

Curriculum vitae

M. L. Sharma

Professor, Department of Earthquake Engineering, IIT Roorkee,
Roorkee – 247667, India



Personal Data

Name: M. L. Sharma
Born: Dec. 09, 1962, Uttar Pradesh, India
Nationality: Indian
Address: Department of Earthquake Engineering, IIT Roorkee,
Roorkee – 247667, India
Professional affiliation: Professor, Department of Earthquake Engineering
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Education

1992 Ph.D., in Earthquake Engineering, University of Roorkee, India
1985 M. Tech., in Applied Geophysics, , University of Roorkee, India
1982 Bachelor of Science from Meerut University, India

Employment Record

Since 8 May, 2008	Professor, Department of Earthquake Engineering, Indian Institute of Technology Roorkee, India
28 Sep, 2004 – 8 May, 2008	Associate Professor, Department of Earthquake Engineering, Indian Institute of Technology Roorkee, India
09 April, 1996 – 28 Sep, 2004	Assistant Professor, Department of Earthquake Engineering, Indian Institute of Technology Roorkee, India
26 June, 1986 – 09 April, 1996	Lecturer, Department of Earthquake Engineering, Indian Institute of Technology Roorkee, India
27 Dec, 1985-26 June, 1986	Scientist B, Department of Earthquake Engineering – University of Roorkee, India

Research Interests

Engineering Seismology, Seismic Microzonation, Seismic Hazard Assessment, Strong Ground Motion Prediction

Languages

Hindi – mother tongue, English – fluent.

Fellow of Professional Bodies

- **FISET** : Fellow of Indian Society of Earthquake Technology, F-45
- **FIGS** : Fellow of Indian Geotechnical Society, F-501
- **FIGU** : Fellow of Indian Geophysical Union, Hyderabad, F-232

Life member of Professional Bodies

- **Life Member** : Fellow of Indian Society of Earthquake Technology, LM-386
- **Life member** : Indian Society of Engineering Geology, LM-1426
- **Life Member** : Association of Exploration Geophysicists, Hyderabad-M1022-88
- **Life Member** : American Geophysical Union, USA, M-821600

Annual member of Professional Bodies

- **Member** : Seismological Society of America, USA
- **Member** : Earthquake Engineering Research Institute, USA

Administrative-Technical responsibilities (out side IITR)

- **President** : Indian Society of Earthquake Technology Roorkee (2017-2019)
- **President** : Indian Society of Earthquake Technology Roorkee (2015-2017)
- **Vice President** : Indian Society of Earthquake Technology, Roorkee (2013-2015)
- **Vice President** : Indian Society of Earthquake Technology, Roorkee (2011-2013)
- **Secretary** : Roorkee Chapter, Indian Society of Earthquake Technology,(1999-2014)
- **Associate Editor** : ISET Journal of Indian Society of Earthquake Technology, (2007-2009, 2009-2011, 2011-2013, 2013-2015, 2015-2017)
- **Member**: International Editorial Review Board, International Journal of Geotechnical Earthquake Engineering (IJGEE), DOI: 10.4018/IJGEE, ISSN: 1947-8488, EISSN: 1947-8496 , 2012-2016

Administrative-Technical responsibilities (within IITR)

- **Chairman** : 15th Symposium on Earthquake Engineering, 2014
- **Convenor**, Adhoc committee on management of Sri Saraswati Mandir, IIT Roorkee 2016-17
- **Head of the Department**: Department of Earthquake Engineering, IIT Roorkee (2012-16)
- **Chairman** : Joint Entrance Examination (Advanced), IIT Roorkee, 2018
- **Chairman** : Joint Entrance Examination (Advanced), IIT Roorkee, 2017
- **Vice Chairman** : Joint Entrance Examination 2010-11, IIT Roorkee
- **Vice Chairman** : Joint Entrance Examination 2011-12, IIT Roorkee
- **Chief Advisor Sports** : Sports Association, IIT Roorkee (2010-2013)
- **Sports advisor**: Gym, Sports Association, IIT Roorkee (2010-2013)
- **Sports advisor**: Squash, Sports Association, IIT Roorkee (2010-2013)

- **Warden:** Govind Bhawan, University of Roorkee (2001-2004)
- **Warden:** Ravindra Bhawan, University of Roorkee (1998-2001)

Chairing Sessions

1. Engineering Geology conference, IIT Delhi, 2015, IGS from gopal dhawan
2. Indian Geophysical Union, Kurukshetra, 2014-15 from dinesh

International visits

Sl. No.	Dates	Institute and country	Purpose
1	Jan 04-12, 2018	Taiwan	Project work for Taiwan Project
2	Jan 09-14, 2017	Santiago, Chile	Presented a paper on STOCHASTIC SIMULATION OF STRONG GROUND MOTIONS FOR WESTERN HIMALAYA REGION by Neha Kumari, M. L. Sharma and I. D. Gupta at 16WCEE Attended Executive committee meeting of International Association of Earthquake Engineering as National Delegate from India in Santiago, Chile
3	March 12-18, 2016	NCREE, Taiwan	Seismic hazard assessment of nuclear power plants, Observer to Level 3 SHA
4	Jan 23-30, 2016	NCREE, Taiwan	MoES research project
5	Sept 20-22, 2015	Nepal	To attend and chair a session in seminar on "Seismic Evaluation and Retrofitting on pre & post-Earthquake", organized by Nepal Engineers Associates (NEA) and society of Consulting Architectural and Engineering Firms (SCAEF), September 21, 2015, Kathmandu, Nepal.
6	Aug. 02-09, 2015	Singapore	12th Annual Meeting on AOGS
7	Janu. 27-31, 2015	Taipei, Taiwan	Research Project Work (NCREE)
8	Sept 28- Oct 04, 2014	NTU, Singapore	Academic/Project discussion
9	March 08-10, 2014	Taipei	Project work for Taiwan Project
10	March 10-16, 2014	Singapore	Project discussions
11	Sept. 24- 28, 2012	Lisbon, Portugal	Presentation of papers in 15 World Conference on Earthquake Engineering, Lisbon, Portugal
12	July 08- 14, 2012	St. Petersburg	Part of the delegation for collaboration

		Moscow Russia	for Indo-Russian scientific exchange programme.
13	May 27- June 06, 2012	Norway	Project work
14	08-10-2010 to 08-04-2011	Mexico	MoES research project work with UNAM
15	22-10-2010 to 20-11-2010	Schengener-Staaten	
16	07-06-2009 to 20-06-2009	Schengener-Staaten	
17	24-12-2008	China	Presentation of papers in 14 World Conference on Earthquake Engineering, Beijing, China
18	20-09-2007 to 30-09-2007	Schengen- statene	
19	10-10-2006 to 16-10-2006	Taiwan	To present paper in 4th Int. Conf. Earthquake Engineering, Taipei, Taiwan
20	12-06-05 to 18-06-2005	Norway	Research Project work at NORSAR and NGI, Norway
21	06-06-05 to 11-06-2005	Switzerland	To check the strong ground motion instruments at GEISIG, Switzerland
22	12-12-2004 to 05-01-2005	Schengen- statene	
23	09-12-2004 to 09-06-2005	U.K.	Project work
24	July 29-August 12, 2004	Canada	Presentation of papers in 13 World Conference on Earthquake Engineering, Vancouver, British Columbia, Canada
25	Oct-1988	U.K.	Earth Data Ltd for Telemetry equipment to be deployed under DST project in Garhwal region
26	Sept-Oct, 1989	Potsdam, Germany	One month UNESCO course on seismology and seismic hazard assessment in Postdam

Major Research Projects

1. Earthquake Early Warning System, **(PI)**, Uttarakhand Government, **2017-2019**, (Rs. 3.20 Crores)
2. Seismological Network Around Tehri Region **(PI)**, THDC India Ltd., Rishikesh, **2016-2019**, (Rs. 285.5 Lacs)
3. Strong Motion Network Around Tehri Region **(PI)**, THDC India Ltd., Rishikesh, **2016-2019**, (Rs. 43.7 Lacs)
4. Site Characterization and Attenuation Studies for Garhwal-Kumaun Himalaya and Delhi

Region(**Co-PI**), Funded by Ministry of Science and Technology, New Delhi, **2015-2018 (Rs. 23.24 Lacs)**

5. Operation and Strong motion Accelerograph in Tehri and Koteswar, THDC India Ltd., Rishikesh, **2015-2016, (Rs. 30.91 Lacs)**
6. Seismological Network Around Tehri Region (**PI**), THDC India Ltd., Rishikesh, **2013-2016, (Rs. 287.72 Lacs)**
7. Indo Norwegian programme on earthquake engineering (Co-PI), NORSAR, Norway, **2011-2015, (1182000 NOK)**
8. Strong motion network in NCT region(**Co-PI**), DST New Delhi, **2011-2014, (Rs. 45.81Lacs)**
9. Probabilistic seismic hazard assessment and estimation of strong ground motion for Delhi region (PI), EREC, New Delhi, **2011-2013, (Rs. 5.70 Lacs)**
10. Source modeling and generation of strong motion : A case study of Sumatra earthquake of Dec 26, 2004 (Co-PI), DAE, BRNS, **2011-2013, (Rs. 15.86 Lacs)**
11. Estimation of site effects and ground motion in Delhi and Mexico city using strong ground motion data and preparation of near real time shake map (**Co-PI**), DST, New Delhi, **2010-2013 (Rs. 14.61 Lacs)**
12. Seismological network around Tehri region (Co-PI), THDC, Rishikesh, **2010-2013, (Rs.171.00 Lacs)**
13. Shear Wave Velocity profiling in NCT, Delhi using MASW technique (PI), EREC New Delhi, **2009-2011, (Rs.50.00 Lacs)**
14. Seismological network around Tehri region (Co-PI), THDC, Rishikesh, **2007-2010, (85.31 Lacs)**
15. Indo Norwegian programme on earthquake engineering (Co-PI), NORSAR, Norway, **2006-2011, (621264 NOK)**
16. Seismological network around Tehri region (Co-PI), THDC, Rishikesh, **2004-2007, (Rs.97.24 Lacs)**
17. Indo Norwegian Program of institutional Corporation on Earthquake Engineering (Co-PI), NORSAR Norway, **2004-2006, (Rs.33.95 Lacs)**
18. Seismological network around Tehri region (Co-PI), THDC, Rishikesh, **2001-2004, (Rs.85.96 Lacs)**
19. Seismological network around Tehri region (Co-PI), THDC, Rishikesh, **1998-2001, (Rs.85.28 Lacs)**
20. Application of DIF-SAR to investigate critical deformation regimes in Garhwal Kumaon Himalaya related to earthquakes and landslide (PI), DST New Delhi, **1997-1999, (Rs. 15.75 Lacs)**
21. Broadband Seismograph Network for Modelling of earthquake source & upper crust in the GarhwalKumaon Himalaya region. (PI), DST New Delhi, **1996-1998, (Rs. 24.96 Lacs)**
22. **1995-1996 : SAR interferometry for mapping land subsidence due to mining in Jharia Coal Field,**

Jharkhand, (Co-PI), DST New Delhi

23. Study of Shallow earthquakes in Indian region using Differential SAR Interferometry, (PI), AICTE, New Delhi, **1994-1995**, (Rs. 10.00 Lacs)

Major Consultancy Projects

1. Assessment Of Vibrations and to establish the Structural Soundness/Integrity of the Existing Buildings over the Underground Corridor from Central Secretariat to Kashmere Gate of DMRC, Delhi Metro Rail Corporation Ltd., New Delhi, **2017-2018**, (Rs. 28.75 Lacs)
2. Uttarakhand Disatser Recovery Project Vetting of technical reports, data analysis reports, survey finding reports for Risk assessment studies, Uttarakhand Disaster Recovery Project, PI, Uttarakhand Government, **2016-2019**, (Rs. 160.00 Lakhs)
3. Seismic Hazard Assessment for South India, DRIP, CWC, New Delhi, **2016-2018**, (Rs. 82.44 Lacs)
4. Processing, Analysis and Interpretation of the Seismological Data and Preparation of Annual Technical Report based on one year Data Recording, NTPC KOL Dam, Himachal Pradesh, **2016-2017**, (Rs. 17.25 Lacs)
5. Assessment of Lateral Load Pile Capacities for harduaganj Thermal Power Station, Aligarh, UP., Head of Civil Dept., Joshiba JSW Power Systems Pvt. Ltd., Gurgaon, **2016-2017**, (Rs. 60.11 Lacs)
6. Seismic hazard studies for infield pipe line route (west block) M.P., Reliance Industries Ltd, **2015-2018**, (Rs. 27.36 Lacs)
7. Operation and Maintenance of Six Stations Seismological Network around Kol Dam Site, NTPC, KOL Dam Himachal Pradesh, **2015-2018**, (Rs. 17.10 Lacs)
8. Operation and Maintenance of Six Stations Seismological Network around Ettalin And Attulni Dam Site, **Arunachal Pradesh, 2015-2018**, (Rs. 45.6 Lacs)
9. Operation and Maintenance of five Stations Seismological Network around Lakhwar Hydro Electric Project Uttarakhand, Uttarakhand Jal Vidhut Nigam Ltd., Lakhwar Bhawan, Dakpathar, Dehradun, **2015-2016**, (Rs. 62.97 Lacs)
10. Operation of Strong Motion Accelerographs in Tehri & Koteswar, THDC India Ltd., Rishikesh, **2015-2016**, (Rs. 10.26 Lacs)
11. Operation and Maintenance of Six Stations Seismological Network around Kol Dam Site, NTPC, **KOL Dam Himachal Pradesh, 2014-2017**, (Rs. 20.22 Lacs)
12. Kalpasar multipurpose scheme, Kalpasar Department, Govt. of Gujarat, **2014-2016**, (Rs. 8.98 Lacs)

Recognition

- Member: Taskforce, Uttarakhand Disaster Recovery Project, Govt. of Uttarakhand, 2016-2018
- Chairman: Strong motion instrumentation, Bhakra Beas Management Board, 2015-2017
- Member: International Editorial Review Board, International Journal of Geotechnical Earthquake Engineering (IJGEE), DOI: 10.4018/IJGEE, ISSN: 1947-8488, EISSN: 1947-8496 , 2012-2016
- Alternate Member: CED-39- Earthquake Engineering Sectional Committee, Bureau of Indian Standard, New Delhi, 2012-2016
- Member: National committee on site specific design earthquake parameters, CWC, New Delhi, 2012-2016
- Member: HPSDMA, Govt. of Himachal Pradesh, Disaster Management Cell, Shimla, 2012-2016
- Member: Committee on Indira Sagar Polavaram Project, Irrigation & CAD Department, Govt. of Andhra Pradesh, 2012-2016
- Member: Koyna Tremor Sub Committee (KTSC), Dam Safety Organization, Nashik, 2012-2016
- Member: Advisory group for preparation of upgraded earthquake hazard maps, NDMA, New Delhi, 2012-2016
- Member: Project Advisory Committee on Seismicity and Earthquake Precursors, Ministry of Earth Sciences, New Delhi, 2012-2016
- Co-author of the Guidelines for preparation and submission of site specific seismic study report of river valley project to national committee on seismic design parameters, Central Water Commission, Government of India.
- Reviewer: many national and international journals

Awards:

- A.S. Arya-IIT Roorkee Disaster Prevention Award-2012, IIT Roorkee
- Best paper award for the year 2011-12, Wadia Institute of Himalayan Geology, Dehradun

PhD guided

Completed- 15

1. **R. Kumar**, Earthquake occurrence in India and its use in seismic hazard estimation using probabilistic methods, 2007
2. **Anupam Tyagi**, Physics of the earthquake sources and development of expert system for earthquake prediction, 2007
3. **Javed Ahemed Naqash**, Microzonation of megacities, 2008
4. **Navin Pareek**, Landslide Hazard Zonation in Garhwal Himalaya using remote sensing techniques, 2008
5. **Shipra Malik**, 3D Crustal velocity structure Modelling of Garhwal Himalayas, 2009
6. **Girish C. Joshi**, Estimation of uncertainties in probabilistic seismic hazard analysis, 2009

7. **Atanu B**, Surface Displacement Measurement Studies using DInSAR in a Part of Himalayas, 2013
8. **Ashish Herbendoo**, Stochastic Modeling of Ground Motion for Indian Himalaya Region, 2013
9. **Ranjit Das**, Probabilistic Seismic Hazard Assessment for Northeast India Region, 2013
10. **Pushpa Chaudhary**, Simulation of Strong Ground Motion Using Semi Empirical Modelling Technique, 2014
11. **Rakhi Bhardwaj**, Algorithm for Earthquake Early Warning System, 2014
12. **Neeti Bhargava**, Mathematical Modelling for Earthquake Prediction through Animal Abnormal Behaviour, 2014
13. **Col. A. K. Srivastava**, Seismic Microzonation of an Urban Habitat, 2014
14. **Rajeev Sachdeva**, Prediction of Strong motion parameters using ANN, 2015
15. **Narsihma**, Seismic risk assessment due to slope failures, 2016

Ongoing-10

1. **Chhavi**, Seismic Hazard Assessment using extreme events
2. **Neha**, Prediction of Strong Ground Motion
3. **Vaneeta**, Seismic Signal Processing
4. **Sunil Saini**, Source Characterization in Himalayas
5. **Shweta Bajaj**, Seismic Hazard Assessment
6. **Rajni Modi**, Local Earthquake Tomography
7. **Manoj Kuri**, Hazard Zonation using SAR Interferometry
8. **Ritu Raj Nath**, Seismically induced Landslide Hazard Zonation
9. **Devi Lata Pegu**, Seismic hazard and risk assessment for NE Indian region.
10. **Priyanka Sharma**, Liquefaction studies for large deformations in deep soils.

M. Tech

- **Completed-** 58
- **Ongoing-** 08

Master's Degree Supervision:

1. **Akanksha Agarwal**, Time Dependent Seismic Hazard Assessment, 2018
2. **Ali Ahmed Khan**, Reservoir Induced Seismicity (RIS) due to Tehri Dam, 2018
3. **Arun Tyagi**, Land Slide Hazard Zonation in Garhwal Himalaya, 2018
4. **C LALLA WMA WMA**, Seismic Hazard and Risk Assessment for NE India, 2018
5. **Rinku**, Site Amplification and Attenuation Studies for Himalayan Region, 2018
6. **Ritesh Kumar Rai**, Site Amplification Case Study, 2018
7. **Vivek Singh Yadav**, Induced Seismicity, 2018
8. **Vivek Bhardwaj**, Seismic hazard assessment for Uttarakhand, 2018
9. **Singh Jalesh Santosh**, Estimation of bed rock depth using GPR, 2017
10. **Harshvardhan Singh**, Scaling Laws in Himalayas, 2017
11. **Kuldip Khichar**, Site Amplification & Attenuation Studies for Garwal-Kumaun Himalaya & Delhi Region, 2017
12. **Rishi Grewal**, Seismic Risk Assessment of Srinagar city, Jammu and Kashmir, COEDMM, 2017
13. **Gautam Kumar**, Estimation of bed rock using GPR, 2016
14. **Ashish Kumar Verma**, Generation of Shake maps, 2016

15. **Rahul Kumar**, Seismic hazard analysis with moment release constraint in Kumaoun and Garhwal region, 2016
16. **Saurabh Kumar Mangal**, Evaluation of dynamic response of deep soils, 2016
17. **Ankita Prasun**, Seismic Risk Assessment due to Scenario Earthquake – A case study for Bihar Nepal 1934 Earthquake, 2016
18. **Ishan Roy**, Methodology for generation of Shakemaps for Delhi region, 2015
19. **Deepika Sayana**, Deep soil effect, 2015
20. **Phibe Khalko**, Seismic Hazard assessment, 2015
21. **Shivani Chauhan**, Disaster management plan for Bihar, 2015
22. **Shivani Singh**, Effect of deep soils on strong ground motion, 2014
23. **Vaddi Monica**, Seismic Hazard estimation for south India, 2014
24. **Smita Singh**, Ground motion simulation using modified semi empirical methodology, 2014
25. **Mod Ahemad**, Amplification of strong ground motion due to deep soils, 2013
26. **Akhilesh Singh**, Seismic Hazard and Risk Assessment for Indo-Gangetic plains, 2013
27. **Chibi Rajram**, Earthquake Early Warning System for North India, 2013
28. **Rebecca RC**, Evaluation of strong ground motion prediction equations, 2012
29. **Nitesh Patel**, Earthquake Early warning system, 2012
30. **Saurabh Vijay**, Advances in SAR interferometry, 2012
31. **Harish Shinde**, Seismic Microzonation of Chandigarh City, 2011
32. **Manu Mohan**, A Neural Network Approach for Earthquake Early Warning System, 2011
33. **Amarjeet Birajdar**, Attenuation relationship for spectral displacement for Himalayan region, 2011
34. **Abhishek**, Integrated Geo exploration over Solani Knee band, NW Himalaya, 2010
35. **Venu Gopal**, Comparison of site specific PGA using neural networks and regression models, 2010
36. **A. Panchal**, Determination of design ground motion parameters for displacement based design, 2010
37. **Mansi Kulkarni**, Seismic Hazard Assessment using Non Poissonian Models, 2010
38. **Jainish Kotadia**, Development of spectral attenuation relationship for Indian region, 2007
39. **Shiva Kumar**, Application of artificial Neural Network for prediction of spectral acceleration in site specific, 2006
40. **Ravindra Golia**, Estimation of cumulative and conditional probabilities in Himalayas, 2006
41. **Anshul Kumar**, Seismic microzonation of rural areas, 2005
42. **Prashant Ambulkar**, Development of methodology for insurance tariff against earthquakes, 2005
43. **Shivani Sharma**, Reflection of seismic waves from non-welded interfaces, 2005
44. **Murugavel Raja**, Automatic Phase Picking of Seismic Signals using ANN, 2005
45. **Sonal Gupta**, Dem generation from SAR interferometry, 2005
46. **A. Ahemad**, Development of Automatic Phase pickers for earthquakes, 2004
47. **Atanu Bhattacharya**, Estimation of strong ground motion in Himalayas using strong ground motion and SRR data, 2004
48. **J. Niwas**, Development of world wide GIS earthquake based system, 2003
49. **Pratim Sil**, SAR interferometry studies in Jharia Coal fields, 2003
50. **G. C. Joshi**, Seismic hazard analysis and risk computation, 2002
51. **K. Samba S Rao**, Seismic microzonation of Delhi, 2002
52. **Satendra Saini**, Development of attenuation relationship for Himalayan region using Indian Strong motion array data, 2002
53. **S. K. Gupta**, Remote sensing application in seismic hazard studies, 2001

54. **M. Khan**, Seismic hazard Analysis using GIS, 2001
55. **R. G. K. Nath**, Development of Attenuation relationship for Indian Region, 2000
56. **Venkata Raju**, Seismic hazard Analysis using Artificial Neural network, 2000
57. **S. Panda**, Design of an 10-storied building in NE India at location C, Maharashtra, 1999
58. **R. G. K. Nath**, Design of an 10-storied building in NE India at location B, Meghalaya, 1999
59. **Amit Sahu**, Design of an 10-storied building in NE India at location A, Assam, 1998
60. **Umakant Singh**, Design of an 8-storied reinforced concrete office building in NE India, 1998
61. **R. Gautam**, Background noise characteristics of ground using broad band seismometer, 1998
62. **Kiran Pal**, Fabrication of interface unit between seismometer and recorder, 1998
63. **Kh. Ibophisak Singh**, Seismological studies and design of Earth and Rockfill dam, 1995
64. **R. Verma**, Determination of coda magnitude of local earthquakes, 1991
65. **A Ghosh**, Automatic earthquake recognition, 1990
66. **Pravesh Gupta**, Design and Fabrication of an instrument for the measurement of ground conductivity, 1989

Conference Organised

- **Chairman** : A New Perspective on Natural Hazard, Risk & Insurance, *A workshop on challenges and innovations, May 2018*
- **Co-Chairman** : 6th International Conference on Recent Advances in Geotechnical Earthquake Engineering, 2016, Greater Noida
- **Organizing Secretary** : 14th Symposium on Earthquake Engineering, 2010
- **Organizing Secretary** : 13th Symposium on Earthquake Engineering, 2006,
- **Organizing Secretary** : 12th Symposium on Earthquake Engineering, 2002
- **Organizing Secretary** : Indo Norwegian Workshop, 2012

Collaboration:

- Indo Norwegian Project (2003-2015)
- Indo Taiwanese Project (2013-2015)
- Indo Mexican project on site characterization in New Delhi, 2009-2011.
- Indo Norwegian Project on seismic Risk Assessment, 2006-2010
- Indo Norwegian Programme on Institutional Cooperation on Earthquake Engineering, 2003-2006
- Seismic Hazard estimation of KGDVI site, NGI, Norway
- Seismic Hazard estimation of KGDIII site, NGI, Norway
- Conducted UNESCO Course on Seismology and Seismic Risk Assessment, Nov 04 to Dec 06, 1993; 30 participants from 23 countries and faculty from 3 countries participated

Books Authored:

- Proceedings, 15th Symposium on Earthquake Engineering – 15SEE, 2014, Vol I, pp 1-438, Published by Department of Earthquake Engineering, IIT Roorkee.
- Proceedings, 15th Symposium on Earthquake Engineering – 15SEE, 2014, Vol II, pp 439-1135, Published by Department of Earthquake Engineering, IIT Roorkee.

- Proceedings, 14th Symposium on Earthquake Engineering- 14SEE, Vol I, 2010, pp1-690 , Published by Department of Earthquake Engineering, IIT Roorkee
- Proceedings, 14th Symposium on Earthquake Engineering- 14SEE, Vol II, 2010, 691-1459, Published by Department of Earthquake Engineering, IIT Roorkee
- S. Gupta, M. K. Arora, M. L. Sharma (2006). Surface displacement studies using differential SAR interferometry: an overview, Disaster forewarning diagnostic methods and management, Kogan, Felix; Habib, Shahid ;Hegde, V. S.;Matsuoka, Masashi, SPIE, ISBN 0819465194
- Proceedings, 13th Symposium on Earthquake Engineering – 13SEE, Vol I, 2006, pp 1-616, Published by Department of Earthquake Engineering, IIT Roorkee.
- Proceedings, 13th Symposium on Earthquake Engineering- 13SEE, Vol II, 2006, 617-1468, Published by Department of Earthquake Engineering, IIT Roorkee
- Proceedings, 12th Symposium on Earthquake Engineering – 12SEE, 2004, Vol I, pp 1-713, Published by Department of Earthquake Engineering, IIT Roorkee.
- Proceedings, 12th Symposium on Earthquake Engineering- 12SEE, 2004, Vol II, 714-1587, Published by Department of Earthquake Engineering, IIT Roorkee.
- A report on Chamoli Earthquake of March 29, 1999, 2000, Published by Department of Earthquake Engineering, University of Roorkee.

Educational Movies:

1. Fault Plane Solution, 45 min, EERC, Roorkee
2. Tsunami Part-I, 30 min, EERC, Roorkee
3. Tsunami Part-II, 30 min, EERC, Roorkee
4. Tsunami Part-III, 30 min, EERC, Roorkee
5. Earthquake Magnitude Intensity Part-I
6. Earthquake Magnitude Intensity Part-II
7. Seismological Instrumentation, 30 min, EERC Roorkee
8. Chi Chi Earthquake Museum Taiwan, 10 min
9. Seismograph, 15 min

Recent publications relevant for the proposed project:

Journals - 85

1. Das, Ranjit, H.R. Wason, Gabriel Gonzalez, M.L. Sharma, Deepankar Choudhury, Conrad Lindholm, Narayan Roy, Pablo Salazar (2018). Earthquake Magnitude Conversion Problem, Bulletin of the Seismological Society of America, DOI: <https://doi.org/10.1785/0120170157>
2. Das, Ranjit, H. R. Wason, **M. L. Sharma** and G. Gonzalez (2017) Reply to “Comment on ‘Unbiased Estimation of Moment Magnitude from Body- and Surface-Wave Magnitudes’ by R. Das, H. R. Wason, and M. L. Sharma and ‘Comparative Analysis of Regression Methods Used for Seismic Magnitude Conversions’ by P. Gasperini, B. Lolli, and S. Castellaro” by J. Puj, Bulletin of the Seismological Society of America, 108(1), 540-547.

3. Chaudhary, C. and **M. L. Sharma** (2017) Probabilistic Models for Earthquakes with Large Return Periods in Himalaya Region, *Pure and Applied Geophysics*, 174, 4313-4327.
4. Devi, vaneeta and **M. L. Sharma** (2016) Spectral Estimation of Noisy Seismogram using Time-Frequency Analyses, *IJGEE*, 7(1), 19-31.
5. Das, Ranjit, **M. L. Sharma** and H. R. Wason (2016) Probabilistic Seismic Hazard Assessment for Northeast India Region, *Pure and Applied Geophysics*, 173(8), 2653-2670.
6. Devi, Vaneeta and **M. L. Sharma** (2016) Recent Spectral Decomposition Techniques and Its Applications in Analysis of Seismological Data: A Review, *International Journal of Innovative Research in Science, Engineering and Technology*, 5(1), 213-220.
7. Kuri, Manoj, Atanu Bhattacharya, Manoj K Aroora and **M. L. Sharma** (2016). Time series insar techniques to estimate deformation in a landslide-prone area in Haridwar region, India, *Geoscience and Remote Sensing Symposium (IGARSS)*, 2016 IEEE, 6839-6842.
8. Bhardwaj, Rakhi, **M. L. Sharma**, Ashok Kumar (2016) Multi-parameter algorithm for Earthquake Early Warning, *Geomatics, Natural Hazards and Risk*, pp. 1242-1264.
9. Joshi, A., Monu Tomer, Sohan Lal, Sumer Chopra, Sandeep Singh, Sanjay Prajapati, **M.L. Sharma** and Sandeep (2016) Estimation of the source parameters of the Nepal earthquake from strong motion data, *Natural Hazard*, 83(2), pp. 867-883.
10. Bhattacharya, Atanu, Kriti Mukherjee, Manoj Kuri, Malte Vöge, **M. L. Sharma**, M. K. Arora, Rejinder K Bhasin (2015) Potential of SAR intensity tracking technique to estimate displacement rate in a landslide-prone area in Haridwar region, India, *Natural Hazards*, pp. 1-21.
11. Jakka, R.S., M. Hussain and **M.L. Sharma** (2015) Effects on amplification of strong ground motion due to deep soils, *Geomechanics and Engineering*, 8(5), pp. 663-674.
12. Joshi, A., Chun-Hsiang Kuo, Piu Dhibar, **M.L. Sharma**, Kuo-Liang Wen, Che-Min Lin (2015) Simulation of the records of the 27 March 2013 Nantou Taiwan earthquake using modified semi-empirical approach, *Natural Hazards*, pp. 1-26
13. Bhattacharya, A., M. K. Arora and **M. L. Sharma**, M. Voge and R. Bhasin (2014) Surface displacement estimation using space born SAR interferometry in a small portion along Himalayan Frontal Fault, *Optics and Lasers in Engineering*, Vol. 53, pp. 164-178.
14. Das, Ranjit, H, R, Wason and **M. L. Sharma** (2014) Reply to comments on General orthogonal regression relations between body wave and moment magnitudes by Das, Ranjit, H, R, Wason and M. L. Sharma, by Paolo Gasperini and Barbara Lolli, *Seismological Research letters*, Vol. 85, No. 2, pp.352-353 (Impact factor : 1.826).
15. Das, Ranjit, H, R, Wason and **M. L. Sharma** (2014) Reply to Comment on 'Magnitude conversion problem using general orthogonal regression, by Paolo Gasperini and Barbara Lolli, *Geophysical Journal International* Vol. 196 (1), pp.628-631.
16. Das, Ranjit, H, R, Wason and **M. L. Sharma** (2014) Unbiased estimation of moment magnitude from body and surface wave magnitude, *Bull. Seis. Soc. America*, Vol. 104, pp. 1802-1811.
17. Herbindoo, A, Susheel Kumar and **M. L. Sharma** (2014) Earthquake ground motion predictive equations for Garhwal Himalaya, India, *Soil Dynamics and Earthquake Engineering*, Vol. 66, pp. 135-148.

18. Bhardwaj R, A. Kumar and **M. L. Sharma** (2013) Inclusion of Q-value in parameters for Earthquake Early Warning Systems, *Disaster Advances*, Vol. 6(5), pp. 54-60.
19. Bhardwaj R, A. Kumar and **M. L. Sharma** (2013) Root Sum of Squares Cumulative Velocity: An Attribute for Earthquake Early Warning, *Disaster Advances*, Vol. 6(3), pp. 24-31.
20. Bhattacharya, A., M. K. Arora and **M. L. Sharma** (2013) Usefulness of Adaptive Filtering for Improved Digital Elevation Model Generation, *Journal of the Geological Society of India*, Vol. 82, pp. 153-161.
21. Bhattacharya, A., Malte Vöge, M. K. Arora, **M. L. Sharma** and R. K. Bhasin (2013) Surface displacement estimation using multi-temporal SAR Interferometry in a seismically active region of the Himalaya, *Georisk: Assessment and Management of Risk for Engineered Systems and Geohazards*, <http://dx.doi.org/10.1080/17499518.2013.798185>, Vol. 7 (3), pp. 184-197.
22. Das, Ranjit, H, R, Wason and **M. L. Sharma** (2013) General orthogonal regression relations between body wave and moment magnitudes, *Seismological Research letters*, Vol. 84 (2), pp. 219-224 (Impact factor : 1.826).
23. Maheshwari, B. K. A.K. Mahajan, **M.L. Sharma**, D.K. Paul, A.M. Kaynia and Conrad Lindholm (2013) Relationship between Shear Velocity and SPT Resistance for Sandy Soils in the Ganga basin, *Int Journal of Geotechnical Engineering*, Vol 7(63), pp. 63-70.
24. Maheshwari, B. K., **M. L. Sharma**, Y. Singh and A. Sinhal (2013) Geotechnical aspects of Sikkim earthquake of September 18, 2011, *Indian Geotechnical Journal*, April-June-2013, Vol. 43(2), pp. 170-179.
25. Pareek, N., **M. L. Sharma**, M. K. Arora and S. Pal (2013) Inclusion of earthquake strong ground motion in a Geographic Information System based Landslide Susceptibility Zonation in Garhwal Himalayas, *Natural Hazard*, 65, pp. 739-765.
26. Pareek, N., S. Pal, **M. L. Sharma**, and M. K. Arora (2013) Study of effect of seismic displacements on landslide. susceptibility zonation (LSZ) in Garhwal Himalayan region of India using GIS and remote sensing techniques *Computers & Geosciences*, Vol. 61, pp. 50-63.
27. **Sharma, M. L.**, A. Sinhal, Y. Singh and B. K. Maheshwari (2013) "Damage survey report for Sikkim earthquake of September 18, 201, *Seismological Research Letters*, Volume 84 (1), pp. 49-56(Impact factor : 1.826).
28. Bhardwaj R., **M. L. Sharma** and A. Kumar (2012), "Earthquake magnitude prediction for real time EEW system: An automization from P-wave time window analysis", *Himalayan Geology*, Vol. 34 (1), pp. 84-91.
29. Bhattacharya, A., M. K. Arora and **M. L. Sharma** (2012) Improved Digital Elevation Model creation using SAR Interferometry in plane and undulating terrains, *Himalayan Geology*, Vol. 33 (1), pp. 29-44.
30. Bhattacharya, A., M. K. Arora and **M. L. Sharma** (2012) Surface displacement measurements along Himalayan frontal fault using differential SAR interferometry, *Natural Hazards*, Vol. 64, pp. 1105–1123.
31. Bhattacharya, A., M. K. Arora and **M. L. Sharma** (2012) Usefulness of SAR Interferometry for DEM Generation and Estimation of Land Surface Displacement in Jharia Coal Field Area, *Geocarto International*, Vol. 27(1), pp. 57-77.

32. Das Ranjit, H, R, Wason and **M. L. Sharma** (2012), Magnitude conversion to unified moment magnitude using orthogonal regression relation *Journal of Asian Earth Sciences* (JAES), Vol. 50(2), pp. 44–51. (Impact factor 2.152)
33. Das Ranjit, H, R, Wason and **M. L. Sharma** (2012) Temporal and spatial variations in the magnitude of completeness for homogenized moment magnitude catalog for Northeast India, *Journal of Earth Sciences System (JESS)*, Vol. 121(1), pp. 19–28. (Impact factor 0.82)
34. Das Ranjit, H. R. Wason and **M. L. Sharma** (2012) Homogenisation of earthquake catalogue for North East India and adjoining region, *Jour. of Pure and App. Geophysics* (PAGEOPH), Vol. 169, pp. 725-731. (Impact factor 1.787)
35. Herbindu, A, **M. L. Sharma** and Kamal (2012) Stochastic ground-motion simulation of two Himalayan earthquakes: seismic hazard assessment perspectives, *Journal of Seismology*, Vol. 16, pp. 345-369.
36. Herbindu, A., Kamal and **M. L. Sharma** (2012) Site amplification and frequency-dependent attenuation coefficient at rock sites of Himachal region in NW Himalaya, India, *Bull. Seis. Soc. Am.* Vol. 102(4), pp. 1497-1504.
37. Joshi, A, P. Kumari, S. Singh and **M. L. Sharma** (2012) Near-field and far-field simulation of accelerograms of Sikkim earthquake of September 18, 2011 using modified semi-empirical approach, *Natural Hazards*, Vol. 64, pp. 1029-1054.
38. Joshi, A., Pushpa Kumari, and **M. L. Sharma** (2012) Synthesis of Strong Ground Motion Using Modified Semi-Empirical Technique, *IACSIT International Journal of Engineering and Technology*, Vol. 4(4), pp. 424-426.
39. Joshi, A., P. Kumari, **M. L. Sharma**, A. K. Ghosh, M. K. Agrawal, R. Ravikiran (2012) A strong motion model of the 2004 great Sumatra earthquake: simulation using a modified semi empirical method, *Journal of Earthquake and Tsunami* Vol. 6(4), 1250023-1-1250023-29.
40. Joshi, A., P. Kumari, Sushil Kumar, **M. L. Sharma**, A. K. Ghosh, M. K. Agrawal, R. Ravikiran (2012) Estimation of model parameter of Sumatra earthquake using Empirical Green's Function technique and generation of hypothetical earthquake scenario for Andaman Island, India, *Natural Hazards*, Vol. 62, pp. 1081-1108.
41. **Sharma, M. L.** and C. Lindolhm (2012) Earthquake hazard assessment for Dehradun, Uttarakhand, India, including a characteristic earthquake recurrence model for the Himalaya Frontal Fault (HFF), *Pure and Applied Geophysics* (PAGEOPH), Vol. 169, pp. 1601–1617.
42. Tripathi, J. N, P. Singh and **M. L. Sharma**(2012) Variation of Seismic coda-wave attenuation in the Garhwal region, north western Himalaya, *Jour. of Pure and App. Geophysics* (PAGEOPH), Vol. 169(1-2), pp. 71-88.
43. Wason, H. R, R. Das, and **M. L. Sharma** (2012) Magnitude Conversion Problem Using General Orthogonal Regression, *Geophysical Journal International*, Vol. 190(2), pp. 1091-1096. (Impact factor 2.42)
44. Bhattacharya, A., M. K. Arora and **M. L. Sharma** (2011) Landslides Monitoring using Small Baseline SAR Interferometry technique, *International Journal of Earth Sciences and Engineering*, Vol.04 (06 SPL), pp. 309-314.

45. Das, Ranjit, H, R, Wason and **M. L. Sharma** (2011) Global regression relations for conversion of surface wave and body wave magnitudes to Moment Magnitude, *Natural Hazards*, Vol. 59(2), pp. 801-810.(Impact factor 1.529)
46. Joshi, G. C. and **M. L. Sharma** (2011) Estimation of Peak Ground Acceleration and Its Uncertainty for Northern Indian Region, *International Journal of Geotechnical Earthquake Engineering*, Vol. 2(1), pp. 1-19.
47. Joshi, G. C., and **M. L. Sharma** (2011) Strong Ground Motion Prediction and Uncertainties Estimation for Delhi, India, *Natural Hazard*, Vol. 59 (2), pp. 617-637.
48. Kumar, R. and **M. L. Sharma** (2011) Estimation of conditional probabilities of occurrence of moderate earthquakes in India using non-Poissonian distributions and their implications, *Himalayan Geology*, Vol. 32(1), pp. 81-92.
49. Paul, A and **M. L. Sharma** (2011) Recent earthquake swarms in Garhwal Himalaya: a precursor to moderate to great earthquakes in the region, *Journal of Asian Earth Sciences(JAES)*, Vol. 42, pp. 1179-1186
50. Bhargava, N., V. K. Katiyar, **M. L. Sharma** and P. Pradhan (2010) Electric Charge Developed by Seismic Stress on Earthquake Sources and Its Effect on Animals, *Journal of International Academy of Physical Sciences*, Vol. 14 (2), pp. 205-214
51. DAS. R., H. R. Wason and **M. L. Sharma** (2010) Variations in the magnitude of completeness and 'b' value for the Indian Himalaya region during the catalog period 1964-2007, *Journal of Nepal Geological Society*, 2010, Vol. 41 (Sp. Issue)
52. Mahajan, A. K., V. C. Thakur, **M. L. Sharma** and M. Chauhan (2010) Probabilistic Seismic Hazard Map of NW Himalaya and its adjoining area, India, *Natural Hazards*, Vol. 53, pp. 443-457.
53. Pareek, N., **M. L. Sharma** and Manoj Aroa (2010) Impact of seismic factors on Landslide Susceptibility Zonation: A case study in part of Indian Himalayas, *Landslides* Vol. 7, pp. 191-201
54. **Sharma, M. L.** and R. Kumar (2010) Estimation and implications of conditional probabilities of occurrence of moderate earthquakes in India, *Ind. Jour.. Science and Tech.*, Vol. 3(7), pp. 808-817.
55. **Sharma, M. L.** and A. Tyagi (2010) Cyclic behaviour of seismogenic sources in India and use of ANN for its prediction, *Natural Hazard*, Vol. 55, pp. 389-404.
56. Singh S. K., A. Kumar, G. Suresh, M. Ordaz, J.F. Pacheco, **M.L. Sharma**, B.K. Bansal, R.S. Dattatrayam, and E. Reinoso (2010) A study of Delhi earthquake of November 25, 2007 (Mw4.1): Implications for seismic hazard, *Current Science*, Vol. 99(7), pp. 939-947.
57. Bhargava, N, V. K. Katiyar, **M. L. Sharma** and P. Pradhan (2009) Earthquake prediction through animal behaviour – A review, *Indian Journal of Biomechanics*, March 2009 Issue, pp. 159-165.
58. **Sharma, M. L.**, J. Douglas, H. Bungum and J. Kotadia (2009) Ground motion predicting equations on data from the Himalayan and Zagros regions, *Jour. Earthquake Engineering*, Vol. 13(8), pp. 1191-1210.

59. Joshi, G. C. and **M. L. Sharma** (2008) Uncertainties in estimation of Mmax, *Jour. Earth Sciences Systems*, Vol. 117(S2), pp. 671-682.
60. Ahmed A., **M. L. Sharma** and A. Sharma (2007) Wavelet based Automatic Phase Picking Algorithm for 3-Component Broadband Seismological Data, *J. Seismology and Earthquake Engineering*, pp. 15-24.
61. Maheshwari B.K., **M. L. Sharma** and J. P. Narayan (2006) Geo technical and structural Damages on the Indian Coast due to Tsunami caused by December 26, 2004 Sumatra Earthquake, *Earthquake Spectra*, Vol. 22(S3), pp. S475-S493.
62. Narayan, J. P., **M. L. Sharma** and B. K. Mahashwari (2006) Tsunami intensity mapping along the coast of Tamilnadu (India) during the deadliest Indian Ocean Tsunami of December 26, 2004, *Jour. of Pure and App. Geophysics, (PAGEOPH)*, Vol. 163(7), pp. 1279-1304.
63. Shambashiva Rao, **M. L. Sharma** and J. P. Narayan (2006) Scenario of ground motion amplification in Delhi, *Geological Society of India*, Vol. 68, pp. 993-1002.
64. Ameer, A. S., **M. L. Sharma**, H. R. Wason and S. A. Alsinawi, (2005) Preliminary seismic hazard assessment for Iraq using complete earthquake catalogue files, *Jour. of Pure and App. Geophysics (PAGEOPH)*, Vol. 162, pp. 951-966.
65. Maheshwari, B.K., **M.L. Sharma** and J. P. Narayan (2005) Structural Damages on the Coastline of Tamil Nadu due to Tsunamis caused by December 26, 2004 Sumatra Earthquake, *Jour. Indian Soc. Earthquake Tech.*, Vol. 42 (2-3), pp. 63-78.
66. Narayan, J. P. **M. L. Sharma** and B. K. Maheshwari (2005) Effects of Medu and Coastal topography on the damage pattern during the recent Indian Ocean Tsunami along the coast of Tamilnadu, *Science of Tsunami Hazard*, Vol. 23(2), pp. 9-18.
67. Narayan, J. P. **M. L. Sharma** and B. K. Maheshwari (2005) Run up and inundation patterns developed during the Indian Ocean Tsunami of December 26, 2004 along the coast of Tamilnadu, India, *Gondwana Research*, Vol. 8(4), October 2005
68. **Sharma, M. L.** (2005) A new empirical attenuation relationship for peak ground horizontal acceleration for Himalayan region using Indian and world wide data, *Jour. of Geophysics* , Vol. 26(3), pp. 151-158.
69. **Sharma, M. L.** and M. Arora (2005) Prediction of seismicity cycles in Himalayas using ANN, *Acta Geophysica Polonica* Vol. 53(3), pp. 299-309.
70. Paul, A., H. R. Wason, **M. L. Sharma**, C. C. Pant, A. Nirwan and H. B. Tripathi(2004) Seismotectonic implications of data recorded by DTSN in the Kumaun region of Himalaya, *Jour. Geol. Society of India*, Vol. 64, pp. 43-51.
71. **Sharma, M. L.** (2003) Seismic hazard in Northern India region *Seismological Research Letters*, Vol. 74(2), March/April 2003, pp. 140-146. (Impact factor: 1.826).
72. **Sharma, M. L.** and R. Dimri, (2003) Seismic hazard estimation and zonation of northern Indian region for bed rock ground motion, *Journal of Seismology and Earthquake Engineering*, Vol. 5(2), pp. 23-34
73. **Sharma, M. L.**, H. R. Wason and R. Dimri, (2003) Seismic zonation of Delhi for bed rock strong ground motion, *Jour. of Pure and App. Geophysics, (PAGEOPH)* Vol. 160, pp. 2381-2398.

74. Arora, M, V. K. M. Patel and **M. L. Sharma** (2002) SAR interferrometry for DEM generation, GIS development, June 2002, Vol. VI(6), pp. 26-28.
75. Narayan, J. P., **M. L. Sharma** and Ashwani Kumar (2002) A seismological report on the January 26, 2001 Bhuj, India earthquake, *Seismological Research Letters*, Vol. 73(3), May/June 2002, pp. 343-355. (Impact factor: 1.826).
76. Wason, H. R., **M. L. Sharma**, P. K. Khan, K. Kapoor, D. Nandini and V. Kara (2002) Analysis of initial aftershocks of Chamolli earthquake of March 29, 1999 using broadband data, *Himalayan Geology*, Vol. 23 (1&2), pp. 7-18.
77. **Sharma, M. L.** and D. Shanker (2001) Estimation of seismic hazard parameters for the Himalayas and its vicinity from mix data files, *ISSET Journal of Earthquake Technology* Vol. 38(2-4), pp. 93-102
78. Arora, M and **M. L. Sharma** (1998) Seismic hazard analysis - An Artificial Neural Network Approach, *Current Science*, Vol. 75(1), pp. 54-59
79. Paul, A., **M. L. Sharma** and V. N. Singh (1998) Estimation of focal parameters for Uttarkashi earthquake using peak ground horizontal accelerations, *ISSET Journal of Earthquake Technology*, Vol. 35(1-3), pp. 1-8.
80. Shanker, D. and **M. L. Sharma** (1998) Estimation of seismic hazard parameters for the Himalayas and its vicinity from complete data files, *Journal of Pure and Applied Geophysics (PAGEOPH)*, Vol. 152(2), pp. 267-279.
81. **Sharma, M. L.** (1998) Attenuation relationship for estimation of peak ground horizontal acceleration using data from strong motion arrays in India, *Bull. Seism. Soc. Am.* Vol. 88, pp. 1063-1069.
82. Shanker, D. and **M. L. Sharma** (1997) Statistical analysis of completeness of seismicity data of the Himalayas and its effect on earthquake hazard determination, *Bull. Ind. Soc. Earthq. Tech.*, Vol. 34(3), pp. 159-170.
83. **Sharma, M. L.** and H. R. Wason, (1995) Seismic moment-magnitude relationship for the Garhwal Himalaya Region, *Bull. Ind. Soc. Earthq. Tech.*, Vol. 32(3), pp. 85-95
84. **Sharma, M. L.** and H. R. Wason. (1994) Occurrence of low stress drop earthquakes in Garhwal Himalaya region, *Physics of the Earth and Planetary Interior*, 85, pp. 265-272.
85. **Sharma, M. L.** (1992) Sample telemetered digital seismic array in Garhwal Himalaya -Software and data management, *Himalayan Seismicity Memoir No. 23, Geo. Soc. of India*, pp. 67-80.

International/ National Conferences/Symposia/Workshop - 144

1. Kuri, manoj, Manoj Arora and **M.L Sharma** (2018). Estimation of slope movement by PSInSAR technique at Koteshwar reservoir area, India using Sentinel-1 dataset, ctive and Passive Microwave Remote Sensing for Environmental Monitoring- SPIE Remote Sensing symposium
2. Kuri, Manoj, Manoj Arora and **M.L. Sharma** (2018). Slope Stability Analysis in Nainital Town Using PS and QPS Technique, International Geoscience and remote sensing symposium, IGRASS-2018.

3. **Sharma, M. L.**, S. C. Gupta, A. K. Jindal, S. K. Jain, A. Sen and N. Kumari, H. L. Arora, P. Saxena, A.P. Vyas, R. Singh and Indu Pal (2018) Seismicity Studies for HE Projects –A case study of Tehri Dam, International Dam Safety Conference 2018, Jan 23-24, 2018 Thiruvananthapuram, Kerala.
4. **Sharma, M. L.** (2017) Earthquake Early Warning System in North India, One day Workshop on Disaster Resilient Infrastructure in the Himalayas: Opportunities and Challenges, Uttarkhand Government, Dehradumn, Nov 21-22, 2017 .
5. Kuri, Manoj, M.K. Arora, Atanu Bhattacharya and **M.L. Sharma** (2017). Microwave remote sensing based small baseline subset technique for estimation of slope movement in nainital area, India, Image Information Processing (ICIIP), 2017 Fourth International Conference, 21-23 December, 2017, 1-6.
6. Bhardwaj, Alok, Alan D Ziegler, Robert J Wasson, Winston Chow and **M.L. Sharma** (2017) Identification of trends in intensity and frequency of extreme rainfall events in part of the Indian Himalaya, EGU General Assembly Conference Abstracts, Vol. 19, April, 2017.
7. Sharma, P., V. A. Samant and **M. L. Sharma** (2017) Seismic Site Characterization of Roorkee for Deep Soil, AOGS 14th Annual Meeting 06 to 11 AUG, 2017, Singapore.
8. Pandey, Bhavesh, Ravi Jakka, Ashok Kumar and **M. L. Sharma** (2017) Site Characterization and Site Amplification Studies for Strong Motion Recording Stations of Kumaun Region of Uttarakhand, AOGS 14th Annual Meeting 06 to 11 AUG, 2017, Singapore.
9. Nath, R.R., Gautam Kumar, **M. L. Sharma** and S.C. Gupta (2017) Estimation of Bedrock Depth for a Part of Garhwal Himalayas Using Two Different Geophysical Techniques, AOGS 14th Annual Meeting 06 to 11 AUG, 2017, Singapore.
10. Kumari, Neha, **M. L. Sharma** and I. D. Gupta (2017) Stochastic Simulation of Strong Ground Motions for Western Himalaya Region, 16th World Conference on earthquake engineering, 2286(1-2).
11. Kuri, Manoj, Atanu Bhattacharya, Manoj K Aroora and **M. L. Sharma** (2016) Time series INSAR techniques to estimate deformation in a landslide-prone area in Haridwar region, India, Geoscience and Remote Sensing Symposium (IGARSS), 2016 IEEE, 6839-6842.
12. Nath, R. R., A. D. Pandey and **M. L. Sharma** (2016) Static and dynamic analysis of a Tailings dam, CESDOC 2016.
13. **Sharma, M. L.** and Neha Kumari (2016) Geophysical techniques in geotechnical earthquake engineering, 6th Int. Conf. on Recent Advances in Geotechnical Earthquake Engineering and Soil Dynamics (6ICRAGEE), August 1- 6, 2016, IIT Roorkee Extension Centre, 20 Knowledge Park II, Greater Noida.
14. **Sharma, M. L.** and Neha Kumari (2016) Seismic hazard assessment – near source effects a NGA2 West perspective, One day workshop on probabilistic seismic hazard assessment for Nuclear Power Plants, NPCIL, Bombay, August 21-22, 2016.
15. Das, Ranjit, D. Choudhury, **M. L. Sharma** and H. R. Wason (2016) Uncertainty Analysis for Seismic Hazard- A Case Study for Northeast India. 6th Int. Conf. on Recent Advances in Geotechnical Earthquake Engineering and Soil Dynamics (6ICRAGEE), August 1- 6, 2016, IIT Roorkee Extension Centre, 20 Knowledge Park II, Greater Noida.

16. **Sharma, M. L.** (2015), Seismic Hazard Assessment, National Workshop on Assessment & Mitigation of Liquefaction Hazards for Seismic Microzonation IIT Roorkee, November 27-28, 2015
17. **Sharma, M. L.**, A. K. Srivastava, D. K. Paul and J. Das, (2015) Characterization of deep soils and its effect on seismic microzonation, AOGS, Singapore, Aug, 01-08, 2015.
18. **Sharma, M. L.** (2015) Seismology, seismic and instrumentation, seminar on "Seismic Evaluation and Retrofitting on pre & post-Earthquake", organized by Nepal Engineers Associates (NEA)" and "Society of Consulting Architectural and Engineering Firms (SCAEF)", September 21, 2015, Kathmandu, Nepal.
19. **Sharma, M.L.**, Ashwani Kumar, S.C. Gupta, A.K. Jindal, Arup Sen, S.K. Jain, Neetu Goswami and Vandana (2014) "Earthquake Source Parameters and Focal Mechanism of Local Earthquakes around Tehri Region", 15th Symposium on Earthquake Engineering. pp.1-13.
20. Vandana, S.C. Gupta, Ashwani Kumar and **M. L. Sharma** (2014) "Attenuation characteristics of the Bilaspur region of Himachal Lesser Himalaya", 15th Symposium on Earthquake Engineering. pp. 28-36.
21. Kumari, Pushpa, A. Joshi and **M. L. Sharma** (2014) "Simulation of strong ground motion due to Mw 6.9 Sikkim earthquake using semi-empirical forward modeling", 15th Symposium on Earthquake Engineering. pp. 44-50.
22. Srivastava, A. K., **M. L. Sharma**, D. K. Paul, J. Das and R. Jakka (2014) "Deep soil characteristics in the vicinity of Himalayas", 15th Symposium on Earthquake Engineering. pp. 74-86.
23. **Sharma, M. L.**, A. K. Srivastava, D. K. Paul, J. Das and R. Jakka (2014) Seismic Microzonation on deep soils – A case study for Roorkee, India, Workshop Status of Natural Hazards in Himalachal Pradesh, CUHP, Nov. 06-08, 2014.
24. **Sharma, M. L.** (2014) Earthquake Early warning system –Present status in India, Workshop on Status of Natural Hazards in Himalachal Pradesh, CUHP, 06-08, 2014.
25. Das, Ranjit , **M. L. Sharma**, and H.R.Wason (2014) "Probabilistic seismic hazard assessment for northeast India", 15th Symposium on Earthquake Engineering. pp. 131-140.
26. **Sharma, M. L.** and A. Harbindu (2014), Ground motion prediction in Himalayas using observed and simulated datasets, 10th National Conference on Earthquake Engineering (10NCEE), Alaska
27. Bhardwaj, R., **M. L. Sharma** and Ashok Kumar (2014) Multi parameters based Earthquake Early Warning Algorithm, 10th National Conference on Earthquake Engineering (10NCEE), Alaska.
28. **Sharma, M. L.** (2014) Developments in earthquake engineering, One day workshop on Advances in Earth sciences and Earthquake Engineering, April 25th, 2014, CBIT, Hyderabad.
29. **Sharma, M. L.** (2014) Effect of deep soil on strong ground motion estimation, One day workshop on "Engineering of foundations for NPP structures in alluvial soils" January 24, 2014, NPCIL, Bombay.
30. **Sharma, M. L.** (2013) Reduction in seismic vulnerability in new buildings and existing structures in Uttarakhand, Workshop on Sustainable rehabilitation in Uttarakhand in light of the recent disaster, Institution of Engineers India, Dehradun, July 27, 2013.

31. **Sharma, M. L.** (2013) Seismic hazard in Northern India – A review, Indo-Taiwanese workshop on Earthquake Early warning system, Jan 18-19, 2013, Prithbhi Bhawan, Ministry of Earth Sciences, New Delhi.
32. **Sharma, M. L.,** Ashwani Kumar, S. C. Gupta, S. K. Jain, A. K. Jindal (2013) Seismological telemetered array in Garhwal Himalaya around Tehri dam, Indo-Taiwanese workshop on Earthquake Early warning system, Jan 18-19, 2013, Prithbhi Bhawan, Ministry of Earth Sciences, New Delhi.
33. Das, R., H. R. Wason, and **M. L. Sharma** (2012) General orthogonal regression in magnitude conversion for Dehradun and adjoining region, ISET Golden Jubilee Symposium, Oct 20-21, 2012, Roorkee.
34. Sinval, A., **M. L. Sharma**, Y. Singh and B. K. Maheshwari (2012) A brief report on damage survey of Sikkim earthquake of Sept 18, 2011, ISET Golden Jubilee Symposium, Oct 20-21, 2012, Roorkee.
35. Bhardwaj R., **M.L. Sharma** and A. Kumar (2012) “P-wave time window approach for EEW systems”, National Workshop on Engineering Geophysics for Civil Engineering and Geo-hazards (EGCEG), CSIR- Central Building Research Institute, Roorkee.
36. Bhardwaj R, A. Kumar and **M. L. Sharma** (2012) Effect of Medium Characteristics in Magnitude Estimation for Earthquake early Warning Systems, ISET Golden Jubilee Symposium, Oct 20-21, 2012, Roorkee.
37. Bhardwaj R., Kumar A. and **M.L. Sharma** (2012) “Analysis of Tauc (τ_c) and Pd attributes for Earthquake Early warning in India”. 15th World Conference on Earthquake Engineering, Lisbon. Paper no. 0696, 1-8.
38. **Sharma, M. L.,** B. K. Maheshwari, A. Sinval and Yogindra Singh (2012) Damage Pattern during Sikkim, India Earthquake of September 18, 2011, 15WCEE, 15th World Conference on Earthquake Engineering , Lisbon, Portugal, paper-4087, Sept23-28, 2012.
39. **Sharma, M. L.,** A. Herbindoo and Kamal (2012) Strong Ground Motion Prediction equation for Northwest Himalayan region based on stochastic approach, 15WCEE, 15th World Conference on Earthquake Engineering , Lisbon, Portugal, paper-1378, Sept23-28, 2012.
40. Das, R., H. R. Wason, and **M. L. Sharma** (2012). Homogenization of earthquake catalog in terms of unified moment magnitude using orthogonal regression relations. 15th World Conference on Earthquake Engineering, 24 to 28 September, 2012, Lisbon, Portugal.
41. Srinivasan, C. M. Willey, A. Herbindoo and **M. L. Sharma** (2012) Strong Ground Motion Prediction Equation for low magnitude and near-field earthquake data for shield region in India, 15WCEE, Lisbon, Portugal, paper-1382, Sept23-28, 2012.
42. Sachdeva, R, A. Kumar and **M. L. Sharma**, (2012) Estimation of peak ground acceleration using artificial neural network approach, 15WCEE, Lisbon, Portugal, paper-1847, Sept23-28, 2012.
43. Arora, M., K., A. Bhattacharya, and **M. L. Sharma** (2012). Application of multi-temporal SAR interferometry in landslide investigation, Geomatics-2012.
44. **Sharma, M. L.,** Arora, M. K., and Bhattacharya, A. (2012). Convergence rate estimation of Indian plate using advanced remote sensing technique, Geomatics-2012.

45. Bhattacharya A, M. K. Arora, **M. L. Sharma** (2012) A study of surface displacement estimation using Differential SAR Interferometry in the Himalayan Region. National Seminar on Geospatial Solutions for Resource Conservation and Management on 18-20 January, 2012.
46. Bhattacharya, A., M. K. Arora, and **M. L. Sharma** (2011). Detection of active landslide areas using Small Baseline subset Interferometry. National Conference on Recent Advances in Civil engineering, RACE. Varanasi, Oct 14-16 ISBN 978-81-921121-0-7, pp. 336-342.
47. Bhattacharya, A., M. K. Arora, and **M. L. Sharma** (2011). Landslides monitoring using Small Baseline SAR Interferometry technique. International Conference on Advances in Civil engineering. Vijayawara, AP, Oct 21-23.
48. Joshi, A., Pushpa Kumari, **M.L. Sharma**, A.K. Ghosh, M.K. Agarwal and A. Ravikiran, (2011) A modified technique for simulation of great earthquake: A case study of Sumatra earthquake, Transactions, SMiRT 21, 6-11 November, 2011, New Delhi (paper ID 835).
49. Kumar, A., R. Bhardwaj, H. Mittal and **M. L. Sharma** (2011)"Earthquake Early Warning System", Workshop on Disaster Mitigation and Management: Great Honshu, Japan Earthquake Mw = 9.0 of March 11, 2011, Earthquake, Tsunami, Fire and Nuclear Radiation, (26-27 March 2011), COE_DMM, Roorkee.
50. Herbindoo, A., **M. L. Sharma** and Kamal (2011) "Strong motion synthetics using Green's function approach", Workshop on Disaster Mitigation and Management: Great Honshu, Japan Earthquake Mw = 9.0 of March 11, 2011, Earthquake, Tsunami, Fire and Nuclear Radiation, (26-27 March 2011), COE_DMM, Roorkee.
51. Bhattacharya, A., M. Arora and **M. L. Sharma** (2011) "Use of Synthetic Aperture Radar in Disaster mitigation", Workshop on Disaster Mitigation and Management: Great Honshu, Japan Earthquake Mw = 9.0 of March 11, 2011, Earthquake, Tsunami, Fire and Nuclear Radiation, (26-27 March 2011), COE_DMM, Roorkee.
52. Bhattacharya, A., Arora, M. K., and **M. L. Sharma** (2010) Application of SAR Interferometry for DEM generation: case studies in two regions with varied terrain conditions. Conference in Remote Sensing and GIS for Environmental Management. New Delhi, August 10, 1-16.
53. Singh, Abhishek, Kamal, **M.L. Sharma** and Sri Niwas (2010) Integrated geo-exploration over Solani knee-bend, NW Himalaya, 14 Symp. Earthquake Engineering, Roorkee, Dec 17-19, 2010, 62-71
54. Das, Ranjit, H.R. Wason and **M.L. Sharma** (2010) Regression relations towards unified moment magnitude earthquake catalogs for North-East India Region, 14 Symp. Earthquake Engineering, Roorkee, Dec 17-19, 2010, 72-79
55. Kumar, Ashwani, S.C. Gupta, **M.L. Sharma**, A.D. Pandey, A.K. Jindal, Sanjay Kr. Jain, Arup Sen, Arun Kumar and Neetu Goswami¹ (2010) Attributes of local seismicity of The Garhwal Himalaya, 14 Symp. Earthquake Engineering, Roorkee, Dec 17-19, 2010, 90-99
56. Sachdeva, Rajiv, Ashok Kumar, and **M.L.Sharma** (2010) Prediction of average shear wave velocity of site using strong ground motion records and ANN, 14 Symp. Earthquake Engineering, Roorkee, Dec 17-19, 2010, 126-137
57. Harbindu, Ashish, **M.L. Sharma**, Kamal (2010) Site-specific ground motion simulation using stochastic method, 14 Symp. Earthquake Engineering, Roorkee, Dec 17-19, 2010, 157-166

58. Venugopal, S., Ashok Kumar and **M.L. Sharma** (2010) Comparison of site specific PGA using neural networks and regression models, 14 Symp. Earthquake Engineering, Roorkee, Dec 17-19, 2010, 233-252
59. Joshi, G.C. and **M.L. Sharma** (2010) Probabilistic seismic hazard assessment of Delhi, 14 Symp. Earthquake Engineering, Roorkee, Dec 17-19, 2010, 253-259
60. Bhardwaj, Rakhi, Ashok Kumar and **M.L. Sharma** (2010) An algorithm for automatic detection of primary wave onset for early warning system, 14 Symp. Earthquake Engineering, Roorkee, Dec 17-19, 2010, 373-380
61. Bhasin, R., E. Erduran, J.J. Galiana-Merino, A.M. Kaynia, D.H. Lang, A.K. Mahajan, B.K. Maheshwari, A.K. Mundepi, D.K. Paul, **M.L. Sharma** and Y. Singh (2010) The Indo-Norwegian Institutional Cooperation on earthquake risk reduction, 14 Symp. Earthquake Engineering, Roorkee, Dec 17-19, 2010, 1306-1322
62. **Sharma, M. L.** and C. Lindholm (2010) Use of characteristic earthquake recurrence modelling for Himalaya Frontal Fault (HFF) in estimating the Earthquake hazard assessment for Dehradun, Uttarakhand, India, 14 Symp. Earthquake Engineering, Roorkee, Dec 17-19, 2010, 1323-1334
63. Bhargava, N., **M. L. Sharma**, V. K. Katiyar, and P. Pradhan (2010) Unusual animal behaviour due to acoustic waves generated by an earthquake, CONAPS XII, 12th Conference of the International Academy of Physical Sciences, Dec 22-24, 2010, University of Rajasthan, Jaipur.
64. Bhargava, N., **M. L. Sharma**, V. K. Katiyar, and P. Pradhan (2010) Electric Charge Developed by Seismic Stress on Earthquake Sources and Its Effect on Animals, 11th Conference of the International Academy of Physical Sciences, February 20 – 22, 2010, Allahabad.
65. **Sharma, M. L.** and C. Lindholm (2010) Seismological issues, Indo Norwegian Workshop on Earthquake hazard and risk reduction on the Indian subcontinent – towards an earthquake safe environment, August 18, 2010, ISC, New Delhi
66. Das, R., H. R. Wason and **M. L. Sharma** (2009) Analysis of temporal variation in the magnitude of completeness and its uncertainty for North East India region, 2nd Science Congress, New Delhi, Nov 3-5, 2009.
67. Das, R., H. R. Wason and **M. L. Sharma** (2009) Temporal variation in the magnitude of completeness and its uncertainty for North East India and adjoining region, Civil Engineering Conference – Innovation without limits (CEC-2009), Sept 18-19, NIT Hamirpur.
68. Bhargava, N., V. K. Katiyar, **M. L. Sharma** and P. Pradhan (2009) Earthquake prediction through animal behavior, National Conference on "Biomechanics" (NCBM - 2009), March 7-8, 2009, Roorkee
69. Tripathi, JN, P Singh, **M.L. Sharma** (2009) Variation of seismic coda attenuation characteristics in the Garhwal, northwestern Himalayas, IASPEI 2009, 10-16 Jan, 2009, Cape town, South Africa
70. **Sharma, M. L.** and R. Kumar (2008) Conditional probabilities of occurrence of moderate earthquakes in Indian region, 14th World Conference on Earthquake Engineering, Beijing, China.
71. Srinivasan, C., **M. L. Sharma**, J. Kotadia and Y. A. Willy (2008) Peak ground acceleration attenuation relationship for low magnitudes at short distances in south Indian region, 14th World Conference on Earthquake Engineering, Beijing, China.

72. Tripathi, J. N., Priyamvada Singh, **M. L. Sharma** (2008) Seismic attenuation characteristics of coda wave in the Garhwal, northwestern Himalayas, D32-07, 7th General Assembly of Asian Seismological Commission and Seismological Society of Japan
73. Pareek, N. and **M. L. Sharma** (2008) Some issues related to Differential Interferometric Synthetic Aperture Radar (DInSAR) technique for landslide studies in Garhwal Himalayas, LANDSLIDE MANAGEMENT – Present Scenario & Future Directions, Feb 10-12, 2008, C.B.R.I., Roorkee.
74. Bhattacharya, A., Pisal, Y., Kumar, A., and **M.L. Sharma**, (2007) "Development of Site Specific Response Spectrum for Roorkee Region", Proc. of the International Conference on Civil Engineering in the New Millennium: Opportunities and Challenges" (CENeM-2007), BESU, Shibpur, Howrah, Vol. I, pp. 410-416.
75. Ahmed, A., **M. L. Sharma** and A. Sharma (2007) AIC based Automatic Phase Picking for Broadband Seismological Data using Wavelet theory, 8th Pacific Conference on earthquake Engineering, Singapore, Dec 5-7, 2007
76. Pareek, N. and **M. L. Sharma** (2007) Study of displacement pattern in Garhwal Kumaoun Himalaya due to Chamolli earthquake of March 29, 1999, 8th Pacific Conference on earthquake Engineering, Singapore, Dec 5-7, 2007
77. Srinivasan, C., **M. L. Sharma** and Y. A. Willy (2007) Attenuation Relationship for Estimation of Peak Ground Horizontal Acceleration of Short Distances for Low Magnitudes, 8th Pacific Conference on earthquake Engineering, Singapore, Dec 5-7, 2007
78. Joshi, G. C. and **M. L. Sharma** (2006) Magnitude scale conversion relationships for Northern Indian region using bivariate analysis, 13 Symp. Earthquake Engineering, Roorkee, Dec 18-20, 2006, 307-314
79. Mahashwari, B. K., **M. L. Sharma** and J. P. Narayan (2006) Damage to ports and lifelines in Tamilnadu due to Indian ocean tsunami of December 2004, India Disaster Management Congress 2006, A1/20.
80. Pareek N, **M. L. Sharma** and M. Arora (2006) Differential SAR interferometry for land slide studies – An over view, Uttaranchal Science Congress, Nov 10-11, Dehradun, 2006
81. Malik, S., **M. L. Sharma** and D. D. Khandelwal (2006) Estimation of spectral strong ground motion for north east India using PSHA, 13 Symp. Earthquake Engineering, Roorkee, Dec 18-20, 2006, 137-147
82. Kumar, R, B. P. Tyagi, S. P. Sharma and **M. L. Sharma** (2006) Seismic hazard assessment in terms of conditional probabilities of occurrence of moderate earthquakes in Indian region using Weibull Distribution, 13 Symp. Earthquake Engineering, Roorkee, Dec 18-20, 2006, 326-334
83. Ahemed A., **M. L. Sharma** and Ambalika Sharma (2006) Wavelet based Automatic Phase Picking Algorithm for 3-Component Broadband Seismological Data, Workshop on Himalayan Earthquake: A fresh appraisal, HIMEQ-2006, Oct 7-8, 2006, Dehradun.
84. Lindholm, C., **M. L. Sharma** and S. Malik (2006) Seismic hazard estimation in Dehradun city, First European Conference on Earthquake Engineering and Seismology, Geneva, Sept 3-8, 2006
85. **Sharma, M. L.** and Shipra Malik (2006) Probabilistic seismic hazard analysis and estimation of spectral strong ground motion on Bed rock in North East India, 4th Int. Conf. Earthquake Engineering, Taipei, Taiwan, Oct 12-13, 2006.

86. **Sharma, M. L.** and H. Bungum (2006) New strong motion spectral acceleration relations for the Himalayan region, First European Conference on earthquake Engineering and Seismology, Geneva, Sept 3-8, 2006
87. **Sharma, M. L.** and H. Bungum (2006) Strong motion attenuation relationship for spectral acceleration for the Himalayan region, Indo Norwegian Workshop on Seismic hazard and risk Assessment, IHC, New Delhi, March 17-18, 2006.
88. **Sharma, M. L.**, Lindholm, C., S. Malik H. Bungum, A. Kaynia and A. Kumar (2006) Seismic Microzonation of Dehradun city, Indo Norwegian Workshop on Seismic hazard and risk Assessment, IHC, New Delhi, March 17-18, 2006.
89. **Sharma, M. L.**, A. Bhattacharya, H. Bungum and Ashok Kumar (2006) Definition of horizontal component of strong ground motion using Indian region data set, Indo Norwegian Workshop on Seismic hazard and risk Assessment, IHC, New Delhi, March 17-18, 2006
90. Kumar, R, B. P. Tyagi, S. P. Sharma and **M. L. Sharma** (2006) Estimation of conditional probabilities for earthquake occurrence in India, Int. Workshop on Electromagnetic Studies related to Earthquakes and Volcanoes, IWEMSEV2006, Agra
91. Tyagi, A., P. P. Pathak and **M. L. Sharma** (2006) Prediction of seismicity cycles using Artificial Neural Network, Int. Workshop on Electromagnetic Studies related to Earthquakes and Volcanoes, IWEMSEV2006, Agra.
92. Maheshwari, B. K., **M. L. Sharma** and J. P. Narayan (2006) Geotechnical aspects of damage due to Tsunami from December 26, 2004 Sumatra Earthquake, US National Conference on Earthquake Engineering, March, 2006.
93. Gupta, S., Sajhit, V. K., M. K. Arora and **M. L. Sharma**, (2006) Surface displacement studies using differential SAR interferometry: an overview, Proc. SPIE 6412, Disaster Forewarning Diagnostic Methods and Management, 64120N (December 12, 2006); doi:10.1117/12.693801
94. Ambulkar, P and **M. L. Sharma** (2005) Earthquake insurance and its importance to Indian sub-continent, World conf. on disaster reduction, IIT Bombay, Nov. 16-18, 2005, 214-222.
95. **Sharma, M. L.**, J. P. Narayan, Shipra Malik and D. D. Khandelwal (2005) Estimation of source parameters using broadband seismometry in Garhwal Kumaoun Himalaya, India, IZIS40, Conference on Earthquake Engineering in 21st Century, Skopje
96. **Sharma, M. L.** and Shipra Malik, (2005) Estimation of probabilistic seismic hazard in North East India, IZIS40, Conference on Earthquake Engineering in 21st Century, Skopje
97. Narayan J. P., **M. L. Sharma** and B. K. Maheshwari, (2005) Estimation of inundation and runup on Tamilnadu coast in India during December 26, 2004 Sumatra Earthquake, IZIS40, Conference on Earthquake Engineering in 21st Century, Skopje
98. Ameer, A. S., **M. L. Sharma**, H. R. Wason, A. Alsinawi (2005) Markov model for earthquake occurrence as implication in PSHA from revised Iraq seismicity catalogue Proc. Symp. On Seismic Hazard analysis and Microzonation, Sept. 23-24, Roorkee, 167-179.
99. Ameer, A. S., **M. L. Sharma**, H. R. Wason, A. Alsinawi (2005) Conversion of magnitudes for assessment of recurrence time in revised Iraq seismicity catalogue, Proc. Symp. On Seismic Hazard analysis and Microzonation, Sept. 23-24, Roorkee, 201-211.

100. Mahashwari, B. K., **M. L. Sharma** and J. P. Narayan (2005) Damages on the Indian coast due to Tsunami caused by the Sumatra earthquake : Geotechnical aspects, Proc. Symp. On Seismic Hazard analysis and Microzonation, Sept. 23-24, Roorkee, 421-434.
101. **Sharma, M. L.**, J. P. Narayan and B. K. Maheshwari (2005) Effects of tsunami on the Indian coastal region of Tamil Nadu, Chapter in report on 'Sumatra Earthquake of December 26, 2004', Department of Earthquake Engineering, IITR, Roorkee, (unpublished)
102. Javed, A, **M. L. Sharma** and D. K. Paul (2005) Seismic hazard estimation in Northern most region of India, Proc. Symp. On Seismic Hazard analysis and Microzonation, Sept. 23-24, Roorkee, 359-367.
103. Ameer, A. S., **M. L. Sharma**, H. R. Wason, A. Alsinawi (2005) Comparative PSHA and risk evaluation using Asymptotic Extreme Theory (GI and GIII) and G-R formula for Iraq, Gulf Seismic Forum-2005, Seismology and Earthquake Studies in the Eastern Arabian Plate region, 20-23 Feb, 2005, Al-Ain, UAE
104. Prabu, I, S. Bannerji, A. Maji, **M. L. Sharma**, J. P. Narayan and D. K. Paul (2004) Application of GIS and GPS techniques for microzonation of IIT-Roorkee campus using Nakamura's H/V technique, 7th Annual ESRI, India Conference, December 2-3, 2004.
105. Ghosh, S. K, J. Niwas and **M. L. Sharma** (2004) Development of interface for seismicity data and preliminary seismic hazard assessment, 7th Annual ESRI, India Conference, December 2-3, 2004.
106. **Sharma M. L.**, and H. R. Wason (2004) Estimation of seismic hazard and seismic zonation at bed rock level for Delhi region, India, 13WCEE, Vancouver, Aug. 1- 6, 2004, paper 2043, p1-13.
107. **Sharma M. L.**, J. P. Narayan and K.S. Rao (2004), Seismic microzonation of Delhi region in India, , 13WCEE, Vancouver, Aug. 1- 6, 2004, paper 2046, p1-13.
108. Ameer, A. S., **M. L. Sharma**, H. R. Wason and S. A. Alsinawi (2004) Seismic hazard characterization and risk evaluation using Gumbel's method of extremes (g_1 and g_3) and $g-r$ formula for Iraq, 13WCEE, Vancouver, Aug. 1- 6, 2004, paper 2898, p1-13.
109. Narayan, J. P. and **M. L. Sharma** (2004) Effects of local geology on damage severity during Bhuj earthquake of January 26, 2001, India, 13WCEE, Vancouver, Aug. 1- 6, 2004, paper 3333, p1-13.
110. **Sharma, M. L.**, (2003) Estimation of spectral strong ground motion using strong motion data from the Himalayas, HIMPROB_2003, 82-83.
111. Narayan, J. P., **M. L. Sharma** and Ashwani Kumar (2003) Local Site effects observed during Bhuj earthquake, Workshop on Bhuj Earthquake, IIT Kanpur, January 27-29.
112. Ameer, A. S., **M. L. Sharma** and H. R. Wason (2002) Completeness of earthquake catalogue and its implications in earthquake hazard estimation – a case study for Iraq. 12 Symposium on Earthquake Engineering, Roorkee, Dec. 16-18, 2002, Vol I, 342-349
113. Ameer, A. S., **M. L. Sharma** and H. R. Wason (2002) Maximum likelihood estimation of seismic hazard for Iraq from complete data files, 12 Symposium on Earthquake Engineering,, Roorkee, Dec. 16-18, 2002, Vol I, 306-310.
114. Narayan, J. P., **M. L. Sharma** and Ashwani Kumar (2002) Damage survey report: Bhuj earthquake, January 26, 2001, 12 Symposium on Earthquake Engineering, Roorkee, Dec. 16-18, 2002, Vol II, 727-736.

115. Saini S., **M. L. Sharma** and S. Mukhopadhyay (2002) Strong ground motion empirical attenuation relationship for seismic hazard estimation in Himalaya region, 12 Symposium on Earthquake Engineering, Roorkee, Dec. 16-18, Vol I, 143-150.
116. **Sharma, M. L.**, M. Khan and M. K. Arora (2002) A GIS based approach for seismic hazard assessment, Asian Seismological commission 2002, Symp. On Seismology, earthquake hazard assessment and risk management, 24-26 Nov, 2002, kathmandu, Nepal, p-43
117. **Sharma, M. L.** and M. Arora (2002) Cyclic behavior of seismicity in the Himalayas and its prediction using ANN, Asian Seismological commission 2002, Symp. On Seismology, earthquake hazard assessment and risk management, 24-26 Nov, 2002, Kathmandu, Nepal, p-158-159.
118. **Sharma, M. L.**, (2002) Seismic Microzonation of Mega cities, Indo-China joint workshop on Natural disasters, Jan. 21-23, 2002, New Delhi.
119. Wason, H. R., **M. L. Sharma** and D. Nandini (2001) Aftershock activity of the Chamoli earthquake of march 29, 1999 recorded by broadband seismograph stations, Proc. Workshop on recent earthquakes of Chamoli and Bhuj, May 24-26, Roorkee, Vol. I, pp29-39.
120. **Sharma, M. L.**, (2001) The Bhuj Earthquake of January 26, 2001 – Seismotectonic Implications, Proc. Workshop on recent earthquakes of Chamoli and Bhuj, May 24-26, Roorkee, Vol II, pp353-358.
121. **Sharma, M. L.**, (2001) Seismotectonic implications of Chamoli earthquake of March 29, 1999, Proc. Workshop on recent earthquakes of Chamoli and Bhuj, May 24-26, Roorkee, Vol II, pp359-368.
122. **Sharma, M. L.**, M. Arora and Y. V. Raju (2001) Seismic hazard analysis of the Himalayan region using Artificial Neural Network, International Conference on Seismic Hazard with particular reference to Bhuj earthquake of January 26, 2001, New Delhi, Abstract Vol., pp. 280-282.
123. Narayan, J. P., A. Kumar and **M. L. Sharma** (2001) Seismological aspects of Bhuj earthquake of January 26, 2001, Chapter 1, in report on Bhuj earthquake of Jan. 26, 2001, Department of Earthquake Engineering, IIT Roorkee.
124. **Sharma, M. L.** and R. G. K. Nath (2001) Attenuation relationship for peak ground horizontal acceleration for Indian region, International Conference on Seismic Hazard with particular reference to Bhuj earthquake of January 26, 2001, New Delhi, Abstract Vol., pp333-335.
125. Narayan, J. P., **M. L. Sharma**, A. Kumar (2001) Damage scenario of Bhuj earthquake, Jan. 26, 2001, News Letter, Indian Soc. Earthquake Tech., April-Oct., 2001, pp27-29.
126. **Sharma, M. L.** (2000) Attenuation relationship for estimation of peak ground vertical acceleration using data from strong motion arrays in India, 12th World conference on Earthquake Engineering, New Zealand, 1964/ 4 / A, pp1-8.
127. Wason, H. R. and **M. L. Sharma**, (2000) Source parameter studies of local earthquakes in the Garhwal Himalaya region based on the digital broad band data, 12th World conference on Earthquake Engineering, New Zealand, 1776 / 4 / A, pp 1-8.
128. Wason, H. R., **M. L. Sharma**, P. K. Khan, Kamal Kapoor, D. Nandini and V. Kara (2000) A preliminary analysis of broadband seismic data of Chamolli earthquake and its aftershock sequence, Lessons learnt from Chamolli earthquake, Abstract Vol. WIHG, Dehradun, pp 37

129. Kumar, A., A. D. Pandey, **M. L. Sharma**, S. C. Gupta, A. K. Jindal and S. K. Jain (1998) Pattern of two earthquake swarms in the Garhwal Himalaya, XIth Symposium on Earthquake Engineering, Roorkee, pp 67-74.
130. Wason, H. R., **M. L. Sharma**, A. K. Gupta and Kamal Kapoor (1998) A preliminary analysis of broad band data in the Garhwal Himalaya region, XIth Symposium on Earthquake Engineering, Roorkee, pp 85-100.
131. Shanker, D. and **M. L. Sharma** (1998) Maximum Likelihood estimation of seismic hazard parameters in the Himalaya and its vicinity from mixed data, Geosciences - 98, University of Keel, UK, April 14-18.
132. Shanker, D. and **M. L. Sharma** (1997) Estimation of seismic hazard parameters for the North East India and its surrounding region, Proc. Workshop on Earthquake Disaster Preparedness, Roorkee, Oct 13-14, 1997, pp 49-58.
133. Shanker, D. and **M. L. Sharma** (1997) Estimation of seismic hazard parameters for the Himalayas and its vicinity from complete data files, Workshop, W5- New concepts and procedures in earthquake hazard estimation, 29th General Assembly of IASPEI, Thessaloniki, Greece, Aug 18-28, pp 303.
134. Kumar, A., A. D. Pandey, **M. L. Sharma**, S. C. Gupta, A. K. Jindal and S. K. Jain (1997) Contemporary local seismicity in the Garhwal Himalaya, Proc. Workshop on Earthquake Disaster Preparedness, Roorkee, Oct 13-14, 1997, pp 39-48
135. **Sharma, M. L.** and P. N. Agrawal (1994) A comparative study of few attenuation relationships, Proc. Xth Symposium of Earthquake Engineering, Roorkee, Nov. 16-18, Vol I, pp 169-175.
136. Kumar, A., A. D. Pandey, **M. L. Sharma**, S. C. Gupta, A. Kumar, B. K. Gupta.(1994) Preliminary processing and interpretation of digital data obtained from digital seismic array in Garhwal Himalaya, Proc. Xth Symposium of Earthquake Engineering, Roorkee, Nov. 16-18, Vol I, pp 141-152.
137. **Sharma, M. L.** and H. R. Wason (1994) APP - An automatic phase picking algorithm developed for digital telemetered seismic array data, Proc. Xth Symposium of Earthquake Engineering, Roorkee, Nov. 16-18, Vol I, pp 159-168.
138. **Sharma, M. L.** (1993) Automatic phase pickers, Proc. UNESCO International course on Seismology and Seismic risk assessment, Nov. 1-Dec. 4, Roorkee, 100-110.
139. **Sharma, M. L.** and L. S. Srivastava (1992) Automation in earthquake monitoring, National Seminar on Automation in Metrology, National Physical Laboratory, New Delhi, Feb 19-21.
140. **Sharma, M. L.**, S. C. Gupta and H. R. Wason (1990) An automatic phase picker for earthquakes, Proc. International Conf. on Automatic Robotics and Computer Vision, Singapore, pp 247-250
141. **Sharma, M. L.** and H. R. Wason (1989) Data acquisition aspects of digital telemetered micro earthquake networks, presented in Silver Jubilee Symp. of ISET, Roorkee, Feb. 25-26.
142. Srivastava, L. S., **M. L. Sharma**, A. D. Pandey and H. R. Wason, (1989) A digital telemetered seismic array in the Himalayas, Abstract 25th General Assembly of IASPEI, Istanbul, Turkey, Aug. 21st-Sept. 1st, pp 643.
143. **Sharma, M. L.**, H. R. Wason and L. S. Srivastava (1987) Telemetered digital seismic event recording system, Proc. VIth Indian Geological Congress, Roorkee, Feb. 21-24, pp 127-130.

144. Wason, H. R., **M. L. Sharma**, Kirat Pal and L. S. Srivastava (1986) Digital telemetered array in Ganga Yamuna Valley, Proc. 8th Symp. on Earthquake Engineering, Roorkee, Dec 29-31, pp 91-99.

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1. Singh. Y., **M. L. Sharma**, M. Shrikhande, B. K. Maheshwari, J. Das and R. N. Dubey, EQ: 2018-09 (2018), Site Specific Earthquake Parameters for Mytndu Leshka H.E. Project, Meghalaya, Department of Earthquake Engineering, IIT Roorkee
2. Kumar. A., A.D. Pandey, **M.L. Sharma**, J.P. Narayan and S.C. Gupta, EQ: 2018-08 (2018), "Seismological Network Around Tehri Region, (from Oct 2017 to Dec 2017), Department of Earthquake Engineering, IIT Roorkee
3. Singh. Y., **M. L. Sharma**, M. Shrikhande, B. K. Maheshwari, J. Das and R. N. Dubey, EQ: 2018-07 (2018), Site Specific Earthquake Parameters for DLF-UPL Building in Motinagar, New Delhi, Department of Earthquake Engineering, IIT Roorkee
4. Kumar. A., A.D. Pandey, **M.L. Sharma**, J.P. Narayan and S.C. Gupta, EQ: 2018-05 (2018), "Seismological Network Around Tehri Region, (from July 2017 to Sept 2017), Department of Earthquake Engineering, IIT Roorkee
5. Singh. Y., **M. L. Sharma**, M. Shrikhande, B. K. Maheshwari, J. Das and R. N. Dubey, EQ: 2018-03 (2018), Site Specific Earthquake Parameters studies for Song Dam Project, Uttarakhand, Department of Earthquake Engineering, IIT Roorkee
6. Singh. Y., **M. L. Sharma**, M. Shrikhande, J. P. Narayan, B. K. Maheshwari, J. Das and R. S. Jakka, EQ: 2018-02 (2018), Site Specific Earthquake Parameters for Pudimadaka TPP Project, Andhra Pradesh, Department of Earthquake Engineering, IIT Roorkee
7. Kumar. A., A.D. Pandey, **M.L. Sharma**, J.P. Narayan and S.C. Gupta, EQ: 2018-01 (2018), "Seismological Network Around Tehri Region, (from April 2017 to June 2017), Department of Earthquake Engineering, IIT Roorkee
8. Kumar. A., A.D. Pandey, **M.L. Sharma**, J.P. Narayan and S.C. Gupta, EQ: 2017-24 (2017), "Seismological Network Around Tehri Region, (from January 2016 to Dec 2016), Department of Earthquake Engineering, IIT Roorkee
9. Singh. Y., **M. L. Sharma**, M. Shrikhande, B. K. Maheshwari, J. Das and R. N. Dubey, EQ: 2017-23 (2017), Site Specific Earthquake Parameters for Chheligada H.E. Project, Odisha, Department of Earthquake Engineering, IIT Roorkee
10. Singh. Y., **M. L. Sharma**, M. Shrikhande, J. P. Narayan, R. S. Jakka and J. Das, EQ: 2017-22 (2017), Site Specific Earthquake Parameters for Talong Londa H.E. Project, Arunachal Pradesh, Department of Earthquake Engineering, IIT Roorkee
11. Singh. Y., **M. L. Sharma**, M. Shrikhande, J. P. Narayan, B. K. Maheshwari and J. Das, EQ: 2017-18 (2017), Site Specific Earthquake Parameters for Patratu TPP Project, Jharkhand, Department of Earthquake Engineering, IIT Roorkee
12. Singh. Y., **M. L. Sharma**, M. Shrikhande, B. K. Maheshwari, R. N. Dubey, J.P. Narayan, S.C. Gupta, R.S. Jakka and J. Das, EQ: 2017-17 (2017), Site Specific Earthquake Parameters for Chandrabhaga H.E. Project, Uttarakhand, Department of Earthquake Engineering, IIT Roorkee

13. **Sharma, M. L.**, Y. Singh, S.C. Gupta, R. N. Dubey, Arup Sen, Dhiran Raj and Bharathi M, EQ:2017-16 (2017), Delhi Metro Induced Vibration Measurement on Various Buildings, DMRC, Department of Earthquake Engineering, IIT Roorkee
14. Singh. Y., **M. L. Sharma**, M. Shrikhande, B. K. Maheshwari, R. N. Dubey and J. Das, EQ: 2017-13 (2017), Site Specific Earthquake Parameters for Sirkari Bhyol Rupsiabagar H.E. Project, Uttarakhand, Department of Earthquake Engineering, IIT Roorkee
15. Kumar. A., A.D. Pandey, **M.L. Sharma**, J.P. Narayan and S.C. Gupta, EQ: 2017-12 (2017), "Seismological Network Around Tehri Region, (from Oct 2016 to Oct 2016), Department of Earthquake Engineering, IIT Roorkee
16. Singh. Y., **M. L. Sharma**, M. Shrikhande, B. K. Maheshwari, J. Das and R. N. Dubey, EQ: 2017-11 (2017), Site Specific Earthquake Parameters for Tizu H.E. Project, Nagaland, Department of Earthquake Engineering, IIT Roorkee
17. Singh. Y., **M. L. Sharma**, M. Shrikhande, R. S. Jakka, J. Das and S. C. Gupta, EQ: 2017-10 (2017), Site Specific Earthquake Parameters for Zungki H.E. Project, Nagaland, Department of Earthquake Engineering, IIT Roorkee
18. **Sharma. M.L.**, M. Shrikhande, J. Das and Mr. Mitesh Surana, EQ: 2017-09 (2017), Probabilistic Seismic Hazard Assessment of the Vrindavan Chandrodaya Mandir, Mathura, U.P., Department of Earthquake Engineering, IIT Roorkee
19. Singh. Y., **M. L. Sharma**, M. Shrikhande, J. Das and S. C. Gupta, EQ: 2017-08 (2017), Site Specific Earthquake Parameters for Oju H.E. Project, Arunachal Pradesh, Department of Earthquake Engineering, IIT Roorkee
20. **Sharma. M.L.**, M. Shrikhande, J. P. Narayan, B. K. Maheshwari, J. Das and Daya Shanke, EQ: 2017-06 (2017), Site Specific Earthquake Parameters for Nyera Amari Project, Bhutan, Department of Earthquake Engineering, IIT Roorkee
21. **Sharma. M.L.**, M. Shrikhande, J. P. Narayan, B. K. Maheshwari, J. Das and Daya Shanke, EQ: 2017-05 (2017), Site Specific Earthquake Parameters for Trincomalli TPP Project, Srilanka, Department of Earthquake Engineering, IIT Roorkee
22. Kumar. A., A.D. Pandey, **M.L. Sharma**, J.P. Narayan and S.C. Gupta, EQ: 2017-04 (2017), "Seismological Network Around Tehri Region, (from July 2016 to Sept 2016), Department of Earthquake Engineering, IIT Roorkee
23. **Sharma. M.L.**, M. Shrikhande, J. P. Narayan, B. K. Maheshwari, J. Das and Daya Shanke, EQ: 2017-01 (2017), Site Specific Earthquake Parameters for Chhatru HE Project, Himachal Pradesh, Department of Earthquake Engineering, IIT Roorkee
24. **Sharma. M.L.**, M. Shrikhande, J. P. Narayan, B. K. Maheshwari, J. Das and Daya Shanke, EQ: 2016-24 (2016), Site Specific Earthquake Parameters for Upper Marsiangndi HE Project, Nepal, Department of Earthquake Engineering, IIT Roorkee
25. **Sharma. M.L.**, M. Shrikhande, J. P. Narayan, B. K. Maheshwari, J. Das and Daya Shanke, EQ: 2016-23 (2016), Site Specific Earthquake Parameters for Upper Karnali HE Project, Nepal, Department of Earthquake Engineering, IIT Roorkee
26. **Sharma. M.L.**, M. Shrikhande, J. P. Narayan, B. K. Maheshwari, J. Das and Daya Shanke, EQ: 2016-22 (2016), Site Specific Earthquake Parameters for Lower Kalnai HE Project, Jammu & Kashmir, Department of Earthquake Engineering, IIT Roorkee

27. Kumar. A., A.D. Pandey, **M.L. Sharma**, J.P. Narayan and S.C. Gupta, EQ: 2016-21 (2016), "Seismological Network Around Tehri Region, (from April 2016 to June 2016), Department of Earthquake Engineering, IIT Roorkee
28. Kumar. A., A.D. Pandey, **M.L. Sharma**, J.P. Narayan and S.C. Gupta, EQ: 2016-18 (2016), "Seismological Network Around Tehri Region, (from Jan 2016 to Mar 2016), Department of Earthquake Engineering, IIT Roorkee
29. **Sharma. M.L.**, M. Shrikhande, J. P. Narayan, B. K. Maheshwari, J. Das and Daya Shanke, EQ: 2016-14 (2016), Site Specific Design Earthquake Parameters for Bursar HE Project, Jammu & Kashmir, Department of Earthquake Engineering, IIT Roorkee
30. **Sharma. M.L.**, M. Shrikhande, J. P. Narayan, B. K. Maheshwari, J. Das and Daya Shanke, EQ: 2016-13 (2016), Site Specific Design Earthquake Parameters for Sankosh HE Project, Bhutan, Department of Earthquake Engineering, IIT Roorkee
31. **Sharma. M.L.**, M. Shrikhande, J. P. Narayan, B. K. Maheshwari, J. Das and Daya Shanker, EQ: 2016-12 (2016), Site Specific Design Earthquake Parameters for Kiratpur Bridge Project, Department of Earthquake Engineering, IIT Roorkee
32. **Sharma. M.L.**, M. Shrikhande, J. P. Narayan, B. K. Maheshwari, J. Das and Daya Shanker, EQ: 2016-11 (2016), Site Specific Design Earthquake Parameters for Durgapur TPP Project, West Bengal, Department of Earthquake Engineering, IIT Roorkee
33. **Sharma. M.L.**, M. Shrikhande, J. P. Narayan, B. K. Maheshwari, J. Das and Daya Shanker, EQ: 2016-10 (2016), Site Specific Design Earthquake Parameters for Harduaganj TPP Project, U.P., Department of Earthquake Engineering, IIT Roorkee
34. Kumar. A., A.D. Pandey, **M.L. Sharma**, J.P. Narayan and S.C. Gupta, EQ: 2016-09 (2016), "Seismological Network Around Tehri Region, (from Oct 2015 to Dec 2015), Department of Earthquake Engineering, IIT Roorkee
35. **Sharma. M.L.**, M. Shrikhande, J. P. Narayan, B. K. Maheshwari, J. Das and S.C. Gupta, EQ: 2016-04 (2016), Seismic Hazard Studies for Infield Pipe Luine Route (West Block). M.P., Department of Earthquake Engineering, IIT Roorkee
36. Kumar. A., A.D. Pandey, **M.L. Sharma**, J.P. Narayan and S.C. Gupta, EQ: 2016-03 (2016), "Seismological Network Around Tehri Region", Report on Processing and Interpretation seismological data collection from January 2014 to December 2014. Department of Earthquake Engineering, IIT Roorkee.
37. **Sharma. M.L.**, M. Shrikhande, J. P. Narayan, B. K. Maheshwari, J. Das and Daya Shanke, EQ: 2016-02 (2016), Site Specific Design Earthquake Parameters for Vamsadhara-Hiramandalamj HE Project, Andhra Pradesh, Department of Earthquake Engineering, IIT Roorkee
38. **Sharma. M.L.**, M. Shrikhande, J. P. Narayan, B. K. Maheshwari, J. Das and S.C. Gupta, EQ: 2016-01 (2016), Site Specific Design Earthquake Parameters for Hardwaganj HE Project, Uttar Pradesh, Department of Earthquake Engineering, IIT Roorkee
39. Kumar. A., A.D. Pandey, **M.L. Sharma**, J.P. Narayan and S.C. Gupta, EQ: 2015-17 (2015), "Seismological Network Around Tehri Region", Report on Processing and Interpretation seismological data collection from January 2013 to December 2013. Department of Earthquake Engineering, IIT Roorkee.

40. Kumar. A., A.D. Pandey, **M.L. Sharma**, J.P. Narayan and S.C. Gupta, EQ: 2015-16 (2015), "Seismological Network Around Tehri Region, (from July 2015 to Sept 2015), Department of Earthquake Engineering, IIT Roorkee
41. **Sharma. M.L.**, M. Shrikhande, J. P. Narayan, B. K. Maheshwari, J. Das and S.C. Gupta, EQ: 2015-14 (2015), Site Specific Design Earthquake Parameters for Vyaso HE Project, Uttarakhand, Department of Earthquake Engineering, IIT Roorkee
42. Kumar. A., A.D. Pandey, **M.L. Sharma**, J.P. Narayan and S.C. Gupta, EQ: 2015-13 (2015), "Seismological Network Around Tehri Region, (from April 2015 to June 2015), Department of Earthquake Engineering, IIT Roorkee
43. **Sharma. M.L.**, M. Shrikhande, J. P. Narayan, B. K. Maheshwari, J. Das and S.C. Gupta, EQ: 2015-12 (2015), Site Specific Design Earthquake Parameters for Kwar HE Project, Jammu & Kashmir, Department of Earthquake Engineering, IIT Roorkee
44. Kumar. A., A.D. Pandey, **M.L. Sharma**, J.P. Narayan and S.C. Gupta, EQ: 2015-11 (2015), "Seismological Network Around Tehri Region, (from Jan 2015 to Mar 2015), Department of Earthquake Engineering, IIT Roorkee
45. **Sharma. M.L.**, M. Shrikhande, J. P. Narayan, B. K. Maheshwari, J. Das and R.S. Jakka, EQ: 2015-10 (2015), Site Specific Design Earthquake Parameters for Kuri-I HE Project, Bhutan, Department of Earthquake Engineering, IIT Roorkee
46. **Sharma. M.L.**, M. Shrikhande, J. P. Narayan, B. K. Maheshwari, J. Das and R.N. Dubey, EQ: 2015-09 (2015), Site Specific Design Earthquake Parameters for Tagurshit HE Project, Arunachal Pradesh, Department of Earthquake Engineering, IIT Roorkee
47. **Sharma. M.L.**, M. Shrikhande, J. P. Narayan, B. K. Maheshwari, J. Das and R.S. Jakka, EQ: 2015-06 (2015), Site Specific Design Earthquake Parameters for Kholongchu HE Project, Bhutan, Department of Earthquake Engineering, IIT Roorkee
48. **Sharma. M.L.**, M. Shrikhande, J. P. Narayan, B. K. Maheshwari, J. Das and R.S. Jakka, EQ: 2015-03 (2015), Site Specific Design Earthquake Parameters for Lakhwar HE Project, Uttarakhand, Department of Earthquake Engineering, IIT Roorkee
49. **Sharma. M.L.**, M. Shrikhande, J. P. Narayan, B. K. Maheshwari, J. Das and R.S. Jakka, EQ: 2015-02 (2015), Site Specific Design Earthquake Parameters for Ramagundam, T.P.P. Aandhra Pradesh, Department of Earthquake Engineering, IIT Roorkee
50. **Sharma. M.L.**, M. Shrikhande, J. P. Narayan, B. K. Maheshwari, J. Das and R.S. Jakka, EQ: 2014-46 (2014), Site Specific Design Earthquake Parameters for Jidu HE Project, Arunachal Pradesh, Department of Earthquake Engineering, IIT Roorkee
51. **Sharma. M.L.**, M. Shrikhande, J. P. Narayan, B. K. Maheshwari, J. Das and R.S. Jakka, EQ: 2014-45 (2014), Site Specific Design Earthquake Parameters for Dardu HE Project, Arunachal Pradesh, Department of Earthquake Engineering, IIT Roorkee
52. **Sharma. M.L.**, M. Shrikhande, J. P. Narayan, B. K. Maheshwari, J. Das and R.S. Jakka, EQ: 2014-44 (2014), Site Specific Design Earthquake Parameters for Turu HE Project, Arunachal Pradesh, Department of Earthquake Engineering, IIT Roorkee
53. **Sharma. M.L.**, M. Shrikhande, J. P. Narayan, B. K. Maheshwari, J. Das and R.S. Jakka, EQ: 2014-43 (2014), Site Specific Design Earthquake Parameters for Par HE Project, Arunachal Pradesh, Department of Earthquake Engineering, IIT Roorkee

54. **Sharma. M.L.**, M. Shrikhande, J. P. Narayan, B. K. Maheshwari, Kirat Pal, J. Das and S.C. Gupta, EQ: 2014-40 (2014), Site Specific Design Earthquake Parameters for HEO HE Project, Arunachal Pradesh, Department of Earthquake Engineering, IIT Roorkee
55. **Sharma. M.L.**, M. Shrikhande, J. P. Narayan, B. K. Maheshwari, Kirat Pal, J. Das and S.C. Gupta, EQ: 2014-39 (2014), Site Specific Design Earthquake Parameters for Pauk HE Project, Arunachal Pradesh, Department of Earthquake Engineering, IIT Roorkee
56. Kumar. A., A.D. Pandey, **M.L. Sharma**, J.P. Narayan and S.C. Gupta, EQ: 2014-38 (2014), "Seismological Network Around Tehri Region, (from April 2014 to June 2014), Department of Earthquake Engineering, IIT Roorkee
57. **Sharma. M.L.**, Ashok Kumar, M. Shrikhande, B. K. Maheshwari and J. Das, EQ: 2014-35 (2014), Site Specific Design Earthquake Parameters for Umngot HE Project, Meghalaya, Department of Earthquake Engineering, IIT Roorkee
58. **Sharma. M.L.**, Kirat Pal, M. Shrikhande, B. K. Maheshwari and J. Das, EQ: 2014-34 (2014), Site Specific Design Earthquake Parameters for Naying HE Project (updated), Arunachal Pradesh, Department of Earthquake Engineering, IIT Roorkee
59. **Sharma. M.L.**, Kirat Pal, J. P. Narayan, M. Shrikhande, B. K. Maheshwari and J. Das, EQ: 2014-33 (2014), Site Specific Design Earthquake Parameters for Ganol HE Project, Meghalaya, Department of Earthquake Engineering, IIT Roorkee
60. **Sharma. M.L.**, J. P. Narayan, M. Shrikhande, B. K. Maheshwari, R. N. Dubey and J. Das, EQ: 2014-32 (2014), Site Specific Design Earthquake Parameters for Bilhaur HE Project, Uttar Pradesh, Department of Earthquake Engineering, IIT Roorkee
61. **Sharma. M.L.**, J. P. Narayan, M. Shrikhande, B. K. Maheshwari, Y. Singh and J. Das, EQ: 2014-31 (2014), Site Specific Design Earthquake Parameters for Swalkot HE Project, J & K, Department of Earthquake Engineering, IIT Roorkee
62. **Sharma. M.L.**, Ashwani Kumar, J. P. Narayan, M. Shrikhande, B. K. Maheshwari and J. Das, EQ: 2014-30 (2014), Site Specific Design Earthquake Parameters for Luhri HE Project, Himachal Pradesh, Department of Earthquake Engineering, IIT Roorkee
63. **Sharma. M.L.**, Amita Sinhal, J. P. Narayan, M. Shrikhande, B. K. Maheshwari, J. Das and S. C. Gupta, EQ: 2014-29 (2014), Site Specific Design Earthquake Parameters for Renukaji Dam Project, Department of Earthquake Engineering, IIT Roorkee
64. Kumar. A., A.D. Pandey, **M.L. Sharma**, J.P. Narayan and S.C. Gupta, EQ: 2014-28 (2014), "Seismological Network Around Tehri Region, (from Jan 2014 to Mar 2014), Department of Earthquake Engineering, IIT Roorkee
65. **Sharma. M.L.**, H. R. Wason, M. Shrikhande, J. P. Narayan, A. D. Pandey, Kirat Pal and J. Das, EQ: 2014-26 (2014), Site Specific Design Earthquake Parameters for Subansiri Middle (Kamla) HE Project, Arunachal Pradesh, Department of Earthquake Engineering, IIT Roorkee
66. **Sharma. M.L.**, Smt Amita Sinhal, J. P. Narayan, M. Shrikhande, B.K Maheshwari, and J. Das, EQ: 2014-25 (2014), Site Specific Design Earthquake Parameters for Gandarbhal HE Project, Jammu and Kashmir, Department of Earthquake Engineering, IIT Roorkee
67. **Sharma. M.L.**, H.R. Wason, Ashwani Kumar, Smt Amita Sinhal, M. Shrikhande, Pankaj Agarwal and J. Das, EQ: 2014-24 (2014), Site Specific Design Earthquake Parameters for Lower Kopili HE Project, Assam, Department of Earthquake Engineering, IIT Roorkee

68. **Sharma. M.L.,** Smt Amita Sinhval, J. P. Narayan, M. Shrikhande, B.K Maheshwari, and J. Das, EQ: 2014-23 (2014), Site Specific Design Earthquake Parameters for Dugar HE Project, Himachal Pradesh, Department of Earthquake Engineering, IIT Roorkee
69. **Sharma. M.L.,** Ashok Kumar, M. Shrikhande, J.P. Narayan, B.K Maheshwari and J.Das, EQ: 2014-22 (2014), Site Specific Design Earthquake Parameters for Kirthai HE Project, Jammu & Kashmir, Department of Earthquake Engineering, IIT Roorkee
70. **Sharma. M.L.,** J.P. Narayan, M. Shrikhande, B.K Maheshwari, R.N. Dubey and J.Das, EQ: 2014-19 (2014), Site Specific Design Earthquake Parameters for Rourkela T.P.P., Orissa, Department of Earthquake Engineering, IIT Roorkee
71. **Sharma. M.L.,** H.R. Wason, Smt Amita Sinhval, M. Shrikhande, Pankaj Agarwal, B.K Maheshwari and J.Das, EQ: 2014-18 (2014), Site Specific Design Earthquake Parameters for Kolodyne HE Project, Mizoram, Department of Earthquake Engineering, IIT Roorkee
72. Kumar. A., A.D. Pandey, **M.L. Sharma,** J.P. Narayan and S.C. Gupta, EQ: 2014-17 (2014), "Seismological Network Around Tehri Region, (from Oct 2013 to Dec 2013), Department of Earthquake Engineering, IIT Roorkee
73. **Sharma. M.L.,** H.R. Wason, Smt Amita Sinhval, Kirat Pal, M. Shrikhande, Pankaj Agarwal, S. Mukherjee and J. Das, EQ: 2014-16 (2014), Site Specific Design Earthquake Parameters for Devsari HE Project, Himachal Pradesh, Department of Earthquake Engineering, IIT Roorkee
74. **Sharma. M.L.,** H.R. Wason, Ashok Kumar, Y. Singh, M. Shrikhande, B.K. Maheshwari, Daya Shankar and J. Das, EQ: 2014-15 (2014), Site Specific Design Earthquake Parameters for Seli HE Project, Himachal Pradesh, Department of Earthquake Engineering, IIT Roorkee
75. **Sharma. M.L.,** H.R. Wason, Smt Amita Sinhval, Y. Singh, M. Shrikhande, Pankaj Agarwal and J.Das, EQ: 2014-14 B (2014), Site Specific Design Earthquake Parameters for Rihand Concrete Gravity Dam at Pipri HE Project, Uttar Pradesh, Department of Earthquake Engineering, IIT Roorkee
76. **Sharma. M.L.,** H.R. Wason, Smt Amita Sinhval, Y. Singh, M. Shrikhande, Pankaj Agarwal and J.Das, EQ: 2014-14 A (2014), Site Specific Design Earthquake Parameters for Rihand HE Project, Uttar Pradesh, Department of Earthquake Engineering, IIT Roorkee
77. **Sharma. M.L.,** J. P. Narayan, M. Shrikhande, B.K Maheshwari, A.D. Pandey and J.Das, EQ: 2014-13 (2014), Site Specific Design Earthquake Parameters for Mawphu HE Project, Meghalaya, Department of Earthquake Engineering, IIT Roorkee
78. **Sharma. M.L.,** H.R. Wason, S.Mukerjee, J.P Narayan, M. Shrikhande and J. Das, EQ: 2014-12 (2014), Site Specific Design Earthquake Parameters for Kyanshi- I HE Project, Meghalaya, Department of Earthquake Engineering, IIT Roorkee
79. **Sharma. M.L.,** H.R. Wason, Smt Amita Sinhval, M. Shrikhande, A. D. Pandey, J.Das and S.C. Gupta, EQ: 2014-11 (2014), Site Specific Design Earthquake Parameters for Dhaulasidh HE Project, Himachal Pradesh, Department of Earthquake Engineering, IIT Roorkee
80. **Sharma. M.L.,** H.R. Wason, Smt Amita Sinhval, Kirat Pal, J.P. Narayan, R. N. Dubey, R.S. Jakka and J.Das, EQ: 2014-10 (2014), Site Specific Design Earthquake Parameters for Reoli-Dugli HE Project, Himachal Pradesh, Department of Earthquake Engineering, IIT Roorkee

81. **Sharma. M.L.**, H.R. Wason, Smt Amita Sinhval, Kirat Pal, J.P. Narayan, R. N. Dubey, R.S. Jakka and J.Das, EQ: 2014-09 (2014), Site Specific Design Earthquake Parameters for Sach-khas HE Project, Arunachal Pradesh, Department of Earthquake Engineering, IIT Roorkee
82. **Sharma. M.L.**, D.K. Paul, J.P. Narayan, M. Shrikhande, B.K Maheshwari and J.Das, EQ: 2014-08 (2014), Site Specific Design Earthquake Parameters for Bhakra HE Project, Himachal Pradesh, Department of Earthquake Engineering, IIT Roorkee
83. **Sharma. M.L.**, H.R. Wason, Smt Amita Sinhval, M. Shrikhande, B.K Maheshwari, Daya Shankar, R.N.Dubey and J.Das, EQ: 2014-07 (2014), Site Specific Design Earthquake Parameters for Attunli HE Project, Arunachal Pradesh, Department of Earthquake Engineering, IIT Roorkee
84. **Sharma. M.L.**, H.R. Wason, Smt Amita Sinhval, M. Shrikhande, B.K Maheshwari, Daya Shankar, R.N.Dubey and J.Das, EQ: 2014-06 (2014), Site Specific Design Earthquake Parameters for Etalin HE Project, Arunachal Pradesh, Department of Earthquake Engineering, IIT Roorkee
85. **Sharma. M.L.**, H.R. Wason, Ashwani Kumar, Ashok Kumar, Smt Amita Sinhval, M. Shrikhande, Y. Singh, R.S. Jakka J.Das, EQ: 2014-05 (2014), Site Specific Design Earthquake Parameters for Nakthan HE Project, Himachal Pradesh, Department of Earthquake Engineering, IIT Roorkee
86. **Sharma. M.L.**, J.P. Narayan, M. Shrikhande, B.K Maheshwari, A.D. Pandey, and J.Das, EQ: 2014-03 (2014), Site Specific Design Earthquake Parameters for Phangchung HE Project, Arunachal Pradesh, Department of Earthquake Engineering, IIT Roorkee
87. **Sharma. M.L.**, H.R. Wason, Ashwani Kumar, Smt Amita Sinhval, M. Shrikhande, B.K Maheshwari, Y. Singh, S.C. Gupta and J.Das, EQ: 2014-02 (2014), Site Specific Design Earthquake Parameters for Kalai-II HE Project, Arunachal Pradesh, Department of Earthquake Engineering, IIT Roorkee
88. **Sharma. M.L.**, J.P. Narayan, M. Shrikhande, B.K Maheshwari, J. Das and S.C. Gupta, EQ: 2014-01 (2014), Site Specific Design Earthquake Parameters for Nikachhu HE Project, Bhutan, Department of Earthquake Engineering, IIT Roorkee
89. **Sharma. M.L.**, J.P. Narayan, M. Shrikhande, B.K Maheshwari, R.N. Dubey and J.Das, EQ: 2013-30 (2013), Site Specific Design Earthquake Parameters for Bilhaur TPP Site, Uttar Pradesh, Department of Earthquake Engineering, IIT Roorkee
90. **Sharma. M.L.**, Smt Amita Sinhval, J. P. Narayan, M. Shrikhande, B.K Maheshwari, and J.Das, EQ: 2013-29 (2013), Site Specific Design Earthquake Parameters for Dugar HE Project, Himachal Pradesh, Department of Earthquake Engineering, IIT Roorkee
91. Kumar. A., A.D. Pandey, **M.L. Sharma**, J.P. Narayan and S.C. Gupta, EQ: 2013-28 (2013), "Seismological Network Around Tehri Region, (from July 2013 to Sept 2013), Department of Earthquake Engineering, IIT Roorkee
92. **Sharma. M.L.**, J.P. Narayan, M. Shrikhande, B.K Maheshwari, Y. Singh and J.Das, EQ: 2013-26 (2013), Site Specific Design Earthquake Parameters for Swalkot HE Project, Jammu & Kashmir, Department of Earthquake Engineering, IIT Roorkee
93. Kumar. Ashwani, **M.L. Sharma**, J.P. Narayan, M. Shrikhande, N.C. Singhal, B.K Maheshwari, J. Das and S.C. Gupta, EQ: 2013-24 (2013), Site Specific Design Earthquake Parameters for Naying HE Project, Arunachal Pradesh, Department of Earthquake Engineering, IIT Roorkee

94. **Sharma. M.L.,** H.R. Wason, Ashok Kumar, Y. Singh, M. Shrikhande, B.K. Maheshwari, Daya Shankar and J. Das, EQ: 2013-23 (2013), Site Specific Design Earthquake Parameters for Seli HE Project, Himachal Pradesh, Department of Earthquake Engineering, IIT Roorkee
95. Kumar. A., A.D. Pandey, **M.L. Sharma,** J.P. Narayan and S.C. Gupta, EQ: 2013-22 (2013), "Seismological Network Around Tehri Region, (from Apr 2013 to June 2013), Department of Earthquake Engineering, IIT Roorkee
96. Kumar. A., A.D. Pandey, **M.L. Sharma,** J.P. Narayan and S.C. Gupta, EQ: 2013-20 (2013), "Seismological Network Around Tehri Region, (from Jan 2013 to Mar 2013), Department of Earthquake Engineering, IIT Roorkee
97. **Sharma. M.L.,** H.R. Wason, Smt Amita Sinhval, M. Shrikhande, B.K Maheshwari, Daya Shankar, R.N.Dubey and J.Das, EQ: 2013-19 (2013), Site Specific Design Earthquake Parameters for Etalin HE Project, Arunachal Pradesh, Department of Earthquake Engineering, IIT Roorkee
98. **Sharma. M.L.,** H.R. Wason, Smt Amita Sinhval, M. Shrikhande, B.K Maheshwari, Daya Shankar, R.N.Dubey and J.Das, EQ: 2013-18 (2013), Site Specific Design Earthquake Parameters for Attunli HE Project, Arunachal Pradesh, Department of Earthquake Engineering, IIT Roorkee
99. **Sharma. M.L.,** H.R. Wason, M. Shrikhande, S. Mukerjee, Kirat Pal, Daya Shankar and J. Das, EQ: 2013-17 (2013), Site Specific Design Earthquake Parameters for Chango Yangthang HE Project, Arunachal Pradesh, Department of Earthquake Engineering, IIT Roorkee
100. **Sharma. M.L.,** H.R. Wason, Smt Amita Sinhval, M. Shrikhande, S. Mukerjee, Kirat Pal, P. Agarwal and J.Das, EQ: 2013-16 (2013), Site Specific Design Earthquake Parameters for Devsari HE Project, Uttarakhand, Department of Earthquake Engineering, IIT Roorkee
101. **Sharma. M.L.,** H.R. Wason, Ashwani Kumar, Smt Amita Sinhval, M. Shrikhande, S. Mukerjee, R.N.Dubey and J. Das, EQ: 2013-15 (2013), Site Specific Design Earthquake Parameters for Yamne-II HE Project, Arunachal Pradesh, Department of Earthquake Engineering, IIT Roorkee
102. **Sharma. M.L.,** H.R. Wason, Ashwani Kumar, Smt Amita Sinhval, M. Shrikhande, S. Mukerjee, R.N.Dubey and J. Das, EQ: 2013-14 (2013), Site Specific Design Earthquake Parameters for Yamne-I HE Project, Arunachal Pradesh, Department of Earthquake Engineering, IIT Roorkee
103. **Sharma. M.L.,** and H.R. Wason, EQ: 2013-13 (2013), MEQ Data Processing Interpretation and report preparation of Earthquake generation for the year 2009, for study of seismogenic sources around the Subansiri Lower HE Project, Department of Earthquake Engineering, IIT Roorkee
104. **Sharma. M.L.,** H.R. Wason, Ashok Kumar, M. Shrikhande, Y. Singh, B.K Maheshwari, Daya Shankar and J. Das, EQ: 2013-09 (2013), Site Specific Design Earthquake Parameters for Miyar HE Project, Himachal Pradesh, Department of Earthquake Engineering, IIT Roorkee
105. **Sharma. M.L.,** H.R. Wason, Smt Amita Sinhval, M. Shrikhande, B.K Maheshwari, Daya Shankar, R.N Dubey and J. Das, EQ: 2013-08 (2013), Site Specific Design Earthquake Parameters for Triveni Mahadev HE Project, Himachal Pradesh, Department of Earthquake Engineering, IIT Roorkee
106. **Sharma. M.L.,** Ashwani Kumar, J.P Narayan, M. Shrikhande, B.K Maheshwari and J. Das, EQ: 2013-07 (2013), Site Specific Design Earthquake Parameters for Shongtong Karchham HE Project, Himachal Pradesh, Department of Earthquake Engineering, IIT Roorkee

107. **Sharma. M.L.**, H.R. Wason, S.Mukerjee, J.P Narayan, M. Shrikhande and J. Das, EQ: 2013-06 (2013), Site Specific Design Earthquake Parameters for Kyanshi HE Project, Meghalaya, Department of Earthquake Engineering, IIT Roorkee
108. **Sharma. M.L.**, H.R. Wason, S.Mukerjee, J.P Narayan, M. Shrikhande and J. Das, EQ: 2013-05 (2013), Site Specific Design Earthquake Parameters for Katwa TPP Project, West Bengal, Department of Earthquake Engineering, IIT Roorkee
109. **Sharma. M.L.**, H.R. Wason, J.P Narayan, M. Shrikhande and J. Das, EQ: 2013-04 (2013), Site Specific Design Earthquake Parameters for Gadarwara TPP Project, Madhya Pradesh, Department of Earthquake Engineering, IIT Roorkee
110. **Sharma. M.L.**, H.R. Wason, S.Mukerjee, Smt Amita Sinhval, M. Shrikhande, P. Agarwal and J. Das, EQ: 2013-02 (2013), Site Specific Design Earthquake Parameters for Kantangshiri HE Project, Arunachal Pradesh, Department of Earthquake Engineering, IIT Roorkee
111. **Sharma. M.L.**, H.R. Wason, Smt Amita Sinhval, M. Shrikhande and J. Das, EQ: 2013-01 (2013), Site Specific Design Earthquake Parameters for SEZ Mota Layja Project, Gujarat, Department of Earthquake Engineering, IIT Roorkee
112. **Sharma. M.L.**, H.R. Wason, M.Shrikhande, B.K.Maheshwari, A.D Pandey, R.N Dubey and J. Das, EQ: 2012-40 (2012), Site Specific Design Earthquake Parameters for Ratle HE Project, Jammu & Kashmir, Department of Earthquake Engineering, IIT Roorkee
113. **Sharma. M.L.**, H.R. Wason, J. P Narayan, M.Shrikhande, P.Agarwal, R.S. Jakka and J. Das, EQ: 2012-39 (2012), Site Specific Design Earthquake Parameters for Khurja TP Project, Uttar pradesh, Department of Earthquake Engineering, IIT Roorkee
114. **Sharma. M.L.**, H.R. Wason, Amita Sinhval, Kirat Pal, J. P Narayan, R.N. Dubey R.S. Jakka and J. Das, EQ: 2012-38 (2012), Site Specific Design Earthquake Parameters for Reoli_Dugli HE Project, Himachal Pradesh, Department of Earthquake Engineering, IIT Roorkee
115. **Sharma. M.L.**, H.R. Wason, Amita Sinhval, Kirat Pal, J. P Narayan, R.N. Dubey R.S. Jakka and J. Das, EQ: 2012-37 (2012), Site Specific Design Earthquake Parameters for Sach_Khas HE Project, Himachal Pradesh, Department of Earthquake Engineering, IIT Roorkee
116. Wason. H.R., **M.L. Sharma** and B.K. Maheshwari, EQ: 2012-36 (2012), Soil Profiling using MASW at Triveni Mahadev, Himachal Pradesh, Department of Earthquake Engineering, IIT Roorkee
117. **Sharma. M.L.**, H.R. Wason, Ashok Kumar, Smt Amita Sinhval, M. Shrikhande, B.K. Maheshwari and J. Das, EQ: 2012-35 (2012), Site Specific Design Earthquake Parameters for Nalo HE Project, Arunachal Pradesh, Department of Earthquake Engineering, IIT Roorkee
118. **Sharma. M.L.**, H.R. Wason, Amita Sinhval, M. Shrikhande, A.D. Pandey, J. Das and S. C Gupta EQ: 2012-34 (2012), Site Specific Design Earthquake Parameters for Dhaulasidh HE Project, Himachal Pradesh, Department of Earthquake Engineering, IIT Roorkee
119. **Sharma. M.L.**, H.R. Wason, Ashok Kumar, Amita Sinhval, M. Shrikhande, R.S. Jakka and J. Das, EQ: 2012-32 (2012), Site Specific Design Earthquake Parameters for Rongnichu HE Project, Sikkim, Department of Earthquake Engineering, IIT Roorkee
120. **Sharma. M.L.**, H.R. Wason, S. Mukerjee, M. Shrikhande, J. P Narayan and J. Das, EQ: 2012-31 (2012), Site Specific Design Earthquake Parameters for Bop HE Project, Sikkim, Department of Earthquake Engineering, IIT Roorkee

121. **Sharma. M.L.**, H.R. Wason, S. Mukerjee, M. Shrikhande, J. P Narayan and J. Das, EQ: 2012-30 (2012), Site Specific Design Earthquake Parameters for Bhimkiyong HE Project, Sikkim, Department of Earthquake Engineering, IIT Roorkee
122. **Sharma. M.L.**, H.R. Wason, S. Mukerjee, M. Shrikhande, J. P Narayan and J. Das, EQ: 2012-29 (2012), Site Specific Design Earthquake Parameters for Lachung HE Project, Sikkim, Department of Earthquake Engineering, IIT Roorkee
123. Wason. H.R., **M.L. Sharma**, M. Shrikhande, Daya Shanker and J. Das, EQ: 2012-25 (2012), Site Specific Design Earthquake Parameters for Tehri pumped storage Plant, Uttarakhand, Department of Earthquake Engineering, IIT Roorkee
124. Wason.H.R., Ashwani Kumar, **M.L. Sharma**, Amita Sinvhal, M. Shrikhande, Kirat Pal, A.D. Pandey and J. Das, EQ: 2012-24 (2012), Site Specific Design Earthquake Parameters for Gongri HE Project, Arunachal Pradesh, Department of Earthquake Engineering, IIT Roorkee
125. Wason. H.R.,**M.L. Sharma**, M. Shrikhande, B.K. Maheshwari, A.D. Pandey, S.C Gupta and J. Das, EQ: 2012-23 (2012), Site Specific Design Earthquake Parameters for Thana-plaun HE Project, Himachal Pradesh, Department of Earthquake Engineering, IIT Roorkee
126. **Sharma. M.L.**, H.R. Wason and B.K. Maheshwari, EQ: 2012-21 (2012), Soil Profiling using MASW at Bowala Nand Prayag, HEP, Chamoli Uttarakhand, Department of Earthquake Engineering, IIT Roorkee
127. Kumar. Ashwani., **M.L. Sharma**, H.R. Wason, M. Shrikhande, B.K. Maheshwari, N.C. Singhal, S.C. Gupta and J. Das, EQ: 2012-19 (2012), Site Specific Design Earthquake Parameters for Study for Faridabad TPP , Haryana, Department of Earthquake Engineering, IIT Roorkee
128. Wason. H.R., Ashwani Kumar, **M.L. Sharma**, Amita Sinvhal, S. Mukerjee, R.N. Dubey and J. Das, EQ: 2012-16 (2012), Site Specific Design Earthquake Parameters for Tiuni-plasu, HEP, Uttarakhand, Department of Earthquake Engineering, IIT Roorkee
129. Wason. H.R., Ashwani Kumar, **M.L. Sharma**, Amita Sinvhal, A.D. Pandey, M. Shrikhande, B.K. Maheshwari, S.C. Gupta and J. Das, EQ: 2012-15 (2012), Site Specific Design Earthquake Parameters for Marakknam Super Thermal Power Plant, Tamil Nadu, Department of Earthquake Engineering, IIT Roorkee
130. Wason. H.R., **M.L. Sharma**, J. P. Narayan, M. Shrikhande, B.K. Maheshwari and J. Das, EQ: 2012-14 (2012), Site Specific Design Earthquake Parameters for Khargaon TPP , Madhya Pradesh, Department of Earthquake Engineering, IIT Roorkee
131. Wason. H.R., Ashwani Kumar, **M.L. Sharma**, Ashok Kumar, M. Shrikhande, B.K. Maheshwari, Daya Shankar, R.N. Dubey and J. Das, EQ: 2012-13 (2012), Site Specific Design Earthquake Parameters for Auriya Gas Thermal Power Plant, Uttar Pradesh, Department of Earthquake Engineering, IIT Roorkee
132. Wason. H.R., **M.L. Sharma**, J.P. Narayan, M. Shrikhande, B.K. Maheshwari, Y. Singh and J. Das, EQ: 2012-12 (2012), Site Specific Design Earthquake Parameters for Tato-II, HEP, Arunachal Pradesh, Department of Earthquake Engineering, IIT Roorkee
133. Wason. H.R., **M.L. Sharma**, Amita Sinvhal, Ashok Kumar, M. Shrikhande, Y. singh. S.C. Gupta and J. Das, EQ: 2012-11 (2012), Site Specific Design Earthquake Parameters for Dikhu HEP, Nagaland, Department of Earthquake Engineering, IIT Roorkee

134. Wason. H.R., **M.L. Sharma**, Amita Sinvhal, M. Shrikhande, Daya Shankar, R.N. Dubey, R.S. Jakka and J. Das, EQ: 2012-10 (2012), Site Specific Design Earthquake Parameters for Rangit-II HEP, Assam, Department of Earthquake Engineering, IIT Roorkee
135. Wason. H.R., Ashwani Kumar, **M.L. Sharma**, Amita Sinvhal, M. Shrikhande, Pankaj Aggrwal and J. Das, EQ: 2012-8 (2012), Site Specific Design Earthquake Parameters for Lower Kopili HEP, Assam, Department of Earthquake Engineering, IIT Roorkee
136. **Sharma. M.L.**, H.R. Wason, Y. Singh and J. Das, EQ: 2012-7 (2012), Probabilistic Seismic Hazard assessment of the ATC Tower, New Delhi, Department of Earthquake Engineering, IIT Roorkee
137. Wason. H.R., D. K. Paul, **M.L. Sharma**, M. Shrikhande, B.K. Maheshwari and J. Das, EQ: 2012-6 (2012), Site Specific Design Earthquake Parameters for Barethi TPP Project, Bundalkhand, M.P, Department of Earthquake Engineering, IIT Roorkee
138. Wason. H.R., D. K. Paul, **M.L. Sharma**, M. Shrikhande, B.K. Maheshwari and J. Das, EQ: 2012-5 (2012), Site Specific Design Earthquake Parameters for Anta TPP Project, Rajasthan, Department of Earthquake Engineering, IIT Roorkee
139. Kumar. A., A.D. Pandey, **M.L. Sharma**, J.P. Narayan and S.C. Gupta, EQ: 2012-3 (2012), "Seismological Network Around Tehri Region, (from Oct 2011 to Dec 2011), Department of Earthquake Engineering, IIT Roorkee
140. Wason. H.R., **M.L. Sharma**, M. Shrikhande, J.P. Narayan, A.D. Pandey, Kirat Pal and J. Das, EQ: 2012-2 (2012), Site Specific Design Earthquake Parameters for Subansiri Middle H.E. Project, HEP, Arunachal Pradesh, Department of Earthquake Engineering, IIT Roorkee
141. Wason. H.R., **M.L. Sharma** and B.K. Maheshwari, EQ: 2012-1 (2012), Soil Profiling using MASW at Thana-plaun H.E. Project, Mandi Himachal Pradesh, Department of Earthquake Engineering, IIT Roorkee
142. Wason. H.R. and **M.L. Sharma**, EQ: 2011-35 (2011), MEQ data processing interpretation and report preparation of earthquake generated for the year 2008 for study of seismogenic sources around the Subansiri lower H.E. Project, Department of Earthquake Engineering, IIT Roorkee
143. **M.L. Sharma**, EQ: 2011-34 (2011), Shear wave profiling in NCT region using MASW technique, Department of Earthquake Engineering, IIT Roorkee
144. Wason. H.R., **M.L. Sharma** and B.K. Maheshwari, EQ: 2011-33 (2011), Site Specific Design Earthquake Parameters for Thana-Plaun, HEP, Himachal Pradesh, Department of Earthquake Engineering, IIT Roorkee
145. Wason. H.R., **M.L. Sharma**, Amita Sinvhal, M. Shrikhande, S. Mukerjee, S.C. Gupta and J. Das, EQ: 2011-32 (2011), Site Specific Design Earthquake Parameters for Kynshi, HEP, Meghalaya, Department of Earthquake Engineering, IIT Roorkee
146. Wason. H.R., **M.L. Sharma**, M. Shrikhande, B.K. Maheshwari, Pankaj Agarwal, Daya Shankar, R.N. Dubey and J. Das, EQ: 2011-30 (2011), Site Specific Design Earthquake Parameters for Mago-chu, HEP, Arunachal Pradesh, Department of Earthquake Engineering, IIT Roorkee
147. Wason. H.R., **M.L. Sharma**, M. Shrikhande, B.K. Maheshwari, Pankaj Agarwal, Daya Shankar, R.N. Dubey and J. Das, EQ: 2011-29 (2011), Site Specific Design Earthquake Parameters for Nyukcharong, HEP, Arunachal Pradesh, Department of Earthquake Engineering, IIT Roorkee

148. Wason. H.R., **M.L. Sharma**, M. Shrikhande, B.K. Maheshwari, Pankaj Agarwal, Daya Shankar, R.N. Dubey and J. Das, EQ: 2011-28 (2011), Site Specific Design Earthquake Parameters for Rho Tawang, HEP, Arunachal Pradesh, Department of Earthquake Engineering, IIT Roorkee
149. Wason. H.R., **M.L. Sharma**, M. Shrikhande, B.K. Maheshwari, Pankaj Agarwal, Daya Shankar, R.N. Dubey and J. Das, EQ: 2011-27 (2011), Site Specific Design Earthquake Parameters for Tawang, HEP, Arunachal Pradesh, Department of Earthquake Engineering, IIT Roorkee
150. Kumar. A., A.D. Pandey, **M.L. Sharma**, J.P. Narayan and S.C. Gupta, EQ: 2011-26 (2011), "Seismological Network Around Tehri Region", (from Jan2010 to Dec. 2010), Department of Earthquake Engineering, IIT Roorkee
151. **Sharma M. L.**, D. K. Paul, H.R. Wason and Mahaeshwari, B. K., (2011), EQ- 2011-25 Soil Profiling using MASW at Tiuni-Palasu Hydro Electric Project, Dehradun, Uttarakhand
152. Wason. H.R., **M.L. Sharma**, Amita Sinvhal, M. Shrikhande, B.K. Maheshwari, N.C. Singhal, Kirat Pal and J. Das, EQ: 2011-24 (2011), Site Specific Design Earthquake Parameters for Devasari, HEP, Uttarakhand, Department of Earthquake Engineering, IIT Roorkee
153. Wason. H.R., **M.L. Sharma**, Ashok Kumar, Y. Singh, M. Shrikhande, B.K. Maheshwari, Daya Shankar and J. Das, EQ: 2011-23 (2011), Site Specific Design Earthquake Parameters for Seli, HEP, Himachal Pradesh, Department of Earthquake Engineering, IIT Roorkee
154. Kumar. A., **M.L. Sharma**, M. Shrikhande, B.K. Maheshwari, N.C. Singhal, S. Mukerjee, Daya Shankar and J. Das, EQ: 2011-20 (2011), Site Specific Design Earthquake Parameters for Etalin, HEP, Arunachal Pradesh, Department of Earthquake Engineering, IIT Roorkee
155. Kumar. A., **M.L. Sharma**, M. Shrikhande, B.K. Maheshwari, N.C. Singhal, S. Mukerjee, Daya Shankar and J. Das, EQ: 2011-19 (2011), Site Specific Design Earthquake Parameters for Attunli, HEP, Arunachal Pradesh, Department of Earthquake Engineering, IIT Roorkee
156. Paul, D. K. , **M. L. Sharma**, B. K. Maheshwari, J. Das, EQ:2011-18 (2011) Seismic slope stability studies of Nara dam, Kandi area, Hoshiarpur, Punjab
157. Kumar. A., **M.L. Sharma**, M. Shrikhande, B.K. Maheshwari, J.P. Narayan, N.C. Singhal, J. Das and S.C. Gupta, EQ: 2011-14 (2011), Site Specific Design Earthquake Parameters for Chango Yangthang, HEP, Department of Earthquake Engineering, IIT Roorkee
158. Kumar. A., **M.L. Sharma**, M. Shrikhande, B.K. Maheshwari, Daya Shankar, R.N. Dubey, S. Mukerjee and J. Das, EQ: 2011-13 (2011), Site Specific Design Earthquake Parameters for Kholongchu, HEP, Bhutan, Department of Earthquake Engineering, IIT Roorkee
159. Kumar. A., A.D. Pandey, **M.L. Sharma**, J.P. Narayan and S.C. Gupta, EQ: 2011-12 (2011), "Seismological Network Around Tehri Region", (from Oct 2010 to Dec. 2010), Department of Earthquake Engineering, IIT Roorkee
160. Kumar. A., **M.L. Sharma**, M. Shrikhande, B.K. Maheshwari, J.P. Narayan, A.D. Pandey, J.Das and S.C. Gupta, EQ: 2011-11 (2011), Site Specific Design Earthquake Parameters for Pegadapalli, HEP, Andhra Pradesh, Department of Earthquake Engineering, IIT Roorkee
161. Kumar. A., **M.L. Sharma**, M. Shrikhande, B.K. Maheshwari, Ashok Kumar, Daya Shankar, R. N. Dubey and J. Das, EQ: 2011-09 (2011), Site Specific Design Earthquake Parameters for Tagurshit, HEP, Arunachal Pradesh, Department of Earthquake Engineering, IIT Roorkee

162. Kumar. A., **M.L. Sharma**, M. Shrikhande, B.K. Maheshwari, Amita Sinval, Y. Singh, J. Das and S.C. Gupta, EQ: 2011-05 (2011), Site Specific Design Earthquake Parameters for Kalai-II, HEP, Arunachal Pradesh, Department of Earthquake Engineering, IIT Roorkee
163. Kumar. A., A.D. Pandey, **M.L. Sharma**, J.P. Narayan and S.C. Gupta, EQ: 2011-01 (2011), "Seismological Network Around Tehri Region", (from July 2010 to Sept. 2010), Department of Earthquake Engineering, IIT Roorkee
164. Wason, H.R. and **M.L. Sharma** EQ: 2010-35 (2010), MEQ data processing, interpretation and report preparation for MEQ data collected during Dec-2006 to Nov 2007, for study of seismogenic sources around the Subanasi Lower HEP, Department of Earthquake Engineering, IIT Roorkee
165. Kumar. A., **M.L. Sharma**, M. Shrikhande, B.K. Maheshwari, H.R. Wason, Ashok Kumar, N.C. Singhal and J.Das, EQ: 2010-33 (2010), Site Specific Design Earthquake Parameters for Chitrangi Power Project, Madhya Pradesh, Department of Earthquake Engineering, IIT Roorkee
166. Kumar. A., **M.L. Sharma**, Amita Sinval, Y. Singh, M. Shrikhande, B.K. Maheshwari, S.C. Gupta and J.Das, EQ: 2010-32 (2010), Site Specific Design Earthquake Parameters for Kalai-I Hydro Electric Power Project (1450MW), Arunachal Pradesh, Department of Earthquake Engineering, IIT Roorkee
167. **Sharma, M. L.** and D.K. Paul , EQ: 2010-30 (2010), Probabilistic Seismic Hazard Analysis for Utkal Alumina Refinery Site, Orrisa, Department of Earthquake Engineering, IIT Roorkee
168. Kumar. A., **M.L. Sharma**, M. Shrikhande, B.K. Maheshwari, H.R. Wason, Ashok Kumar, A.D. Pandey and J.Das, EQ: 2010-29 (2010), Site Specific Design Earthquake Parameters for Tilaya Mega Power Project, Jharkhand, Department of Earthquake Engineering, IIT Roorkee
169. **Sharma M. L.**, EQ- 2010-28 Probabilistic Seismic Hazard Assessment for Delhi region and estimation of bed rock strong ground motion, Department of Earthquake Engineering, IIT Roorkee
170. Kumar. A., **M.L. Sharma**, M. Shrikhande, B.K. Maheshwari, J. P. Narayan, A.D. Pandey, S. Mukherjee and J.Das, EQ: 2010-27 (2010), Site Specific Design Earthquake Parameters for Tipang Hydro Electric Project, Arunachal Pradesh, Department of Earthquake Engineering, IIT Roorkee
171. Kumar. A., **M.L. Sharma**, M. Shrikhande, B.K. Maheshwari, H. R. Wason, Ashok Kumar, Y. Singh and J.Das, EQ: 2010-26 (2010), Site Specific Design Earthquake Parameters for Miyar HEP, Himachal Pradesh, Department of Earthquake Engineering, IIT Roorkee
172. Kumar. A., A.D. Pandey, **M.L. Sharma**, J.P. Narayan and S.C. Gupta, EQ: 2010-25 (2010), "Seismological Network Around Tehri Region, (from April 2010 to June 2010), Department of Earthquake Engineering, IIT Roorkee
173. Kumar. A., **M.L. Sharma**, H. R. Wason, M. Shrikhande, N.C. Singhal, B.K. Maheshwari, S. Mukerjee and J.Das, EQ: 2010-23 (2010), Site Specific Design Earthquake Parameters for Pemashelpu River Basin HEP, Arunachal Pradesh, Department of Earthquake Engineering, IIT Roorkee
174. Kumar. A., **M.L. Sharma**, M. Shrikhande, Daya Shanker, Y. Singh, B.K. Maheshwari, S. Mukerjee and J.Das, EQ: 2010-21 (2010), Site Specific Design Earthquake Parameters for Teesta-II HEP, Sikkim, Department of Earthquake Engineering, IIT Roorkee

175. Kumar. A., **M.L. Sharma**, Daya Shanker, M. Shrikhande, Y. Singh, B.K. Maheshwari, S. Mukerjee and J. Das, EQ: 2010-20 (2010), Site Specific Design Earthquake Parameters for Talcher TPS Expansion (2x660 MW), Department of Earthquake Engineering, IIT Roorkee
176. Kumar. A., **M.L. Sharma**, H.R. Wasson, M. Shrikhande, R.N. Dubey, B.K. Maheshwari, Ashok Kumar and J. Das, EQ: 2010-19 (2010), Site Specific Design Earthquake Parameters for Kudgi Super Thermal Power Project (400MW) at Bijapur District of Karnataka, Department of Earthquake Engineering, IIT Roorkee
177. Paul D.K., **M.L. Sharma**, Swami Saran, B.K. Maheshwari and S. Mukerjee, EQ: 2010-18 (2010), Site Specific Design Earthquake Parameters for Laying of Railway Infrastructure over deposit of coal ash in Anpara, Distt. Sonbhadra, Department of Earthquake Engineering, IIT Roorkee
178. Kumar. A., **M.L. Sharma**, Ashok Kumar, Y. Singh, M. Shrikhande, B.K. Maheshwari, Daya Shanker and J. Das, EQ: 2010-16 (2010), Site Specific Design Earthquake Parameters for Gajmara Super Thermal Power Project (4x800MW), Department of Earthquake Engineering, IIT Roorkee
179. Kumar. A., A.D. Pandey, **M.L. Sharma**, J.P. Narayan and S.C. Gupta, EQ: 2010-15 (2010), "Seismological Network Around Tehri Region, (from Jan 2009 to Dec 2009), Department of Earthquake Engineering, IIT Roorkee
180. Kumar. A., A.D. Pandey, **M.L. Sharma**, J.P. Narayan and S.C. Gupta, EQ: 2010-14 (2010) BLT-57-2010(I), Seismological Network Around Tehri Region, (from Jan 2010 to Mar 2010), Department of Earthquake Engineering, IIT Roorkee
181. Kumar. A., **M.L. Sharma**, M. Shrikhande, B.K. Maheshwari, S. Mukerjee, R.N. Dubey, Daya Shanker and J. Das, EQ: 2010-13 (2010), Site Specific Design Earthquake Parameters for Nafra HEP, Arunachal Pradesh, Department of Earthquake Engineering, IIT Roorkee
182. Kumar. A., **M.L. Sharma**, H.R. Wasson, M. Shrikhande, B.K. Maheshwari, R.N. Dubey, Ashok Kumar and J. Das, EQ: 2010-11 (2010), Site Specific Design Earthquake Parameters for Luhri Hydro Electric Power Project on River Satluj (775 MW) in H.P., Department of Earthquake Engineering, IIT Roorkee
183. Kumar. A., **M.L. Sharma**, Ashok Kumar, J.P. Narayan, M. Shrikhande, A.D. Pandey, B.K. Maheshwari, and J. Das, EQ: 2010-10 (2010), Site Specific Design Earthquake Parameters for NHDC 1320 MW Reva Thermal Power Project MP, Department of Earthquake Engineering, IIT Roorkee
184. Kumar. A., D.K. Paul, **M.L. Sharma**, M. Shrikhande, B.K. Maheshwari, R.N. Dubey, J. Das and S.C Gupta, EQ: 2010-08 (2010), Site Specific Design Earthquake Parameters for Palais Royale, Mumbai, Department of Earthquake Engineering, IIT Roorkee
185. Kumar. A., **M.L. Sharma**, Amita Sinvhal, M. Shrikhande, B.K. Maheshwari, A.D. Pandey, S. Mukerjee and J. Das, EQ: 2010-07 (2010), Site Specific Design Earthquake Parameters for Lethang Hydro Electric Project, Sikkim, Department of Earthquake Engineering, IIT Roorkee
186. Kumar. A., **M.L. Sharma**, M. Shrikhande, B.K. Maheshwari, J.P. Narayan, N.C. Singhal, J. Das and S.C. Gupta, EQ: 2010-06 (2010), Site Specific Design Earthquake Parameters for Hirong Electric Power Project (500MW) in Arunachal Pradesh, Department of Earthquake Engineering, IIT Roorkee

187. Kumar. A., A.D. Pandey, **M.L. Sharma**, J.P. Narayan and S.C. Gupta, EQ: 2010-04 (2010), BLT-57-2009 (III), "Seismological Network Around Tehri Region, (from July 2009 to Sept 09), Department of Earthquake Engineering, IIT Roorkee
188. Kumar. A., **M.L. Sharma**, H.R. Wasson, M. Shrikhande, R.N. Dubey, B.K. Maheshwari, J.Das and S.C. Gupta, EQ: 2010-03 (2010), Site Specific Design Earthquake Parameters for Malari Jelam & Jelam Tamal HEP, UK, Department of Earthquake Engineering, IIT Roorkee
189. Kumar. A., **M.L. Sharma**, Daya Shanker, M. Shrikhande, A.D. Pandey, B.K. Maheshwari, Ashok Kumar and J.Das, EQ: 2010-02 (2010), Site Specific Design Earthquake Parameters for Shongtong Karcham HEP, Department of Earthquake Engineering, IIT Roorkee
190. Kumar. A., **M. L. Sharma**, J.P. Narayan, M. Shrikhande, N.C. Singhal, B.K. Maheshwari, Ashok Kumar and J.Das, EQ: 2010-1 (2010), Site Specific Design Earthquake Parameters for Seismological Network Around Tehri Region, Department of Earthquake Engineering, IIT Roorkee
191. Kumar. A., **M.L. Sharma**, M. Shrikhande, B.K. Maheshwari, Amita Sinval, A.D. Pandey, S. Mukerjee and J. Das, EQ: 2009-51 (2009), Site Specific Design Earthquake Parameters for Madia HE Project, Department of Earthquake Engineering, IIT Roorkee
192. Kumar. A., **M.L. Sharma**, M. Shrikhande, B.K. Maheshwari, Amita Sinval, A.D. Pandey, S. Mukerjee and J. Das, EQ: 2009-50 (2009), Site Specific Design Earthquake Parameters for Dehra HE Project, Department of Earthquake Engineering, IIT Roorkee
193. Kumar. A., A.D. Pandey, **M.L. Sharma**, J.P. Narayan and S.C. Gupta, EQ: 2009-49 (2009), BLT-57-2009 (III), "Seismological Network Around Tehri Region", (from. July 2009 to Sept 09), Department of Earthquake Engineering, IIT Roorkee
194. Kumar. A., **M. L. Sharma**, H.R. Wason, Ashok Kumar, M. Shrikhande, B.K. Maheshwari, N.C. Singhal, and J.Das, EQ: 2009-48 (2009), Site Specific Design Earthquake Parameters for Bowala Nand Prayag HEP, Chamoli, Uttarakhand, Department of Earthquake Engineering, IIT Roorkee
195. Kumar. A., **M. L. Sharma**, J.P. Narayan, M. Shrikhande, N.C. Singhal, B.K. Maheshwari, J.Das, and S.C. Gupta EQ: 2009-46 (2009), Site Specific Design Earthquake Parameters for Naying Hydro Electric Power Project(1000,MW), in West Siang Distt. Of Arunachal Pradesh, Department of Earthquake Engineering, IIT Roorkee
196. Kumar. A., A. D. Pandey and **M. L. Sharma**, EQ: 2009-45 (2009), BLT-56-2009 (II),"Seismological Network around Tehri Region" Preliminary Seismological Bulletin (from. April 2009 to June 2009), Department of Earthquake Engineering, IIT Roorkee
197. Kumar. A, **M. L. Sharma**, A. Sinval, M. Shrikhande, A. D. Pandey, B. K. Mahashwari, Ashok Kumar and J. Das (2009), EQ- 2009-44 Site specific Design earthquake Parameters for Upper Karnali HE Project Site, Nepal, Department of Earthquake Engineering, IIT Roorkee
198. Kumar. A, **M. L. Sharma**, Daya Shanker, M. Shrikhande, Y. Singh, B. K. Mahashwari, S. C. Gupta and J. Das (2009), EQ- 2009-43 Site specific Design earthquake Parameters for Upper Marsingdi HE Project Site, Nepal, Department of Earthquake Engineering, IIT Roorkee
199. Kumar. A, **M. L. Sharma**, J. P. Narayan, M. Shrikhande, R. N. Dubey, B. K. Mahashwari, Ashok Kumar and J. Das (2009), EQ- 2009-40 Site specific Design earthquake Parameters for Parwan HE Project Site, Rajasthan, Department of Earthquake Engineering, IIT Roorkee

200. Kumar. A, **M. L. Sharma**, H. R. Wason, S. Mukerjee, M. Shrikhande, R. N. Dubey, B. K. Mahashwari and J. Das (2009), EQ- 2009-39 Site specific Design earthquake Parameters for Nyamjang Chhu HE Project Site, Arunachal Pradesh, Department of Earthquake Engineering, IIT Roorkee
201. **Sharma M. L.**, D. K. Paul, and J. Das, (2009), EQ- 2009-38 Probabilistic Seismic Hazard Assessment of the Nyabarongo H.E. Project Site, Rawanda, Department of Earthquake Engineering, IIT Roorkee
202. Kumar. A, **M. L. Sharma**, Ashok Kumar, M. Shrikhande, Daya Shanker, Y. Singh, B. K. Mahashwari and J. Das (2009), EQ- 2009-37 Site specific Design earthquake Parameters for Hutong-II HE Project Site, Arunachal Pradesh, Department of Earthquake Engineering, IIT Roorkee
203. Paul. D.K., **M. L. Sharma**, J. P. Narayan, M. Shrikhande, B. K. Maeshwari and J. Das (2009), EQ- 2009-36 Site specific Design earthquake Parameters for Umngot HE Project Site, Meghalaya, Department of Earthquake Engineering, IIT Roorkee
204. Kumar. A, **M. L. Sharma**, M. Shrikhande, Daya Shanker, B. K. Mahashwari, Y. Singh, J. Das and S.C. Gupta (2009), EQ- 2009-35 Site specific Design Earthquake Parameters for Chhatru HE Project Site, Himachal Pradesh, Department of Earthquake Engineering, IIT Roorkee
205. Kumar. A., A. D. Pandey and **M. L. Sharma**, EQ: 2009-33 (2009) " Seismological Network Around Tehri Region" Report on processing and Interpretation of seismological Data Collected (from January 2008 to December 2008) Department of Earthquake Engineering, IIT Roorkee
206. Kumar. A, **M. L. Sharma**, H. R. Wasan, M. Shrikhande, R. N. Dubey, B. K. Mahashwari, J. Das and S. C. Gupta (2009), EQ- 2009-32 Site specific Design earthquake Parameters for Dhamwari Sunda HE Project site, Himachal Pradesh, Department of Earthquake Engineering, IIT Roorkee
207. Kumar. A, **M. L. Sharma**, Ashok Kumar, M. Shrikhande, B. K. Mahashwari, A. Sinval, A. D. Pandey and J. Das (2009), EQ- 2009-31 Site specific Design earthquake Parameters for Kashang HE Project site, Himachal Pradesh, Department of Earthquake Engineering, IIT Roorkee
208. Kumar. A, **M. L. Sharma**, J. P. Narayan, M. Shrikhande, N. C. Singhal, B. K. Mahashwari, Ashok Kumar and J. Das (2009), EQ- 2009-30 Site specific Design earthquake Parameters for Singrauli Thermal Power Project site, Uttar Pradesh, Department of Earthquake Engineering, IIT Roorkee
209. Kumar. A., A. D. Pandey and **M. L. Sharma**, EQ: 2009-29 (2009), BLT-55-2009 (I), "Seismological Network around Tehri Region" Preliminary Seismological Bulletin (from. Jan 2009 to Mar 2009), Department of Earthquake Engineering, IIT Roorkee
210. Paul. D.K., **M. L. Sharma**, J. P. Narayan, M. Shrikhande, B. K. Maeshwari and J. Das, (2009), EQ- 2009-28 Site Specific Design Earthquake Parameters for Bhakra HE Project Site, Himachal Pradesh, Department of Earthquake Engineering, IIT Roorkee
211. Kumar Ashwani, **M. L. Sharma**, H. R. Wasan, M. Shrikhande, B. K. Mahashwari, R. N. Dubey, J. Das and S.C. Gupta (2009), EQ- 2009-27 Site specific Design earthquake Parameters for Jalam Tamak HE Project site Uttarakhand, Department of Earthquake Engineering, IIT Roorkee

212. Paul. D.K., **M. L. Sharma**, M. Shrikhande, Pankaj Agarwal and J. Das, (2009), EQ- 2009-26 Site Specific Design Earthquake Parameters for Bunakha HE Project Site Bhutan, Department of Earthquake Engineering, IIT Roorkee
213. Kumar Ashwani, **M. L. Sharma**, Daya Shanker, M. Shrikhande, B. K. Mahashwari, Y. Singh, J. Das and S. C. Gupta (2009), EQ- 2009-25 Site specific Design earthquake Parameters for Sissiri HE Project site Arunachal Pradesh, Department of Earthquake Engineering, IIT Roorkee
214. Kumar Ashwani, **M. L. Sharma**, S. Mukerjee, M. Shrikhande, N. C Singhal, J. P Narayan, B. K. Mahashwari and J. Das (2009), EQ- 2009-24 Site specific Design earthquake Parameters for Sainj HE Project site Himachal Pradesh, Department of Earthquake Engineering, IIT Roorkee
215. Kumar Ashwani, **M. L. Sharma**, M. Shrikhande, B. K. Mahashwari, A. Sinval, A. D Pandey, J. Das and S. C Gupta (2009), EQ- 2009-23 Site specific Design earthquake Parameters for Bajoli Holi H.E Project site Himachal Pradesh, Department of Earthquake Engineering, IIT Roorkee
216. Paul D.K, **M. L. Sharma** and B. K. Mahashwari (2009) EQ- 2009-22 Evaluation of Shear Wave velocity of Shongtong- Karchham HEP, Himachal Pradesh Department of Earthquake Engineering, IIT Roorkee
217. Paul D.K, **M. L. Sharma** and B. K. Mahashwari (2009), EQ- 2009-20 Evaluation of Shear Wave velocity of Ranjit Sagar Dam, Department of Earthquake Engineering, IIT Roorkee
218. Kumar, Ashwani, **M. L. Sharma**, M. Shrikhande, B. K. Mahashwari, A. Sinval, A. D Pandey, J. Das and S. C Gupta (2009), EQ- 2009-19 Site specific Design earthquake Parameters for Annpara Thermal Power Plant, Department of Earthquake Engineering, IIT Roorkee
219. Kumar. A., A. D. Pandey and **M. L. Sharma**, EQ: 2009-17 (2009), BLT-54-2008 (IV), "Seismological Network around Tehri Region" Preliminary Seismological Bulletin (from. Oct 2008 to Dec 2008), Department of Earthquake Engineering, IIT Roorkee
220. Kumar Ashwani, **M. L. Sharma**, M. Shrikhande, B. K. Mahashwari, Y. Singh, S. Mukerjee, D. Sanker and J. Das (2009), EQ- 2009-16 Site specific Design earthquake Parameters for Pauk HE Project site Arunachal Pradesh, Department of Earthquake Engineering, IIT Roorkee
221. Kumar Ashwani, **M. L. Sharma**, A. Sinval, A. D. Pandey, M. Shrikhande, B. K. Mahashwari, J. Das and S. C. Gupta, (2009), EQ- 2009-13 Site specific Design earthquake Parameters for Phata Byung HE Project site Uttrakhand, Department of Earthquake Engineering, IIT Roorkee
222. **Sharma M. L.**, D. K. Paul, and J. Das, (2009), EQ- 2009-12 Probabilistic Seismic Hazard Assessment of the SHWE-MYA Offshore Development Sites, Myanmar, Department of Earthquake Engineering, IIT Roorkee
223. Kumar, A., A. D. Pandey and **M. L. Sharma**, EQ: 2009-11 (2009), BLT-53-2008 (III), "Seismological Network around Tehri Region" Preliminary Seismological Bulletin (from. July 2008 to Sept. 2008), Department of Earthquake Engineering, IIT Roorkee
224. **Sharma M. L.**, D. K. Paul, and Mahashwari, B. K., (2009), EQ- 2009-10 Soil Profiling in Phuentsoling city, Department of Earthquake Engineering, IIT Roorkee
225. Kumar Ashwani, **M. L. Sharma**, A. Sinval, A. D. Pandey, Ashok Kumar, B. K. Mahashwari, M. Shrikhande and J. Das, (2009), EQ- 2009-09 Site specific Design earthquake Parameters for Dibbin HE Project site Arunachal Pradesh, Department of Earthquake Engineering, IIT Roorkee

226. Kumar Ashwani, **M. L. Sharma**, M. Shrikhande, D. Shanker, Y. Singh, B. K. Mahashwari, S. Mukharjee and J. Das, (2009), EQ- 2009-07 Site specific Design earthquake Parameters for Kuther HE Project site Himachal Pradesh, Department of Earthquake Engineering, IIT Roorkee
227. Paul, D.K., **M. L. Sharma**, J. P. Narayan, M. Shrikhande and J. Das, (2009), EQ- 2009-06 Site specific Design earthquake Parameters for Solapur Thermal Project site Maharastra, Department of Earthquake Engineering, IIT Roorkee
228. Kumar, A., A. D. Pandey and **M. L. Sharma**, EQ: 2009-04 (2009), BLT-52-2008 (II), "Seismological Network around Tehri Region" Preliminary Seismological Bulletin (from. April 2008 to June 2008), Department of Earthquake Engineering, IIT Roorkee
229. Paul, D.K., **M. L. Sharma**, J. P. Narayan, M. Shrikhande and J. Das, (2009), EQ- 2009-03 Site specific Design earthquake Parameters for Muzaffarpur Thermal Project site Bihar, Department of Earthquake Engineering, IIT Roorkee
230. Paul, D.K., **M. L. Sharma**, J. P. Narayan, M. Shrikhande and J. Das, (2009), EQ- 2009-02 Site specific Design earthquake Parameters for Ramganga Barrage Irrigation Scheme site Uttar Pradesh, Department of Earthquake Engineering, IIT Roorkee
231. Kumar, A., A. D. Pandey and **M. L. Sharma**, EQ: 2009-01 (2009), BLT-51-2008 (I), "Seismological Network around Tehri Region" Preliminary Seismological Bulletin (from. Jan. 2008 to March 2008), Department of Earthquake Engineering, IIT Roorkee
232. **Sharma M. L.** and M. Arora, (2008), EQ- 2008-47 Application of Differential Interferometry for seismic deformation studies in Garhwal Kumaon Himalaya, Department of Earthquake Engineering, IIT Roorkee
233. Paul, D.K., **M. L. Sharma** and J. Das, (2008), EQ- 2008-46 Design Spectra for Kochi LNG Thermal Project site : Assessment & Recommendations, Department of Earthquake Engineering, IIT Roorkee
234. Paul, D.K., **M. L. Sharma**, J. P. Narayan, M. Shrikhande and J. Das, (2008), EQ- 2008-45 Site specific Design earthquake Parameters for Anpara-D Thermal Project site Uttar Pradesh, Department of Earthquake Engineering, IIT Roorkee
235. Paul, D.K., **M. L. Sharma**, J. P. Narayan, M. Shrikhande and J. Das, (2008), EQ- 2008-44 Site specific Design earthquake Parameters for Tanda Thermal Project site Uttar Pradesh, Department of Earthquake Engineering, IIT Roorkee
236. Kumar Ashwani, **M. L. Sharma**, A. Sinhal, N. C. Singhal, B. K. Mahashwari, S. Mukharjee, M. Shrikhande and J. Das, (2008), EQ- 2008-43 Site specific Design earthquake Parameters for Makoria HE Project site Madhya Pradesh, Department of Earthquake Engineering, IIT Roorkee
237. Kumar, A., A. D. Pandey and **M. L. Sharma**, EQ: 2008-41 (2008) "Seismological Network Around Tehri Region" Report on processing and Interpretation of seismological Data Collected (from January 2007 to December 2007) Department of Earthquake Engineering, IIT Roorkee
238. Paul, D.K., **M. L. Sharma**, J. P. Narayan, M. Shrikhande and J. Das, (2008), EQ- 2008-40 Site specific Design earthquake Parameters for Lower Damwe HE Project site Arunachal Pradesh, Department of Earthquake Engineering, IIT Roorkee
239. Paul, D.K., **M. L. Sharma**, J. P. Narayan, M. Shrikhande and J. Das, (2008), EQ- 2008-39 Site specific Design earthquake Parameters for Upper Damwe HE Project site Arunachal Pradesh, Department of Earthquake Engineering, IIT Roorkee

240. Kumar, A., A. D. Pandey and **M. L. Sharma**, EQ: 2008-38 (2008), BLT-50-2007(III), "Seismological Network around Tehri Region" Preliminary Seismological Bulletin (from Oct. 2007 to Dec. 2007), Department of Earthquake Engineering, IIT Roorkee
241. Paul, D.K., **M. L. Sharma**, J. P. Narayan, M. Shrikhande and J. Das, (2008), EQ- 2008-36 Site specific Design earthquake Parameters for Panan HE Project site Sikkim, Department of Earthquake Engineering, IIT Roorkee
242. Paul, D.K., **M. L. Sharma**, J. P. Narayan, M. Shrikhande and J. Das, (2008), EQ- 2008-35 Site specific Design earthquake Parameters for Krishnapatnam Ultra Mega Power Project site Andhra Pradesh Department of Earthquake Engineering, IIT Roorkee
243. Paul, D.K., **M. L. Sharma**, J. P. Narayan, M. Shrikhande and J. Das, (2008), EQ- 2008-33 Site specific Design earthquake Parameters for Daudhan Multipurpose Project site Madhya Pradesh Department of Earthquake Engineering, IIT Roorkee
244. Paul, D.K., **M. L. Sharma**, J. P. Narayan, M. Shrikhande and J. Das, (2008), EQ- 2008-31 Site specific Design earthquake Parameters for Tato HE Project site Arunachal Pradesh . Department of Earthquake Engineering, IIT Roorkee
245. **Sharma, M. L.**, and J. P. Narayan (2008), EQ- 2008-30 Final report on Broadband Seismograph network for Modeling of Earthquake source and upper cost in the Garhwal Kumaun Himalaya region Department of Earthquake Engineering, IIT Roorkee
246. Paul, D.K., **M. L. Sharma**, J. P. Narayan, M. Shrikhande and J. Das, (2008), EQ- 2008-28 Site specific Design earthquake Parameters for Jangi Thopan Powari HE Project site Himachal Pradesh Department of Earthquake Engineering, IIT Roorkee
247. Paul, D.K., **M. L. Sharma** and J. Das, (2008), EQ- 2008-27 Structure stability of Mullapariyar dam considering the seismic effects Part I Seismic Hazard Assessment Department of Earthquake Engineering, IIT Roorkee
248. Paul, D.K., **M. L. Sharma**, J. P. Narayan, M. Shrikhande and J. Das, (2008), EQ- 2008-26 Site specific Design earthquake Parameters for Rampur HE Project site Himachal Pradesh Department of Earthquake Engineering, IIT Roorkee
249. Paul, D.K., **M. L. Sharma**, J. P. Narayan, M. Shrikhande and J. Das, (2008), EQ- 2008-25 Site specific Design earthquake Parameters for Sasan Thermal Power Plant Project site Madhya Pradesh Department of Earthquake Engineering, IIT Roorkee
250. Paul, D.K., **M. L. Sharma**, J. P. Narayan, M. Shrikhande and J. Das, (2008), EQ- 2008-24 Site specific Design earthquake Parameters for Lachung, Bhimkyong and Bop HE Project sites Sikkim Department of Earthquake Engineering, IIT Roorkee
251. Paul, D.K., **M. L. Sharma**, J. P. Narayan, M. Shrikhande and J. Das, (2008), EQ- 2008-23 Site specific Design earthquake Parameters for Shahpur HE Project site Maharastra(REL) Department of Earthquake Engineering, IIT Roorkee
252. Paul, D.K., **M. L. Sharma**, J. P. Narayan, M. Shrikhande and J. Das, (2008), EQ- 2008-22 Site specific Design earthquake Parameters for Mangdechhu HE Project site Bhutan Department of Earthquake Engineering, IIT Roorkee.
253. Paul, D.K., **M. L. Sharma**, J. P. Narayan, M. Shrikhande, B.K. Maheshwari and J. Das, (2008), EQ- 2008-19 Site specific Design earthquake Parameters for Srinagar HE Project site Uttrakhand. Department of Earthquake Engineering, IIT Roorkee

254. Paul, D.K., **M. L. Sharma**, J. P. Narayan, M. Shrikhande and J. Das, (2008), EQ- 2008-18 Site specific Design earthquake Parameters for Rupsiabagar HE Project site Uttarakhand. Department of Earthquake Engineering, IIT Roorkee
255. Paul, D.K., **M. L. Sharma**, J. P. Narayan, M. Shrikhande and J. Das, (2008), EQ:2008-14 Site-Specific Design Earthquake Parameter for Jamrani HE Project site, Uttarakhand, Department of Earthquake Engineering, IIT Roorkee
256. Kumar, A., A. D. Pandey and **M. L. Sharma**, EQ: 2008-13 (2008), BLT-49-2007(III), "Seismological Network around Tehri Region" Preliminary Seismological Bulletin (from July 2007 to September 2007), Department of Earthquake Engineering, IIT Roorkee
257. Paul, D.K., **M. L. Sharma**, J. P. Narayan, M. Shrikhande and J. Das, (2008), EQ:2008-12 Site-Specific Design Earthquake Parameter for Teesta IV HE Project site, Sikkim, Department of Earthquake Engineering, IIT Roorkee
258. Paul, D.K., **M. L. Sharma**, J. P. Narayan, M. Shrikhande and J. Das, (2008), EQ:2008-08 Site-Specific Design Earthquake Parameter for RITES Bridge-119 on Katra Quazigand Rail link project J&K, Department of Earthquake Engineering, IIT Roorkee
259. Paul, D.K., **M. L. Sharma**, J. P. Narayan, M. Shrikhande and J. Das, (2008), EQ:2008-07 Site-Specific Design Earthquake Parameter for RITES Bridge-99 on Katra Quazigand Rail link project J&K, Department of Earthquake Engineering, IIT Roorkee
260. Paul, D.K., **M. L. Sharma**, J. P. Narayan, M. Shrikhande and J. Das, (2008), EQ:2008-06 Site-Specific Design Earthquake Parameter for RITES Bridge-92 on Katra Quazigand Rail link project J&K, Department of Earthquake Engineering, IIT Roorkee
261. Paul, D.K., **M. L. Sharma**, J. P. Narayan, M. Shrikhande and J. Das, (2008), EQ:2008-05 Site-Specific Design Earthquake Parameter for RITES Bridge-87 on Katra Quazigand Rail link project J&K, Department of Earthquake Engineering, IIT Roorkee
262. Paul, D.K., **M. L. Sharma**, J. P. Narayan, M. Shrikhande and J. Das, (2008), EQ:2008-04 Site-Specific Design Earthquake Parameter for Badar pur TPP Project site, New Delhi, Department of Earthquake Engineering, IIT Roorkee
263. Paul, D.K., **M. L. Sharma**, J. P. Narayan, M. Shrikhande and J. Das, (2008), EQ:2008-03 Site-Specific Design Earthquake Parameter for Lara TPP Project site, Chhatisgarh, Department of Earthquake Engineering, IIT Roorkee
264. Paul, D.K., **M. L. Sharma**, J. P. Narayan, M. Shrikhande and J. Das, (2008), EQ:2008-02 Site-Specific Design Earthquake Parameter for Darlipali TPP Project site, Orissa, Department of Earthquake Engineering, IIT Roorkee
265. Paul, D.K., **M. L. Sharma**, J. P. Narayan, M. Shrikhande and J. Das, (2008), EQ:2008-01 Site-Specific Design Earthquake Parameter for Kayam kulam Power plant Project site, Kerala, Department of Earthquake Engineering, IIT Roorkee
266. Paul, D.K., **M. L. Sharma**, J. P. Narayan, M. Shrikhande and J. Das, (2007), EQ:2007-29 Site-Specific Design Earthquake Parameter for Singoli Bhatwari HE Project site, Uttarakhand, Department of Earthquake Engineering, IIT Roorkee
267. Paul, D.K., **M. L. Sharma**, J. P. Narayan, M. Shrikhande and J. Das, (2007), EQ:2007-28 Site-Specific Design Earthquake Parameter for Jakhol-Sankri HE Project site, Uttarakhand, Department of Earthquake Engineering, IIT Roorkee

268. Paul, D.K., **M. L. Sharma**, J. P. Narayan, M. Shrikhande and J. Das, (2007), EQ:2007-27 Site-Specific Design Earthquake Parameter for Ramam stage III HE Project site, Darjeeling, Department of Earthquake Engineering, IIT Roorkee
269. **Sharma M. L.** (2007), EQ:2007-26, Probabilistic Seismic Hazard Estimation of URI (J&K), Department of Earthquake Engineering, IIT Roorkee
270. Paul, D.K., **M. L. Sharma**, J. P. Narayan, M. Shrikhande and J. Das, (2007), EQ:2007-25 Site-Specific Design Earthquake Parameter for Budhil HE site, Chamba(H.P), Department of Earthquake Engineering, IIT Roorkee
271. Paul, D.K., **M. L. Sharma**, J. P. Narayan, M. Shrikhande and J. Das, (2007), EQ:2007-23 Site-Specific Design Earthquake Parameter for Alaknanda HE site, Uttarakhand., Department of Earthquake Engineering, IIT Roorkee
272. Wason, H. R, **M. L. Sharma**,(2007),EQ:2007-21 Installation,Monitoring,Dta acquisition and Interpretation for Seismic Monitoring in Subausiri lower HE project, Department of Earthquake Engineering, IIT Roorkee
273. Paul, D.K., **M. L. Sharma**, J. P. Narayan, M. Shrikhande and J. Das, (2007), EQ:2007-20 Site-Specific Design Earthquake Parameter for NMSEZ Project site, Navi Mumbai, Department of Earthquake Engineering, IIT Roorkee
274. Kumar, A., A. D. Pandey and **M. L. Sharma**, EQ: 2007-19 (2007)"Seismological Network Around Tehri Region"Report o processing and Interpretation of seismological Data Collected (from January 2006 to December 2006) Department of Earthquake Engineering, IIT Roorkee
275. Kumar, A., A. D. Pandey and **M. L. Sharma**, EQ: 2007-18 (2007), BLT-48-2007(II),"Seismological Network around Tehri Region" Preliminary Seismological Bulletin (from. April 2007 to June 2007), Department of Earthquake Engineering, IIT Roorkee
276. Paul, D.K., **M. L. Sharma**, J. P. Narayan, M. Shrikhande and J. Das, (2007), EQ:2007-17 Site-Specific Design Earthquake Parameter for Mundra Thermal Power Plant Gujarat HE site, J&K, Department of Earthquake Engineering, IIT Roorkee
277. Paul, D.K., **M. L. Sharma**, J. P. Narayan, M. Shrikhande and J. Das, (2007), EQ:2007-15 Site-Specific Design Earthquake Parameter for Teesta stage-III, Sikkim, Department of Earthquake Engineering, IIT Roorkee
278. Paul, D.K., **M. L. Sharma**, J. P. Narayan, M. Shrikhande and J. Das, (2007), EQ:2007-13 Site-Specific Design Earthquake Parameter for Kavar HE site, J&K, Department of Earthquake Engineering, IIT Roorkee
279. Kumar, A., A. D. Pandey and **M. L. Sharma**, EQ: 2007-12 (2007), BLT-47-2007(II),"Seismological Network around Tehri Region" Preliminary Seismological Bulletin (from. Jan 2007 to March 2007), Department of Earthquake Engineering, IIT Roorkee
280. Paul, D.K., **M. L. Sharma**, J. P. Narayan, M. Shrikhande and J. Das, (2007), EQ:2007-11 Site-Specific Design Earthquake Parameter for Bharoanghati HE site, Department of Earthquake Engineering, IIT Roorkee
281. Paul, D.K., **M. L. Sharma**, J. P. Narayan, M. Shrikhande and J. Das, (2007), EQ:2007-10 Site-Specific Design Earthquake Parameter for Malana HE site, Himachal Pradesh, Department of Earthquake Engineering, IIT Roorkee

282. Paul, D.K., **M. L. Sharma**, J. P. Narayan, M. Shrikhande and J. Das, (2007), EQ:2007-09 Site-Specific Design Earthquake Parameter RITES bridge no 73 on Katra Quazi Khand Rail link project, Uttaranchal, Department of Earthquake Engineering, IIT Roorkee
283. Paul, D.K., **M. L. Sharma**, J. P. Narayan, M. Shrikhande and J. Das, (2007), EQ:2007-08 Site-Specific Design Earthquake Parameter RITES bridge no 62 on Katra Quazi Khand Rail link project, Uttaranchal, Department of Earthquake Engineering, IIT Roorkee
284. Paul, D.K., **M. L. Sharma**, J. P. Narayan, M. Shrikhande and J. Das, (2007), EQ:2007-07 Site-Specific Design Earthquake Parameter for Pala Maneri HE site, Uttaranchal, Department of Earthquake Engineering, IIT Roorkee
285. Paul, D.K., **M. L. Sharma**, J. P. Narayan, M. Shrikhande and J. Das, (2007), EQ:2007-06 Site-Specific Design Earthquake Parameter for Jjhajar thermal power plant, Harayana, Department of Earthquake Engineering, IIT Roorkee
286. Paul, D.K., **M. L. Sharma**, J. P. Narayan, M. Shrikhande and J. Das, (2007), EQ:2007-05 Site-Specific Design Earthquake Parameter for Rosa thermal power plant, Uttarpradesh, Department of Earthquake Engineering, IIT Roorkee
287. Kumar, A., A. D. Pandey and **M. L. Sharma**, EQ: 2007-04 (2007), BLT-46-2006(IV), "Seismological Network around Tehri Region" Preliminary Seismological Bulletin (from. Oct 2006 to Dec 2006), Department of Earthquake Engineering, IIT Roorkee
288. Paul, D.K., **M. L. Sharma**, J. P. Narayan, M. Shrikhande and J. Das, (2007), EQ:2007-03 Site-Specific Design Earthquake Parameter for Wazirabad Bridge, Delhi, Department of Earthquake Engineering, IIT Roorkee
289. Paul, D.K., **M. L. Sharma**, J. P. Narayan, M. Shrikhande and J. Das, (2007), EQ:2007-02 Site-Specific Design Earthquake Parameter for Lata Tapovan H.E Project, Uttarakhand, Department of Earthquake Engineering, IIT Roorkee
290. Paul D. K., Ashok Kumar, **M. L. Sharma**, Y. Singh, H. Bungum, C. Lindholm, A. Kaynia and R. Bhasin (2007) Indo Norwegian programme of Institutional Cooperation on earthquake Engineering, Final Report 2003-2006, Department of Earthquake Engineering, IIT Roorkee, NORSAR, Norway and Norwegian Geotechnical Institute, Norway.
291. Kumar, A., A. D. Pandey and **M. L. Sharma**, EQ: 2006-27 (2006), BLT-45-2006(III), "Seismological Network around Tehri Region" Preliminary Seismological Bulletin (from. July 2006 to September 2006), Department of Earthquake Engineering, IIT Roorkee
292. Paul, D.K., M. L. Sharma, J. P. Narayan, M. Shrikhande and J. Das, (2006), EQ:2006-25 Site-Specific Design Earthquake Parameter for Bav H.E Project, Maharashtra, Department of Earthquake Engineering, IIT Roorkee
293. Paul, D.K., **M. L. Sharma**, J. P. Narayan, M. Shrikhande and J. Das, (2006), EQ:2006-24 Site-Specific Design Earthquake Parameter for Ratle H.E Project, J&K, Department of Earthquake Engineering, IIT Roorkee
294. Kumar, A., A. D. Pandey and **M. L. Sharma**, EQ: 2006-22 (2006), BLT-44-2006(II), "Seismological Network around Tehri Region" Preliminary Seismological Bulletin (from. April 2006 to June 2006), Department of Earthquake Engineering, IIT Roorkee

295. Kumar, A., A. D. Pandey and **M. L. Sharma**, EQ: 2006-21 (2006), BLT-43-2006(I), "Seismological Network around Tehri Region" Preliminary Seismological Bulletin (from. January 2006 to March 2006), Department of Earthquake Engineering, IIT Roorkee
296. Paul, D.K., **M. L. Sharma**, J. P. Narayan, M. Shrikhande and J. Das, (2006), EQ:2006-20 Site-Specific Design Earthquake Parameter for Bongaigaon thermal power Project, Assam, Department of Earthquake Engineering, IIT Roorkee
297. Paul, D.K., **M. L. Sharma**, J. P. Narayan, M. Shrikhande and J. Das, (2006), EQ:2006-18 Site-Specific Design Earthquake Parameter for kiru H.E. Project, J. & K, Department of Earthquake Engineering, IIT Roorkee
298. Kumar, A., A. D. Pandey and **M. L. Sharma**, EQ: 2006-16 (2006) Seismological Network around Tehri region - Report on processing and interpretation of seismological data collected from Jan. 2005 to Dec. 2005., Department of Earthquake Engineering, IIT Roorkee.
299. **Sharma, M. L.**, EQ:2006-15 (2006) Final report on application of DIF SAR to investigate critical deformation regimes in Garhwal Kumaoun Himalaya related to earthquakes and landslides, Submitted to DST, Department of Earthquake Engineering, IIT Roorkee.
300. Kumar, Ashok, **M. L. Sharma**, EQ:2006-13, Report on performance acceptance test for seismological instruments, submitted to GERI, Department of Earthquake Engineering, IIT Roorkee.
301. Kumar, A., A. D. Pandey and **M. L. Sharma**, EQ: 2006-12 (2006), BLT-42-2006(IV), "Seismological Network around Tehri Region" Preliminary Seismological Bulletin (from. Oct 2005 to Dec. 2005), Department of Earthquake Engineering, IIT Roorkee
302. Kumar, A., A. D. Pandey and **M. L. Sharma**, EQ: 2006-11 (2006), BLT-41-2006(III), "Seismological Network around Tehri Region" Preliminary Seismological Bulletin (from. July 2005 to Sept. 2005), Department of Earthquake Engineering, IIT Roorkee
303. Basu, S, **M. L. Sharma**, J. P. Narayan, M. Shrikhande and J. Das, (2006), EQ:2006-09 Site-Specific Design Earthquake Parameter for Lower Siang HE Project, Arunachal Pradesh, Department of Earthquake Engineering, IIT Roorkee.
304. Kumar, A., A. D. Pandey and **M. L. Sharma**, EQ: 2006-8 (2006) Seismological Network around Tehri region - Report on processing and interpretation of seismological data collected from Jan. 2004 to Dec. 2004., Department of Earthquake Engineering, IIT Roorkee.
305. **Sharma, M. L.**, D. K. Paul and Y. Singh (2006) EQ : 2006-06 Probabilistic seismic hazard assessment for KGIII site KG Basin, Department of Earthquake Engineering, IIT Roorkee.
306. Basu, S, **M. L. Sharma**, J. P. Narayan, M. Shrikhande and J. Das, (2006), EQ:2006-05 Site-Specific Design Earthquake Parameter for Talong HE Project, Arunachal Pradesh, Department of Earthquake Engineering, IIT Roorkee.
307. Kumar, A., A. D. Pandey and **M. L. Sharma**, EQ: 2006-04 (2006), BLT-40-2005(I), "Seismological Network around Tehri Region" Preliminary Seismological Bulletin (from. April 2005 to June 2005), Department of Earthquake Engineering, IIT Roorkee
308. Basu, S, **M. L. Sharma**, J. P. Narayan, M. Shrikhande and J. Das, (2006), EQ:2006-03 Site-Specific Design Earthquake Parameter for Pakal Dul H.E. Project, J. & K, Department of Earthquake Engineering, IIT Roorkee.

309. Kumar, A., **M. L. Sharma**, S. C. Gupta (2006), EQ:2006-02 Report on source parameters and attenuation characteristics in the environs of Bichom and Tenga dam site, Arunachal Pradesh, Department of Earthquake Engineering, IIT Roorkee.
310. Wason, H. R., **M. L. Sharma** and S. C. Gupta (2006) EQ: 2006-01 Report on background noise survey for SLP project, Arunachal Pradesh, Department of Earthquake Engineering, IIT Roorkee.
311. Basu, S, **M. L. Sharma**, J. P. Narayan, M. Shrikhande and J. Das, (2005), EQ:2005-34 Site-specific earthquake parameters for Kotlibehl II HE project, Uttranchal, Department of Earthquake Engineering, IIT Roorkee.
312. Basu, S, **M. L. Sharma**, J. P. Narayan, M. Shrikhande and J. Das, (2005), EQ:2005-33 Site-specific earthquake parameters for Kotlibehl I B HE project, Uttranchal, Department of Earthquake Engineering, IIT Roorkee.
313. Technical report of the Inter-Institutional Working group on the Great Tsunami of December 26, 2004 in Sumatra region (2005) Submitted to Department of Science and Technology, Government of India, New Delhi.
314. Basu, S, **M. L. Sharma**, J. P. Narayan, M. Shrikhande and J. Das, (2005), EQ:2005-32 Site-specific earthquake parameters for Kotlibehl I A HE project, Uttranchal, Department of Earthquake Engineering, IIT Roorkee.
315. Basu, S, **M. L. Sharma**, J. P. Narayan, M. Shrikhande and J. Das, (2005), EQ:2005-31 Site-specific earthquake parameters for Mauda Power plant, Department of Earthquake Engineering, IIT Roorkee.
316. **Sharma, M. L.**, D. K. Paul and Y. Singh (2005 EQ : 2005-29) Probabilistic seismic hazard assessment for KGD6 site KG Basin, Department of Earthquake Engineering, IIT Roorkee
317. Kumar, A., A. D. Pandey and **M. L. Sharma**, EQ: 2005-28 (2005), BLT-39-2005(I), "Seismological Network around Tehri Region" Preliminary Seismological Bulletin (from. Jan 2005 to March 2005), Department of Earthquake Engineering, IIT Roorkee
318. Basu, S, **M. L. Sharma**, J. P. Narayan, M. Shrikhande and J. Das, (2005), EQ:2005-27 Site-specific earthquake parameters for Farakka thermal power project, WB, Department of Earthquake Engineering, IIT Roorkee
319. Basu, S, **M. L. Sharma**, J. P. Narayan, M. Shrikhande and J. Das, (2005), EQ:2005-26 Site specific earthquake parameters for Debang Multipurpose Project, Guwahati, Department of Earthquake Engineering, IIT Roorkee
320. Basu, S, **M. L. Sharma**, J. P. Narayan, M. Shrikhande and J. Das, (2005), EQ:2005-25 Site specific earthquake parameters for Vishnugad-Pipalkoti HE project, Uttaraancha, Department of Earthquake Engineering, IIT Roorkee
321. Basu, S, **M. L. Sharma**, J. P. Narayan, M. Shrikhande and J. Das, (2005), EQ:2005-24 Site-Specific Design Earthquake Parameter for Dikrong HE Project, Arunachal Pradesh, Department of Earthquake Engineering, IIT Roorkee.
322. Kumar, A., A. D. Pandey and **M. L. Sharma**, EQ: 2005-23 (2005), BLT-38-2004(IV), "Seismological Network around Tehri Region" Preliminary Seismological Bulletin (from. Oct 2004 to Dec 2004), Department of Earthquake Engineering, IIT Roorkee.

323. Basu, S., **M. L. Sharma**, J. P. Narayan, M. Srikhande and J. Das, EQ: 2005-22 (2005) Site specific earthquake parameters for NH-31 Road Bridge Guwahati, Department of Earthquake Engineering, IIT Roorkee.
324. Basu, S., **M. L. Sharma**, J. P. Narayan, M. Srikhande and J. Das, EQ: 2005-20 (2005) Site specific earthquake parameters for Shahpurkandi HE project Site, Uttranchal, Department of Earthquake Engineering, IIT Roorkee.
325. Basu, S., **M. L. Sharma**, J. P. Narayan, M. Srikhande and J. Das, EQ: 2005-18 (2005) Site specific earthquake parameters for Koteswar HE project Site, Uttranchal, Department of Earthquake Engineering, IIT Roorkee.
326. Basu, S., **M. L. Sharma**, J. P. Narayan, M. Srikhande and J. Das, EQ: 2005-17 (2005) Site specific earthquake parameters for Karcham Wangtoo HE project Site, Uttranchal, Department of Earthquake Engineering, IIT Roorkee.
327. Kumar, A., A. D. Pandey and **M. L. Sharma**, EQ: 2005-16 (2005), BLT-37-2004(III), "Seismological Network around Tehri Region" Preliminary Seismological Bulletin (from. July 2004 to September 2004), Department of Earthquake Engineering, IIT Roorkee.
328. Basu, S., **M. L. Sharma**, J. P. Narayan, M. Srikhande and J. Das, EQ: 2005-14 (2005) Site specific earthquake parameters for Tapovan Vishnugad HE project Site, Uttranchal, Department of Earthquake Engineering, IIT Roorkee.
329. Basu, S., **M. L. Sharma**, J. P. Narayan, M. Srikhande and J. Das, EQ: 2005-13 (2005) Site specific earthquake parameters for Loharinag Pala HE project Site, Uttranchal, Department of Earthquake Engineering, IIT Roorkee.
330. **Sharma, M.L.**, EQ: 2005-12 [2005], Final Report on study of shallow earthquakes in Indian region using Differential SAR Interferometry, Report submitted to AICTE, Department of Earthquake Engineering, IIT Roorkee.
331. Kumar Ashok and **M. L. Sharma**, EQ: 2005-11 (2005), Pre Dispatch inspection of equipment, Department of Earthquake Engineering, IIT Roorkee.
332. Kumar, A., A. D. Pandey and **M. L. Sharma**, EQ: 2005-09 (2005), BLT-36-2004(II), "Seismological Network around Tehri Region" Preliminary Seismological Bulletin (from. April 2004 to June 2004), Department of Earthquake Engineering, IIT Roorkee.
333. Kumar, A., A. D. Pandey and **M. L. Sharma**, EQ: 2005-07 (2005), BLT-35-2004(I), "Seismological Network around Tehri Region" Preliminary Seismological Bulletin (from. Jan. 2004 to March 2004), Department of Earthquake Engineering, IIT Roorkee.
334. Basu, S., **M. L. Sharma**, J. P. Narayan, M. Srikhande and J. Das, EQ: 2005-06 (2005) Site specific earthquake parameters for Allain Duhangan HE project Site, Himachal Pradesh, Department of Earthquake Engineering, IIT Roorkee.
335. Basu, S., **M. L. Sharma**, J. P. Narayan, M. Srikhande and J. Das, EQ: 2005-05 (2005) Site specific earthquake parameters for Chutak HE project Site, J & K, Department of Earthquake Engineering, IIT Roorkee.
336. Basu, S., **M. L. Sharma**, J. P. Narayan, M. Srikhande and J. Das, EQ: 2005-04 (2005) Site specific earthquake parameters for Pipavav Power Plant project Site, Gujarat, Department of Earthquake Engineering, IIT Roorkee.

337. Kumar, A., A. D. Pandey and **M. L. Sharma**, EQ: 2005-01 (2005) Seismological Network around Tehri region - Report on processing and interpretation of seismological data collected from Jan. 2003 to Dec. 2003., Department of Earthquake Engineering, IIT Roorkee.
338. Basu, S., **M. L. Sharma**, J. P. Narayan, M. Srikhande and J. Das, EQ: 2004-22 (2004) Site specific earthquake parameters for Viyasi HE project Site, Uttranchal, Department of Earthquake Engineering, IIT Roorkee.
339. Basu, S., **M. L. Sharma**, J. P. Narayan, M. Srikhande and J. Das, EQ: 2004-21 (2004) Site specific earthquake parameters for Lakhwar HE project Site, Uttranchal, Department of Earthquake Engineering, IIT Roorkee.
340. Wason, H. R., **M. L. Sharma**, EQ: 2004-19(2004), "Microearthquake investigations around Middle Siang HE project, Siang and Subansiri Basins, Arunachal Pradesh, Department of Earthquake Engineering, IIT Roorkee.
341. Kumar, A., A. D. Pandey and **M. L. Sharma**, EQ: 2004-18 (2004) Seismological Network around Tehri region - Report on processing and interpretation of seismological data collected from Jan. 2002 to Dec. 2002., Department of Earthquake Engineering, IIT Roorkee.
342. Basu, S., **M. L. Sharma**, J. P. Narayan, M. Srikhande and J. Das, EQ: 2004-17 (2004) Site specific earthquake parameters for Gandhar Power Plant Site, Gujarat, Department of Earthquake Engineering, IIT Roorkee.
343. Kumar, A., A. D. Pandey and **M. L. Sharma**, EQ: 2004-16 (2004), BLT-34-2003(IV), "Seismological Network around Tehri Region" Preliminary Seismological Bulletin (from. Oct. 2003 to Dec. 2003), Department of Earthquake Engineering, IIT Roorkee.
344. Kumar, A., A. D. Pandey and **M. L. Sharma**, EQ: 2004-15 (2004), BLT-33-2003(III), "Seismological Network around Tehri Region" Preliminary Seismological Bulletin (from. July, 2003 to Sept. 2003), Department of Earthquake Engineering, IIT Roorkee.
345. Basu, S., **M. L. Sharma**, J. P. Narayan, M. Srikhande and J. Das, EQ: 2004-14 (2004) Site specific earthquake parameters for Chenab Railway bridge Site, J&K, Department of Earthquake Engineering, IIT Roorkee.
346. Basu, S., **M. L. Sharma**, J. P. Narayan, M. Srikhande and J. Das, EQ: 2004-13 (2004) Site specific earthquake parameters for Anji Khand Railway bridge Site, J & K, Department of Earthquake Engineering, IIT Roorkee.
347. Kumar, A., A. D. Pandey and **M. L. Sharma**, EQ: 2004-11 (2004), BLT-32-2003(II), "Seismological Network around Tehri Region" Preliminary Seismological Bulletin (from. April, 2003 to June 2003), Department of Earthquake Engineering, IIT Roorkee.
348. Kumar, A., A. D. Pandey and **M. L. Sharma**, EQ: 2004-10 (2004), Report on the microearthquake studies in the environs of Bhichom and Tenga dam site, Kameng Hydro electric project, Arunachal Pradesh, Department of Earthquake Engineering, IIT Roorkee.
349. Basu, S., **M. L. Sharma**, J. P. Narayan, M. Srikhande and J. Das, EQ: 2004-09 (2004) Site specific earthquake parameters for East Korba Thermal Power project Site, Department of Earthquake Engineering, IIT Roorkee.
350. Basu, S., **M. L. Sharma**, J. P. Narayan, M. Srikhande and J. Das, EQ: 2004-08 (2004) Site specific earthquake parameters for Korba Thermal Power project Site, Department of Earthquake Engineering, IIT Roorkee.

351. Kumar, A., A. D. Pandey and **M. L. Sharma**, EQ: 2004-07 (2004), BLT-31-2003(I), "Seismological Network around Tehri region - Report on processing and interpretation of seismological data collected from Jan. 2003 to Dec. 2003, Department of Earthquake Engineering, IIT Roorkee.
352. Kumar, A., A. D. Pandey and **M. L. Sharma**, EQ: 2004-05 (2004), BLT-30-2002(IV), "Seismological Network around Tehri Region" Preliminary Seismological Bulletin (from. Oct. 2002 to Dec. 2002), Department of Earthquake Engineering, IIT Roorkee.
353. Basu, S., **M. L. Sharma**, J. P. Narayan, M. Srikhande and J. Das, EQ: 2004-04 (2004) Site specific earthquake parameters for Ennore project site, Chennai, Department of Earthquake Engineering, IIT Roorkee.
354. Basu, S., **M. L. Sharma**, J. P. Narayan, M. Srikhande and J. Das, EQ: 2004-03 (2004) Site specific earthquake parameters for NCPP Dadri Project site, Uttar Pradesh, Department of Earthquake Engineering, IIT Roorkee.
355. Basu, S., **M. L. Sharma**, J. P. Narayan, M. Srikhande and J. Das, EQ: 2004-02 (2004) Site specific earthquake parameters for Nimu Bazgo HE project site, J & K, Department of Earthquake Engineering, IIT Roorkee.
356. Basu, S., **M. L. Sharma**, J. P. Narayan, M. Srikhande and J. Das, EQ: 2004-01 (2004) Site specific earthquake parameters for Uri II HE project site, Jammu & Kashmir, Department of Earthquake Engineering, IIT Roorkee.
357. Basu, S., **M. L. Sharma**, J. P. Narayan, M. Srikhande and J. Das, EQ: 2003-20 (2003) Site specific earthquake parameters for Omkareshwar HE project site, Madhya Pradesh, Department of Earthquake Engineering, IIT Roorkee.
358. Basu, S., **M. L. Sharma**, J. P. Narayan, M. Srikhande and J. Das, EQ: 2003-19 (2003) Site specific earthquake parameters for Ujjayanata Palace, Agartala, Department of Earthquake Engineering, IIT Roorkee.
359. Kumar, A., A. D. Pandey and **M. L. Sharma**, EQ: 2003-18 (2003), BLT-29-2002(III), "Seismological Network around Tehri Region" Preliminary Seismological Bulletin (from. July 2002 to Sept. 2002), Department of Earthquake Engineering, IIT Roorkee.
360. Kumar, A., A. D. Pandey and **M. L. Sharma**, EQ: 2003-17 (2003), BLT-28-2002(II), "Seismological Network around Tehri Region" Preliminary Seismological Bulletin (from. April. 2002 to June 2002), Department of Earthquake Engineering, IIT Roorkee.
361. Basu, S., **M. L. Sharma**, J. P. Narayan, M. Srikhande and J. Das, EQ: 2003-16 (2003) Site specific earthquake parameters for Kishanganga HE project site, Jammu and Kashmir, Department of Earthquake Engineering, IIT Roorkee.
362. Basu, S., **M. L. Sharma**, J. P. Narayan, M. Srikhande and J. Das, EQ: 2003-15 (2003) Site specific earthquake parameters for Chamara stage III HE project site, Himachal Pradesh, Department of Earthquake Engineering, IIT Roorkee.
363. Basu, S., **M. L. Sharma**, J. P. Narayan, M. Srikhande and J. Das, EQ: 2003-14 (2003) Site specific earthquake parameters for Bhillai Power Plant Project site, Durg, Chattisgarh, Department of Earthquake Engineering, IIT Roorkee.
364. Basu, S., **M. L. Sharma**, J. P. Narayan, M. Srikhande and J. Das, EQ: 2003-13 (2003) Site specific earthquake parameters for Nabinagar Power Plant Project site, Bihar, Department of Earthquake Engineering, IIT Roorkee.

365. Kumar, A., A. D. Pandey and **M. L. Sharma**, EQ: 2003-12 (2003), BLT-27-2002(I), "Seismological Network around Tehri Region" Preliminary Seismological Bulletin (from Jan. 2002 to March 2002), Department of Earthquake Engineering, IIT Roorkee.
366. Kumar, A., A. D. Pandey and **M. L. Sharma**, EQ: 2003-11 (2003) Seismological Network around Tehri region - Report on processing and interpretation of seismological data collected from Jan. 2001 to Dec. 2001., Department of Earthquake Engineering, IIT Roorkee.
367. Basu, S., **M. L. Sharma**, J. P. Narayan, M. Srikhande and J. Das, EQ: 2003-07 (2003) Site specific earthquake parameters for Lower Siang HE project site, Arunachal Pradesh, Department of Earthquake Engineering, IIT Roorkee.
368. Basu, S., **M. L. Sharma**, J. P. Narayan, M. Srikhande and J. Das, EQ: 2003-05 (2003) Site specific earthquake parameters for Serlui B dam site, Mizoram, NE India,, Department of Earthquake Engineering, IIT Roorkee.
369. Basu, S., **M. L. Sharma**, J. P. Narayan, M. Srikhande and J. Das, EQ: 2003-02 (2003) Site specific earthquake parameters for Sewa – II HE project site, Kathua, J&K,, Department of Earthquake Engineering, IIT Roorkee.
370. Basu, S., **M. L. Sharma**, J. P. Narayan, M. Srikhande and J. Das, EQ: 2003-01 (2003) Site specific earthquake parameters for Dhanikhari site, Andaman and Nicobar,, Department of Earthquake Engineering, IIT Roorkee.
371. Kumar, A., A. D. Pandey and **M. L. Sharma**, EQ: 2002-15 (2002), BLT-26-2001(IV), "Seismological Network around Tehri Region" Preliminary Seismological Bulletin (from Oct. 2001 to Dec. 2001), Department of Earthquake Engineering, IIT Roorkee.
372. Basu, S., **M. L. Sharma**, J. P. Narayan, M. Srikhande and J. Das, EQ: 2002-14 (2002) Site specific earthquake parameters for Kahalgaon site, Bihar,, Department of Earthquake Engineering, IIT Roorkee.
373. Basu, S., **M. L. Sharma**, M. Srikhande and J. Das, EQ: 2002-13 (2002) Site specific earthquake parameters for Rani Avanti Bai Saagar Dam (Bargi) site, Madhya Pradesh, Department of Earthquake Engineering, IIT Roorkee.
374. Wason, H. R. and **M. L. Sharma**, EQ: 2002-11 (2002) Microearthquake investigations in Siang and Subansiri basins, Arunachal Pradesh, Phase I- Feasibility and back ground noise survey for Middle Siang HE project, Department of Earthquake Engineering, IIT Roorkee.
375. Chandra, B., S. Basu and **M. L. Sharma**, EQ: 2002-08 (2002) Site specific earthquake parameters for Upper Subansiri HE Project Aunachal Pradesh,, Department of Earthquake Engineering, IIT Roorkee.
376. Kumar, A., A. D. Pandey and **M. L. Sharma**, EQ: 2002-07 (2002), BLT-25-2001(III), "Seismological Network around Tehri Region" Preliminary Seismological Bulletin (from July. 2001 to September 2001, Department of Earthquake Engineering, IIT Roorkee.
377. Basu, S. and **M. L. Sharma**, J. P. Narayan and J. Das, EQ: 2002-06 (2002) Site specific earthquake parameters for Teesta Stage IV HE Project West Bengal,, Department of Earthquake Engineering, IIT Roorkee.
378. Basu, S. and **M. L. Sharma** J. P. Narayan and J. Das, EQ: 2002-05 (2002) Site specific earthquake parameters for Teesta Stage III HE Project West Bengal,, Department of Earthquake Engineering, IIT Roorkee.

379. Chandra, B., S. Basu and **M. L. Sharma**, EQ: 2002-04 (2002) Site specific earthquake parameters for Middle Subansiri HE Project Aunachal Pradesh,, Department of Earthquake Engineering, IIT Roorkee.
380. Chandra, B., S. Basu and **M. L. Sharma**, EQ: 2002-01 (2002) Site specific earthquake parameters for Middle Siang project Aunachal Pradesh,, Department of Earthquake Engineering, IIT Roorkee.
381. Kumar, A., A. D. Pandey and **M. L. Sharma**, EQ: 2001-15 (2001), BLT-24-2001(II), "Seismological Network around Tehri Region" Preliminary Seismological Bulletin (from Apr. 2001 to June 2001), Department of Earthquake Engineering, IIT Roorkee.
382. Chandra, B., S. Basu and **M. L. Sharma**, EQ: 2001-14 (2001) Site specific earthquake parameters for Subansiri lower HE Project Aunachal Pradesh,, Department of Earthquake Engineering, IIT Roorkee.
383. Chandra, B., S. Basu , **M. L. Sharma** and J. Das, EQ: 2001-13(2001) Site specific earthquake design parameters for Super Thermal Power plant site, NorthKaranpura, Bihar, Department of Earthquake Engineering, IIT Roorkee.
384. Kumar, A., A. D. Pandey and **M. L. Sharma**, EQ: 2001-12 (2001), BLT-23-2001(I), "Seismological Network around Tehri Region" - Preliminary Seismological Bulletin (from Jan 2001 to Mar 2001), Department of Earthquake Engineering, IIT Roorkee.
385. Chandra, B., S. Basu, **M. L. Sharma** and J. Das, EQ: 2001-11 (2001) Site specific earthquake design parameters for Super Thermal Power plant site, Barh, Bihar, Department of Earthquake Engineering, IIT Roorkee.
386. Kumar, A., A. D. Pandey and **M. L. Sharma**, EQ: 2001-09 Report on processing & interpretation of seismological data collected from Jan. 2000 to Dec. 2000., Department of Earthquake Engineering, IIT Roorkee.
387. Kumar, A., A. D. Pandey and **M. L. Sharma**, EQ: 2001-07 (2001), BLT-22-2000(IV), "Seismological Network around Tehri Region" - Preliminary Seismological Bulletin (from Oct. 2000 to Dec. 2000), Department of Earthquake Engineering, IIT Roorkee.
388. Kumar, A., A. D. Pandey and **M. L. Sharma**, EQ: 2001-05 (2001), BLT-21-2000(III), "Seismological Network around Tehri Region" - Preliminary Seismological Bulletin (from July. 2000 to September 2000), Department of Earthquake Engineering, IIT Roorkee.
389. Kumar, A., A. D. Pandey and M. L. Sharma, EQ: 2001-04 (2001) BLT-20-2000(II), "Seismological Network around Tehri Region" Preliminary Seismological Bulletin (from Apr. 2000 to June 2000), Department of Earthquake Engineering, IIT Roorkee.
390. Chandra, B., S. Basu & **M. L. Sharma**, EQ: 2001-03(2001) Site specific earthquake design parameters for Parbati HE project state III Dam site, Kullu, Himachal Pradesh, Department of Earthquake Engineering, IIT Roorkee.
391. Chandra, B., S. Basu and **M. L. Sharma**, EQ: 2001-02 (2001) Site specific earthquake parameters for Metntdu Leshka Project, Meghlaya,, Department of Earthquake Engineering, IIT Roorkee.
392. Chandra, B., S. Basu and **M. L. Sharma**, EQ: 2001-01 (2001) Site specific earthquake parameters for Kameng and Damwe Project, Arunachal Pradesh,, Department of Earthquake Engineering, IIT Roorkee.

393. Kumar, A., A. D. Pandey and **M. L. Sharma**, EQ: 2000-20 (2000), Final Report on Processing and Interpretation of seismological data from January 1999 to December 1999 of the project "Seismological Network around Tehri region", Earthquake Engineering Studies of Department of Earthquake Engineering, University of Roorkee, Roorkee, Department of Earthquake Engineering, IIT Roorkee.
394. Kumar, A., A. D. Pandey and **M. L. Sharma**, EQ: 2000-19 (2000), BLT-19-2000(I), "Seismological Network around Tehri Region" - Preliminary Seismological Bulletin (from Jan. 2000 to March 2000), Department of Earthquake Engineering, IIT Roorkee.
395. Paul, D. K., Chandra, B., S. Basu S. Mukharji and **M. L. Sharma**, EQ : 2000-15 (2000), Precaution in designing of power plant foundation and structures of Talcher II Super Thermal Power Plant site, Orissa, Department of Earthquake Engineering, IIT Roorkee.
396. Chandra, B., S. Basu and **M. L. Sharma**, EQ : 2000-14 (2000) Updation of site specific earthquake parameters for Kol dam, Himachal Pradesh,, Department of Earthquake Engineering, IIT Roorkee.
397. Chandra, B., S. Basu, **M. L. Sharma** and J. P. Narayan, EQ : 2000-13 (2000) Site specific earthquake parameters for Parbati dam stage II , Himachal Pradesh,, Department of Earthquake Engineering, IIT Roorkee.
398. Chandra, B., S. Basu and **M. L. Sharma**, EQ : 2000-12 (2000) Site specific earthquake parameters for Teesta Stage V H. E. Project, Sikkim, Department of Earthquake Engineering, IIT Roorkee.
399. Chandra, B., S. Basu and **M. L. Sharma**, EQ : 2000-11 (2000), Site specific earthquake parameters Talcher II Super Thermal Power Plant site, Orissa, Department of Earthquake Engineering, IIT Roorkee.
400. Chandra, B., S. Basu and **M. L. Sharma**, EQ : 2000-10 (2000), Site specific earthquake parameters for Tuivai Dam site, Meghalaya , Department of Earthquake Engineering, IIT Roorkee.
401. Chandra, B., S. Basu and **M. L. Sharma**, EQ : 2000-08 (2000), Site specific earthquake parameters for Rihand Super Thermal Power Plant, UP, Department of Earthquake Engineering, IIT Roorkee.
402. Kumar, A., A. D. Pandey and **M. L. Sharma**, EQ : 2000-07 (2000), BLT-18-99(IV), "Seismological Network around Tehri Region" - Preliminary Seismological Bulletin (from October 1999 to December 1999), Department of Earthquake Engineering, IIT Roorkee.
403. Kumar, A., A. D. Pandey and **M. L. Sharma**, EQ : 2000-06 (2000), BLT-17-99(III), "Seismological Network around Tehri Region" - Preliminary Seismological Bulletin (from July 1999 to September 1999), Department of Earthquake Engineering, IIT Roorkee.
404. Kumar, A., A. D. Pandey and **M. L. Sharma**, EQ : 2000-05 (2000), BLT-16-99(II), "Seismological Network around Tehri Region" - Preliminary Seismological Bulletin (from April 1999 to June 1999), Department of Earthquake Engineering, IIT Roorkee.
405. Chandra, B., S. Basu and **M. L. Sharma**, EQ : 2000-03 (2000), Site specific earthquake parameters for Ghatghar pumped storage scheme, Maharashtra , Department of Earthquake Engineering, IIT Roorkee.

406. Kumar, A., A. D. Pandey and **M. L. Sharma**, EQ : 2000-02 (2000), BLT-15-99(I), "Seismological Network around Tehri Region" - Preliminary Seismological Bulletin (from Jan. 1999 to March 1999), Department of Earthquake Engineering, IIT Roorkee.
407. Chandra, B., S. Basu and **M. L. Sharma**, EQ : 2000-01 (2000), Site specific earthquake parameters for North Chennai Thermal Power Plant site, Tamilnadu , Department of Earthquake Engineering, IIT Roorkee.
408. Kumar, A., A. D. Pandey and **M. L. Sharma**, EQ : 99-13 (1999), Final Report on Processing and Interpretation of seismological data from January 1998 to December 1998 of the project "Seismological Network around Tehri region", Earthquake Engineering Studies of Department of Earthquake Engineering, University of Roorkee, Roorkee, Department of Earthquake Engineering, IIT Roorkee.
409. Chandra, B., S. Basu and **M. L. Sharma**, EQ : 99-12 (1999), Site specific earthquake parameters for Mid Vaitarana Dam Site, Maharashtra, Department of Earthquake Engineering, IIT Roorkee.
410. Kumar, A., A. D. Pandey and **M. L. Sharma** , THDC Rishikesh (1999) Seismological network in and around Tehri region, Department of Earthquake Engineering, IIT Roorkee.
411. Wason, H. R., S. K. Upadhyay, **M. L. Sharma**, I. Sarkar and S. Mukhopadhaya, Final report (1999), Report on Modeling of earthquake source and earth structure in the Gearwheel Kaman Himalayan region using broad band seismic data, Submitted to DST, Department of Earthquake Engineering, IIT Roorkee.
412. Kumar, A., A. D. Pandey and **M. L. Sharma**, EQ : 99-10 (1998), BLT-11-98(IV), "Seismological Network around Tehri Region" - Preliminary Seismological Bulletin (from October 1998 to December 1998), Department of Earthquake Engineering, IIT Roorkee.
413. Chandra, B., S. Basu and **M. L. Sharma**, EQ : 99-07 (1999), Site specific earthquake parameters for Sipat Super Thermal Power Plant, Madhya Pradesh, Department of Earthquake Engineering, IIT Roorkee.
414. Chandra, B., S. Basu and **M. L. Sharma**, EQ : 99-06 (1999), Site specific earthquake parameters for Kalpong H. E. Project, Andaman and Nicobar, Department of Earthquake Engineering, IIT Roorkee.
415. Kumar, A., A. D. Pandey and **M. L. Sharma**, EQ : 99-05 (1999), BLT-13-98(III), "Seismological Network around Tehri Region" - Preliminary Seismological Bulletin (from July 1998 to September 1998), Department of Earthquake Engineering, IIT Roorkee.
416. Kumar, A., A. D. Pandey and **M. L. Sharma**, EQ : 99-03 (1999), BLT-12-98(II), "Seismological Network around Tehri Region" - Preliminary Seismological Bulletin (from April 1998 to June 1998), Department of Earthquake Engineering, IIT Roorkee.
417. Chandra, B., S. Basu and **M. L. Sharma**, EQ : 99-01 (1999), Site specific earthquake parameters for Auriya II power Plant structures, Uttar Pradesh, Department of Earthquake Engineering, IIT Roorkee.
418. Chandra, B., S. Basu and **M. L. Sharma**, EQ : 98-19 (1998), Site specific earthquake parameters for Anta II power Plant structures, Rajasthan , Department of Earthquake Engineering, IIT Roorkee.

419. Kumar, A., A. D. Pandey and **M. L. Sharma**, EQ : 98-17 (1998), Final Report on Processing and Interpretation of seismological data from January 1997 to December 1997 of the project "Seismological Network around Tehri region", Earthquake Engineering Studies of Department of Earthquake Engineering, University of Roorkee, Roorkee, Department of Earthquake Engineering, IIT Roorkee.
420. Chandra, B., S. Basu and **M. L. Sharma**, EQ : 98-16 (1998), Site specific earthquake parameters for Kavas II power Plant structures, Gujarat, Department of Earthquake Engineering, IIT Roorkee.
421. Kumar, A., A. D. Pandey and **M. L. Sharma**, EQ : 98-15 (1998), BLT-11-98(I), "Seismological Network around Tehri Region" - Preliminary Seismological Bulletin (from January 1998 to March 1998),, Department of Earthquake Engineering, IIT Roorkee.
422. Kumar, A., A. D. Pandey and **M. L. Sharma**, EQ : 98-09 (1998), BLT-10-97(IV), "Seismological Network around Tehri Region" - Preliminary Seismological Bulletin (from October 1997 to December 1997),, Department of Earthquake Engineering, IIT Roorkee.
423. Chandra, B., S. Basu and **M. L. Sharma**, EQ : 98-06 (1998), Site specific earthquake parameters Lower Kopili HE Project, NE India , Department of Earthquake Engineering, IIT Roorkee.
424. Chandra, B., S. Basu and **M. L. Sharma**, EQ : 98-05 (1998), Site specific earthquake parameters for Shillong Water Supply, Meghalaya , Department of Earthquake Engineering, IIT Roorkee.
425. Kumar, A., A. D. Pandey and **M. L. Sharma**, EQ : 98-01 (1998), BLT-9-97(III), "Seismological Network around Tehri Region" - Preliminary Seismological Bulletin (from July 1997 to September 1997),, Department of Earthquake Engineering, IIT Roorkee.
426. Kumar, A., A. D. Pandey and **M. L. Sharma**, NAPP/NPC Bombay (1998) Design Basis report for the digital telemetered seismic array around Narora Atomic Power Plant site, UP, Department of Earthquake Engineering, IIT Roorkee.
427. Kumar, A., A. D. Pandey and **M. L. Sharma**, EQ : 97-16 (1997), BLT-8-97(II), "Seismological Network around Tehri Region" - Preliminary Seismological Bulletin (from April 1997 to June 1997),, Department of Earthquake Engineering, IIT Roorkee.
428. Kumar, A., A. D. Pandey and **M. L. Sharma**, EQ : 97-13 (1997), BLT-7-97(I), "Seismological Network around Tehri Region" - Preliminary Seismological Bulletin, (from January 1997 to March 1997),, Department of Earthquake Engineering, IIT Roorkee.
429. Kumar, A., A. D. Pandey and **M. L. Sharma**, EQ : 97-11 (1997), Final Report on Processing and Interpretation of seismological data from January 1996 to December 1996 of the project "Seismological Network around Tehri region", Earthquake Engineering Studies of Department of Earthquake Engineering, University of Roorkee, Roorkee, Department of Earthquake Engineering, IIT Roorkee.
430. Brijesh Chandra, S. Basu and **M. L. Sharma**, EQ : 97-07 (1997), Site specific earthquake parameters for Tuirial dam project, Mizoram, Department of Earthquake Engineering, IIT Roorkee.
431. Chandra, B., S. Basu and **M. L. Sharma**, EQ : 97-05 (1997), Site specific earthquake parameters for Simahdari 1000 MW coal based power plant, Andhra Pradesh , Department of Earthquake Engineering, IIT Roorkee.

432. Kumar, A., A. D. Pandey and **M. L. Sharma**, EQ : 97-04 (1997), BLT-6-96(IV), "Seismological Network around Tehri Region" - Preliminary Seismological Bulletin (from October 1996 to December 1996),, Department of Earthquake Engineering, IIT Roorkee.
433. Agrawal, P. N. and **M. L. Sharma**, EQ : 97-03 (1997), Interpretation of Tiltmeter data from Harabagh underground vault across Shali thrust, Department of Earthquake Engineering, IIT Roorkee.
434. Kumar, A., A. D. Pandey and **M. L. Sharma**, EQ : 97-02 (1997), BLT-5-96(III), "Seismological Network around Tehri Region" - Preliminary Seismological Bulletin (from July 1996 to September 1996),, Department of Earthquake Engineering, IIT Roorkee.
435. Kumar, A., A. D. Pandey and **M. L. Sharma** , EQ : 96-19 (1996), BLT-4-96(II), "Seismological Network around Tehri Region" -Preliminary Seismological Bulletin (from April 1996 to June 1996),, Department of Earthquake Engineering, IIT Roorkee.
436. Kumar, A., A. D. Pandey and **M. L. Sharma**, EQ : 96-12 (1996), BLT-3-96(I), "Seismological Network around Tehri Region" -Preliminary Seismological Bulletin (from January 1996 to March 1996),, Department of Earthquake Engineering, IIT Roorkee.
437. Brijesh Chandra, S. Basu and **M. L. Sharma** , EQ : 96-09 (1995), Site specific earthquake parameters for refinery site in Gujarat , Department of Earthquake Engineering, IIT Roorkee.
438. Kumar, A., A. D. Pandey and **M. L. Sharma**, EQ : 96-06 (1996), Final Report on Processing and Interpretation of seismological data from January 1995 to December 1995 of the project "Seismological Network around Tehri region", Earthquake Engineering Studies of Department of Earthquake Engineering, University of Roorkee, Roorkee., Department of Earthquake Engineering, IIT Roorkee.
439. Kumar, A., A. D. Pandey and **M. L. Sharma**, EQ : 96-04 (1996), BLT-2-95(II), Seismological Network around Tehri Region" -Preliminary Seismological Bulletin (from October 1995 to December 1995),, Department of Earthquake Engineering, IIT Roorkee.
440. R. Chandrasekaran and **M. L. Sharma**, EQ : 96-02 (1996), Site specific earthquake parameters for Mahadayi Hydel Project, Goa, Department of Earthquake Engineering, IIT Roorkee.
441. Kumar, A., A. D. Pandey and **M. L. Sharma**, EQ : 96-01 (1996), BLT-1-95(I), Seismological Network around Tehri Region" - Preliminary Seismological Bulletin (from July 1995 to September 1995),, Department of Earthquake Engineering, IIT Roorkee.
442. Chandrasekaran, A. R., and **M. L. Sharma**, EQ : 95-23 (1995), Site specific earthquake parameters for Bhira site, Distt. Raigarh, Maharashtra , Department of Earthquake Engineering, IIT Roorkee.
443. Chandrasekaran, A. R., and **M. L. Sharma**, EQ : 95-20 (1995), Site specific earthquake parameters for Essar Refinery site, Kutch, Gujarat , Department of Earthquake Engineering, IIT Roorkee.
444. Kumar, A., A. D. Pandey and **M. L. Sharma**, EQ : 95-19 (1995), Final Report on the project "Digital Telemetered Seismic Array in Ganga Yamuna Valley for Monitoring of Local Seismicity", Earthquake Engineering Studies of Department of Earthquake Engineering, University of Roorkee, Roorkee., Department of Earthquake Engineering, IIT Roorkee.

445. R. Chandrasekaran and **M. L. Sharma**, EQ : 95-17 (1995), Site specific earthquake parameters for a combined gas based power plant project at Faridabad, Department of Earthquake Engineering, IIT Roorkee.
446. Chandrasekaran, A. R., and **M. L. Sharma**, EQ : 95-15 (1995), Site specific earthquake parameters for bridge site on river Ravi near Bhasoli, Jammu & Kashmir,, Department of Earthquake Engineering, IIT Roorkee.
447. Chandrasekaran, A. R., and **M. L. Sharma**, EQ : 95-14 (1995), Site specific earthquake parameters for a 250 MW steam power plant at Neyvelli (Tamilnadu), Department of Earthquake Engineering, IIT Roorkee.
448. Agrawal, R. C., and **M. L. Sharma** EQ : 95-10 (1995), Report on the seismological data from April 93-March 94 obtained at observatories in Ganga Yamuna Valley, Vol. XIV, Department of Earthquake Engineering, Roorkee, Department of Earthquake Engineering, IIT Roorkee.
449. Agrawal, R. C., and **M. L. Sharma**, EQ : 95-02 (1995) Station seismological bulletin for Tehri and Narendranagar Observatory for the period April 93 to March 94, Department of Earthquake Engineering, Roorkee, Department of Earthquake Engineering, IIT Roorkee.
450. Kumar, A., A. D. Pandey and **M. L. Sharma**, THDC Rishikesh (1995), Seismological network in and around Tehri region, Department of Earthquake Engineering, IIT Roorkee.
451. Agrawal, P. N., A. R. Chandrasekaran, B. C. Mathur and **M. L. Sharma**, EQ : 94-10 (1994), Site specific earthquake parameters for Renuka Dam site (Himachal Pradesh), Department of Earthquake Engineering, Roorkee, Department of Earthquake Engineering, IIT Roorkee.
452. Chandrasekaran, A. R., and **M. L. Sharma**, EQ : 94-08 (1994), Site specific earthquake parameters for Jegurupadu combined cycle power plant site (Andhra Pradesh), Department of Earthquake Engineering, Roorkee, Department of Earthquake Engineering, IIT Roorkee.
453. Agrawal, R. C., and **M. L. Sharma**, EQ : 94-07 (1994) Station seismological bulletin for Tehri and Narendranagar Observatory for the period April 92 to March 93, Department of Earthquake Engineering, Roorkee, Department of Earthquake Engineering, IIT Roorkee.
454. Agrawal R. C., and **M. L. Sharma**, EQ : 94-06 (1994), Report on the seismological data from April 92-March 93 obtained at observatories in Ganga Yamuna Valley, Vol. XIII, Department of Earthquake Engineering, Roorkee, Department of Earthquake Engineering, IIT Roorkee.
455. Kumar, A., A. D. Pandey and **M. L. Sharma**, Status report (1994), Deployment of Short Aperture Digital Telemetered Sample Seismic Array in Ganga-Yamuna Valley, submitted to the DST, Department of Earthquake Engineering, IIT Roorkee.
456. Agrawal, R. C., and **M. L. Sharma**, EQ : 93-21 (1993), Report on the seismological data from April 90-March 92 obtained at observatories in Ganga Yamuna Valley, Vol. XII, Department of Earthquake Engineering, Roorkee, Department of Earthquake Engineering, IIT Roorkee.
457. Agrawal, R. C., and **M. L. Sharma**, EQ : 93-19 (1993) Station seismological bulletin for Tehri and Narendranagar Observatory for the period April 90 to March 91, Department of Earthquake Engineering, Roorkee, Department of Earthquake Engineering, IIT Roorkee.
458. Kumar, A., A. D. Pandey and **M. L. Sharma**, Status report (1993), Deployment of Short Aperture Digital Telemetered Sample Seismic Array in Ganga-Yamuna Valley, submitted to the DST, Department of Earthquake Engineering, IIT Roorkee.

459. Kumar, A., A. D. Pandey and **M. L. Sharma**, DST, New Delhi (1992), Monitoring of microearthquake activity around Tehri region using telemetered seismic array, Department of Earthquake Engineering, IIT Roorkee.
460. Srivastava, L. S., and **M. L. Sharma**, Final report (1992), Deployment of Short Aperture Digital Telemetered Sample Seismic Array in Ganga-Yamuna Valley, submitted to the DST, Department of Earthquake Engineering, IIT Roorkee.
461. Srivastava, L. S., and **M. L. Sharma**, Status report (1991), Deployment of Short Aperture Digital Telemetered Sample Seismic Array in Ganga-Yamuna Valley, submitted to the DST, Department of Earthquake Engineering, IIT Roorkee.
462. **Sharma, M. L.**, EQ : 90-03 (1990), Data management and software for short aperture Telemetered digital seismic array in Ganga Yamuna valley, Department of Earthquake Engineering, Roorkee, Department of Earthquake Engineering, IIT Roorkee.
463. Srivastava, L. S., and **M. L. Sharma**, Status report (1990), Deployment of Short Aperture Digital Telemetered Sample Seismic Array in Ganga-Yamuna Valley, submitted to the DST, Department of Earthquake Engineering, IIT Roorkee.
464. Srivastava, L. S., H. R. Wason, Kirat Pal and **M. L. Sharma**, Status report (1989), Deployment of Short Aperture Digital Telemetered Sample Seismic Array in Ganga-Yamuna Valley, submitted to the DST, Department of Earthquake Engineering, IIT Roorkee.
465. Srivastava, L. S., B. C. Mathur, S. Basu, A. R. Chandrasekaran, A. Sinhvval and **M. L. Sharma**, EQ : 88-03 (1988), Report on review of design of earthquake parameters and ground motion data for evaluation of structures of Narora Atomic Power Plant site, Department of Earthquake Engineering, IIT Roorkee.
466. Srivastava, L. S., H. R. Wason, Kirat Pal and **M. L. Sharma**, Status report (1988), Deployment of Short Aperture Digital Telemetered Sample Seismic Array in Ganga-Yamuna Valley, submitted to the DST, Department of Earthquake Engineering, IIT Roorkee.
467. Srivastava, L. S., H. R. Wason, Kirat Pal and **M. L. Sharma**, Status report (1987), Deployment of Short Aperture Digital Telemetered Sample Seismic Array in Ganga-Yamuna Valley, submitted to the DST,, Department of Earthquake Engineering, IIT Roorkee.
468. Srivastava, L. S., H. R. Wason and **M. L. Sharma**, DST, New Delhi, Status report (1986), Short Aperture Telemetered Digital Seismic Array in Ganga Yamuna Valley, Department of Earthquake Engineering, IIT Roorkee.
469. Srivastava, L. S., H. R. Wason, Kirat Pal and **M. L. Sharma**, EQ : 86-12 (1986), Status report on Short aperture telemetered sample seismic array in Ganga Yamuna Valley, Department of Earthquake Engineering, Roorkee.

Project List:**Year 2017-2018**

1. Site Specific Design Earthquake Parameter Studies for Rishikesh-Karanpryag new BG Rail line Project in Uttarakhand, Rail Vikas Nigam Ltd, Rishikesh, 17.04.2017 to 31.03.2019, 1,38,00,000.00
2. Site Specific Design Earthquake Parameter Studies for Doongri Dam, Navnera Barrage & Kunnu Barrage in Rajasthan, M/s WAPCOS Limited Gurgaon, 22.05.2017 to 31.03.2020, 27,60,000.00
3. Site Specific Seismic Design Parameters Study for Mawblei Hydro Electric Project in West Khasi Hills, District, Meghalaya, Meghalaya Power Generation Corporation Ltd. Meghalaya, 30.06.2017 to 31.03.2019, 13,80,000.00
4. Site Specific Seismic Design Parameters Study for Chheligada Dam Project, Odisha, Bhubneshwar, Water Resources, Odisha, Bhubaneswar 13.07.2017 to 31.03.2020, 13,80,000.00
5. Site Specific Seismic Design Parameters Study for Myntdu Leshka Stage-II HEP, in West Jaintia Hills District Meghalaya, Investigation Division –I Meghalaya Power Generation Corporation Limited, 24.10.2017 to 31.03.2020, 13,80,000.00
6. Site Specific Seismic Design Parameters Study of 04 Dams components i.e (1) Chakarpur Dam (2) Madia dam (3) Semraghat weir and (4) Dehra dam of Bina complex Irrigation and Multipurpose Project of Distt. Sagar (M.P.), Water Resources Division Rahatgarh Distt. Sagar (M.P.), 31.10.2017 to 31.03.2020, 28,32,000.00
7. Site Specific Seismic Design Parameters Study for Ujh (212 MW) Multipurpose Hydro Electric Project, District Kathua, Jammu & Kashmir, Jammu and Kashmir State Power Development Corporation Office of the Geologist, Geological Division 480-F Nitco Lane, Talab Tillo, Jammu, 31.10.2017 to 31.03.2020, 14,16,000.00
8. Site Specific Seismic Design Parameters Study for Song Dam in Dehradun, Research & Planning Block Dehradun, 13.12.207 to 31.03.2020, 14,16,000.00
9. Site Specific Seismic Design Parameters Study for Sunni dam Project, Himachal Pradesh, Design Himachal Projects Satluj Jal Viduth Nigam Limited Shakti Sadan, Shanan Complex, Shimla, 28.12.207 to 31.03.2020, 14,16,000.00
10. Seismic Hazard Studies for Shimla By Pass Project in Himachal Pradesh, Enterprises Limited, Shimla, 03.01.2018 to 31.03.2021, 63,72,000.00
11. Site Specific Seismic Design Parameters Study for Bhanupli-Bilaspur-Beri New Railway Line, Chandigarh Himachal Pradesh, JGM/Project, RVNL, Railway Recruitment Board Building, Railway Colony, Near Chandigarh Railway Station, Chandigarh, 21,476000.00

Year 2016-2017

1. Site Specific Seismic Design Parameters Study for Patratu Thermal Power Plant Project at District Ramgarh, Jharkhand, NTPC Limited, Noida (U.P.) - 201 307, 27.04.2016 to 31.03.2018, 9,16,000.00
2. Seismic Hazard Assessment for South India, Central Water Commission, New Delhi, 31.03.2016 to 31.10.2017, 82,44,000.00
3. Assesment of Lateral Load Pile Capacities for Harduaganj Thermal Power Station Aligarh, U.P. , Toshiba JSW Power Systems Pvt. Ltd., Gurgaon, 13.05.2016 to 30.03.2017, 6,01,125.00

4. Site Specific Design Earthquake Parameters Studies for Nyera Amari-I & II Integrated Hydro Electric Project in Bhutan, Druk Green Power Corporation, PThimpu, Bhutan, 16.05.2016 to 31.03.2019, 18,00,000.00
5. Site Specific Seismic Design Parameters Study for Lower Tizu Hydro Electric Project in Nagaland, Government of Nagaland, Department of Power (T&G), Kohima Nagaland, 30.05.2016 to 31.03.2018, 1374000.00
6. Site Specific Seismic Design Parameters Study for Zungki Hydro Electric Project in Nagaland, Government of Nagaland, Department of Power (T&G), Kohima Nagaland, 30.05.2016 to 31.03.2018, 1374000.00
7. Site Specific Seismic Design Earthquake Parameters Study for Oju Hydro Electric Project (about 1878MW), Arunachal Pradesh, Oju Subnasiri Hydro Corporation Pvt. Ltd., New Delhi, 30.05.2016 to 31.03.2019, 1374000.00
8. Site Specific Design Earthquake Parameters Study for Chhatru HEP (126 MW) , Distt Lahaul & Spiti in Himachal Pradesh- reg. updation, Head (Planning & Monitoring), DCM Shriram Infrastructure Limited, Shimla (HP), 30.05.2016 to 31.03.2018, 687000.00
9. Site Specific Seismic Design Parameters Study for New Project from Indian Oil Corporation Limited, Bongaigaon Refinery, Dist. Chirang in Assam, Indian Oil Corporation Ltd., Bongaigaon Refinery, Assam, 19.07.2016 to 31.09.2019, 13,80,000.00
10. Site Specific Design Earthquake Parameters Study for Sirkari Bhyol Rupsiabagar HEP, Uttarakhand, Uttarakhand Jal Vidyut Nigam Ltd., 01.08.2016 to 31.03.2019, 13,80,000.00
11. Site Specific Design Earthquake Parameters Study for Talong Londa Hydro Electric Project in Arunachal Pradesh-Reg., additional Probabilistic Seismic Hazard Assessment (PSHA) Study, GMR Londa Hydropower Private Limited, New Delhi, 08.08.2016 to 31.03.2019, 6,90,000.00

Year 2015-2016

1. Site Specific Design Earthquake Parameter Study for Lower Kalnai HEP, District Doda, Jammu & Kashmir, M/s Coastal Projects Limited, A-102, Sector-65, Noida – 201307 (U.P.) (India), 17.04.2015 to 31.03.2018, 12,00,000.00
2. Site Specific Seismic Design Parameters Study for Chausa Thermal Power Plant Project (2x660MW) at District Buxar in Bihar, M/s SJVN Thermal Private Limited, 17.04.2015 to 31.03.2018, 08,98,880.00
3. Site Specific Seismic Design Parameters Study for Hiramandalam reservoir of B.R.R Vamsadhara project of Phase -II of Stage -II in Srikakulam Dist of Andhra Pradesh, Water Resources Department, Govt. of Andhra Pradesh, 11.08.2015 to 31.03.2018, 13,68,000.00
4. Site Specific Design Earthquake Parameters for Vyasi Hydro Electric Project in Uttarakhand, - reg. updation, Uttarakhand Jal Vidhut Nigam Limited, Near ST. Marry School, Dakpathar (Dehradun), 08.08.2015 to 31.03.2018, 6,84,000.00
5. Site Specific Seismic Design Parameters Study for Vrindavan Chandrodaya Mandir at Vrindavan, District Mathura Uttar Pradesh, Vrindavan Chandrodaya Mandir Bhaktivedanta Swami Marg, Vrindavana,
6. Seismic hazard studies for infield pipe line route (west block) M.P. , Reliance Industries Ltd, 07.10.2015 to 31.03.2018, 27,36,000.00

7. Site Specific Seismic Design Parameters Study for Harduaganj Thermal Power Plant Project (1x660 MW) at District Aligarh, Uttar Pradesh, Toshiba JSW Power Systems Pvt. Ltd, 01.10.2015 to 31.03.2018, 9,12,000.00
8. Site Specific Design Earthquake Parameters Study for Upper Marsyangdi Hydro Electric Project in Nepal -Reg. additional Probabilistic Seismic Hazard Assessment (PSHA) Study, GMR Consulting Services Private Limited, 03.11.2015 to 31.3.2018, 6,84,000.00
9. Site Specific Design Earthquake Parameters Study for Upper Karnali Hydro Electric Project in Nepal -Reg. additional Probabilistic Seismic Hazard Assessment (PSHA) Study, GMR Consulting Services Private Limited, 03.11.2015 to 31.3.2018, 6,84,000.00

Year 2014-2015

1. Subtask D: To Finalize the Design of Seismic Network, Kalpasar Department Govt. of Gujarat, 25.03.2014 to 31.03.2016, 8,98,880.00
2. Site Specific Design Earthquake Parameter Study for Shutkari Kulan Hydroelectric Project in District Ganderbal, Jammu & Kashmir, Shapoorji Pallonji Infrastructure Capital Company Limited, 04.07.2014 to 31.03.2018, 12,00,000.00
3. Site Specific Design Earthquake Parameter Study for Bursar Hydroelectric Project (1200 MW), Jammu & Kashmir - reg. updation, NHPC Limited, 09.09.2014 to 31.03.2017, 8,00,000.00
4. Site Specific Design Earthquake Parameters for Hydro Electric Project in Uttarakhand, -Reg. Updation, Uttarakhand Jal Vidhut Nigam Limited, Lakhwar Bhawan, Dakpathar (Dehradun), 13.10.2014 to 31.03.2017, 6,74,160.00
5. Site Specific Design Earthquake Parameters Study for Kuri-I Hydro Electric Project in Bhutan, Druk Green Power Corporation, 30.10.2014 to 31.03.2017, 12,00,000.00
6. Operation & Maintenance of Six Stations Seismological Network around Kol Dam Site For Second year, NTPC, KOL Dam Himachal Pradesh, 01.11.2014 to 31.03.2017, 20,22,480.00
7. Site Specific Design Earthquake Parameters Study for Kwar Hydro Electric Project in J&K-Reg. additional Probabilistic Seismic Hazard Assessment (PSHA) Study, Chenab Valley Power Projects Pvt. Ltd, 03.12.2014 to 31.03.2017, 6,00,000.00
8. Site Specific Seismic Design Parameters Study for Durgapur Power Plant Project -III(2x20MW) at Durgapur Steel Plant Premises in West Bengal, NTPC-SAIL Power Company Pvt. Ltd, 02.01.2015 to 31.03.2018, 8,98.880.00
9. Site Specific Seismic Design Parameters Study for Ramagundam Power Plant Project in Karimnagar District at Andhra Pradesh, NTPC Limited Engineering, 02.01.2015 to 31.03.2018, 8,98.880.00
10. Site Specific Design Earthquake Parameters Study for Kholongchu Hydro Electric Project in Bhutan -Reg. additional Probabilistic Seismic Hazard Assessment (PSHA) Study, Kholongchhu, HEP Bhutan, 02.02.2015 to 31.03.2018, 6,00,000.00
11. Site Specific Design Earthquake Parameters Study for Tagurshit Hydro Electric Project in Arunachal Pradesh-Reg. Additional Probabilistic Seismic Hazard Assessment (PSHA) Study, Larsen & Toubro Hydropower Limited, 19.02.2015 to 31.03.2018, 6,74,160.00
12. Site Specific Seismic Design Parameters Study for Parnai (3x12.5 MW) Hydro Electric Project in Jammu & Kashmir, M/s Patel Engineering Ltd., 24.03.2015 to 31.03.2018, 12,00,000.00

13. Site Specific Seismic Design Parameters Study for Pudimadaka Power Plant Project in Visakhapatnam District at Andhra Pradesh, NTPC Limited, 24.03.2015 to 31.03.2018, 8,98,880.00

Year 2013-2014

1. Site Specific Design Earthquake Parameters Study of Bhakra HEP, Himachal Pradesh, reg. updation, B&B Design Directorate, BBMB, 17.04.2013 to 31.03.2016, 6,74,160.00
2. Deployment and Maintenance of Seismological Network around Kol Dam Project, Himachal Pradesh, 1st component of study-installation, Operation 7 Maintenance of Network Around Koldam for 1st year of recording , NTPC, KOL Dam, Himachal Pradesh, 26.03.2012 to 31.05.2014, 20,22,480.00
3. Site Specific Design Earthquake Parameters Study for Nikachhu HPP in Trongsa District, Bhutan, Lammeyer International (India) Pvt. Ltd, 18.04.2013 to 31.03.2016, 13, 48,320.00
4. Site Specific Design Earthquake Parameters Study for Luhri HEP, Himachal Pradesh, reg. updation, Satluj Jal Vidyut Nigam Limited, 22.04.2013 to 31.03.2016, 6,74,160.00
5. Site Specific Design Earthquake Parameters Study of Umngot HEP in East Khasi Hills District, Meghalaya, reg. updation, Meghalaya Energy Corporation Ltd., Umiam, 07.05.2013 to 31.03.2016, 6,74,160.00
6. Site Specific Design Earthquake Parameters Studies for Ganol Small Hydro Electric Projects (3x7.5MW), West Garo Hills District, Meghalaya, Meghalaya Power Generation Corporation Limited, 09.05.2013 to 31.03.2016, 13,48,320.00
7. Special Investigation for Evaluation of the Seismic Forces as per the IRG-6 on major Bridges of Kiratpur Near Chok Section of NH-21 in Himachal Pradesh, M/s IL & FS Transportation Networks Ltd, 24.06.2013 to 31.03.2017, 22,47,200.00
8. Site Specific Design Earthquake Parameters Study for Dugar Hydro Electric Project, District Chamba, Himachal Pradesh, AF-Consult India Pvt. Ltd, 01.08.2013 to 31.03.2017, 13,48,320.00
9. Site Specific Seismic Design Parameters Study for 45 MW Phangchung Hydro Electric Project in Arunachal Pradesh, PACHI Hydro Power Project Ltd., 13.08.2013 to 31.03.2017, 13,48,320.00
10. Site Specific Design Earthquake Parameters Study for Dibbin HEP (120MW), West Kameng District of Arunachal Pradesh reg. Updation, M/s KSK Energy Ventures Ltd, 03.09.2013 to 31.03.2017, 3,37,080.00
11. Site Specific Seismic Design Parameters Study for Rourkela Expansion Power Plant Project at SAIL Premises in Rourkela (Orissa), NTPC-SAIL Power Company Pvt., Ltd., 19.09.2013 to 31.03.2017, 8,98,880.00
12. Site Specific Design Earthquake Parameter Studies for Par, Turu & Dardu Hydro Electric Project in Arunachal Pradesh, M/s Mytrah Energy (India) Limited, 28.11.2013 to 31.03.2017, 28,09,000.00
13. Site Specific Design Earthquake Parameter Studies for 92 MW Jidu Hydro Electric Project in Arunachal Pradesh, M/s SMEC India Pvt. Ltd., 29.11.2013 to 31.03.2017, 13,48,320.00
14. Seismological Network Around Tehri Region, THDC India Ltd., Rishikesh, 30.12.2013 to 24.10.2016, 53,93,280.00
15. Site Specific Design Earthquake Parameters Study for Renukaji Dam Project at Dadahu, district, Sirmour, Himachal Pradesh, Renukaji Dam Project, HPPCL, Dadahu, 08.01.2014 to 31.03.2017, 13,48,320.00
16. Site Specific Design Earthquake Parameters Study for Pemashelpu HEP in Arunachal Pradesh reg. Updation, Mechuka Hydro Power Pvt. Ltd., 08.01.2014 to 31.03.2017, 6,74,160.00
17. Site Specific Design Earthquake Parameters Study for Pauk Hydro Electric Project in Arunachal Pradesh Reg. Updation, Velcan Energy Pvt. Ltd., 28.02.2014 to 31.03.2017, 6,74,160.00

18. Site Specific Seismic Design Earthquake Parameters Study for New Ganderbal Hydro Electric Project, District Ganderbal, Jammu & Kashmir, Government of Jammu and Kashmir, Power Development Corporation, Geological, 28.02.2014 to 31.03.2017, 12,00,000.00
19. Processing, Analysis and Interpretation of the Seismological Data for First Year Study and Preparation of Annual Technical Report, NTPC Kol Dam Himachal Pradesh, 04.03.2014 to 31.03.2016, 16,85,400.00

Year 2012-2013

1. Site Specific Design Earthquake parameters Study For Chhattisgarh Thermal power project, MB power (Chhattisgarh) Ltd., 27.02.2012 to 30.06.2013, 8,82,400.00
2. Site Specific Studies for Khurja Super Thermal Power (2x660 MW) at Khurja, Distt. Bulandshahar (U.P.) , THDC India Ltd., 02.05.2012 to 31.03.2015, 8,98,880.00
3. Site Specific Design Earthquake parameters for Thana Palun HEP (141 MW) of HPPCL in River Basin of Himachal Pradesh, Himachal Pradesh Power Corporation Ltd. Dist. Hamirpur, 16.04.2012 to 31.03.2014, 6,61,800.00
4. Site Specific Design Earthquake parameters Study for Tato-II Hydro Electric Project, SNC Lavalin Eng. Pvt. Ltd. Mahipalpur, 16.04.2012 to 31.03.2014, 6,61,800.00
5. Site Specific design Parameters studies for Lower Yamne(88 MW) & Lower Yamne II (90 MW) HE Projects in Upper Siang District of Arunachal Pradesh, Yamne Power Private Ltd. Hyderabad, 20.04.2012 to 31.03.2015, 20,22,780.00
6. Site Specific Design Earthquake parameters Study for Lower Kopli HE (3x50MW)Project –reg. Updation, Assam Power Generation Corporation Ltd., Guwahati, 22.05.2012 to 31.03.2015, 6,74,160.00
7. Soil Profiling using MASW for triveni Mahadev Hydro Electric Project in Himachal Pradesh, Himachal Pradesh Power Corporation Ltd, 6.07.2012 to 31.03.2014, 11,23,600.00
8. Site Specific Design Earthquake Parameters for 96 MW Ronignichu Hydro Electric Project in Sikkim, Madhya Bharat corporation Ltd., 05.07.2012 to 31.03.2014, 13,48,320.00
9. Site Specific Design Earthquake Parameters for Etalin & Attunli HE Project- reg updation, Etalin Hydro Electric Power Company Ltd., Gurgaon, 09.07.2012 to 31.03.2014, 6,74,160.00
10. Site Specific Design Earthquake Parameters for Triveni mahadev HEP in Himachal Pradesh, Himachal Pradesh Power Corporation Limited, 10.07.2012 to 31.03.2014, 6,74,160.00
11. Site Specific Design Earthquake Parameters for Ratle in Kishwar Dist. J&K, Updation, GVK Ratle HEP, Pvt. Ltd., 09.07.2012 to 31.03.2014, 6,74,160.00
12. Site Specific Design Earthquake Parameters for Miyar HEP in Himachal Pradesh, Updation, Miyar HEPower Company Ltd., 30.07.2012 to 31.03.2014, 6,74,160.00
13. Site Specific Design Earthquake Parameters for Chango Yanthang HEP in Himachal Pradesh, Updation, Malan Power Company Ltd., Bhilwara, 09.08.2012 to 31.03.2014, 6,74,160.00
14. Lecture Notes for ToT in Bihar, BMTPC, New Delhi, 04.07.2012 to 31.03.2013, 2,80,900.00
15. Site Specific Design Earthquake Parameters study for Devsari HEP, Uttarakhand, Updation, SJVN Limited, 03.09.2012 to 31.03.2014, 6,74,160.00
16. Site Specific Design Earthquake Parameters study for Multi Product SEZ in Village Mota Layia, District Kutch, Gujarat, IL & FS Energy Development Company Ltd., 11.09.2012 to 30.06.2013, 8,98,880.00
17. Specific Design Earthquake Parameters study for Seli HEP Himachal Pradesh-Reg Updation, Seli Hydro Electric Power Company Limited, 17.09.2012 to 31.03.2014, 6,74,160.00
18. Specific Design Earthquake Parameters study for Etalin HEP Arunachal Pradesh-Reg Updation, M/s Jindal Power Limited, 08.10.2012 to 31.03.2014, 6,74,160.00

19. Specific Design Earthquake Parameters study for for Nakthan HEP (520 MW) in Distt. Kullu, Himachal Pradesh, M/s Himachal Pradesh Power corporation Ltd, 05.10.2012 to 31.03.2014, 13,48,320.00
20. Specific Design Earthquake Parameters study for for Rapum HEP in Arunachal Pradesh, Rapum Hydro Electric Project Pvt., Ltd, 10.10.2012 to 31.03.2014, 6,74,160.00
21. Specific Design Earthquake Parameters study for Kantangshri HEP in Arunachal Pradesh, Kantangshri Hydro Electric Project Pvt., Ltd, 17.10.2012 to 31.03.2014, 13,48,320.00
22. Site Specific Design Earthquake parameters Studies for Shongtong Karchham HEP Himachal Pradesh reg. Updation, Himachal Pradesh Power Corporation Limited, 26.11.2012 to 31.03.2014, 6,74,160.00
23. Site Specific Design Earthquake Parameters for Kirthia-I at Gulabgarh, District Kishtwar (J&K), Govt. of J&K, Power Development Corporation, 07.01.2013 to 30.03.2015, 13,48,320.00
24. Site Specific Design Earthquake Parameters Studies for Dikchu HEP project (96 MW), Sikkim, Haridwar Infrastructure Ltd, 23.01.2013 to 31.03.2015, 13,48,320.00
25. Site Specific Design Earthquake Parameters for Sawalkot HEP Stage-I (1406 MW) J&K, Hindustan Construction Company Ltd, 20.02.2013 to 31.03.2015, 13,48,320.00
26. Site Specific Design Earthquake Parameters for Naying HEP, Arunachal Pradesh_ reg. Updation, Naying DSC Power Limited, 28.02.2013 to 31.03.2015, 6,74,160.00
27. Site Specific Design Parameters Study for Mawphu Hydro-Electric Project, Meghalaya, North Eastern Electric Power Corporation Ltd, 06.03.2012 to 31.03.2015, 13,48,320.00
28. Site Specific Design Earthquake Parameters Study for Chirgaon-Majhgaon Hydro Electric Project (60 MW), Distt. Shimla, Himachal Pradesh, Himachal Pradesh Power Corporation Ltd, 11.03.2013 to 31.03.2016, 13,48,320.00
29. Site Specific Design Earthquake Parameters Study for Bilhaur STPP at Kanpur, U.P., NTPC Ltd, 25.03.2013 to 31.03.2016, 8,98,880.00

Year 2011-2012

1. Site Specific Design Earthquake Parameters for Seli HEP located across river Chenab in district Lahul & Spiti, Himachal Pradesh, Seli Hydro Electric Power Company Ltd., 03.03.2011 to 31.03.2013, 8,82,400.00
2. Seismological Network Around Tehri Region, THDC, Reshikesh, Uttarakhand, 25.10.2010 to 24.10.2013, 43,01,700.00
3. Seismic Hazard Assessment for an upcoming ATC Tower at New Delhi, Delhi International Airport Limited, 13.04.2011 to 31.03.2013, 8,82,400.00
4. Site Specific Design Earthquake Parameters Study for Power Plant Structures at Bundelkhand District Chhatarpur, Madhya Pradesh, NTPC Limited, 11.04.2011 to 31.03.2014, 5,51,500.00
5. Site Specific Design Earthquake Parameters Study for Tiuni-Plasu Hydroelectric Project (72MW) in Dehradun district. , Irrigation Department, 27.05.2011 to 31.03.2014, 13,23,600.00
6. Soil Performing using MASW Test for Tiuni-Plasu Hydroelectric Project in Dehradun Distt, Irrigation Department, 27.05.2011 to 31.03.2014, 8,42,400.00
7. Site Specific Design Earthquake Parameters Study for Dikhu HE Project (165 MW) Nagaland, Manu Energy Systems Pvt. Ltd., 27.06.2011 to 31.03.2014, 8,82,400.00
8. Site Specific Design Earthquake Parameters for the 4HEPs in Tawang Basin, Arunachal Pradesh, M/s SEW Energy Limited, 11.07.2011 to 31.03.2012, 11,03,000.00
9. Site Specific Studies for Subansiri Middle Hydroelectric Project, Arunachal Pradesh, SNC-Lavin, Engineerin India Pvt. Ltd., 25.07.2011 to 31.03.2013, 8,82,400.00
10. Site Specific Study for Nalo Hydro Electric Project (360 MW) in Arunachal Pradesh, Energy Infratech Private limited, 11.08.2011 to 31.03.2015, 13,23,600.00

11. Site Specific Study for Kynshi-I Hydro Electric Project (300 MW) in Meghalaya, Energy Infratech Private limited, 11.08.2011 to 31.03.2015, 13,23,600.00
12. Site Specific Design Earthquake parameters for Rangit Hydro Electric Project stage-II (66MW) in Sikkim, Sikkim Hydro Power Ventures Limited, 21.09.2011 to 31.03.2011, 13,23,600.00
13. Site Specific Design Earthquake parameters study for Kopili Hydro Electric Project (3x50MW), Assam, Assam Power Generation Corporation Limited, 20.09.2011 to 31.03.2013, 8,82,400.00
14. Determination of Shear Wave Velocity for Site Specific Study for Thana Plaun HEP, Himachal Pradesh Power Corporation Ltd., 14.10.2011 to 31.03.2014, 11,03,000.00
15. Site Specific Design Earthquake parameters study for Power Plant Structures in Khargaon District of M.P., N.T.P.C. Limited Noida, 20.10.2011 to 31.03.2014, 8,82,400.00
16. Site Specific Design Earthquake parameters for Lachung, Bhimkyong and bop HE project Site Sikkim for Updation., Lachung Hydro power Private limited, 14.10.2011 to 31.03.2013, 18,19,950.00
17. Site specific seismic parameters study for Rihand concrete Gravity Dam at Pipri U.P., Irrigation Deptt. Rihand Dam Civil cell, Pipri, Distt. Sonbhadra, UP, 11.11.2011 to 31.03.2013, 5,51,500.00
18. Site specific design earthquake parameters study for Gongri Hydro Electric Project (144mw) in Arunachal Pradesh, M/s Dirang Energy Pvt. Ltd., 29.11.2011 to 31.03.2014, 13,23,600.00
19. Seismological Studies Around GULF of Khambhat Development Project, Subtask A: Preparation of document containing outline & description of methodologies to be adopted for the seismological studies including recommending experts/organizations for various types of special studies, Kalpsar Department, Govt of GUJARAT, 17,64,800.00
20. Seismological Studies Around GULF of Khambhat Development Project, , Subtask B: Evolution of the proposal submitted by GERI, Vadodara, Kalpsar Department, Govt. of GUJARAT, 8,82,400.00
21. Seismological Studies Around GULF of Khambhat Development Project, Subtask C: To examine and finalize the specifications and functioning of the equipment, Kalpsar Department, Govt. of GUJARAT, 11,03,000.00
22. Seismological Studies Around GULF of Khambhat Development Project, Subtask D: Discussions and field visits, Kalpsar Department, Govt. of GUJARAT, 4,41,200.00
23. Soil Profiling using Multi Spectra Analysis of Surface Wave (MASW), of Barrage Foundation at Bowala Nand Prayag HEP Site, Chamoli, Uttarakhand, Uttarakhand Jal Vidyut Nigam limited, 01.03.2012 to 31.03.2015, 8,82,400.00
24. Site Specific Design Earthquake Parameters Study for Power Plant Structure at Narsinghpur District of Madhya Pradesh, NTPC Limited, Noida, 27.02.2012 to 30.06.2013, 8,82,400.00
25. Site Specific Seismic Study for Katwa STPP (2x800MW) West Bengal., NTPC Limited, Noida, 16.02.2012 to 31.03.2015, 8,82,400.00
26. Site Specific Seismic Design parameters for Koladyne Stage-II HEP , NTPC Limited, Noida, 16.02.2012 to 31.03.2015, 13,23,600.00
27. Site Specific Studies for Seismic Design Parameters for Kynshi-II HE Project (400 MW) in Meghalaya, Jaypee Meghalaya Power Ltd., 16.02.2012 to 31.03.2015, 13,23,600.00
28. Site Specific Design Earthquake Parameters for Such Khas and Reoli Dugli Hydro Electric Project, H.P., L&T Power Development Ltd., 16.02.2012 to 31.03.2015, 22,06,000.00
29. Site Specific Studies for Seismic Design Parameters for Dhaulasidh Hydro Electric Project on River Beas (66MW), Himachal Pradesh, SJVN Limited, 16.02.2012 to 31.03.2015, 13,23,600.00
30. Site Specific Design Parameters Study for Power Plant Structure at Trincomali, Sri Lanka, NTPC Limited, Noida, 12.03.2012 to 30.09.2013, 13,23,600.00
31. Site Specific Design Parameters Study for Tehri Pumped Storage Plant Uttarakhand, Hindistan Construction Co. Ltd. Mumbai, 22.03.2012 to 31.03.2015, 8,82,400.00

Year 2010-2011

1. Site Specific Seismic Design Parameters study for 2x600 MW Thermal Power Plant Structure at Pegadapalli Distt. Andhra Pradesh, The Singareni Collieries Company Limited, Kothagudem (A. P.), 14.04.2010 to 31.03.2013, 5,51,500.00
2. MEQ data processing, interpretation and report preparation of earthquake data generated for the year 2009, for study of seismogenic sources around the Subansiri Lower H. E. Project, NHPC Ltd., 10.05.2010 to 31.03.2013, 7,16,950.00
3. MEQ data processing, interpretation and report preparation of earthquake data generated for the year 2008, for study of seismogenic sources around the Subansiri Lower H. E. Project, NHPC Ltd., 10.05.2010 to 31.03.2013, 7,16,950.00
4. Site Specific Design Earthquake parameters Studies for 4 HEPs in Tawang Basin Arunachal Pradesh, SEW Energy limited, 07.05.2010 to 31.03.2013, 13,23,600.00
5. Probabilistic Seismic Hazard Analysis for Utkal Alumina Refinery Site Orissa, Liaison Office Hyderabad , 26.04.2010 to 31.03.2013, 8,82,400.00
6. Site Specific Design Earthquake Parameters Study for Tagurshit HEP, Arunachal Pradesh, Larsen & Toubro Limited, 21.05.2010 to 31.03.2013, 5,51,500.00
7. Site Specific Design Earthquake Parameters Study for Chango Yangthang HEP, Himachal Pradesh, Bhilwara Energy Limited, 21.05.2010 to 31.03.2013, 5,51,500.00
8. Site Specific Design Parameters study for Tipang Hydro Electric Project (45 MW) in Arunachal Pradesh, IL & FS Energy Development Company Limited, 02.06.2010 to 31.03.2013, 5,51,500.00
9. Site Specific Design Earthquake Parameters Study for Miyar Hydro Electric Project in Himachal Pradesh, Miyar Hydro Electric Power Company Ltd, 22.07.2010 to 31.03.2013, 5,51,500.00
10. Site Specific Design Earthquake Parameters Study of Jameri HEP, Arunachal Pradesh, KSK Energy Ventures Limited, 23.07.2010 to 31.03.2013, 5,51,500.00
11. Site Specific Design Earthquake Parameters Study for 4000 MW Tilaya Ultra Mega Power Project at Tilaiya, Jharkhand, Jharkhand Integrated Power Ltd., 12.08.2010 to 31.03.2013, 5,51,500.00
12. Site Specific Design Earthquake Parameters Study for Etalin & Attunli Hydroelectric Projects at Arunachal Pradesh, SNC-Lavalin Engineering India Pvt. Ltd., 12.08.2010 to 31.03.2013, 8,82,400.00
13. Site Specific Design Earthquake Parameters for Study for Kholongchu HEP (468 MW), Trashiyangtes, Bhutan, Energy infratech Pvt. Ltd., 12.10.2010 to 31.03.2013, 8,82,400.00
14. Site Specific Design Earthquake Parameters for Study for Kalai -II, HEP, Arunachal Pradesh, Larsen & Toubro Limited, 12.10.2010 to 31.03.2013, 9,92,700.00
15. Site Specific Design Earthquake Parameters Study for Chitrangi Power Project, Madhya Pradesh., Business Development Group, Reliance Power, 01.11.2010 to 31.03.2013, 5,51,500.00
16. Site Specific Seismic Design Parameters study for Thana Plaun HEP (141 MW) of HPPCL in River Beasin of Himachal Pradesh, Himachal Pradesh Power Corporation Limited, 08.11.2010 to 31.03.2013, 5,51,500.00
17. Site Specific Design Earthquake Parameters Study of Dinchang HEP Arunachal Pradesh, KSK Energy Ventures Ltd., 09.11.2010 to 31.03.2013, 8,82,400.00
18. Site Specific Design Earthquake Parameters for Seismic Design of Power Plant Structures for Auraiya Gas Power Project, Stage-II (1400 MW), NTPC Limited, Noida, 8.11.2010 to 31.03.2013, 5,51,500.00
19. Site Specific Design Earthquake Parameters for Seismic Design of Power Plant Structures for Faridabad CCPP, Stage-II (1050 MW), NTPC Limited, Noida, 23.11.2010 to 31.03.2013, 5,51,500.00

20. Site Specific Seismic Study for Seismic Design of Power Plant Structures for Ratanagiri Power Station Stage –II, Phase-I (1500 MW), Ratanagiri Gas and Power Private Limited, 23.11.2010 to 31.03.2013, 5,51,500.00
21. Site Specific Design Earthquake Parameters Study for Devsari HEP (252 MW) in Uttarakhand, SJVN Limited, 19.01.2011 to 31 .03.2013, 5,51,500.00

Year 2009-2010

1. Site Specific Design Earthquake Parameters Study for Sainj HEP, Himachal Pradesh, Himachal Pradesh Power Corporation Ltd., 12.03.2009 to 31.03.2012, 5,61,800.00
2. Site specific seismic design parameters for Kashang HEP (243 MW), Himachal Pradesh Power Corporation Limited, 26.03.2009 to 31.03.2012, 5,61,800.00
3. Stability Analysis of Concrete Dam of Bunakha HEP in Bhutan, Tehri Hydro Development Corporation Ltd., Rishikesh, 01.04.2009 to 31.03.2012, 16,00,000.00
4. Seismic Hazard Study offshore Bay of Bengal of Myanmar, Bakat Geotechnics Pte Ltd, Singapore, 21.04.2009 to 31.03.2010, 4,98,074.00
5. Site Specific Design Earthquake Parameters Study for Bajoli Holi Hydroelectric Project (H.P.), SNC-LAVALIN Engineering India Pvt. Ltd., New Delhi, 03.04.2009 to 31.03.2012, 5,51,500
6. Site Specific Seismic Study for Talcher TPS Expansion (2x660 MW), NTPC Limited, NOIDA, 13.04.2009 to 31.03.2012, 5,51,500.00
7. Site Seismic Study for Singrauli Super Thermal Power Project (stage-III) (1x500MW), NTPC Limited, Noida, 03.04.2009 to 31.03.2012, 5,51,500.00
8. Site Specific design EQ parameter studies for Sissiri H. E. Project in Arunachal Pradesh, Soma Sissiri Hydro Private Limited (SPV), New Delhi, 28.03.2009 to 31.03.2012, 5,51,500.00
9. Site Specific Design Earthquake Parameters Study for Pauk West Siang HEP Project in Arunachal Pradesh, VELCAN Energy, New Delhi, 13.03.2009 to 31.03.2012, 5,51,500.00
10. Site Specific Seismic Design Parameters for Naying Hydro Electric Power Project (1000 MW), in West Siang Distt. Of Arunachal Pradesh, Naying DSC Power Limited, New Delhi, 22.05.2009 to 31.03.2012, 5,51,500.00
11. Site Specific Design Earthquake Parameters Study for Kudgi Super Thermal Power Project(400 MW) at Bijapur District of Karnataka, N.T.P.C. Limited Noida, 12.03.2009 to 31.03.2012, 5,51,500.00
12. Study for Site Specific Seismic Design Parameters for Hutong-II Hydro Electric Power Project (1250 MW) in Arunachal Pradesh, Mountain Fall India Pvt. Ltd., New Delhi, 21.06.2009 to 31.03.2012, 5,51,500.00
13. Site Specific Seismic Study of Bina Complex Irrigation and Multipurpose Project of Distt. Sagar (M.P), 21.06.2009 to 31.03.2012, 8,27,250.00
14. Site Specific Design Earthquake Parameters Study for Yamne River Basin HEP, Arunachal Pradesh, Aquagreen Engineering Management (P) Ltd., New Delhi, 08.07.2009 to 31.03.2012, 5,51,500.00
15. Probabilistic Seismic Hazard Studies for Nyabarongo Hydro Electric Project, Rawanda, Angelique International Limited, New Delhi, 08.07.2009 to 31.03.2012, 6,61,800.00
16. Site Specific Design Earthquake Parameters Study for Dhamwari Sunda HE Project, Himachal Pradesh, TCE Consultancy Engineers Ltd., New Delhi, 03.07.2009 to 31.03.2012, 5,51,500.00
17. Site Specific Design Earthquake Parameters for IFFCO Kalol Unit, Indian Farmers Fertiliser Co-operative Ltd., Kolkata, 11.08.2009 to 31.03.2012, 5,51,500.00
18. Site Specific Earthquake Parameter study for Upper Marsyangdi-2 HE Project, Nepal, GMR Energy Limited, 29.07.2009 to 31.03.2012, 8,42,400.00

19. Site Specific Design Earthquake Parameters Study for Nyamjang Chhu HEP, Twang Distt. Arunachal Pradesh, Bhilwara Energy Limited, Noida, 06.08.2009 to 31.03.2012, 5,51,500.00
20. Site Specific Earthquake Parameter study for Upper Karnali HE Project, Nepal, GMR Energy Limited, New Delhi, 29.07.2009 to 31.03.2012, 8,42,400.00
21. Site Specific Design Parameters for Teesta –II HEP, Sikkim, Aquagreen Engineering Management Pvt. Ltd. Mathura Road, New Delhi, 01.09.2009 to 31.03.2012, 5,51,500.00
22. Site Specific Seismic Design Parameters for Seismic Design of Power Plant Structures for Marakkanam Super Thermal Power Project(4000 MW), NTPC Ltd., Noida, 01.09.2009 to 31.03.2012, 5,51,500.00
23. Site Specific Design Earthquake Parameters Study for Luhri Hydro Electric Power Project on River Satluj (775 MW) in H.P, Satluj Jal Vidyut Nigam Limited, 15.09.2009 to 31.03.2012, 5,51,500.00
24. Site Specific Design Earthquake Parameters Study for Hirong Hydro Electric Power Project (500MW) in Arunachal Pradesh, Jaypee Ventures Pvt. Ltd., 10.09.2009 to 31.03.2012, 5,51,500.00
25. Geophysical Studies at Jalam Tamak HEP, THDC Ltd., Ganga Bhawan, Pragatipuram Bypass Road, Rishikesh, 22.10.2009 to 31.03.2012, 8,27,250.00
26. Site Specific Seismic Design Earthquake Parameter Study for Lithang Hydro Electric Project, Sikkim, KHC Lethang Hydro Project Private Ltd., Noida, 12.10.2009 to 31.03.2012, 5,51,500.00
27. Site Specific Seismic Study for Gajmara Super Thermal Power Project (4x800 MW), NTPC Limited, Noida, 09.11.2009 to 31.03.2012, 5,51,500.00
28. Site Specific Seismic Design Earthquake Parameter Study for Palais Raoyale, Mumbai, M/s Taylor Devices India Pvt. Ltd., 20.11.2009 to 31.03.2012, 5,51,500.00
29. Site Specific Design Earthquake Parameters Study for Pemashelpu River Basin HEP Project in Arunachal Pradesh, Aquagreen Engineering Management Pvt. Ltd., Mathura Road New Delhi, 27.11.2009 to 31.03.2012, 5,51,500.00
30. Site Specific Seismic Studies for NHDC 1320 MW Reva Thermal Power Project, M.P., NHDC Ltd., NHDC Parisar, Shyamla Hills, Bhopal, 17.12.2009 to 31.03.2012, 5,51,500.00
31. Study for Site Specific Seismic Design Parameters for Kalai-I Hydro Electric Power Project (1450 MW) in Arunachal Pradesh, Mountain Fall India Pvt. Ltd., New Delhi, 05.01.2010 to 31.03.2012, 5,51,500.00
32. Site Specific Design Earthquake Parameter Studies for Nafra HEP, Arunachal Pradesh, Sew Nafra Power Corporation Pvt. Ltd., Hyderabad, 08.01.2010 to 31.03.2012, 5,51,500.00
33. Site Specific Design Earthquake Parameters for Bowala Nand Prayag HEP, Chamoli, Uttarakhand, Uttarakhand Jal Vidyut Nigam limited., 18.01.2010 to 31.03.2012, 5,51,500.00
34. Analysis of ground improvement for laying of Railway Infrastructure over deposit of coal ash in Anpara, Distt. Sonbhadra, RITES Limited, 04.03.2010 to 31.03.2013, 16,54,500.00
35. Field Studies of ground improvement for laying of Railway Infrastructure over deposit of coal ash in Anpara, Distt. Sonbhadra., RITES Limited, 04.03.2010 to 31.03.2013, 27,57,500.00

Year 2008-2009

1. केन बेतवा लिकं परियोजना की विस्तृत परियोजना प्रतिवेदन ;डी0 पी0 आर0द्ध तैयार करने के सम्बंध में राष्ट्रीय जल विकास अभिकरण, सुरेश नगर, ठाटीपुर, मध्य प्रदेश, 21.01.2008 to 31.03.2011, 5,61,800.00
2. Seismic Stability Analysis of Mullaperiyar Dam-Part-I, Irrigation, Kozhikode-20, 26.02.2008 to 31.03.2010, 3,37,080.00
3. TATO-II Hydroelectric Project-Site Specific Study For Establishing Seismic Parameter, SNC-Lavalin Engineering India Pvt. Ltd., New Delhi, 24.04.2008 to 31.03.2010, 5,61,800.00
4. Site Specific Design Earthquake Parameter Study of Demwe Upper and Demwe Lower Project (1200 MW) Lohit District, Arunachal Pradesh, 06.05.2008 To 31.03.2011, 8,42,700.00

5. Site Specific Seismic Design Parameters for Seismic Design of Power Plant Structure at Meja Tehsil of Allahabad in Uttar Pradesh, NTPC Limited, 7, New Delhi – 110 003, 06.05.2008 To 31.03.2011, 5,61,800.00
6. Site Specific Design Earthquake Parameters for Tanda Thermal Power Project, U.P., NTPC Limited, 7, New Delhi-110 003, 30.04.2008 To 31.03.2011, 5,61,800.00
7. Site Specific Seismic Design Parameters for Panan Hydro Electric Project, North Sikkim, Himagiri Hydro Energy Private Limited, New Delhi, 12.05.2008 To 31.03.2011, 5,61,800.00
8. Site Specific Seismic Study for 4000 MW Krishnapatnam Ultra Mega Power Project (KUMPP) Nellore, Andhra Pradesh, Reliance, Coastal Andhra Power Limited, 15.05.2008 To 31.03.2011, 5,61,800.00
9. Site Specific Earthquake Parameter Study for the Ramganga Barrage, Badaun Irrigation Scheme, U. P. , Flood Works Board, Bareilly (U.P.), 29.05.2008 To 31.03.2011, 5,61,800.00
10. Seismological Network Around Tehri Region, THDC, Reshikesh, Uttarakhand, 25.10.2007 To 31.12.2010, 30,33,720.00
11. Site Specific Seismic Design Parameters for Anpara-D, Thermal Power Project, Anpara, Sonbhadra (U.P.), B.H.E.L. Power Sector, Project Engineering , Management, 16.06.2008 To 31.03.2010, 5,61,800.00
12. Seismic Analysis of Bhakara Dam: Hazard Analysis, Director Design, Bh, Beas Design Dte, BBMB, Nangal Township, Nangal, 01.08.2008 to 31.03.2010, 5,61,800.00
13. Evaluation of shear wave velocity of Ranjit Sagar Dam, Director, Ranjit Sagar Design Organization, IB,PB, Chandigarh, 16.10.2008 to 31.03.2010, 5,61,800.00
14. Site Specific Seismic Study using Probabilistic Approach for 330 MW Shrinagar HEP, Alaknanda Hydro Power Company Ltd., 30.07.2008 to 31.03.2010, 5,61,800.00
15. Site Specific Design Earthquake Parameters Study of Dibbin HEP (130MW) , KSK Dibbin Hydro Power Pvt. Ltd., Hyderabad, 01.08.2008 to 31.03.2010, 5,61,800.00
16. Site Specific Study for establishing parameters, Kuthar HEP (260MW), JSW Energy Limited, New Shimla, 19.08.2008 to 31.03.2010, 5,61,800.00
17. Site Specific Seismic Design Parameters for Parwan Major Irrigation Project near village Akawad, Distt. Jhalawar, Rajasthan, S&I (W.R.) Division, Jhalwar , 25.08.2008 to 31.03.2011, 5,61,800.00
18. Study for Site Specific Seismic Design Parameters for Shongtong Karcham HEP, Himachal Pradesh Power Corporation Limited, Sundernagar, 01.10.2008 to 31.03.2012, 5,61,800.00
19. केन बेतवा लिकं परियोजना की विस्तृत परियोजना प्रतिवेदन हेतु प्रस्तावित मकोडिया बाँध क्षेत्र का भूकम्पीय अध्ययन
National Water Development Agency, Shahpura, Bhopal (M.P.), 01.10.2008 to 31.03.2011, 5,61,800.00
20. Rehabilitation & Retrofitting of Pre Independence Building of FRI, Dehradun, Paryavaran Bhawan, CGO Complex, Lodhi Road New Delhi, 10.11.2008 to 09.11.2011, 33,67,200.00
21. Site Specific Seismic Study of Tilaiya Dam, Jharkhand, Jharkhand Integrated Power Limited, New Delhi, 01.12.2008 to 31.03.2011, 8,98,880.00
22. Site Specific Seismic Design Parameters for Seismic Design of Power Plant Structures at Solapur District of Maharashtra State, NTPC Ltd., Noida, 05.12.2008 to 31.03.2011, 5,61,800.00
23. Site Specific Design Earthquake Parameters Study for Power Plant Structures at MTPS, KANTI, Kanti Bijlee Utpadan Nigam Limited, Muzaffarpur Thermal Power Station, Bihar, 01.12.2008 To 31.03.2011, 5,61,800.00
24. Review of Seismic Design Spectra for Kochi LNG Terminal of Petronet LNG Ltd., Petronet LNG Limited, New Delhi – 110 001, 29.12.2008 to 31.03.2010, 1,10,837.00
25. Site Specific Seismic Study for 76 MW Phata Byung Hydro-Electric Project, Lanco Hydro Energies Pvt. Ltd., Udyog Vihar, Gurgaon, 14.01.2009 To 31.03.2011, 5,61,800.00

26. MASW Profiling for Phuentsholing City, Bhutan, Norwegian Geotechnical Institute, Norway, 14.01.2009 To 31.03.2011, 9,90,070.00
27. Shear Wave Velocity Determination for Shongtong-Karchham HEP, Himachal Pradesh, Himachal Pradesh Power Corporation Limited, Kinnaur (H.P.), 03.03.2009 To 31.03.2010, 5,61,800.00
28. Site specific design earthquake parameters study for Chhatru Hydroelectric Project, DCM Shriram Infrastructure Ltd., New Shimla (H.P.), 13.01.2009 To 31.03.2011, 5,61,800.00
29. Site specific design earthquake parameters study for Malari Jelam & Jelam Tamak HEP, UK., Tehri Hydro Development Corporation Ltd., Bhagirathipuram, Tehri Garhwal, 07.01.2009 To 31.03.2011, 8,42,700.00

Year 2007-2008

1. Site specific Seismic parameter Study for Bhimkyong HE Project (Sikkim), Stage II, Chung Thang Hydro Power Pvt. Ltd., Noida, 19.03.2007 to 31.03.2010, 3,36,720.00
2. Site specific Seismic parameter Study for Bop HE Project (Sikkim), Stage III, Teesta Hydro Power Pvt. Ltd., Noida, 19.03.2007 to 31.03.2010, 3,36,720.00
3. Site specific Seismic parameter Study for Lachung chu (Sikkim) Hidro Project Stage –I, Lachung Hydro Power Pvt. Ltd., Noida, 19.03.2007 to 31.03.2010, 3,36,720.00
4. Site specific design earthquake parameters for NMSEZ Project Area, Navi Mumbai, Navi Mumbai SEZ Pvt. Ltd., Navi Mumbai, 20.03.2007 to 31.03.2010, 5,61,200.00
5. Site specific design earthquake parameter for project site near Mundra 4000 MW Project at Mundra, The Tata Power Company Limited Matunga, Mumbai, 13.04.2007 to 31.03.2010, 5,61,800.00
6. Site specific design earthquake parameter for Jakhol Sankri H.E. Project, Lahmeyer International (India) Pvt. Ltd., Gurgaon, 01.05.2007 to 31.03.2010, 5,61,200.00
7. Site Specific Design Earthquake Parameters for Magdechhu H. E. Project, Bhutan, NHPC, Ltd., Faridabad, 02.07.2007 to 31.03.2010, 5,61,800.00
8. Site Specific Seismic Studies for Rammam Hydro Electric Project (HEP), Stage – III West Bengal, NTPC Hydro Limited, Noida, 03.07.2007 to 31.03.2010, 5,61,200.00
9. Seismic Hazard Studies for Krishna Godavari Basin in Regard to laying of Gas Pipe Line, Norwegian Geotechnical Institute OLSO, Norway, 28.04.2006 to 31.03.2008, 4,48,700.00
10. Site Specific Seismic Studies for Seismic Design of Power Plant Structures for Anta-II Super Thermal Power Project (200/2400MW), NTPC Ltd., Noida, 17.07.2007 to 31.03.2010, 5,61,800.00
11. Site Specific Design Earthquake Parameters for Study of 70 MW Budhil HE Project, Distt. Chamba, H.P., M/s Lanco Green Power Private Limited, New Delhi, 23.07.2007 to 31.03.2010, 5,61,800.00
12. Site Specific Seismic Studies for Singoli Bhatwari HEP in Uttarakhand, Larsen & Toubro Limited, Chennai, 03.08.2007 to 31.03.2010, 5,61,800.00
13. Studying of the effectiveness of ground improvement technique and possible lequification potential for 2X500 MW Anpara D Thermal Power Station., U.P. Rajya Vidyut Utpadan Nigam Ltd., Lucknow (U.P.), 10.08.2007 to 31.03.2009, 33,70,800.00
14. Site Specific Design Earthquake Parameters for Alaknanda Hydro Electric Project, Chamoli Distrect., GMR(Badrinath) Hydro Power Generation Pvt. Ltd., Bangalore, 06.08.2007 to 31.03.2010, 5,61,800.00
15. Seismic Programme in Uri Tehsil of J & K., Environics Trust, 33 B, Third Floor, Saidullajab, M. B. Road, New Delhi, 21.08.2007 to 31.03.2010, 1,12,360.00

16. Liquefaction Potential of Barrage Foundation for for Singoli Bhatwari HEP in Uttarakhand, Larsen & Toubro Limited, New Delhi, 03.08.2007 to 31.03.2008, 56,180.00
17. Site Specific Design Earthquake Parameters study for Jamrani Dam, Superintending Engineer, Irrigation Works Circle, Haldwani, 17.09.2007 to 31.03.2010, 5,61,800.00
18. Site Specific Study for the Proposed N.U.H.E Project, ME. SEB Dehal, Meghalay State electricity Board Project, Dehal, Dist Meghalay, 04.10.2007 to 31.03.2010, 5,61,800.00
19. Study for Site Specific Design Parameters for Rupsiabagar khasiabara H.E.P. Project, Uttarakhand, Chief Engineer, Water & Power Consultancy Services (India) Ltd., New Delhi, 12.10.2007 to 31.03.2010, 5,61,800.00
20. Site Specific Seismic Study for Sasan Ultra Mega Power Project, M.P., Sasan Power Limited, Reliance Energy Ltd., Noida, 31.10.2007 to 31.03.2010, 5,61,800.00
21. Specific Design Earthquake Parameters for Rampur Hydro Electric Project, Satluj Jal Vidyut Nigam Limited, Shimla, 27.11.2007 to 31.03.2010, 4,49,440.00
22. Site Specific Study of Shahpur 2x600 MW Thermal Power Project, Reliance Energy Limited, Mumbai, 30.11.2007 to 31.03.2010, 5,61,800.00
23. Site Specific Study – Jangi Thopan Powari HE Project (960MW), Himachal Pradesh, Barkel Kinnaur Power Pvt. Ltd. Shimla, Himachal Pradesh, 02.01.2008 to 31.03.2010, 5,61,800.00
24. 330 MW Shrinagar Hydro Electric Project – Specific Design Earthquake parameters for the Project Site – Reg, Alaknanda Hydero Power Company Limited, Dehradun, 02.01.2008 to 31.03.2010, 5,61,800.00
25. MEQ data processing, interpretation and report preparation for MEQ data collection during Dec. 2006 to Dec. 2007 for study of seismogenic source surround the SLP, NHPC Ltd., Subansiri Lower H. E. Project, Gerukamukh, Distt. Dhemaji, Assam, 03.03.2008 to 31.03.2010, 5,61,800.00

Year 2006-2007

1. Site Specific Design for Earthquake Parameter for Road Bridge Over River Brahmaputra on NH-31, Guwahati, National Highway Authority of India, New Delhi, 31.03.2008, 4,40,800.00
2. Site specific seismic study for seismic design of power plant structures for Darlipali STPP (3200 ME), NTPC Ltd., Noida, 16.07.2006, 4,48,960.00
3. Site specific study for establishing seismic parameters for bhairon Ghasti Phase-I, HE Project (UA), LAVALIN, New Delhi, 01.08.2006, 5,61,200.00
4. Site Specific Design Earthquake Parameters for Teesta Stage III HE Project, Sikkim, ERUDITE, Engineers, Pvt Ltd., Gurgaon, Haryana, 31.03.2009, 5,61,200.00
5. Site Specific Analysis of Wazurabad Bridge, ERUDITE, Engineers, Pvt Ltd., Gurgaon, Haryana, 31.03.2009, 4,48,960.00
6. Site Specific Seismic Studies for Seismic Design of Power Plant Structure for Badarpur, Thermal Power Project Stage III, (2x490 MW), National Thermal Power Corporation Ltd. New Delhi, 31.10.2009, 5,61,200.00
7. Site Specific Seismic Studies for Seismic Design of Power Plant Structure for Proposed Joint Venture Thermal Power Project at Jhajjar, Haryana (3x500MW), National Thermal Power Corporation Ltd. New Delhi, 31.09.2009, 5,61,200.00
8. Site Specific Seismic Studies for Seismic Design of Power Plant Structure for Rajive Gandhi CCPP, Stage II (3x650MW), National Thermal Power Corporation Ltd. Noida, 31.03.2009, 5,61,200.00
9. Site Specific Design Earthquake Parameter for Six Railway Bridges on Katra –Quazigund Rail Link, J&K., RITES Ltd., Gurgaon, 31.03.2009, 12,50,000.00
10. Site Specific Design Earthquake Parameters for Maneri HE Project, Uttarkashi , Uttaranchal Jal Vidyut Limited, Maneri, Uttarkashi, 5,61,200.00

11. Site Specific Seismic Studies for Lara Integrated Thermal Power Project (400MW), Distt. Raigarh, Chattisgarh, National Thermal Power Corporation Ltd. Noida, 4,48,960.00
12. Site Specific Design Earthquake Parameters for Rosa Thermal Power Plant Shahajanpur (U.P), Utility Energytech Engineers Pvt. Ltd., Lucknow, 5,61,200.00
13. Site Specific Seismic Studies for Lata Tapovan H.E. Project (ITI MW) in Uttaranchal, NTPC Hydro Ltd., Noida, 3,92,840.00
14. Site Specific Design Earthquake Parameters for Malana Stage-II, HE Project (HP), ERUDITE, Engineers, Pvt Ltd., Gurgaon, Haryana, 4,48,960.00

Year 2005-2006

1. Site-Specific Design Parameter Studies for Vishnugad Pipalkoti Hydro-Electric Scheme, Tehri Hydro Development Corporation Ltd. Rishikesh (U.A.), 07.02.2005- 31.03.2008, 4,40,800.00
2. Pre dispatch inspection of seismic logical equipment manufactures works, Switzerland, M/s Gujarat Engineering Research Institute, Narmadea Water Resources and Water Supply Deptt. Govt. of Gujarat, Vadodara, 31.03.2006, 2,75,000.00
3. Site Specific Design Parameter for Pakal Dul Power H. E. Project, National Hydroelectric Power Corporation Ltd. Distt. Doda , J & K, 09.03.2005-31.03.2007, 2,20,400.00
4. Site Specific Design Earthquake Parameters for Chutak H.E. Project Distt. Kargil, NPPC Ltd. A Govt. of India Enterprises Chutak H.E. Project Mini Village Kargil (Ladakh), 22.06.2005- 31.03.2008, 4,40,800.00
5. Site Specific Design Earthquake Parameters for Dikrong H.E. Project Arunachal Pradesh /Pare, Consulting Engineering Services (India) Pvt. Ltd. New Delhi, 28.06.2005- 31.03.2007, 4,40,800.00
6. Site Seismic Design of Power Plant Structure for Farakka STPP Stage III (1X500 Mw) Murshidabad in West Bengal, NTPC Ltd. Noida, 15.04.2005-30.04.2007, 4,40,800.00
7. Site Specific Study of Seismic Design Parameters for Koteswar, H.E. Project, THDC Ltd. Bhagirathi Bhawan Tehri Garhwal, 23.04.2005-31.03.2008, 2,20,400.00
8. Site Specific Design Earthquake Parameter for Shahpurkandi Dam Project Punjab, Ranjit Sagar Dam Construction Board, Chandigarh, 22.03.2005-31.03.2007, 4,40,800.00
9. Site Specific Design Earthquake Parameter for Kotlibhel HE Project Stage IA, NHPC Ltd., Devprayag, Tehri Garhwal (U.A), 12.08.2005-31.03.2008, 3,30,600.00
10. Site Specific Design Earthquake Parameter for Kotlibhel HE Project Stage IB, NHPC Ltd., Devprayag, Tehri Garhwal (U.A), 12.08.2005-31.03.2008, 3,30,600.00
11. Site Specific Design Earthquake Parameter for Kotlibhel HE Project Stage II, NHPC Ltd., Devprayag, Tehri Garhwal (U.A), 12.08.2005 -31.03.2008, 3,30,600.00
12. Site Specific Design Earthquake Parameter for Siang Lower HE Project, Arunachal Pradesh, NHPC Ltd., Lower Siang Project, Pasighat, Arunachal Pradesh, 12.09.2005-31.03.2008, 3,30,600.00
13. Testing of Seismological Instruments for GERI., Gujarat Engg. Research Institute, Vadodara, 30.08.2005- 31.03.2007, 12,12,200.00
14. Site Specific Design Earthquake Parameter for Kiru Kwar, Ratle & Shamnot H.E. Project, J&K, NHPC Ltd., J&K, 31.03.2008, 13,22,400.00
15. Site Specific Design Earthquake Parameter for Bav HE project, Maharastra, NHPC Ltd., Devraukh, Maharastra, 10.10.2005- 31.03.2008, 4,40,800.00
16. Site Specific Design Earthquake Parameter for Talong H.E. Project, Arunachal Pradesh, Consulting Engineering Services (India) Pvt. Ltd. New Delhi, 31.03.2008, 4,40,800.00
17. Site Specific Seismic Studies for Seismic Design of Power Plant Structure for Bongaigaon, Thermal Power Project (2x250 MW), NTPC Ltd., Noida, 31.03.2008, 4,40,800.00

Year 2004-2005

1. Site Specific Seismic Studies for Seismic Design of Power Plant Structure for JHANOR GANDHAR CCPP, Stage-II, Phase-II (650 MW), Bharuch in Gujarat, NTPC, Noida, 15.06.2004 to 31.12.2005, 4,32,000.00
2. Site specific design earthquake parameter for chenab & anjikhad railway bridges for katra-lahoe section of Udampur-SrinagarBaramula Rail Link Project in J&K Region, Chief Project Manager, Konkan Railway Corp. Ltd., Belapur, Mumbai, 15.06.2004 to 31.12.2005, 6,48,000.00
3. Site Specific Design Earthquake Parameters for Lakhwar and Vyasi Project, NHPC Ltd., Dakpatthar, Dehradun (UA), 15.06.2004 to 31.03.2006, 6,48,000.00
4. Site Specific Design Earthquake Parameters for Karcham Wangtoo HE Project-1000 MW (H.P.), M/s Jaypee Ventures Ltd., Ghaziabad (U.P.), 15.07.2004 to 31.03.2006, 4,32,000.00
5. Site Specific Seismic Studies for Seismic Design of Power Plant Structure for NTPC-GPCL Joint Venture Thermal Power Project (1000MW) at Pipavav in Gujarat, NTPC, Noida, 15.08.2004 to 31.12.2006, 4,32,000.00
6. Site Specific Design Earthquake Parameter for Debang Multipurpose Project, NHPC Ltd. Debang Valley Arunachal Pradesh, 01.12.2004 to 31.03.2006, 4,40,800.00
7. Installation Monitoring Data Acquisition Interpretation and Preparation of Report of MEQ Instruments for Seismic Monitoring in Subansiri Lower Project, National Hydroelectric Power Corporation Limited, Subansiri Lower H.E. Project Gerukamukh Via Gogamukh Distt. Dhemaji Assam, 31.03.2008, 3,85,700.00
8. Seismological Network around Tehri Region, THDC, Rishikesh, 24.10.2007, 17,35,650.00

Year 2003-2004

1. Site-Specific Design Earthquake Parameter Studies of Kishanganga HE Project, J&K, NHPC, Faridabad, Haryana, 31.03.2007, 4,32,000.00
2. Site-Specific Design Earthquake Parameter Studies of Uri-II HE Project, J&K, NHPC, Faridabad, Haryana, 31.03.2007, 4,32,000.00
3. Site specific seismic studies for ministry of railways NTPC Nabhinagar joint venture thermal power project, NTPC Noida, 15.06.2005, 4,32,000.00
4. Site specific Seismic Studies for NTPC-TNEB Joint Venture Thermal Power Project at Ennore, NTPC Noida, 15.06.2006, 4,32,000.00
5. Site Specific Seismic Studies for Seismic Design of Power Plant Structure for National Capital Power Project, State-II (1x490MW)-Dadri, U.P. , NTPC, Noida, 31.03.2007, 4,32,000.00
6. Site Specific Seismic Studies for Seismic Design of Power Plant Structure for expansion of Bhilai Power Project (2x250MW)-BESCL, Bhilai Electric Supply Company Pvt. Ltd., New Delhi , 31.03.2007, 4,32,000.00
7. Site Specific Seismic Studies for Seismic Design of Power Plant Structure for Korba Super Thermal Power Project, Stage-III (1x500MW) in Chhattisgarh, NTPC Noida , 31.03.2007, 4,32,000.00
8. Site Specific Design Earthquake Parameter Omkareshwar Project (M.P.), Jai Prakash Industries Ltd., New Delhi, 31.08.2005, 4,32,000.00
9. Cross Borehole Tests at the ASCS Project Site at Bhatinda, Project Director, ASCS, Space Application Centre, Isro Ahmedabad, 3,54,832.00

10. Site Specific Seismic Studies of Loharinag Pala Hydro Electric Project (4x130MW), NTPC, Noida, 14.09.2005, 4,32,000.00
11. Site Specific Seismic Studies for Tapovan Vishnugad Hydro Electric Project (3x120MW), NTPC, Noida, 14.09.2005, 4,32,000.00
12. Site Specific Design Earthquake Parameter for Bursar HE Project, National Hydro Electric Power Corporation, Kishtwar, 31.12.2005, 4,32,000.00
13. Site Specific Design Earthquake Parameter for 192 MW Allain Duhangan hydro Electric Project, Kullu, HP, AD Hydro Power Ltd., Bhilwara, Nodia , 31.12.2005, 4,11,500.00
14. Site specific seismic survey for Koba East Project , Bharat Heavy Electrical, Kolkata , 31.03.2006, 4,32,000.00
15. Study of local Seismicity of the region around KOL Dam HE Power project (Himachal Pradesh), NTPC, Kol Dam Hydro Electric Power Project, Distt.-Bilaspur (H.P.), 31.01.2009, 57,24,000.00
16. Site specific seismic studies for seismic design of power plant structure for mauda thermal power project (2x500 MW) Nagpur, NTPC Noida , 31.03.2006, 4,32,000.00

Year 2002-2003

1. Earthquake Parameter Studies for SERLUI 'B' Hydel Project (12MW), Executive Engineer SERLUI 'B' Dam Division Govt. of Mizoram, Bilkhawthlir, 4,00,000.00
2. Specific Design Earthquake Parameter Studies for Sew Stage-II Project (J&K), Sewa Hydroelectric Project Stage-II (J&K) Khairi Distt. Chamba, 3,79,000.00
3. Preparation on Site Specific Design Earthquake Parameters of Dhanikari Project Adaman Islands, NHPC Faridabad, 4,00,000.00
4. Site Specific Seismic Studies for Seismic Design of Power Plant Structures for Kahalgaon Super Thermal Power Project Stage-II (2x660MW) in Bihar, National Thermal Power Corporation ,Noida, 4,00,000.00
5. Seismic Design Parameter for Chamera HE Project Stage-II, National Hydro Electric Power Corpn. Ltd., Chamera Hydroelectric Project Stage-III Dharwala Distt. Chamba, 4,00,000.00
6. Seismic Design Parameter of Nimoo Bizgo & Chutuk Project, NHPC, Faridabad, 4,20,000.00
7. Determination of Site Specific Seismic Design Earthquake Parameter for Ujjayanta Place Agartalla, Govt. of India, Agartala Division No. 1, Agartala, 4,20,000.00

Year 2001-2002

1. Site Specific Earthquake Parameters Studies for Three Sites Siang and Subansri Basins Arunachal Pradesh, M/s National Hydro Electric Power Corp. Ltd., Itanagar, 11,98,000.00
2. Micro-Earthquake Investigations in Siang and Subansri Basins Arunachal Pradesh-Feasibility and Background Noise Survey, North Eastern Electric Power Corp. Ltd., Itanagar, 5,00,000.00
3. Studies for Seismic Design Parameters for Parbati Project Stage III, National Hydro Electric Power Corp., Sainj, 1,00,000.00

4. Evaluation of Earthquake Parameters of Site of Bargi Dam and its Appurtenant Structures, M/s Narmada Valley Development authority Government of Madhya Pradesh, 4,00,000.00
5. Study Reservoir Seismicity Employing Micro-Earthquake Investigations around Kameng Hydro-Electric Project, North Eastern Electric Power Corp. Ltd., Shillong, 57,70,000.00
6. Seismic Design Parameters Studies for proposed Teesta Low Dam HE Project Stage-III at West Bengal, National Hydroelectric Power Corp. Ltd., Faridabad, 2,00,000.00
7. Seismic Design Parameters Studies for proposed Low Dam HE project Stage-IV at West Bengal, National Hydroelectric Power Corp. Ltd., Faridabad, 2,00,000.00
8. Microearthquake monitoring Equipment for NHPC HE Project in Siang and Subansiri Basins, Arunachal Pradesh, National of Hydroelectric Power Corp. Itanagar (Arunachal Pradesh), 61,08,000.00

Year 2000-2001

1. Determination of Site Specific Earthquake Parameters for Tuivai H.E. Project Mizoram, M/s North Eastern Electric Power Corp. Ltd, New Delhi, 3,00,000.00
2. Site Specific EQ Parameter for Damme and Kameng Hydro Electric Project, Arunachal Pradesh, M/s North Eastern Electric Power Corp. Ltd, New Delhi, 2,50,000.00
3. Site Specific Earthquake Parameters for TESTA H.E. Project Stage-V East Sikkim, M/s National Hydro Electric Power Corp. Ltd., Singtam E-Sikkim, 4,00,000.00
4. Site Specific Earthquake Parameters for Parvati H.E. Project State-II Kullu H.P., M/s National Hydro Electric Power Corp. Ltd., Bhuntar, 4,00,000.00
5. Updation of Site Specific Earthquake Parameters for Seismic Design for Koldam Hydro Electric Project, M/s National Thermal Power Corp. Ltd., Noida, 3,00,000.00
6. Site Specific Earthquake Parameters for Design for Power Plant Structure of Talcher Stage-II, M/s National Thermal Power Corporation Ltd., Noida, 4,00,000.00
7. Site Specific Earthquake Parameters for Design of Myntdu Leshka H.E. Project Meghalya NE, India, Meghalya State Electricity Board, 3,00,000.00
8. Site Specific Seismic Studies for North Karanpura, M/s National Thermal Power Corp. Ltd, Noida, 4,00,000.00
9. Site Specific Seismic Studies for Barh Supper Thermal Power Project, M/s National Thermal Power Corp. Ltd, Noida, 4,00,000.00
10. Discussion on Earthquake Parameters, M/s Jai Prakash Industries , New Delhi, 20,000.00

Year 1999-2000

1. Seismic Velocity Design Parameters for Middle Vaitarna Dam, Municipal Corp. of Briham Mumbai, 3,00,000.00
2. Site Specific studies for Stage II North Chennai Thermal Power Project, M/s Asea Brown Boveri Ltd., New Delhi, 3,00,000.00
3. Ghatghar Pumped Storage Scheme R.C.E. Dam Study of Earthquake parameters, Tata Consulting Engineering Mumbai, 2,83,500.00
4. Determination of site specific parameters for Rihand super Thermal Power Project State II, NTPC, New Delhi, 3,00,000.00

Year 1998-1999

1. Determination of site specific parameters for Seismic Design of Power Plant Structures, NTPC, Noida, 7,50,000.00
2. Determination of Site Specific Parameter for Seismic Design of Structure for Sipat Thermal Power Project, National Thermal Power Corporation, Noida, 2,50,000.00
3. Seismic Studies for Kalpong H.E. Project, National Hydro Elective Power Corporation Ltd., Faridabad, 2,50,000.00

Year 1997-1998

1. Seismic studies of lower Kopili H.E. Project, NPEEPCO Ltd., Shillong, 2,00,000.00
2. Design Earthquake Parameter for Concrete Dam, GSWs, Mawphtang, 2,00,000.00

Year 1996-1997

1. Consultancy Service for Establishing Seismic Design Parameters for Entire Jamnagar Refinery Project Complex, M/s Refinery Petroleum Ltd., Mumbai, 1,20,000.00

Year 1995-1996

1. Earthquake Parameters Studies for Off share structure of Refinery, 1,00,000.00
2. EIA studies of the proposed Mahadege Hydel Project on the Ecology of Goa, NEERI, Nagpur, 1,00,000.00
3. Charges for carrying out the Earthquake Parameters Studies, Tata Consulting Engineers, Mumbai, 1,20,000.00
4. Processing of data in respect of Tilt Meters Installed at Harabagh of BSL Project & the Water Tube Tiltmeter in unit Bag-6 of Bhalra Right Power Plant, Director, BRMb, Nagat, 40,000.00
5. A1 Arish Project, BHEL, BHEL, New Delhi, 2,00,000.00

Year 1994-1995

1. Determination of Earthquake Parameters of Bridges site over River Ravi at Basohli (J&K), 1,00,000.00

Year 1993-1994

1. Renuka Dam Project Seismic Studies, Xen, Renuka Investigation Division, HPSEB, Dedahu, 80,000.00

Summary:

Major Research Projects	23
Major Consultancy Projects	12
Awards	2
Ph.d. Guided	Completed : 15 Ongoing : 10
M.Tech	Completed : 58 Ongoing : 08
Conference Organised	05
Books Authored	10
Education Films	09
Publications	Journals: 85 Conferences/Workshop/Seminars: 144
Technical Reports	469
Projects	330

M. L. Sharma

Professor, Department of Earthquake Engineering, IIT Roorkee,
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Prof. M. L. Sharma has more than 32 years of experience in teaching, research and consultancy in the area of Earthquake Engineering. In addition to regular teaching he has prepared many films on Earthquake Engineering and participated in short term courses and international projects on earthquake engineering. Prof. Sharma has rendered expert advice to more than 400 engineering sites in India and abroad regarding the seismic hazard and risk assessment. The engineering projects include major HE projects, dams, nuclear power plants, thermal power plants, bridges, high rise buildings etc. He has successfully attempted to analyse and quantify the uncertainties in final hazard estimates using PSHA. His work on seismic hazard assessment and soil characterizations has lead to the seismic microzonation of National Capital Region of Delhi. Based on the seismic hazard assessment and soil characteristic studies carried out by Prof. Sharma, the seismic microzonation of Dehradun city, Srinagar city (J&K), and Phuentsholing city in Bhutan has also been carried out which is further being used for seismic risk assessment in terms of money and death tolls.

His long association with the strong ground motion program of Department of Science and Technology has resulted in development of strong ground motion attenuation relationship for the horizontal and vertical PGA based on Indian Strong Motion data which was upgraded to spectral attenuation relationship. The relationship has been extensively used to estimate seismic hazard in India and worldwide.

Prof. Sharma played key role in the deployment of the first Digital Telemetered Seismological Sample Array in Garhwal Kumaoun Himalaya in 1985-86 in India with the aim to study present seismic status and RIS around Tehri dam. The acquired high quality digital data was used to estimate the source parameters for the first time using digital data in this region and the Seismic Moment Magnitude relationship for the Garhwal Himalaya was proposed by Prof. Sharma in 1994. Based on the data collected by these arrays, including Kol (2015-17), Lakhwar (2016-17) and Tehri (2009-2017) 3-Dimensional velocity structure was proposed for Garhwal Himalaya.

Prof. Sharma played key role in MOU for Kalpasar studies where he is the PI of the three maor schemes for Kalpasr project in Gujarat (2012-2018).

Prof. Sharma has also palyed key role in MOU between Madhya Pradesh and Uttarakhand for the seismic instrumentation of the dams under DRIP program of CWC. This MOU is being sigend on Sept 15, 2017 in Bhopal.

Prof. Sharma introduced the studies based on SAR interferometry for the deformation estimations and has been instrumental in starting the use of GIS/GPS related earthquake studies and application of SAR differential interferromtry for shallow earthquake. The convergence rates between Ganga and Yamuna Tear near the Himalayan Frontal Fault has been estimated using this methodology.

To initialize the EEW in India, IIT Roorkee was the first institute to deploy 84 sensors in seismic gap region of Garhwal Himalaya with the help of Ministry of Earth Sciences in 2015. This project was thus successfully completed in March 2017 but no measures were taken to issue the warning to public.

Subsequently, in May 2017 Government of Uttarakhand sanctioned a project to IIT Roorkee for maintenance of present earthquake early warning system, installation of 100 additional sensors covering Kumaun region, installation of sirens in SEOC at Dehradun and all district HQs of Uttarakhand and installation of 100 sirens in cities of Dehradun and Haldwani. It will be the first instant when EEW will go public.

He has been actively associated with many international programs specially with Norway, Mexico and Taiwan for disaster mitigation. The lessons learnt through many damage surveys of moderate earthquake carried out by him have resulted in advice for future in form of many of his international publications. Based on the contributions by Prof. Sharma in disaster mitigation he has been awarded the A. S. Arya-IITR Disaster prevention award -2012. He is Fellow of Indian Society of Earthquake Technology and Indian Geotechnical Society. Presently he is also the Vice president of ISET