

CURRICULUM VITAE

NAME : **DR. SANDEEP SINGH**
PRESENT ADDRESS : DEPARTMENT OF EARTH SCIENCES
INDIAN INSTITUTE OF TECHNOLOGY ROORKEE
ROORKEE - 247 667
+91-1332-285086 (RES) & +91-1332-285559 (OFF)
FAX : +91-1332-273560
EMAIL: sandpfes@iitr.ernet.in, san662005@gmail.com
DATE OF BIRTH: 31ST JULY 1966

ACADEMIC VITAE

HIGH SCHOOL (1980) –	UP BOARD
INTERMEDIATE SCIENCES (1982) –	UP BOARD
BACHELOR OF SCIENCES (1984) –	LUCKNOW UNIVERSITY
MASTERS OF TECHNOLOGY (1987) –	APPLIED GEOLOGY – UNIVERSITY OF ROORKEE
PH.D. (1994) –	HIMALAYAN TECTONICS – UNIVERSITY OF ROORKEE

EMPLOYMENT EXPERIENCE:

Research Scientist “B” –	March 8, 1989 to April 14, 1996 –	University of Roorkee
Assistant Professor –	April 15, 1996 to January 26, 2006 –	University of Roorkee, Indian Institute of Technology Roorkee
Associate Professor –	January 27, 2006 to November 9, 2009–	Indian Institute of Technology Roorkee
Professor -	November 9, 2009 onward	– Indian Institute of Technology Roorkee

AWARDS/PRIZES:

Doctoral Fellowship to Sweden, 1990-1991
1994 Khosala Annual Research Award (Silver Medal)
BOYSCAST Fellow, 2000-2001
INSA-DFG Exchange Fellowship to Germany 2002-2003
Star Performer - IITRoorkee year 2003-2004
Star Performer - IITRoorkee year 2004-2005
First Prof. H.H. Read Gold Medal, 2005
Star Performer – IITRoorkee year 2005-2006

COURSES AND RESEARCH INTERESTS:

Crystallography and Mineralogy (ES-514)
Igneous Petrology (ES-521)
Igneous Petrology (ES-305)
Isotope Geology (ES-703)

Himalayan Tectonics, Geochronology, Isotope Geology, Exhumation processes, Sr-isotopes

in water system

ACTIVITIES INVOLVED AT INSTITUTE

- **Dean, Alumni Affairs and International Relations** (May 2014 onward)
- **Coordinator & PI**, Center for Himalayan Studies (Nov 2015 onward)
- **Local Coordinator of IITR**, GIAN (Global Initiative of Academic Network) programme of MHRD
- **Professor-In-Charge**, Security (Jan 2011 to May 2014)
- **Dy. Chief Sports Advisor** (Jan 2011 – Mrch 2013)
- **Professor-In-Charge**, Institute Transportation Cell (May 2004 – Dec 2010)
- **Member**, Interaction committee for developing **Vision Document IITRoorkee 2030**
- **Member**, IITRoorkee Senate (Highest Academic Body of the Institute) 2007 onward
- **Member – School Management Committee**, *Adarsh Bal Niketan, IITRoorkee Campus, Roorkee* (2006-2009)
- **Member**, Core-group, Intellectual Property Right (IPR) Cell, IIT Roorkee.
- **Dy. Faculty Advisor**, THOMSO-2007, Annual Youth Festival, IITRoorkee
- **Dy. Chief Advisor**, Students Club, IITRoorkee (2007-2008)
- **Staff Advisor Hockey**, IITRoorkee Sports Association (2001-2009)
- **Staff Advisor Football**, IITRoorkee Sports Association (2009 - 2010)
- **Officer-In-Charge**, Departmental Placement Cell, IITRoorkee
- **Executive member**, Institute Placement Committee, IITRoorkee

MEMBERSHIP/FELLOWSHIP OF PROFESSIONAL SOCIETIES:

- **Life Member (LM-569) Indian Society for Mass Spectrometry (ISMAS)**
- **Member IASTG**, (International Association of Structural/ Tectonic Geologists) Membership no. **IA 975**.
- **Life Member Geological Society of India**, Bangalore
- **Life Member, Mineralogical Society of India**, Mysore (LM 194)
- **Life Member, Himalayan Geology**, WIHG, Dehradun
- **Life Member, Association of petroleum Geologists**, Dehradun
- **Life Member Paleontological Society of India**, Lucknow
- **Life Member, Indian Geophysical Union**, Hyderabad
- **Member AGID**, (Association of GeoScientist for International Development).

OTHER ACTIVITIES/RESPONSIBILITIES:

- **Member, Technical Task Force** for Risk Assessment, Slope Stabilization, River Morphology and River Training, Govt. of Uttarakhand, (2015-ongoing)
- **Member, Executive Committee** for implementation of National Green Tribunal's directive, Govt. of Uttarakhand (2014-2015)
- **Member, National Working Group**, IGCP-589: Development of Asian Tethyn Realm (2012-2016)

- **Member Advisory Committee (SAP-CAS 2012-16) in Geology** of Punjab University, Chandigarh
- **Member, Expert Committee of AICTE** (All India council of Technical Education) New Delhi
- **Series Editor**, Text Book Series of 14 books for undergraduate students in Earth Sciences, Published from Geological Society of India,
- **Core Group member**, MeLT (Mobile e-learning Terminals) project using VSAT data connectivity for the students living in remote areas.
- **Member**, TIFAC programme (Department of Science and Technology, New Delhi) of making vision document 2035 (as an expert for the Geothermal Energy Resources)
- **Member – Expert Pannel**, *Development Research Committee* of Research Council for culture and Society of **Academy of Finland**.
- **Secretary, Commission on Granite**, *International Association of Volcanology and Chemistry of the Earth's Interior (IAVCEI)*, An Association of the **International Union of Geodesy and Geophysics**, 2001-till date.
- **Member of Editorial Board**, *Journal of Virtual Explorer*, Electronic Journal published from Monash University Australia, ISSN numbers: 1441-8126 (for the printed journal), 1441-8142 (for the online journal) and 1441 8134 (for the CD-ROM's journal).
- **Member of Editorial Board**, *International Journal of Advancement in Earth and Environmental Sciences (IJAEEES)*, an international, multidisciplinary, peer reviewed, open access journal published quarterly under the aegis of IROSSS (International Research Organization of Sciences and Social Sciences)
- **Guest Editor**, *19th Himalayan-Karakoram Workshop volume* to be published in **Journal of Asian Earth Sciences** (Elsevier Publication), **vol. 29(2-3), Feb 2007**
- **Regional Editor**, *Himalayan Notes*, published from Department of Geology, Box 871404, Arizona State University, Tempe, AZ 85287-1404, USA (closed now).
- **Involved** in running and maintaining of National Facility on Geochronology/Isotope Geology at Indian Institute of Technology
- **Member – School Management Committee**, *Adarsh Bal Niketan, IITRoorkee Campus, Roorkee* (2006 - 2009)
- **Involved** in Himalayan Geotransect Programme (HIMPROBE)
- **Organized** a workshop on Himalayan Tectonics (the HIMPROBE Result) in October 2003
- **Co-P.I.** for the core team Establishing a National Facility for ⁴⁰Ar-³⁹Ar Geochronology at the Indian Institute of Technology (IIT) Bombay
- **Co-chaired** a session on Eastern Himalaya –II in 17th International Workshop on Electromagnetic Induction in the Earth (EM India 2004) at NGRI, Hyderabad, India, October 2004.
- **Co-Chaired** a session on Central Transects in National Workshop on Indian Geotransect (WinGeo-2004) at WIHG, Dehradun, India, November 2004.
- **Convenor**, National Conference on Geochemical and Isotopic Evolution of Continental Crust, IITRoorkee, November 2005.
- **Organizing Secretary**, 23rd International Himalayan-Karakoram-Tibet Workshop, Leh, India, 8-18 August 2008.

- **Organizing Secretary**, 3rd Uttarakhand State Science and Technology Congress, Roorkee, India, 10-11 November 2008
- **Group Leader**, Ladakh-Karakoram Expedition 2007 sponsored by the Department of Science and Technology, New Delhi
- **Group Leader**, 23rd Himalayan-Karakoram-Tibet post-workshop field excursion to Tso-Morari and Pangon-Tso area, 11-18 August, 2008
- **Guest Faculty**, Advanced Training programme on Magmatic and Allied Processes” Department of Geology, Kumaoun University, Nainital (28 Sep – 11 Oct. 2007)
- **Programme Coordinator**, Computer training programme for operation of Janadhar e-community Information and Service Centres (JeCISC) in Uttarakhand, Center for Continuing Education, March 3-7, 2008

STUDENT SUPERVISED FOR PH.D.

1. **Rajeev Kumar** (2005), *Tectonics, Geochemistry and Geochronology of the Ladakh Batholith, Trans-Himalaya*.
2. **Th. Nikunj Bihari Singha** (2007), *Migmatites of Higher Himalayan Crystallines: their role in Collision Tectonics*
3. **James Pabem** (2010), *Timing of Geodynamics processes in Arunachal Himalayan using Rb-Sr and Fission Track ages*.
4. **M. Rogibala** (on going), *Petrogenesis of Migmatites of Sikkim Himalaya: possible source for Tourmaline Leucogranite*
5. **Ramesh Lasiram** (on going) *Tectonometamorphism of Migmatites and Collision Tectonics of Arunachal Himalaya*
6. **Shalini Maurya** (on going) *Exhumation of Karakoram Metamorphic Belt: Constraints from mineral ages*
7. **Rupali** (on going) *Geochemistry and Isotope Geochemical behaviour of Migmatites along Yamuna Valley*
8. **Priynka Singh** (on going) *Elemental mobility of trace element and Sr isotope of Ganga Alluvial Plain*.
9. **Rimpi Dhiman** (on going) *Exhumation History of the collision zone of Himalaya*
10. **Arun Prasath R.** ((on going) *Seismotectonics of Garhwal Himalaya between Alakhnanda and Yamuna valleys*

STUDENT SUPERVISED FOR POST-GRADUATE DISSERTATION

1. **Sanjeev Bhoi** (M.Tech. 2000), *Landslide Hazard Zonation along a part of the Beas River Valley using Remote Sensing and GIS* (With Dr. A.K. Awasthi and Dr. Champati Ray, IARS, Dehradun)
2. **Arnindam Chakraborty** (M.Tech. 2000), (With Dr. A.K. Awasthi and Dr. Sudhir Kumar, NIH, Roorkee)
3. **Biswajayee A. Patra** (M.Tech. 2002), *Rb-Sr mineral ages of Trans-Himalayan granites, Ladakh Himalaya* (With Dr. A.K. Jain and Dr. Anil R. Vijan, KDMIPE, Dehradun)
4. **Rajnish Ranjan** (M.Tech. 2002), *Geochemistry and Geochronology of the Pan-African Magmatism, NW Himalaya and its Tectonic Implication* (With Dr. A.K. Jain and Dr. Anil R. Vijan, KDMIPE, Dehradun)
5. **Iswar Chand Das** (M. Sc. 2003), *Rb-Sr Dating of Jispa Granite, NW Himalaya*
6. **Ajay Kumar Arya** (M.Tech. 2004), *Sr isotopic studies along Bhagirathi Valley*
7. **Manish Bisht** (M.Tech. 2004), *Rb-Sr ages along Bhagirathi Valley*
8. **Babita Choudary** (M.Sc., 2004) “Rb-Sr” mineral ages along the Beas Valley area (India) to constrain the fold controlled exhumation and cooling rate”
9. **Satya Prakash Mohanty** (M. Sc. 2004), *Rb-Sr mineral ages along Beas Valley*
10. **Dibya Prakash Dahl** (M.Tech., 2006), *Sm-Nd terrain characterization of Subathu Group sediments*
11. **Swagata Dey** (M.Sc., 2006), *Source rock characterization of lower Cenozoic Formations, Sub-Himalaya, using Sr and Nd isotopes.* (with Dr. A.K. Jain)
12. **Vipin Paliwal** (M.Tech. 2007), *Sr isotopic studies of Gomti River*
13. **Kaushal Singh Barfal** (M.Tech. 2007), *Structures and tectonics of the Higher Himalayan Crystallines – Gori and Dhauliganga Valleys.* (with Dr. A.K. Jain)
14. **Rahul R.** (M.Tech. 2007), *Rb-Sr mineral ages from Higher Himalayan Crystallines, Goriganga valley, Kumaoun Himalaya.* (with Dr. A.K. Jain)
15. **Jaganath Mukherjee** (M.Sc., 2007), *Rb-Sr dating of Biotite granite from Leo-Pargil Dome.*
16. **Richong Koirang** (M.Tech., 2008), *Sr-Nd isotopic studies along Subansiri Valley, Arunachal Pradesh.* (with Dr. A.K. Jain)

17. **Geetu Mol K.G.** (M.Sc., 2008), *Sr isotopic studies of sediments from Gomti River Basin*
18. **Avinash Gupta** (M. Sc., 2008), *Geochemistry of granitoids from Karakoram Shear Zone*
19. **Smriti Jain** (M.Sc., 2008), *Tso Moriri Crystallines: Geochemical constraints on protolith of eclogites and gneisses*
20. **Sarvesh Vikram Bisen** (M. Tech. 2009), *Geochemical behavior of Shyok Volcanics, Karakoram Mountains, Northern Ladakh Himalaya*
21. **Chandrashekhar** (M.Tech. 2009), *Sr-Nd isotopic study of Shyok Volcanics, Karakoram Mountains, Northern Ladakh Himalaya*
22. **Ruchi Basak** (M. Tech., 2009), *Sr isotopic study of Ramnagar cliff within Ganga Alluvial Plain*
23. **Sadab Raja** (M.Tech., 2009), *Sr-Nd isotopic study of Subathu and Dagsahi Group sediments*
24. **Alekha Naik** (M. Sc., 2010), *Seasonal variation of Sr isotopic study of Ganga River at Rishikesh and Gazipur*
25. **Pravin Kumar** (M.Sc., 2010), *Seasonal variation of Sr Isotope study of Gomati River water and ground water at Chandawak, District Jaunpur*
26. **Anay Subhas Shendey** (M.Sc., 2011), *Petrography and isotope geochemistry of Lonar Impact Crater, Maharashtra.*
27. **Anurag Srivastava** (M. Sc., 2011), *Sr- analysis of groundwater along Gomti River, Ganga Alluvial Plain (GAP)*
28. **Ammu Mol, P. C.** (M. Sc., 2011), *Sr isotopic analysis of gomti and Ganga Rivers from Ganga Alluvial Plain.*
29. **Yogpurna Rout** (M.Sc., 2012), *Sr Isotopic analysis of Rain water of Lucknow.*
30. **Binamra Pushpalak** (M. Tech., 2012) *Rb-Sr Mineral ages of Higher Himalayan Crystallines, Bhagirathi Valley, Garhwal Himalaya.*
31. **Rajesh Pandey** (M. Tech., 2012) *Geochemical and geochronological analysis in Lesser and Higher Himalayan rocks, Eastern and Central Bhutan*
32. **Thothadi Babji** (ID M. Tech., 2013) *Sr-Nd isotopic signatures of Paleocene-Eocene boundary from ODP site 1138A, Kerguelen Plateau, Southern Ocean*

33. Rohit Gupta (ID M. Tech., 2013) *Sr-Nd isotopic signatures of Early Paleocene from ODP site 1138A, Kerguelen Plateau, Southern Ocean*
34. Puneet Seth (ID M.Tech. 2014) *Defining the Main Central Thrust (MCT) at Helang – structural mapping along the Alaknanda Valley*
35. Mrinal Shreshtha (ID M.Tech. 2014) *The South Tibetan Detachment System: Its Shear Sense Indicators and their significance near Malari, Dhauliganga Valley section, Uttarakhand*
36. Lawrence Kanyan (ID M.Tech. 2014) *Small-scale ductile structures of the Higher Himalayan Crystallines (HHC) along the Vaikrita Thrust, Dhauliganga Valley, Uttarakhand*
37. Avinash Kumar (ID M.Tech. 2014) *Petrogenesis of dalhousie granite*
38. Smruti Sourav Rout (ID M.Tech. 2014) *Estimation of Degree of Chemical and Thermal Diffusion in melts and minerals considering x-dependent diffusivities*
39. Rajnish Kumar (ID M.Tech. 2014) *Effect of Industrial Effluents on Soil: A case study of Bhadohi region, Uttar Pradesh*
40. Siddharth Konkepudi (ID M.Tech. 2014) *Effect of Industrial Effluents on Groundwater: A case study of Bhadohi region, Uttar Pradesh*
41. Rohan Arora (ID M.Tech. 2015) *Radon concentration in Groundwater of Yamuna Plains, Haryana, India*
42. Veer Singh Meena (ID M. Tech. 2015) *Identification of source of groundwater recharges using isotopic signatures in aquifers of Upper Ganga-Yamuna Doab western Uttar Pradesh, India*
43. Giridas Maiti (M. Sc. 2015) *Paleostress analysis of shear zones and conjugate vein arrays near Main Boundary Thrust (MBT), Rishikesh (Uttarakhand)*
44. Satya Veer (M. Tech. 2016) *Estimation of rainfall recharge and canal seepage by using isotopic techniques in Chajlet block, Moradabad, Uttar Pradesh*

EXPEDITIONS

- Zaskar valley -1987, 1988, 1989
- Scandinavian Caledonides - 1990
- Tso-Moriri, Karakoram and Pangong -1998, 1999, 2001, 2004, 2007, 2008, 2009
- Ladakh-Karakoram – 2007, 2008, 2009

FIELD WORK

Himachal Himalaya, Kashmir Himalaya, Garhwal-Kumaon Himalaya, Arunachal Himalaya,

Scandinavian Caledonides (Norway-Sweden border - Fjallnas), Kalgoorlie Gold field (Western Australia) Laverton Volcano-Sedimentary terrain (Western Australia), Sardinia (Italy).

COUNTRY VISITED :

Sweden, Norway, Denmark, Nepal, United State of America, Australia, Germany, Japan, France, Singapore, United Kingdom, Italy, Russia

EDUCATIONAL VISITS ABROAD:

July 1990 to Jan 1991 (6 months): For working out the pre-Himalayan signatures of magmatic activities by U-Pb dating of zircon and Rb-Sr dating on whole rock powder of Himalayan Granite to Swedish Museum of Natural History, Stockholm, Sweden.

May 2000 to April 2001: As BOYSCAST Fellow, at Centre for Global Metallogeny, Department of Geology and Geophysics, The University of Western Australia, Perth, WA, Australia, to work out the "Timing and Geochemistry of the Cenozoic Leucogranites in the NW-Himalaya: implication on the Geodynamics of the Indian Lithosphere". The objective was to work out the melting characteristics of the Himalayan continental crust, fluid interaction during deformation, timing and modelling of the Himalayan leucogranite emplacement related to Collision Tectonics.

Dec 2002 to March 2003: As Visiting INSA-DFG Fellow, at Center for Isotope Geology, Department of Earth and Environment Science, Ludwig-Maximilian University Munich, Germany, to work out "The age of Karakoram batholith by U-Pb zircon dating technique and Nd signature of the volcanic arc sequence of Shyok Suture Zone of Himalayan region". The objective was to learn how to establish clean room for National Facility on Isotope Geology/Geochronology at Indian Institute of Technology Roorkee, Roorkee, India.

March 2005 to April 2005: Swedish Museum of Natural History, Stockholm, Sweden, for U-Pb dating of zircon and Sm-Nd dating of rocks on whole rock powder of Himalayan Andesite and South Indian Granulites.

April 2005: Thermo Electron Corporation, Bremen, Germany for operations training of Triton TI. The objective was to get acquainted for trouble shooting of the Mass Spectrometer.

TOPICS OF INVITED LECTURES:

- Environmental Geology
- Elements of Word Processing
- Geological Investigations for Small Hydro Projects
- Geological Investigations and site evaluation for Small Hydro Projects
- Recent views on structural interpretation of Himalayan region
- Episodic influx of magma during Himalayan orogeny: evidence from SHRIMP U-Pb zircon ages
- Himalayan Collision Tectonics: Geochronological Scenario
- Himalayan Granitoids
- Himalayan Granitoids: its significance in Himalayan Tectonics
- *Bhukamp ke karan aur unse hone wali kshati se bachaw* as Chief Guest keynote address
- Geochronology and Isotope in Igneous Petrogenesis
- Isotope Geology and different Radiogenic Isotopic Systems (Rb-Sr, Sm-Nd & U-Pb)
- Isotopes in Geochronology and genesis of Igneous rocks.

➤ Geothermal Energy Resources of Uttrakhand

TRAINING:

Isotope geochemistry & geochronology on **Finnegan Mat 261 mass-spectrometer** for U-Pb dating of zircon and Rb-Sr techniques. This includes sample collection and preparation, chemical separation, data acquisition on mass spectrometer and interpretation at Swedish Museum of Natural History, Stockholm, Sweden (for 6 Months).

Metamorphic petrology and mineral chemistry using **Electron Probe Micro Analyser (EPMA)** at USIC, University of Roorkee, Roorkee, India

Excellence in Diagramatics and Cartography in Earth Sciences at Department of Geology, Pune University, India

On hand experiences and the Courses on **Scanning Electron Microscopy** (the course covered basic SEM, digital imaging and minimum sample requirements. Users were trained on instruments appropriate to their needs to basic operational standards. Afternoon practical sessions support the Theory), **Environmental Scanning Electron Microscopy** (the course covered special characteristics of the ESEM with emphasis on control of temperature and pressure of the sample chamber environment. The benefits of ESEM on a range of moist and uncoated specimens of a physical and biological nature. Along with this a new charge contrast imaging (CCI) was also covered), **Electron Microbeam Analysis** (an introductory course on electron microbeam analysis of bulk samples and it covered general theory and principles of operation of energy dispersive X-ray detector, X-ray data correction procedures and sample preparation. Basic wavelength dispersive X-ray analysis was also covered) and **Digital Image Manipulation and Storage** (the course contained review of the nature of digital image; explaining the relevant terminology, the currently available facilities for printing and transferring of images and the various media for image storage. The course also covered introduction to the image manipulation softwares like Adobe photoshop 5.0, NIH Image 1.62, Macromedia Freehand 7.0 and Powerpoint 5.0) at The Western Australian Centre for Microscopy and Microanalysis, The University of Western Australia.

On hand experience and course on **SHRIMP II** (**S**ensitive **H**igh mass **R**esolution **I**on **M**icro**P**robe II) at The Western Australian Isotope Science Research Center based at Curtin University. The course was aimed at the working knowledge of: how ion microprobe function; what ion microprobes are used for; how not to damage the SHRIMP II; some common problem and fixes; how to collect good data and how to identify bad data; the fundamentals of problem diagnosis and safety.

Isotope geochemistry & geochronology on **Finnegan Mat 261 massspectrometer** for U-Pb dating of zircon and Rb-Sr techniques. This includes testing Pb blanks in the lab along with column preparation for U-Pb technique, data acquisition on mass spectrometer and interpretation at Center for Isotope Geology, Department of Earth and Environment Science, Ludwig-Maximilian University Munich, Germany (for 3 Months).

Isotope geochemistry & geochronology on **Triton T1 massspectrometer** for U-Pb dating of

zircon and Sm-Nd techniques. This includes testing Pb blanks in the lab along with column preparation for U-Pb technique, data acquisition on mass spectrometer and interpretation at Swedish Museum of Natural History, Stockholm, Sweden and Thermo Electron Corporation, Bremen, Germany (for 1 Months).

Isotope geochemistry & geochronology on **Triton T1 massspectrometer**, India
Geochemistry on ICP-MS (Perkin Elemer), India

RESEARCH PROJECT AWARDED:

As Principal Investigator:

1. **Collision Tectonics : emplacement of Late Cenozoic Tos Granite, Parvati Valley, NW-Himalaya, Himachal Pradesh"** (April 1996 – May 1998) – Rs. 3.6 lacs – DST, New Delhi
2. **"Workshop on Himalayan Tectonics (The HIMPROBE Results)"** (2003-2004) – Rs. 2.64 lacs – DST, New Delhi
3. **"Contact Programme for Isotope Geology and Geochronology: Rb-Sr systematics" completed** (2004-2005) – Rs. 2.4 lacs – DST, New Delhi
4. **"Himalayan Collision Tectonics: Migmatites and Leucogranite generation".** (2002-2006) - Rs. 21.6768 lacs – DST, New Delhi
5. **"Migmatite Petrogenesis and Leucogranite Generation during Himalayan Collision"** (2003-2006) – 10.0 lacs – MHRD, New Delhi
6. **"Geological Expedition to Ladakh and Karakoram"** (2007) – 11.0 lacs – DST, New Delhi
7. **"Text- Book Series for the graduate students in Earth Sciences"** (2010-2013) – 88.0 lacs – Ministry of Earth Sciences, New Delhi
8. **"Establishing a National Facility of ^{40}Ar - ^{39}Ar Geo-thermochronology at the Indian Institute of Technology, Mumbai"** (2008-2013) – Rs. 39 lacs – DST, New Delhi
9. **"Migmatization, melting, leucogranite generation, and exhumation of Higher Himalayan Crystallines (HHC), Sikkim Himalaya"** (2014-2017) – Rs. 23.96 lacs - Ministry of Earth Sciences, New Delhi

As Co-Investigator:

10. **"Geodynamics and Exhumation of the South Indian Granulite Terranes : Role of Intra-Continental Shear Zones across Kanyakumari-Kuppan Transect"** (1997-2000). *Completed* – Rs. 13.68 lacs – DST, New Delhi.
11. **"Tectonics, P-T constraints and timing of India-Asia Collision along the NW-Himalayan Geotransect"** (1997-2001). *Completed* – Rs. 22.54 lacs – DST, New Delhi
12. **Geochronological and Strontium Isotopic studies of the Granitic and Gneissic rocks of Manali, Chhotadara and Jaspa Area, Himachal Pradesh"** (2004-2005) – Rs. 12.24 lacs – DST, New Delhi.
13. **"National facility on Geochronology/Isotope Geology at University of Roorkee".** (2000-2006) – Rs. 453.49 lacs – DST, New Delhi.
14. **"Major Intracontinental Shear Zones of South India and their role in Gondwana Assembly: Geochronological and Geochemical constraints"** (2003-2006) - Rs. 11.75 lacs – DST, New Delhi.
15. **"Integrated tectonic, petrological, geochronological and geophysical Investigations,**

- Arunanchal Himalaya**". (2006-2009) – Rs. 15.31 lacs – DST, New Delhi.
16. **"National facility on Geochronology/Isotope Geology at IITRoorkee"**. (2007) – Rs. 20 lacs – IIT Roorkee.
 17. **"National facility on Geochronology/Isotope Geology at IITRoorkee"**. (2008) – Rs. 20 lacs – IIT Roorkee.
 18. **"National facility on Geochronology/Isotope Geology at IITRoorkee"**. (2009) – Rs. 15 lacs – IIT Roorkee.
 19. **"Establishing a National Facility of ^{40}Ar - ^{39}Ar Geo-thermochronology at the Indian Institute of Technology, Mumbai"** (2008-2013) – Rs. 39 lacs – DST, New Delhi

Publications:	Published	Accepted	Communicated
Research Papers in Refereed Journals	48	0	
Papers in Conferences /Symposia	125		
Book Review	01		
Books	10	06 books on Earth Sciences for Graduates to be Published by Geol. Soc. India as Series Editor	
Book Chapters	04		
Popular Articles	08		
Review Reports	03		

TOTAL Citation – 1200

https://scholar.google.com/citations?view_op=list_works&hl=en&user=LxU3I5cAAAAJ

LIST OF PUBLICATIONS

A. Published In Refereed Journals:

2017

1. R. Arun Prasath, Ajay Paul, Sandeep Singh (2017): Upper crustal stress and seismotectonics of the Garhwal Himalaya using small-to-moderate earthquakes: Implications to the local structures and free fluids. Journal of Asian Earth Sciences, 135, 198-211 DOI 10.1016/j.jseaes.2016.12.029 (**Impact Factor: 2.647**)

2016:

2. A. Joshi, Monu Tomer, Sohan Lal, Sumer Chopra, **Sandeep Singh**, Sanjay Prajapati, M. L. Sharma, Sandeep (2016): Estimation of the source parameters of the Nepal earthquake from

strong motion data. Natural Hazards, 83, 867–88, DOI 10.1007/s11069-016-2351-8 (**Impact Factor: 1.746**)

3. Priyom Roy, A.K. Jain and **Sandeep Singh** (2016) Kinematic Vorticity Analysis along the Karakoram Shear Zone, Pangong Mountains, Karakoram: Implications for the India-Asia Tectonics, Journal of the Geological Society of India 87(3):249-260, DOI: 0016-7622/2016-87-3-249 (**Impact Factor: 0.596**)

2015:

4. Dharmendra Kumar Jigyasu, Rohit Kunvar, Nupur Srivastava, **Sandeep Singh**, Indra Bir Singh and Munendra Singh, (2015) High mobility of aluminium in Gomati River Basin: implications to human health. Current Science, 108 (3), 434-437. DOI: 10.13140/RG.2.1.2144.4967 (**Impact Factor: 0.967**)
5. M. Shreshtha, A. K. Jain and **Sandeep Singh** (2015) Shear sense analysis of the Higher Himalayan Crystalline Belt and tectonics of the South Tibetan Detachment System, Alaknanda–Dhauliganga valleys, Uttarakhand Himalaya. Current science 108(6):1107-1118. (**Impact Factor: 0.967**)

2014:

6. Dharmendra Kumar Jigyasu, Rohit Kuvar, Shahina, Priyanka Singh, **Sandeep Singh**, Indra Bir Singh and Munendra Singh (2014) Chemical weathering of biotite in the Ganga Alluvial Plain. Current science 106(11):1484-1486 (**Impact Factor: 0.967**)
7. A.K. Jain, Sushmita and **Sandeep Singh** (2014) Photograph of the month. Journal of Structural Geology, 59, 50. <http://dx.doi.org/10.1016/j.jsg.2013.12.002> (**Impact Factor: 2.884**)

2013:

8. Munendra Singh, Sudhir Kumar, Bhishm Kumar, **Sandeep Singh** and Indra Bir Singh (2013) Investigation on the hydrodynamics of Ganga Alluvial Plain using environmental isotopes: a case study of Gomti River Basin, northern India. Hydrogeology Journal, DOI 10.1007/s10040-013-0958-3 7 (**Impact Factor: 1.966**)

2012:

9. Anand Joshi, Pushpa Kumari, **Sandeep 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 Hazard, 64, 1029-1054. DOI 10.1007/s11069-012-0281-7 (**Impact Factor: 1.746**)

2011:

10. **Sandeep Singh**, I.B. Singh, Munendra Singh, A.K. Choudhary and A.K. Jain (2011) Source of Increasing $^{87}\text{Sr}/^{86}\text{Sr}$ Ratio in Marine Water: Himalaya or Ganga Alluvial Plain? In: Singh, D.S.

and Chabra N.L. – Eds) Geological Processes and Climate Change; Macmillan Publisher India Ltd., 195-204.

11. A.K. Choudhary, A.K. Jain, **Sandeep Singh**, R.M. Manickavasagam and K. Chandra (2011) Crustal Accretion and Metamorphism of Mesoarchean Granulites in Palghat-Cauvery Shear Zone, Southern India. *Journal of Geological Society of India*, v. 77, 227-238. (**Impact Factor: 0.596**)

2010:

12. Priyom Roy, Arvind K. Jain and **Sandeep Singh** (2010) Microstructures of mylonites along the Karakoram Shear Zone, Tangste Valley, Pangong Mountains, Karakoram, *Journal of Geological Society of India*, v. 75, 679-694. (**Impact Factor: 0.596**)
13. **Sandeep Singh**, Munendra Singh, A.K.Choudhary, Anju Saxena, I.B. Singh, A.K. Jain (2010) Sr isotopic signature of the Ganga Alluvial Plain and its implication to Sr flux of the Ganga River System. *International Journal of Earth Sciences (Geol. Rundsch.)*, 99, 1991-1997. DOI: 10.1007/s00531-009-0479-4 (**Impact Factor: 2.261**)
14. Munendra Singh, Amit Kumar Singh, Swati, **Sandeep Singh** and A.K. Choudhary (2010) Arsenic mobility in fluvial environment of the Ganga Plain, northern India. *Environmental Earth Sciences*, 59, 1703-1715 DOI: 10.1007/s12665-009-0152-z (**Impact Factor: 1.765**)

2009:

15. **Sandeep Singh**, A. K. Jain and Mark E. Barley (2009) SHRIMP U-Pb ~1860 Ma anorogenic magmatic signatures from NW Himalaya: implications for Paleoproterozoic assembly. In: Reddy, S.M., Mazumdar, R., Evans, D.A.D. & Collins, A.S. (eds.) *Paleoproterozoic Supercontinents and Global Evolution*. The Geological Society London, Special Publication, 323, 283-300. DOI: 10.1144/SP323.14 (**Impact Factor: 2.976**)
16. Arvind K Jain, Nand Lal, B. Solemani, A.K. Awasthi, **Sandeep Singh**, Rajeev Kumar and Devender Kumar (2009) Detrital-zircon fission-track geochronology of the Lower Cenozoic sediments, NW Himalayan foreland basin: Clues for exhumation and denudation of the Himalaya during the India-Asia collision. *GSA Bulletin*, 121 (3/4), 519-535. (**Impact Factor: 4.398**)

2008:

17. Arvind K. Jain and **Sandeep Singh** (2008) Geological evolution of the southern Asian Plate margin along the Karakoram Shear Zone: constraints from the U-Pb SHRIMP ages. *Tectonophysics*, 451, 186-205. (**Impact Factor: 2.872**)
18. **Sandeep Singh** and A.K. Jain (2008) Pan African Mandi Granite in the Lesser Himalaya: its field relationship and SHRIMP U-Pb zircon dating. In: *Pan African Event: India and Antarctica*. GSI Spl. Pub. No. 91, 70-78.
19. Leech, M.L., **Singh, S.**, and Jain, A.K., 2008, Continuous metamorphic zircon growth and interpretation of U-Pb SHRIMP dating: An example from the western Himalaya: In, *Metamorphic conditions along convergent plate junctions: Mineralogy, petrology, geochemistry, and tectonics* (W.G. Ernst and D. Rumble III, eds.), Geological Society of America International Book Series, 10, 433-448.

2007:

20. A.K. Jain, **Sandeep Singh** and K.R. Gupta (2007) A Late Cretaceous Karakoram Shear Zone and its reactivation during the Late Cenozoic. IAGR Memoir, 10, 77-88. (**Impact Factor: 7.396**)
21. **Sandeep Singh**, Rajeev Kumar, Mark E. Barley and A.K. Jain (2007) SHRIMP U-Pb ages and depth of emplacement of Ladakh Batholith, eastern Ladakh India. Journal of Asian Earth Sciences, 30 (3-4), 490-503. (**Impact Factor: 2.647**)
22. Rajeev Kumar, Nand Lal, **Sandeep Singh**, and A.K. Jain (2007) Cooling and exhumation of the Trans-Himalayan Ladakh Batholith, as constrained by Fission track apatite and zircon ages. Current Science, 92(4), 490-496. (**Impact Factor: 0.967**)
23. Mary L. Leech, **Sandeep Singh** and A.K. Jain (2007) Zircon reveals complex history in the UHP Tso Moriri Complex, western Himalaya. International Geological Review, 49, 313-328. (**Impact Factor: 3.359**)
24. **Sandeep Singh** and Arvind K. Jain (2007) Liquefaction and fluidization of lacustrine deposits from Lahaul-Spiti and Ladakh Himalaya: geological evidences of paleoseismicity along active fault zone. Sedimentary Geology, 196, 47-57. (**Impact Factor: 2.665**)

2006:

25. Mary L. Leech, **Sandeep Singh**, A.K. Jain, Simon L. Klemperer and R.M. Manickavasagam (2006) Reply to comment by P.J. O'Brien on: "The onset of India-Asia continental collision: Early, steep subduction required by the timing of UHP metamorphism in the western Himalaya" by Mary L. Leech, S. Singh, A.K. Jain, Simon L. Klemperer and R.M. Manickavasagam, Earth Planetary Science Letters 234 (2005) 83-97. Earth Planetary Science Letters, 245, pp. 817-820. (**Impact Factor: 4.734**)
26. **Sandeep Singh**, Stefan Claesson, A.K. Jain, David G. Gee, P.G. Andreasson and R.M. Manickavasagam (2006). 2.0 Ga granite of the lower package of the Higher Himalayan Crystallines (HHC), MagladKhad, Suture Valley, Himachal Pradesh, India. Journal of Geological Society of India, 67 (3), 295-300. (**Impact Factor: 0.596**)
27. **Sandeep Singh**, Biswajayee A. Patra, A.R. Vijan, and A.K. Jain (2006). Biotite Rb-Sr ages: constraints on exhumation of the Karakoram Metamorphic Belt, eastern Ladakh, India. Journal of Geological Society of India, 67 (1), 27-31. (**Impact Factor: 0.596**)

2005:

28. Mary L. Leech, **Sandeep Singh**, A.K. Jain, Simon L. Klemperer and R.M. Manickavasagam (2005). The onset of India-Asia continental collision: Early, steep subduction required by the timing of UHP metamorphism in the western Himalaya. Earth and Planetary Science Letters, 234 (1-2), 83-97. (*Zircon dating – Most cited papers – 2 years – Sciencewatch.com - <http://sciencewatch.com/ana/st/zir-dat/papers-2years/>*)(**Impact Factor: 4.734**)
29. **Sandeep Singh** (2005). A review of U-Pb ages from Himalayan Collisional Belt. Journal of Himalayan Geology, 26 (1), 61-76. (**Impact Factor: 0.35**)
30. A. K. Jain, Rm. Manickavasagam, **Sandeep Singh**, and S. Mukherjee (2005). Himalayan

collision zone: new perspectives - its tectonic evolution in a combined ductile shear zone and channel flow model. *Journal of Himalayan Geology*, 26 (1), 1-18. (**Impact Factor: 0.35**)

2003:

31. **Sandeep Singh** (2003) Conventional and SHRIMP U-Pb zircon dating of the Chor Granitoid, Himachal Himalaya. *Journal of Geological Society of India*. V. 62 (5), pp. 614-626. (**Impact Factor: 0.596**)
32. **Sandeep Singh** and A. K. Jain (2003) Himalayan Granitoids. *In: Singh, S. (ed.) Granitoids of the Himalayan Collisional Belt*, *Journal of the Virtual Explorer*, v. 11, 1-20. (**Impact Factor: 0.86**)
33. **Singh, Sandeep**, Mukherjee, P. K., Jain, A. K., Khanna, P. P., Saini, N. K. and Kumar, R. (2003) Source characterization and possible emplacement mechanism of collision-related Gangotri Leucogranite along Bhagirathi Valley, NW-Himalaya. *In: Singh, S. (ed.) Granitoids of the Himalayan Collisional Belt*, *Journal of the Virtual Explorer*, v. 11, 60-73. (**Impact Factor: 0.86**)
34. A. K. Jain, **Sandeep Singh** and RM. Manickavasagam (2003) Intracontinental Shear Zone in the Southern Granulite Terrain: Their Kinematics and Evolution. *In: Ramakrishna, M. (ed.) Tectonics of Southern Granulite Terrain Kuppam-Palni Geotranssect*, Geological Society of India Memoir 50, pp. 225-253. (**Impact Factor: 0.596**)
35. A. K. Jain, **Sandeep Singh**, RM. Manickavasagam, M. Joshi and P. K. Verma (2003) HIMPROBE Programme: Integrated studies on geology, petrology, geochronology and geophysics of the Trans-Himalaya and Karakoram. Geological Society of India Memoir no. 53, pp. 1-56. (**Impact Factor: 0.596**)

2002:

36. **Sandeep Singh**, M.E. Barley, S.J. Brown, A.K. Jain and RM. Manickavasagam (2002) SHRIMP U-Pb in zircon geochronology of the Chor Granitoid: evidence for Neoproterozoic magmatism in the Lesser Himalayan granite belt of NW India. *Precambrian Research*, 118, pp. 285-292. (**Impact Factor: 5.664**)

2001:

37. **Sandeep Singh**, (2001): Status of geochronological studies in Himalaya: a review. *Jour. Indian Geophys. Union.*, vol 5, no. 1, pp 57-72.
38. **Sandeep Singh**, and A. K. Jain (2001): Paleosiesmicity : Geological evidences along the Kaurik-Chango Fault Zone and other related areas in Lahaul-Spiti and Ladakh Himalaya. *In: Highlights in Earth Sciences* (Varma, O.P. – ed), DST's Special volume 2, on SEISMICITY, Indian Geological Congress, pp. 205-225.

2000:

39. A. K. Jain, Kumar, D., **Sandeep Singh**, Kumar, A. and Lal, N (2000): Timing, quantification and tectonic modelling of Pliocene Quaternary movements in the NW Himalaya: evidences

from fission track dating. Earth and Planet. Sci. Letters, 179, 437-451. (**Impact Factor: 4.734**)

1999:

40. Rm. Manickavasagam, A.K. Jain, **Sandeep Singh** and A. Asokan (1999): Metamorphism from NW-Himalaya: P-T constraints and inverted metamorphism from SE-Kashmir, Sutlej valley in Himachal and Bhagirathi valley in western Garhwal. In : *Himalaya and Tibet: Mountain Roots to Mountain Tops* (eds. Macfarlane, A., Sorkhabi, R.B. and Quade, J.), Geological Society of American Bulletin, 328, pp. 179-198. (**Impact Factor: 4.398**)
41. A.K. Jain, Rm. Manickavasagam and **Sandeep Singh** (1999) : Collision Tectonics in the NW-Himalaya: Deformation, metamorphism, emplacement of leucogranite along Beas Parbati Valleys, Himachal Pradesh. In : Geodynamics of the NW-Himalaya, (eds. A. K. Jain and RM. Manickavasagam), Gondwana Research Group Memoir no. 6, 1-37. (**Impact Factor: 8.743**)
42. S. K. Kwatra, **Sandeep Singh**, V. P. Singh, R. K. Sharma, Bimal Rai and Naval Kishor (1999): Geochemical and geochronological characteristics of the Early Paleozoic Granitoids From Sutlej-Baspa Valley, Himachal Himalaya. In : Geodynamics of the NW-Himalaya, (eds. A. K. Jain and RM. Manickavasagam), Gondwana Research Group Memoir no. 6, 145-158. (**Impact Factor: 8.743**)

1998:

43. **Sandeep Singh** (1998): Geochemistry and field relationship of collision related Cenozoic Tonalitic Leucogranite of Parvati valley, Himachal Pradesh, NW-Himalaya. Special Issue, Geological Bulletin, University of Peshawar, 31, 188-190.

1996:

44. **Sandeep Singh** and A.K. Jain (1996): Ductile shearing and thrusting of the Proterozoic Charnokitic granitoid in the Lesser Himalaya and its tectonic significance. Journal of Geological Society of India, 47 (1), 133-138. (**Impact Factor: 0.596**)

1995:

45. **Sandeep Singh**, A. K. Jain and RM. Manickavasagam (1995): Comment on the paper "Granitoid rock of Wangtu Gneissic Complex, Himachal Pradesh : an example of *in situ* fractional crystallisation and volatile action" by D. Rameshwar Rao, Kewal K. Sharma and K. Gopalan, Journ. Geol. Soc. India, 46 (1), 5-14. Journal of Geological Society of India, 46 (6), 682-685. (**Impact Factor: 0.596**)

1994:

46. Gee, David, Lobcowicz, Michal and **Singh, Sandeep** (1994) : Late Extension in the Scandinavian Caledonides-the Roragen Detachment Revisited. Tectonophysics, 41 (1), 319-335. (**Impact Factor: 2.872**)

1993:

47. **Sandeep Singh** and A. K. Jain (1993) : Deformation and strain pattern in parts of the Jutogh Nappe along the Sutlej valley in Jeori-Wangtu region, Himachal Pradesh, India. *Journal of Himalayan Geology*, 4(1), 41-55. (**Impact Factor: 0.35**)
48. Patel, R.C., **Singh, S.**, Asokan, A., Manickavasagam, RM. and Jain, A.K. (1993) : Extensional Tectonics in the Himalayan Orogen, Zaskar, NW India. In : *Himalayan Tectonics* (eds. Treloar, P.J. and Searle, M.P.) Special Publication Journal of Geological Society of London, 74, 445-459. (**Impact Factor: 2.976**)

B. Books:

1. A. K. Jain, **Sandeep Singh**, and RM. Manickavasagam (2002) **Himalayan Collision Tectonics**. Gondwana Research Group Memoir No. 7, 114 pp.
2. **Sandeep Singh** (2003) **Granitoids of the Himalayan Collisional Belt**. Edited volume of *Journal of the Virtual Explorer*, Volume 11. 73 pp.
3. K. Arita, An Yin, **Sandeep Singh** and Naotake Okada (2007). **Journal of Asian Earth Sciences** Published by Elsevier Publication, Volume 29 issue 2-3 (1 february 2007)
4. **Sandeep Singh**, A.K. Jain and Bharat B. Shrestha (2008) Extended Abstracts of the 23rd Himalayan-Karakoram-Tibet Workshop, 8-10 August 2008, Leh (Ladakh), India. *Himalayan Journal of Sciences*, 5 (7), 180 pp.
5. A.K. Jain and **Sandeep Singh** (2009) **Geology and Tectonic of the Southeastern Ladakh and Karakoram** Geological Society of India. 181pp.
6. Series Editor A. K. Jain and **Sandeep Singh** (2013) Text Book Series in Geological Sciences for Graduate Studies Crystallography and Mineralogy: Concept and Methods – Ram S. Sharma and Anurag Sharma. Geological Society of India, 347 pp.
7. Series Editor A. K. Jain and **Sandeep Singh** (2013) Text Book Series in Geological Sciences for Graduate Studies Elements of Palaeontology – S K Shah. Geological Society of India, 144 pp.
8. Chiara Montomoly, Rodolfo Carosi, Rick Law, **Sandeep Singh**, and Santa Mani Rai, (2014). **Geological field trips in the Himalaya, Karakoram and Tibet**. Edited volume of *Journal of the Virtual Explorer*, Volume 48.
9. Series Editor A. K. Jain and **Sandeep Singh** (2014) Text Book Series in Geological Sciences for Graduate Studies: An Introduction to Structural Geology, A.K. Jain. Geological Society of India
10. Series Editor A. K. Jain and **Sandeep Singh** (2016) Text Book Series in Geological Sciences for Graduate Students: Metamorphic Petrology Concept and Method, R S Sharma. Geological Society of India.

C. Other Publications:

1. **Sandeep Singh** (2004) Himalayan Tectonics (The HIMPROBE Results). *Journal of Geological Society of India*, v. 63, pp. 350-353.

2. **Sandeep Singh** (2004) Radiometric dating of zircon: A small profile. Shilalipi, 1(1), 15-16.
3. **Sandeep Singh** (2004) Geochronology of Himalaya. In: Glimpes of Geoscience Research in India (Singhvi, A.K. and Bhattacharya, A. – eds). Indian National Science Academy, New Delhi, 26-29.
4. A. K. Choudhary, R. M. Manickavasagam, A. K. Jain, **S. Singh**, Chandra, Kailash (2004) National Facility on Geochronology and Isotope Geology at IIT, Roorkee – New data on Southern Granulites Massif, *in* Aggarwal, S.K. and Jaison, P.G., eds., **11th ISMAS Workshop on Mass Spectrometry**, p. 51 –58.
5. Jain, A.K., Chandra, K., Manickavasagam, Rm., Chaudhary, A.K. and **Singh, Sandeep** (2003): A New Laboratory: National Facility on geochronology/isotope geology, Indian Institute of Technology, Roorkee. Department of Science and Technology, Deep Continental Studies in India Newsletter, vol 13 (1), 16-17.
6. A. K. Jain, A. K. Dubey, **Sandeep Singh**, M. Joshi, Rm. Manickavasagam, P. K. Verma, S. P. Singh, T. K. Ghosh, S. G. Gokaran, C. K. Rao, C. Selvaraj, G. Gupta, J. R. Sahoo and Rajeev Kumar (2000): NW Himalayan Geotranssect programme (HIMPROBE): first result. Department of Science and Technology, Deep Continental Studies in India Newsletter, vol 10 (1), 9-16.
7. **Sandeep Singh** and A.K. Jain (2007): Geology and tectonics of the Subansiri Corridor, Arunachal Pradesh. Department of Science and Technology, Deep Continental Studies in India Newsletter, vol 17 (1), 21-24.
8. K. Arita, An Yin, **Sandeep Singh** and Naotake Okada (2007). Special issue: The 19th Himalayan-Karakoram-Tibet Workshop (HKT10) held at Niseko, Hokkaido, Japan, 10-13 July 2004. Journal of Asian Earth Sciences 29 (2-3), 185-187.

D. Book Review:

1. A. K. Jain and **S. Singh** (2003) Sahyadri, The Great Escarpment of Indian Subcontinent, Y. Gunnell and B.P. Radhakrishna (eds.) Memoir 47 (1 and 2), Geological Society of India. Current Science, 84 (1), 103-104.

REVIEW REPORTS:

2. A.K. Jain and **Sandeep Singh** (1997) Status Report on the Paleosismicity in India. IUGS
3. **Sandeep Singh** (2004) Geochronology of Himalaya. In: Glimpes of Geoscience Research in India (Singhvi, A.K. and Bhattacharya, A. – eds). Indian National Science Academy, New Delhi
4. Jain, A.K., Ahmad, T, **Singh, Sandeep**, Ghosh, S.K, Patel, R.C., Kumar, R., Agarwal, K.K, Perumal, J, Islam, R., Bhargava, O.N. (2012) Evolution of the Himalaya. Proceedings of the Indian National Science Academy, 78 (3), 259-275

ADMINISTRATIVE RESPONSIBILITIES:

PAST:

- Assistant Warden (Residential), Jawahar Bhawan, UOR, Roorkee between August 1992 to January 1995.
- Member of Dean's organization as Warden, Azad Bhawan, Warden Cautley Bhawan (June

- 1995 – April 2000)
- Staff Advisor Hockey
 - Staff Advisor Programme Management in Cultural Society
 - Member Selection committee for selection of players for Inter-IIT Staff meet 2004 at IIT Madras, Chennai
 - Additional Security Advisor, Thomso (Student Festival) 2005
 - Member of Dean's Organization as Warden, Ravindra Bhawan (2004-2006)
 - Deputy Chief Club Advisor, Student Club, IITRoorkee, Roorkee
 - Officer Incharge Transportation w.e.f. 1.4.2004
 - Staff Advisor Hockey
 - Member – School Management Committee, *Adarsh Bal Niketan, IITRoorkee Campus, Roorkee* (2006 - 2010)
 - Dy. Faculty Advisor, THOMSO-2007, Annual Youth Festival, IITRoorkee
 - Professor-In-Charge, Institute Transportation Cell (May 2004 – Dec 2010)
 - Dy. Chief Sports Advisor (Jan 2011 – Mrch 2013)
 - Dy. Chief Advisor, Students Club, IITRoorkee (2007-2008)
 - Staff Advisor Hockey, IITRoorkee Sports Association (2001-2009)
 - Staff Advisor Football, IITRoorkee Sports Association (2009 - 2010)