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Academic Qualification: M.Sc (Geology)- Jammu University
Ph.D (Seismotectonics and Neotectonics)- PU Chandigarh
CERG-Diploma Disaster Management- Geneva
Post Doc. Fellow 2003 ITC, The Netherlands, *Seismic Microzonation*

Positions Held:

- **Employer: Director, Wadia Institute of Himalayan Geology**
Sr. Research Assistant July 1985- July 1988
Scientist 'B'- Jul., 1988 - Nov., 2002
Scientist 'C' Nov., 2002 - Aug., 2007
Scientist 'D' Aug., 2007 - Feb.,2013
- **Employer: Vice Chancellor, CU Himachal**
Joined as Professor, School of Earth and Environmental Sciences Feb., 2013, **Central University, Himachal**

Specialisation: Seismic hazard, Seismic microzonation, Disaster Management , shallow subsurface investigation using geophysical instruments for environmental engineering problems.

Research Interest: Seismic hazard , Seismic microzonation, Disaster Management , Shallow Subsurface Investigation, Environmental Engineering Geophysics

Publications:

Books Edited: Natural Hazard (Editors: O.P. Varma, A.K. Mahajan and Vikram Gupta)

2012

1. **Mahajan A. K.**, Vikram Gupta V. C. Thakur, 2012. Macroseismic field observations of 18 September 2011, Sikkim earthquake. *Nat Hazards*, 63: 589-603
2. **Mahajan**, A.K., Mundepi,A.K. Neetu chauhan, A.S. Jasrotia, Nitesh Rai and Tapas Kumar Gachhayat, 2012. Active seismic and passive microtremor HVSR for assessing site effects in Jammu city, NW Himalaya, India -A case study. *Journal of Applied Geophysics*, 77, 51-62.
3. Kumar N., Paul, A., **Mahajan, A. K.**, Yadav D. K. and Chandan Bora. 2012 The *Mw* 5.0 Kharsali, Garhwal Himalayan earthquake of 23 July 2007: sourcecharacterization and tectonic implications. *Curr. Sci.* 102(12) 1675-1682.
4. Thakur, V. C., **Mahajan, A.K.** and Gupta, V. 2012. Seismotectonics of 18 September 2011 Sikkim earthquake: a component of transcurrent deformation in eastern Himalaya *Himalayan Geology*, Vol. 33 (1), 89-96.
5. Ghosh G.K. and **Mahajan A.K.** 2013. Intensity attenuation relation at Chamba-Garhwal area in north-west Himalaya with epicentral distance and magnitude. *J. Earth Syst. Sci.* 1-17 (in press)

6. A.K. Mahajan, J. J. Galiana-Merino, C. Lindholm, B. R. Arora, A.K. Mundepi, Neetu Chauhan and Nitesh Rai, 2011. Characterization of the sedimentary cover at the Himalayan foothills: Characterization of the sedimentary cover at the Himalayan foothills using active and passive seismic techniques. **Journ of Applied Geophysics**, 73, 196-206.
7. Galiana-Merino, J.J. Mahajan, A.K. Lindhom, C.J. Herranz, Rosa- Mundepi A.K. & Rai, N 2011. Seismic noise array measurements using broadband stations and vertical geophones: preliminary outcomes for the suitability on f-k analysis. *Bull Earthquake Eng*, 9, 1309-1325.
8. **Mahajan**, A.K., Shukla A.K., Ajit Pandey, Mukesh Chauhan, Neetu Chauhan and Nitesh Rai 2011. Shear Wave Velocity investigation for ten representative sites of Delhi National Capital Region, New Delhi, India- **International Journal of Geotechnical Engineering**, 2(1), 29-43, January-June, 2011 29.
9. **Mahajan**, A.K., Subash Chandra, V.S. Sarma, B.R. Arora, and Dewashish Kumar, 2011. Multichannel Analysis of Surface Waves (MASW) And High Resolution Electrical Resistivity Tomography (HERT) in detection of Subsurface Features in NW Himalaya: Case Study-Near Surface Geophysics- in press.
10. Ghosh G. K and Mahajan, A. K. 2011. Interpretation of Intensity Attenuation Relation of 1905 Kangra Earthquake with Epicentral Distance and Magnitude in **the northwest Himalayan Region**. *Jour . Geological Society of India*. Vol.77, June 2011 on line.
11. Mahajan A. K Galiana-Merino J.J., Lindholm, C., Mundepi A.K. and Rai N. A comparative study of active and passive MASW and F-K technique and optimum field parameters for site characterisation. 14 SEE earthquake Engineering (Eds Kumar A and Sharma M.L) 1335-1348. Elite publishers.

2010

12. **Mahajan**, A.K., Thakur V.C., Mukut Lal and Mukesh Chauhan 2010. Probabilistic Seismic Hazard Map of NW Himalaya and its adjoining area, India. **Natural Hazard**, 53, 443-457.
13. Mundepi, A.K. and **Mahajan**, A.K., 2010. Site response evolution and sediment mapping using horizontal to vertical spectral ratios (HVSr) of ground ambient noise in Jammu city, NW, India- *Geological Society of India* 75, 799-806
14. Mahajan A.K. & Nitesh Rai, 2010 Using MASW to map depth to bedrock underneath Dehradun Fan deposits in NW Himalaya. **Curr. Science**. 100 (2) 233-238.
15. Kumar, S and **Mahajan**, A.K., 1993: The Uttarkashi earthquake of 20th October, 1991: Field observations, *Terra Nova* 6(2): 95-99.
16. **Mahajan**, A. K. and Kumar, S. 1994: Linear features registered on the Landsat Imagery in the Dharamsala-Palampur area NW Himalaya, vis-à-vis seismic status of the area, *Geophysika(II)*:15-25.
17. Paul, S.K., Bartarya, S.K., Rautela, P. and **Mahajan**, A.K. 2000. Catastrophic mass movement of 1998 monsoons at Malpa in Kali Valley, Kumaun Himalaya (India) *Geomorphology* 35 : 169-180.
18. Kumar, S. and **Mahajan**, A.K., 2001. Seismotectonics of the Kangra region, Northwest Himalaya. *Tectonophysics*, 331(4): 359-371
19. **Mahajan** A.K. and Viridi N.S., 2001 Macroseismic field generated by the 29th March Chamoli Earthquake, 1999 and its seismotectonics. *Jour. of Asian Earth science*, 19(4): 507-516.
20. T. Nakata, T. Yoshioka, H. Sato, T. Imaizumi, J. N. Malik, G. Philip, **A.K. Mahajan** and R.V. Karanth, 2001. Extensive surface deformation around Budharmora associated with the January 26, 2001 Republic day (Bhuj) earthquake of India. *Active fault Research*, 20, 127-136.
21. J. N. Malik, T. Nakata, H. Sato, T. Imaizumi, T. Yoshioka, G. Philip **Mahajan** , **A.K.** and R.V. Karanth, 2001. 26 January, 2001, the Republic day (Bhuj) earthquake of kachchh and active faults, Gujarat, western India. *Active Fault Research*, 20, 112-126.

22. **Mahajan A.K.** Kumar S. and Kamal 2004. Macroseismic field observations of January 26th, 2001 Kachchh Earthquake and its Seismotectonics. *Jour Asian Earth Sciences*, 23 (1), 17-23.
23. Rajwant, **Mahajan A.K.** and Sharma U.K 2004. Deforestation and Geo-environmental degradation in the Baner khad watershed, H.P., India. *Asian Jour. Water and Enviro. and Pollution* 2(1): 39-46
24. **Mahajan A.K.**, Rob Sporry and Chabak, S.K. 2005. Shear wave velocity survey for seismic hazard zonation studies in Dehradun, India. *Near Surface 2005*, Palermo, Italy, 5-8 September, 2005.
25. **Mahajan A.K.**, Siefko Slob, Rajiv Ranjan, Rob Sporry, P.K. Champati ray, and Cees J. van Westen, 2007. Seismic Microzonation of Dehradun city using Geophysical and Geotechnical Characteristics in the upper 30-meters of soil column. *Jour of Seis.*11:335-370.
26. **Mahajan, A.K.** 2009. "NEHRP soil classification and estimation of 1-D site effect of Dehradun fan deposits using shear wave velocity. *Engineering Geology* 104, 232-240.

National Peer reviewed Journals

27. Kumar, S. and **Mahajan A. K.**, 1990: Studies of Intensities of 26th April, 1986 Dharamsala Earthquake and associated tectonics. *Geol. Soc. Ind.* 35:213-219.
28. Kumar, S. and **Mahajan, A. K.**, 1991: Dharamsala Seismotectonic zone-Neotectonic and state of stress in the area. *Jour. Him. Geol.* 2(1):53-57.
29. Extract, 1992: Uttarkashi Earthquake October 20, 1991. *Geol. Soc. Ind.* 39(1): 83-85.
30. **Mahajan, A. K.** Kumar, S., and Chabak, S.K..1995: Local Gravity Survey in the Dharamsala Palampur area, NW Himalaya, *Geol. Soc. Ind.*50 (1):75-84.
31. Thakur, V. C. Phadtare, B. Rawat, B. S. Kumar, S. and **Mahajan, A. K.** 1996: A report on 30th September, 1993 Latur Earthquake of Maharashtra. *Jour. Him. Geol.*6 (1):31-49.
32. **Mahajan A.K.**,1998: The 24th March, 1995 Chamba earthquake (NW Himalaya), field observations and seismotectonics. *Jour. Geol. Soc. Ind.* 51: 227-232.
33. Paul S. K. and **Mahajan, A. K.** 1999. Malpa rock fall disaster, Kali Valley, Kumaun Himalayan. *Current Sci.*, vol. 76(4); 485-487.
34. **Mahajan A.K.** and Pandey H.C. 2002: Macroseismic observation of Chamoli earthquake of 29th March 1999 and its engineering aspects. *Jour. Him. Geo.* vol 23(1&2), 1-6.
35. **Mahajan A.K.** and Viridi N.S. 2002. Sand blows and other secondary effects induced by the January 26, 2001 Bhuj Earthquake. *Bull. Ind. Geol. Assoc.* 35(2) , 1-10.
36. **Mahajan A.K** and Viridi N.S. 2005. Macroseismic study of shallow earthquakes in the Himachal and Garhwal Himalaya, Northwest Himalaya, India. *Geol. Soc. Spl Vol.* 2005
37. **Mahajan A.K.** Naresh Kumar and Arora B.R. 2006 Quick isoseismal map of 8th October, 2005 Kashmir Earthquake. *Current Science*, 91(3), 356-361.
38. **Mahajan A.K.**, Rob J. Sporry, Champati P. K., Rajiv Ranjan, Siefko Slob and Westen Cees Van, 2007. Methodology for Site response studies using Multi-channel Analysis of Surface Wave (MASW) Technique in Dehradun city. *Curr. Sci* 92(7): 945-955.

Publication in Proceedings/Books:

39. Kumar, S. and Mundepi, A. K. **Mahajan, A.K.** Pandey, H. C. and Vashistha, L. 1993: Baumiki, 20th October, 1991 Uttarkashi Bukamp (in Hindi) *Vaigyanik*:11-12.
40. Viridi, N. S. and **Mahajan, A. K.**, 1999: Hydrel projects and related developmental activity in Utrakhhand-environmental impact evaluation, Proceedings of seminars on "Developmental needs of Utrakhhand region" Feb, 20-21, 1999 Dehradun.

41. **Mahajan A.K.** Pandey H.C. and Viridi N.S.. **2001.** Co-seismic landslides and Fractures induced by Chamoli earthquake, 1999 and why the people are at risk. Proceedings of workshop on Chamoli and Bhuj (Edited by Wason H.R et. al.. 2001) 197-205.
42. **Mahajan A.K.** and Viridi N.S., **2001:** Slope stability vis -a-vis rapid urbanization. Some case studies around Dharamsala, Distt. Kangra, Himachal Pradesh. Published in Bulletin of Indian Geologist Association, Chandigarh.
43. **Mahajan A.K.** Mihailov,V, and Dojcinovski D, 2002. A Preliminary Probabilistic Seismic Hazard Assessment of the Northwest Himalaya. 12th SEE Conference on Earthquake Engineering, Roorkee December 16-18, 2002, 277-286.
44. **Mahajan A.K.** and Viridi N.S., 2005. Landslide Hazard zonation and risk analysis of Dharamsala town, Himachal Pradesh, Northwest Himalaya. Landslide 2005 : 51-80
45. **Mahajan A. K., 2006.** Seismicity, Seismotectonics and seismic hazard of 1905 Kangra Earthquake effected region (NW Himalaya), India. In: Environmental Hazards – Science & Society, Eds. Sharma, K.K., Bandooni, S.K. & Negi, V.S., Research India Press, New Delhi, 65-86.
46. **Mahajan, A.K.** and G.K. Ghosh, 2007. Statistical analysis of earthquake data from Northwest Himalayan region and its implication for seismic hazards. Natural hazards (Eds O. P. Varma A.K. **Mahajan** and Vikram Gupta) Proceeding of natural hazard (earthquakes and Landslides): challenges, perspectives and social dimensions with focus on the state of Uttarakhand” December 26-28, 2003. 45-56.

Research Projects Completed/Ongoing:

Sponsored Projects completed

- **Principal Investigator** of the DST sponsored project entitled “Probabilistic seismic Hazard Assessment of Himalayan Arc and its adjoining region between latitude 74-82 degree east and 26-35 degree north.
- **Co-investigator** of the DST sponsored project entitled “Seismicity, Seismotectonics and Seismic Hazard assessment of NW Himalaya”.
- **Principal investigator** of the **DST invited** sponsored project entitled “HIM-SCOPE (Himalayan School Observation Programme in Earthquakes)” under **Mission Mode project on Seismology - an awareness programme.**

International Project Completed:

- Understanding urban seismic risk Around the World (UUSRAW) with special reference to Dehradun city under the RADIUS (Risk assessment tools for and diagnosis and understanding of Urban seismic Risk) an **IDNDR project** September, 1998- April, 1999 as Principal investigator.

International Collaboration:

- **Principal investigator** of the **International collaborative project** with IIRS-ITC-WIHG for seismic microzonation of Dehradun city in 2004.
- Principal investigator of the project entitled ‘Earthquake Risk Reduction in Himalaya’ with NORSAR, Norway

- Co-PI of the project entitled Experimental investigations of shallow earth structures in India, using NEMFIS (near surface Electromagnetic Frequency Induction Sounding) technology under ILTP joint collaboration with Institute of Petroleum geology and geophysics (IPGG) SB RAS, Novosibirsk, Russia.

Consultancy Projects-completed

1. Preparation of **Landslide Hazard and Risk zonation map** of Dharamsala Township and adjoining area. 27/2/99- March 2000.
2. Preparation of Erosional features map of Pong Dam catchments area that leads to high siltation and its mitigation strategies along with action plan. May 2000-March 2003.
3. Shear Wave Velocity Investigation of Petroleum University Site,
4. Site investigations by soil profiling (shear wave Velocity investigations) for construction of Building of Head Office of Uttarakhand Environment protection and Pollution Control Board (UEPPCB) at Ajabpur Kalan
5. Report on Seismic hazard status of Dehradun/ Doon valley for members of supreme court in 2011
6. Checking the blasting pattern and its effect on the houses/structures in Phata-Byung HEP, Ruderprayag district, Uttarakhand- submitted in 2011.
7. Training of three Scientist in Seismic hazard analysis from Mizoram Remote Sensing Application Centre, Chaltlang- 796012, Aizwal, Mizoram in 2011.
8. Subsurface investigations of HRT tunnel between Tapovan and Joshimath, Vishnugad project, NHPC- Report in progress

MPhil/PhD Supervised/Supervising:

M. Tech Dissertation Guided:

1. **Rajiv Ranjan: Seismic Response Analysis** of Dehradun city, India. Thesis submitted to International Institute for Geoinformation Science and Earth Observation (ITC), Enschede, The Netherlands and awarded the M. Sc degree from University of Netherlands in 2004.
2. **Miss Rajeshwari: Landslide hazard zonation using GIS** in Dharamsala town and mitigation measures in 2004. The thesis submitted awarded by Deptt. of Disaster Management School of civil engineering, Sastra Deemed university, Thirumalaisamudram, Thanjavur.
3. Tauqeer Ahmed 2011. Geophysical techniques for detection of sub-surface features in Doon valley. Submitted and awarded by SGRRPG college, Dehra Dun.
4. Varun Jagga, 2011. Disaster preparedness of Dharamsal town, Himachal Pradesh on Landslide hazard using Remote sensing Techniques and bioengineering applications.

Training of summer students:

Three students have been trained on Subsurface seismic data analysis using Multichannel analysis of surface waves (MASW) seismic methods during the period 2011-12

- **Ashish Kumar Bage from ISM Dhanbad**
- **Miss Sonalika Choudhary, Jadavpur University, Kolkata**
- **Piyush Priyam, ISM Dhanbad.**

Ph. D. Student Registered:

1. **Pooja Rajput: Evaluation of seismic hazard potential of 1905 meizoseismal zone and seismic microzonation of Dharmshala town using surface and sub-surface investigations registered at Central University HNB Garhwal in 2011.**

Participation in Seminars/Conferences:

International Symposia

1. Attended 34th International Geological Congress held at Brisbane from 4th August 2012-11th August 2012 and presented a papers on : “Is vs30 isa proxy to site amplification” ?.
2. Attended 26th Himalaya---Karakoram-Tibet Workshop Canmore, Alberta, Canada 11th -14th July 2011 and presented a paper on “ Site Characterization of the sedimentary cover at the Himalayan Foothills using Active and Passive Seismic sources for estimation of Earthquake Hazard”.
3. **A.K. Mahajan**, A.K. Mundepi and Neetu Chauhan 2008. Shear wave velocity investigations in Jammu city- a step towards microzonation. Presented during International Symposium on Mountain Building and Climate-Tectonic Interaction held at Wadia Institute of Himalayan Geology, Dehradun from October 23-25, 2008. Him. Geol. Vol. 29(3), 48p.
4. R. Jayangondaperumal, Senthil Kumar, Wesnousky, Steven G, **A.K. Mahajan**, Vikram Gupta, B.R. Arora and Suresh N., 2008. Late Pleistocene activity of intra-basinal Bhauwala Thrust (BT) , Dehradun, NW Himalaya. Presented during International Symposium on Mountain Building and Climate-Tectonic Interaction held at Wadia Institute of Himalayan Geology, Dehradun from October 23-25, 2008. Him. Geol. Vol. 29(3), 36p
5. **Mahajan, A.K.** and Arora, B.R. 2008. **Presented a poster** through Colleague during International Geological Congress held at OSLO Norway in 2008 on “Tracing Sedimentological Evolution of Dehradun, Intermontane Valley, NW Himalaya using Multichannel Analysis of Surface Waves Technique”
6. **Mahajan A.K.**, 2006. Seismic Hazard analysis of NW Himalaya. Proceedings of the International workshop on Seismology and Seismotectonics, 28-29 November, 2006, Organized by Deptt. of Geology and Mines, Kathmandu, Nepal.
7. **Mahajan A.K.** et al., 2006 Development of Methodology for Seismic Microzonation using Multi-channel Analysis of Surface Wave Technique (MASW) for Dehradun city. Proceeding of International workshop on Seismic Hazard and Risk Assessment at India Habitat Center, New Delhi, organized by NORSAR, Norway and IIT, Roorkee on 8th March, 2006.
8. **Mahajan A.K.** and Viridi N.S. 2005. Seismicity, Seismotectonics and seismic hazard of 1905 Kangra earthquake effected region (NW Himalaya), India.
9. **Mahajan A.K and Rob Sporry . 2004.** A relation between damaged areas as a function of magnitude for Northwest Himalayan Shallow earthquakes. Abstract 32 International Geological Congress August 21-24, 2004, Florence, Italy. P 299-38. Poster presentation by **Rob Sporry**.
10. **Mahajan A.K.** 2003. Seismotectonic studies for Microseismic zonation of Dehradun region and its surroundings. International workshop on Methodology for seismic microzonation and its applications for society (MSMAS) 10-11 November, 2003;11-12 – **Funded by ITC, Netherlands**.
11. Kamal, **Mahajan A.K.**, S. Kumar and Mansinha L. 2001. Preliminary report of field observations of 26th Gujarat earthquake. Abstract published in International conference of American Geophysical Union to be held at Boulder, Colarado, USA- **Presented by Prof. Man Sinha**.
12. **Mahajan A.K.** Kumar S. and Kamal, 2001. Macroseismic field observations of Janaury 26, 201 Kutch Earthquake and its seismotectonics, International Conference on Sesimic Hazard with particular reference to Bhuj Earthquake of January 26, 2001, Oct. 3-5 New Delhi, India- **Self presentation**.

13. **Mahajan A.K.**, Thakur V.C. and Viridi N.S. 1999. Comparative analysis of Urban seismic Risk in Dehradun city with other cities of the world (**RADIUS Project**). Attended International conference on Seismic Risk assessment organized by IDNDR on internet from 14th-25th June, 1999 with main emphasis on Understanding the Urban Seismic Risk around the world at Tijuana, Mexico- **Funded by UNO**.
14. **Mahajan A.K.** 1999. Chamoli earthquake of 29th March , 1999 Assessment of damage-preliminary report. Nepal Geological Society , Nepal. 1999- **Funded by NSET**.
15. **Mahajan A.K.** 1999. A new Approach to Earthquake Risk Assessment . Nepal Geological Society, Nepal. 1999- **Funded by NSET and Nepal Geological Society** .
16. **Mahajan A.K.** and Viridi N.S. 1999. Causes and controls of Landslides around Dharamsala, Distt. Kangra, Himachal Pradesh. Nepal Geological Society, Nepal. 1999- **Funded by NSET and Nepal Geological Society** .
17. **Mahajan A.K.** 1996. Segmental behavior of the Indian Plate margin and its reflection on the seismotectonics. In abstract vol. Of the 30th International Geological congress, 4-14 August, 1996: p-267(3)- **Funded by INSA and Organizers 30th IGC**
18. **Mahajan A.K.** 1996. A case study of devastating earthquakes in India with special reference to Khillari earthquake. In abstract vol. of IASPEI Assembly in Asia, Tangshan, China, 1-3 August, 1996: p-214.-**Funded by IASPEI**
19. **Mahajan A.K.** and Kumar S. 1993. Geology and Tectonics of the Dharamsala-Palampur area of NW Himalaya. In abstract Vol. of the International seminar on Geology and Geophysics, Dehra dun. 22-25 March, 1993. -**In India funded by WIHG**
20. **Mahajan A.K.** 1994. The Khillari earthquake of September 29, 1993, its fault kynamatic analysis and approach to earthquake disaster management. In abstract vol. of the 9th International seminar on earthquake Pragnostic, 16-19 September, 1994. Costa Rica- **only Published abstract**

National Symposium

1. **Mahajan, A.K.** 2010: Attended workshop on Slope stability and Landslides at CRRI, New Delhi on 11/3/2010.
2. **Mahajan, A.K.**, 2011 “Applications of active and passive Multichannel analysis of surface waves in site characterization deeper than 30m”. Geohazard workshop from 12-14 September, 2011 at Ministry of Earth Sciences, New Delhi.
3. **Mahajan, A.K.**, 2011. Attended workshop on Indian Monsoon and Himalayan Geodynamics from 2-5 November, 2011 at Dehra Dun
4. **Mahajan, A.K.**, Mundepi, A.K., Jasrotia, J.S., Neetu Chuhan and Nitesh Rai, 2010. Seismic microzonation of Jammu city using different geophysical techniques. Abstract published in the proceedings of the Seismic National seminar on Sedimentation, Tectonics and Hydrocarbon potential in Himalayan Foreland Basin held at Jammu University 22-23 Feb., 2010.
5. **Mahajan, A.K.**, Ajay Paul and D. K. Yadav, 2009. Seismicity and seismotectonics of NW Himalaya: some recent observations on migration of seismic activity. Abstract published in proceedings of National seminar on Seismogenesis to Prediction of Earthquake (SPRED 2009) at WIHG , Dehradun from 23-25th October, 2009, Dehradun
6. **Mahajan, A.K.**, Neetu Chuhan, A. K. Mundepi, Nitesh Rai and A.S. Jasrotia, 2009. Seismic microzonation of Jammu city using Multichannel analysis of surface waves and HVSR Techniques, NW Himalaya. Abstract published in proceedings of 46th IUGG meeting and workshop on Evolution of Himalayan foreland basin and emerging explorations. Abstract, 5-7th October, 2009, Dehradun, India, 59.
7. **Mahajan, A.K.**, 2009. Attended national seminar on causes and mitigation of environmental degradation of planet earth with special reference to Uttarakhand at MKP(P.G.) college, Dehradun on 6th-7th April, 2009

8. **Mahajan, A.K.**, 2008: Attended Geological society silver Jubilee celebration and mobilizes students from different parts of NW Himalayan School in order to have interaction of students with scientist of the nations at Banglore from 11-13 October, 2008.
9. **Mahajan, A.K.**, 2008. Attended workshop on Landslide inventory, Hazard and Risk Management under Asian Programme for “Regional Capacity Enhancement for Landslide impact Mitigation (RECLAIM-II)” at IIRS, Dehradun 10-11 January, 2008.
10. **Mahajan, A.K.**, Mishra, P.S., Shukla, A.K., Ajit Pandey and Mukesh Chauhan, 2007. Shallow Shear Wave Velocity and Seismic Microzonation of Urban National Capital Region, New Delhi, International conference on Geoenvironments: a challenge ahead, April 23-25, 2007, Jammu University, Jammu.
11. P.K. Champati, **Mahajan A.K.**, Rajiv Ranjan, C.J. Van Westen, Dillip Dasmohapatra and R.C. Lakhera, 2006. Proceeding of Recent tectonics and seismic microzonation of Dehradun city, India. ISPRS International Sym. On “Geospatial databases for Sustainable development” Goa India Sept. 27-30, 2006. **Adjudged for best paper award**
12. **Mahajan A.K.**, 2006. Seismic Microzonation of Dehradun city. Proceeding of the National workshop on Role of Geodesy in Surveying practices, **10-11 April, 2006**, jointly organized by Institution of Surveyors and geodetic & Research Branch, Survey of India at Dehradun.
13. **Mahajan A.K.** and Sporry R.J., 2006. Shear wave velocity profiles of surficial deposits in Dehradun city using Multichannel Analysis of Surface Wave Method (MASW)”. Proceedings of Earth Sciences at Indian Science Congress 2006, N.G. Rangarao Agriculture University on “Hyderabad 3-7 January 2006.
14. Arora B.R. Sharma V.S. Sporry R.J., **Mahajan A.K.** G. Rawat and Kumar D, 2005. Sensitivity analysis of geophysical techniques in mapping near surface sedimentary sequences. Proceedings of the Sedimentary basin of the Himalaya challenges for the future and XXII convention of Indian Association of Sedimentologists (IAS2005) , December 21-23, 2005 , Dehradun P 14
15. **Mahajan A.K.** and Viridi N.S., 2005. Seismicity, Seismotectonics and seismic hazard of 1905 Kangra earthquake effected region (NW Himalaya), India.
16. **Mahajan A.K.**, 2005. The role of Science & Technology in Natural Disaster reduction with focus on Earthquakes. First J&K State Science Congress, University of Jammu, February 7-9, 2005.
17. **Mahajan A.K.** Ghosh G.K. and Thakur V.C. 2003. “Statistical analysis of completeness of earthquake data on northwest Himalayan region and its implications for seismicity evaluation”. National conference on Natural Hazards (Earthquakes and Landslides): Challenges, perspectives and societal Dimensions with focus on the state of Uttaranchal and 13th IGC Convention 26-28 December, 2003 at WIHG, Dehradun.
18. **Mahajan A.K.** Ghosh G.K. and Thakur V.C., 2003. “Statistical interpretation of intensity attenuation relation with epicentral distance of the northwest Himalayan region using 1905 Kangra Earthquake. “National conference on Natural Hazards (Earthquakes and Landslides): Challenges, perspectives and societal Dimensions with focus on the state of Uttaranchal and 13th IGC Convention” 26-28 December, 2003 at WIHG, Dehradun.
19. **Mahajan A.K.**, 2004. Landslide hazard zonation of Dharamsala town – a case study an invited key note lecture at National conference on Landslide Hazard 1-2 March, 2004 at Tanjavur, Sastra University, Tamil Nadu.
20. **Mahajan A.K.**, 2002: National Day for disaster reduction (INDDR), organized by Indian Institute of Public Administration (IIP), NCDM on 29th October.
21. **Mahajan A.K.** V. Mihailov and D. Dojcinovski, 2002: A Probabilistic seismic hazard analysis of Northwest Himalaya. 12 SEE International Symposium on Earthquake Engineering at IIT, Roorkee, 16-18 December, 2002.
22. **Mahajan A.K.** and Viridi N.S., 2002. Sand blows and other secondary effects induced by the January 26, 2001 Bhuj Earthquake. National Seminar on Natural hazards and heir mitigation at Punjab University Chandigarh, March 8-11, 2002, India.

23. **Mahajan A.K.** and Viridi N.S., 2002. Understanding Urban seismic Risk around the world- A Dehradun profile. Seminar on Natural Disasters: Threat, perceptions, Myths and reality. DBS College Dehradun, India, Feb. 23-24, 2002.
24. **Mahajan A.K.** V. Mihailov and D. Dojcinovski 2002. Preliminary results of seismic Hazard analysis of Northwest Himalaya. National Seminar on Natural hazards and heir mitigation at Punjab University Chandigarh, March 8-11, 2002, India.
25. **Mahajan A.K.** and Viridi N.S., 2001. Landslide hazard zonation and risk zonation of Dharamsala town and its adjoining areas presented at International conference on Natural Hazard mitigation and Management (ICNHMM) March 13-17, 2001.
26. **Mahajan A.K.** and Kamal, 2001. A study of seismic activity during last 500 years in NW Himalaya: its relation to regional seismotectonics. Presented at International conference on Natural Hazard mitigation and Management (ICNHMM) March 13-17, 2001.
27. **Mahajan A.K.** Kumar S and Kamal, 2001. January 26, 2001 Gujarat earthquake – a damage scenario. Workshop on recent earthquakes of Chamoli and Bhuj, May 23-25, IIT, Roorkee.
28. **Mahajan A.K.** and Viridi N.S., 2000. Slope stability vis-a vis rapid urbanization. Some case studies around Dharamsala, Distt. Kangra, Himachal Pradesh. National Seminar on Geology March, 2000.
29. G. Philip, T. Nakata, T. yoshioka, H, sato, T. Imaizumi, J. N. Malik, **Mahajan A.K.** and R.V. Karanth, 2001. Study of 26h January 2001 Kachchh earthquake induced surface deformation features and active faults. Workshop on Recent earthquakes of Chamoli and Bhuj at Deptt. Of Earthquake Engineering and ISET, Roorkee, May 24-26, 2001, Roorkee, India.
30. **Mahajan A.K.**, Pandey H.C. and Viridi N.S., 2001 Co-seismic landslides and fractures induced by Chamoli earthquake, 1999 and why the people are at risk. Workshop on Recent earthquakes of Chamoli and Bhuj at Deptt. Of Earthquake Engineering and ISET, Roorkee, May 24-26, 2001, Roorkee, India.
31. **Mahajan A.K.** 1995. 24th March, 1995 Chamba Earthquake (NW Himalaya): Field observations and Seismotectonics. Symposium on Tethys of the Himalayan and adjoining regions – 15-17 Nov. 199 to be held at Wadia Institute of Himalayan Geology.
32. **Mahajan A.K.**, 1999. Chamoli earthquake and its seismogenic effects and focused on preparedness and disaster management Seminar on Natural disaster and its mitigation at Haridwar organized by Jawahar Lal Nehru Rastriya ,Yuva Kendra. on 16th May, 1999
33. **Mahajan A.K.**, 1999. Delivered talk on damaging effects of Chamoli earthquake its basis reason and mitigation measures at Gopeshwar in a workshop organized by Jawahar Lal Nehru Rashtriya Yuva Kendra, New Delhi on 30-31 May, 1999.
34. Viridi N.S. and **Mahajan A.K.**, 1999. All India Seminar on Developmental needs of Uttarakhand region Feb 20-21. 1999. At Dehra Dun. Published one abstract entitled “Hydel Projects and related development activity in Uttarakhand-Environmental impact evaluation”
35. Paul S.K. and **Mahajan A.K.**, 1998. Malpa rock fall disaster in Kali Valley; Kumaun Himalaya. Discussion meeting on Recent Landslides in Malpa and Okhimath (24th Nov.1998) at DTRL,New Delhi.
36. Paul S.K. and **Mahajan A.K.**, 1998. Rock fall disaster at Malpa, Kumaun Himalaya, ISEG Workshop on Geohazards and related societal issues, 1998, Lucknow, spl. Pub. 31-32.
37. Mahajan A.K., 1998. Attended National Seminar on Recent advances in Seismology at Deptt. Of Mathematics, MDU, Rohtak, 15-16th Jan.1998.
38. **Mahajan A.K.** Chabak S.K. and Kumar S., 1993. Gravity survey in the Frontal Folded Belt of NW Himalaya. In abstract vol. Of the International seminar on Geology and Geophysics, Dehra Dun, 22-25 March, 1993.
39. **Mahajan A.K.** and Kumar S. 1993. Geology and Tectonics of the Dharamsala-Palampur area of NW Himalaya. In abstract Vol. of the International seminar on Geology and Geophysics, Dehra dun. 22-25 march, 1993.

40. **Mahajan A. K.**, 1996. Attended the interaction meet on Natural Hazard in Himachal Pradesh and their mitigation, October 14-15, 1996.
41. **Mahajan A.K.**, 1993. Group Discussion on Geological Hazards in the Himalayan region: Assessment and mitigation and published one abstract entitled "Seismotectonics of Peninsular India and 30 September, 1993, Latur Earthquake. P.51.
42. Mahajan A.K., 1991. Lineament tectonics of Dharamsala Palampur area NW Himalaya. In abstract vol. Of the National seminar on recent advances in Indian Mineral scenario genesis and VIII convention of Indian Geological Congress, Ujjain, 28-30, October, 1991.

Project Evaluation in 2009-2010

- Numerical simulation on effect of topography on the ground motion characteristics for earthquake disaster Management --- CSIR Project 2009
- Evaluation of Neotectonic activity of Deshmanglam Fault in the western Terminus of Palghat, Peninsular India- --SERC, DST Project, 2009

Article Review in 2010:

- **Earthquake Spectra:**

Manuscript no. Ref. EQS:MS 062310EQSo77M

Title: The Seismic Microzonation of the City of Catania (Italy) for the Etna Scenario Earthquake (M=6.2) of February 20, 1818 by Salvatore Grasso, Michele Maugeri.

- **Natural Hazard:**

Manuscript Number: NHAZ1135R1

Title: Strong Ground Motion Prediction and Uncertainties Estimation for Delhi, India

Membership of Learned Societies/Professional Bodies:

- Membership of different professional Institutions
- Life Member Indian Geological Society of India
- Life member Indian Geophysical Union (IGU)
- Life member Himalayan Geology

Awards & Honours Received:

1. Member advisory committee of H.P. State disaster management center, Shimla
2. Awarded **best paper award** for the year 2009-2010 for the manuscript entitled "*NEHRP soil classification and Estimation of 1-D site effect of Dehradun Fan deposits using shear wave velocity*" on 29th June 2010 at Wadia Institute of Himalayan Geology, Dehradun, published in Engineering Geology, 2009.
3. Adjudged for **Directors special award** for **scientific** contribution towards "Adoption of Methodology for benefit of society" in 2007.
4. Adjudged for **second best paper award** at **ISPRS International symposium** for paper entitled "Recent tectonics and seismic microzonation of Dehradun city", Goa, Sept. 27-30, 2006.
5. Member of panel of Judges for the **Young Scientist Award 2006** at Science Congress 2006 at Hyderabad.
6. **Member** of the **city Disaster Management committee**, Dehradun.

7. Acted as **Chairman** of the first opening session of National conference on Seminar on Landslides at Tanjavur held on 3-5 March, 2004.
8. Nominated as a **penal member** of the recommendation committee during the final discussion penal of the landslide conference held at Tanjavur in March 5th 2004.
9. **Visiting Scientist** to International Institute for Geo-informations and Earth Observations (ITC), Enschede, The Netherlands in April 2004 – June 2004.
10. **Secretary, Indian Geological Congress** for the Year 2003-2004 for organizing a National Conference on Natural Hazards in December, 2003.
11. **Director Nominee** for attending the **High Power Committee** meeting on **Disaster Management** on 21st and 22nd April, 2000.
12. Appointed as **External examiner** of the M.Sc dissertation of (Ereg Students under NIFT Fellowship) at International Institute for Geo-informations and Earth Science Observations (ITC) on 13 March, 2003 at **Netherlands**.
13. Acted as **penal experts** during the Radius symposium at Tijuana, Mexico held during 10-13 October, 1999.
14. Member of advisory committee of HP State Disaster Management Authority, Shimla.
15. Nominated member of National Disaster Management Authority, for preparation of Multicity earthquake scenario considering M.8.0 magnitude around Kalka.

Others: Invited Talks

Invited Talks since 2000:

1. **Invited as Guest faculty** to deliver a talk on “**Probabilistic Seismic Hazard Assessment and Seismic Microzonation**” at Indian Institute of Remote Sensing to M.Sc/P.G. Diploma students (Geo-informatics for Natural Hazards and Disaster Risk Management) on the topic entitled “**on 18/02/2011**.”
2. Invited talk on **Seismic probability modeling and microzonation** to the participants of International training course on Application of space Technology for Disaster Management support with emphasis on Geological Risk Management (DMS-GRM) On 24.6/2010 at IIRS.
3. Invited talk on **Disaster Management: Earthquake** at **National level data users Seminar** organized by LIGHTS, an NGO o at Survey of India on 25/7/2010
4. **Invited as Guest faculty** to deliver an talk on “**Methodology of Seismic Microzonation**” to the trainees of the Training course on Seismic Microzonation organized by Regional Training Institute, GSI, Guwahati on 9/12/2010 to officer of GSI and UNDP.
5. Delivered **invited Talk on Seismic microzonation and Probabilistic hazard assessment to M.Tech students at IIRS, Dehradun** on 16/12/2009.
6. Delivered invited Talk on “**Case studies on Seismic hazard assessments**” to **M.Tech students at IIRS, Dehradun** on 16/12/2009.
7. Delivered **invited talk at ITBP to high Command officials on Disaster Management** on 1st January, 2008 at ITBP Academy, Mussoorie.
8. Delivered an inaugural address on **Earthquake Disaster preparedness** at the Principals conference on **Disaster Management** on 21st September, 2007 at Mussoorie
9. Invited talk on “**Earthquake and its Management**” at ITBP on 22nd August, 2007 at ITBP academy Mussoorie.
10. Invited talk on **Importance of preparedness for Disaster Management and protection scheme**” at Academy of Uttaranchal administration, Nainital, on 30th June, 2007.
11. Invited talk on “**Applications of Multichannel Analysis of Surface Waves on Seismic Microzonation: A Dehradun case study**” at A workshop on Microzonation, 26-27 June, 2007, at Bangalore.

12. Invited talk on **“Seismic Hazards and its Mitigation Measures”** at National Workshop on “Environmental Geo- Hazards (Earthquakes, Landslides, Floods etc.) Management and Mitigation strategy, 4-5 June, 2007 at Mandi, Mandi Distt. Himachal Pradesh.
13. Invited talk on **“Earthquake and its Management”** at ITBP on 30th May, 2007 at ITBP academy Mussoorie.
14. **Delivered an invited talk on Disaster Management to the high level officials** (Inspector Generals) of ITBP at Mussoorie ITBP Academy on 14th January, 2007.
15. Delivered invited talk on **“Seismic Microzonation of Dehra Dun city”** during National workshop on Role of Geodesy in Surveying practices, **10-11 April, 2006** Jointly organized by Institution of Surveyors and geodetic & Research Branch, Survey of India at Dehradun.
16. Delivered invited talk on **“Development of Methodology for Seismic Microzonation using Multichannel Analysis of Surface Wave Technique (MASW) for Dehra Dun city”** during international workshop on Seismic Hazard and Risk Assessment at India Habitat Center, New Delhi, organized by NORSAR, Norway and IIT, Roorkee on 8th March , 2006.
17. **Invited talk delivered at Sceicne Congress 2006 on 6th January 2006** at Hyderabad in N.G. Rangarao Agriculture University on “Shear wave velocity profiles of surficial deposits in Dehra Dun city using Multichannel Analysis of Surface Wave Method (MASW)”.
18. **Delivered an invited talk** on seismic Hazard and seismic Microzonation using MASW technique and demonstration of MASW in October/November, 2005 to the M. Tech students of Disaster management in IIRS, Dehradun.
19. **Invited lecture at Ordinance factory Institute of learning, Raipur, Dehradun** on Importance of preparedness for Disaster Management and Protection Scheme to the participants of the Security awareness course Basic **on 16.7.2005.**
20. **Invited lecture at the Technical seminar of Institution of surveyor** at Survey of India on **14th May, 2005** on Seismic Microzonation of Dehradun city.
21. **Seismic Hazard Assessment of Himalaya – a methodology** delivered at Department of Soil Mechanics, **Technical University Delft, The Netherlands** on 21st February, 2003
22. Taught **one full course module of Disaster Management** as visiting faculty at ITC (International Institute for Geo-information and Earth Observations), The Netherlands for three weeks course in March, 2003.
23. Delivered Invited lecture at the **Disaster Management** course run by Regional Training Institute, **DRDO, Raipur** on Earthquake effects and their management on 13th November, 2003
24. **Key note address on seismic Hazard and Microzonation of Dehradun** city at the Dehradun UEVP city consultation workshop organized by MDDA and UNDP at Dehradun, October 29-30, 2003.
25. Construction of **earthquake resistant buildings at Regional Training Institute (DRDO), Dehradun**, 29th July, 2002.
26. Remote sensing and GIS applications for **earthquake Disaster Management** at IIT, Roorkee, 2nd July, 2002.
27. Invited **lecture at IIRS** (Indian Institute of Remote Sensing), Dehradun to the participants of the International refresher course on **disaster management** organized by ITC Netherlands and IIRS Dehradun on 19th December, 2001.
28. **Earthquake preparedness and Risk Management** at regional Training Institute, **DRDO, Raipur, Dehradun** on 4th May, 2000.
29. **Natural Disasters its preparedness and mitigation** measures to the District authorities of Kangra distt., Himachal Pradesh, 2000.