Technical Meeting IE(I) UP State Centre, Lucknow	"Use of Small Hydro Power in Darjeeling Hills Tea Gardens – A Case Study	1995	Arun Kumar & S. Mittal	N
14.	Annual Technical Meeting, IE (I) UP State Centre, Lucknow	<b>"Reinforced earth retaining wall with fly ash backfill"</b>	1995	S. Mittal	N
15.	"International Conference on Advances in Fluid Mechanics" U.S.A.	"Constitute laws and flow management for small hydro power optimal design"	1996	S. Mittal	IN
16.	Workshop on Small Hydro Development CBIP, New Delhi	<b>Geotechnical Investigations for hydro power station</b>	1996	S. Mittal	IN
17.	National conference on creating convenient & friendly environment for education and training of handicapped in technical institutions, QIP centre, UOR, Roorkee	Rehabilitation of Disabled – A Japanese model	1999	S.Mittal	N
18.	All India Seminar on "Lessons for architects & Engineers from recent Indian earthquakes, The Instn. Of Engineers (India), Roorkee Centre	Earthquake – Myths, awareness and preparedness	2000	S.Mittal & Mrs. Neeta Mittal	N
19.	International conference on Rural water supply and environmental sanitation	Rain water harvesting – an appropriate technology for rural water supply	2000	Himani,S. Mittal,CS Agarwal	IN
20.	Indian Geotechnical Conference 'IGC 2001', Indore	Vibration and Structural Analysis for 19 MW Turbo generator foundation-A case study	2001	S.Mittal et.al	N

<b>Sl. No.</b>	<b>Name of Conference &amp; its place</b>	<b>Title of Paper</b>	<b>Year</b>	<b>Name of Author(s)</b>	<b>Level of Conf.</b>
21.	International Symposium on Geotechnical & Environmental Challenges in Mountainous terrain, "GENSYM-2001", held in Nepal	Model Studies on Retaining Wall with Reinforced Cohesive Frictional Backfill	2001	Swami Saran, K.G.Garg & S.Mittal	IN
22.	"IGC 2002", to be held in Allahabad	Experimental Evaluation of properties of Black Cotton soil sub grade through synthetic reinforcement	2002	Meenal Gosavi, A.K.Patil, S.Mittal, Swami Saran	N
23.	International Conference on Renewable Energy, Mauritius	Determination of Flood Discharge for hilly catchments-a case study	2002	S.Mittal & M.K. Singhal	IN

**Note : [ N : National Conference,**

**IN : International Conference ]**

**(C) TECHNICAL BOOKS PUBLISHED**

<b>Sl. No.</b>	<b>Title of Book</b>	<b>Name of Author</b>	<b>Name of Publisher</b>	<b>Year of Publication</b>
1.	Soil Testing for Engineers	S. Mittal	Khanna Publishers, Delhi	1985 & 1993
2.	Pile Foundations Design & Construction	S. Mittal	CBS Publishers & Distributors, Delhi	1988
3.	Soil Testing for Engineers <b>(duly forwarded by Dr. Bharat Singh)</b>	S. Mittal & J.P. Shukla	Khanna Publishers, Delhi	2000

## Annexure – III

### THESES SUPERVISED BY Dr. SATYENDRA MITTAL

Sl. No.	Degree	Title of Thesis	Year awarded	Name of student	Co-supervisor if any
1.	Ph. D.	Behaviour of Nailed Open Cuts	In-Progress	M. Gosavi	Dr. S. Saran
2.	M.E.	Optimum Design of Small Hydro Power Stations for Hilly Areas with Particular Reference to Manipur State	1998	N.D. Singh	Sh. M.K. Singhal
3.	M.E.	Software for SHP management	1999	H.Goyal	--
4.	M.E.	Integrated energy approach for making SHP economically viable	1999	C.P.Singh	--
5.	M.E.	New materials for SHP	1999	P.K.Bhaskar	--
6.	M.E.	Water Power studies and hydrological investigations	2000	Brijesh Kumar	--
7.	M.E.	Sosio economic and electrical load survey of Sat-Ti mini hydro Project	2000	Sarsing Gao	--
8.	M.E.	Global Energy Scenario with respect to SHP development	2000	Nidhi Soti	--
9.	M.E.	Optimum Design of Penstock for A High Head Scheme	2000	Tarun Singh	--
10.	M.E.	Use of Reinforced Earth Techniques in River Valley Projects	2001	S. Ghosh	Dr. S. Saran
11.	M.E.	Design of Machine Foundation for Turbo Generating Unit for Bansagar Tons Hydel Project	2001	N.P. Mehta	Dr. Vipul Prakash
12.	M.E.	Innovative Techniques for Planning & Management of a SHP Project	2001	Bhavesh Agrawal	--
13.	M.Tech.	Comuter Aided Design of Civil Structures of Small Hydro Power Project	2001	Amol Verma	S.K.Singal

<b>Sl. No.</b>	<b>Degree</b>	<b>Title of Thesis</b>	<b>Year awarded</b>	<b>Name of student</b>	<b>Co-supervisor if any</b>
14.	M.Tech.	Behaviour of Reinforced Earth Embankments	2002	B.Seetha Ram	----
15.	M.Tech.	Nailed open vertical cuts	2003	Raman P.Gupta	Dr. S. Saran

## Annexure – II

### LIST OF STUDENTS' PROJECTS GUIDED

Sl. No	Degree	Title of Project	Year awarded	Name of student	Supervisor
1.	AMIE	Micro Hydro Projects for remote areas	1996	Ashok Gupta	S.Mittal
2.	AMIE	Planning of a new energy township	1998	A.K.Saxena	S.Mittal
3.	AMIE	Cost economics of a Overhead tank	1998	Pramod Saini	S.Mittal
4.	B.E.	Hini hydel projects in hilly regions	1999	Kavita Gupta	S.Mittal
5.	M.Tech	Sub Soil Management for Earthquake Disaster Mitigation	2001	Anil K. Verma	S.Mittal
6.	M.Tech	Lateral Load Tests on Piles	2001	Mannu Kumar	S.Mittal
7.	M.Tech	Pull Out Capacity of Straight Shafted Pile	2001	Arun K. Verma	S.Mittal & A.K.Sharma
8.	M.Tech	Nailed Open Cuts in Geo-Technical Engineering	2001	Satish Kumar	S.Mittal
9.	M.Tech	Remedial Measures to Settlement Problems of Shallow Foundations	2001	Prem Shankar	S.Mittal
10.	M.Tech	Remedial Measures to settlement of Deep Foundations	2001	Vipul Kumar Saini	S.Mittal