Curriculum Vitae

NAME : Dr. Manish Atmaprakash Mamtani

DATE OF BIRTH : 30th December 1970 (30-12-1970)

PLACE OF BIRTH : New Delhi

MOTHER TONGUE: Sindhi

QUALIFICATION : B.Sc., M.Sc., Ph.D. (Geology)

SPECIALIZATION : Structural Geology
(special interests: fabric analysis, microtectonics & fractals)

ACADEMIC RECORD:

Degree	***University***	***Rank***	***Year***
Bachelor of Science (Geology)	M.S. University of Baroda	1st	1991
Master of Science (Geology)	M.S. University of Baroda	1st	1993
Doctor of Philosophy (Geology)	M.S. University of Baroda	-	1999

PROFESSIONAL EXPERIENCE:

- *PROFESSOR* at the Department of Geology & Geophysics, IIT, Kharagpur (India) from November 2011 onwards.
- *ASSOCIATE PROFESSOR* at the Department of Geology & Geophysics, IIT, Kharagpur (India) from June 2007 to November 2011.
- *ASSISTANT PROFESSOR* at the Department of Geology & Geophysics, IIT, Kharagpur (India) from August 2000 to June 2007.
- *VISITING FACULTY* at the Department of Geology & Geophysics, IIT, Kharagpur (India) from October 1999 to August 2000.

TEACHING: Advanced Structural Geology (Theory & Lab)
Structural Geology (Theory & Lab)
Structural Geology Fieldwork
Geology (Lab – for Mining Engineering students)

Ph.D. THESES SUPERVISED: (5 Completed + 4 on-going)

1. Superposed folding in the Banded Iron Formations of Bonai Synclinorium, Eastern India: Field, Anisotropy of Magnetic Susceptibility and Microstructural studies (***Completed in 2003***).
2. Analysis of deformation fabric in the Godhra Granite, Aravalli Mountain Belt (India): an integrated field microstructural and AMS investigation (***Completed in 2006***).
3. Time relationship between deformation and fabric development in the Malanjkhand Granite (Central India) (***Completed in 2009***).
4. Fabric analysis and anisotropy quantification in massive quartzite – implications to rock mechanics (***Completed in 2012***).
5. Deformation Fabric and Vein Emplacement in the Rocks of Gadag region (Western Dharwar Craton, Southern India) – Relationship with Regional Tectonics (***Completed in 2015***).

6. Relationship between AMS and CPO in quartz rocks with negative susceptibility (***on-going***).
7. Emplacement mechanism of granitoids of Koppal region (southern India) – an integrated field, microstructural and magnetic fabric investigation (***on-going***).
8. Tectonic significance of quartz rich rocks of Shirhatti region, West Dharwar Craton (southern India) (***on-going***).
9. Cartography of Pan-African formation at the NW border of the Central Cameroon Shear Zone (Tikar plain area): an approach by anisotropy of magnetic susceptibility method (***on-going***).

MASTERS THESES SUPERVISED: *(32 completed+4 ongoing)*

1. AMS analysis of granites from Lohit region (Arunachal Pradesh). (ongoing M.Sc thesis; to be submitted in May 2016)
2. Microstructural analysis of mylonites from Montalto shear zone (Italy). (ongoing M.Sc thesis; to be submitted in May 2016).
3. Fabric analysis of quartz reef in the vicinity of Shirhatti, Gadag region (Southern India). (ongoing M.Sc thesis; to be submitted in May 2016).
4. Modelling mica-fish using FLAC. (ongoing M.Sc thesis; to be submitted in May 2016).
5. AMS analysis of granitoids from Koppal (East Dharwar Craton, Southern India). (M.Sc thesis: completed in 2015).
6. Comparison of magnetic anisotropy of dykes with associated host rock granitoids of Koppal (southern India). (M.Sc thesis: completed in 2015).
7. Fractal analysis using microstructures in the Koppal granitoid. (M.Sc thesis: completed in 2015).
8. Fluid inclusion studies in quartz veins hosted in metabasalts of Gadag, West Dharwar Craton (Southern India). (M.Tech thesis: completed in 2014).
9. Quantification of fracture anisotropy using fractal based methods in rocks of Gadag region. (M.Sc thesis: completed in 2014).
10. Rock mechanics investigations of metabasalts from Hosur (southern India). (M.Sc thesis: completed in 2014).
11. Analysis of crystallographic preferred orientation (CPO) in quartzites (M.Sc thesis: completed in 2014).
12. Microstructure quantification using fractal methods in granites of Gadag. (M.Sc thesis: completed in 2014).
13. Anisotropy of Magnetic Susceptibility (AMS) analysis of Granites near Mulgund, Karnataka (M.Sc thesis: completed in 2013).
14. Fractal analysis of quartz grains in quartzites. (M.Sc thesis: completed in 2013).
15. Fabric Analysis of Metabasalts around Hosur (Karnataka) using Anisotropy of Magnetic Susceptibility. (M.Sc thesis: completed in 2013).
16. The relationship between shape of Anisotropy of Magnetic Susceptibility (AMS) and strain ellipsoids in quartzite with negative magnetic susceptibility. (M.Tech thesis: completed in 2012).
17. Fabric analysis in a metagabbro. (M.Sc thesis: completed in 2012).
18. Fractal analysis of quartz grains in Chakradharpur Granitoid. (M.Sc thesis: completed in 2012).
19. Anisotropy of magnetic susceptibility analysis of the granitoids around Harichandanpur. (M.Sc thesis: completed in 2012).

20. Anisotropy of magnetic susceptibility (AMS) studies in metabasalts around Gadag, Karnataka. (M.Sc thesis: completed in 2012).
21. Quantification of microcracks in quartzite using fractal methods. (M.Sc thesis: completed in 2011).
22. Fabric analysis in granitoids in the vicinity of Singhbhum Shear Zone using anisotropy of magnetic susceptibility and fractal methods. (M.Sc thesis: completed in 2011).
23. Fractal analysis of quartz grain boundary sutures in banded iron formations. (M.Sc thesis: completed in 2010).
24. AMS and rock strength analysis in quartzites from Ghatshila area. (M.Sc thesis: completed in 2010).
25. Anisotropy of magnetic susceptibility analysis of granitic rocks (Chakradharpur, West Singhbhum, Jharkhand). (M.Sc thesis: completed in 2010).
26. Anisotropy of magnetic susceptibility studies on folded quartzites around Galudih (Jharkhand). (M.Sc thesis: completed in 2009).
27. Internal fabric in the granitic rocks around Chaibasa and Chakradharpur (M.Sc thesis: completed in 2009).
28. Microstructural investigation of quartzites using fractal techniques. (M.Sc thesis: completed in 2009).
29. Strain analysis and anisotropy of magnetic susceptibility studies in rocks of Angul area, Eastern Ghats Mobile Belt, India. (M.Sc thesis: completed in 2008).
30. Radionuclide measurements and deformation structures around Jadugoda – a preliminary study. (M.Sc thesis: completed in 2008).
31. The relationship between the degree of magnetic anisotropy and strength of statistical lineation in naturally deformed rocks. (M.Sc thesis: completed in 2005).
32. Relationship between radon, radionuclides and rock structure in a deformed granitoid. (M.Tech thesis: completed in 2005).
33. Application of Anisotropy of Magnetic Susceptibility (AMS) studies to understand deformation of granitoids. (M.Tech thesis: completed 2005).
34. Structural analysis of the gneisses around Jasidih-Deogarh, Jharkhand.
35. Structural Investigation of the granites and gneisses around Devgadh Bariya, Gujarat. (M.Tech thesis: completed in 2002).
36. Radioactivity and radon studies along fracture zones in the areas around Galudih, east Singhbhum, Bihar (M.Tech thesis: completed in 2002).

AWARDS / ACADEMIC HONOURS:

1. ***Humboldt Research Fellowship*** by the ***Alexander von Humboldt Foundation (Germany)*** to pursue research at the *Karlsruher Institut für Technologie (KIT, Germany)* from May-July 2014 (Alumni Programme).
2. ***National Geoscience Award-2010*** by the ***Ministry of Mines, Government of India (New Delhi)*** in the field of Basic Geosciences.
3. ***Humboldt Research Fellowship*** by the ***Alexander von Humboldt Foundation (Germany)*** to pursue research at the *Karlsruher Institut für Technologie (KIT, Germany)* from May-July 2011 (Alumni Programme).
4. ***Humboldt Research Fellowship*** by the ***Alexander von Humboldt Foundation (Germany) (Alumni Programme)*** to pursue research at the *Universität Karlsruhe (TH) (Germany)* from May 2009 to July 2009.
5. ***H.H. Read Memorial Gold Medal-2007*** by the ***Society of Geoscientists and Allied Technologists (Bhubaneswar)*** for research work carried out on Granites.

6. ***Humboldt Research Fellowship*** by the ***Alexander von Humboldt Foundation (Germany)*** to pursue research at the *Ruprecht-Karls-Universität Heidelberg (Germany)* from July 2006 to June 2007.
7. ***Europe Research Fellowship*** by the ***Alexander von Humboldt Foundation (Germany)*** to pursue research at the *Institute of Petrology and Structural Geology, Charles Univeristy, Prague (Czech Republic)* from January to February 2007.
8. ***K. Naha Award-2002 for Structural Geology*** by the ***Geological Society of India (Bangalore)*** for contribution to the understanding about evolution of southern Aravalli region and related structural geology.
9. ***German Academic Exchange Service (DAAD, Bonn) Short-Term Fellowship (Reinvitation Programme)*** - 2005.
10. ***German Academic Exchange Service (DAAD, Bonn) Short-Term Fellowship (Reinvitation Programme)*** - 2002.
11. ***Council of Scientific and Industrial Research*** *(CSIR, New Delhi) Research Associate (**CSIR-RA**)* in July 1999.**
12. ***Post-Doctoral Fellowship*** by ***Physical Research Laboratory*** *(PRL, Ahmedabad)* in July 1999.**
13. ***Council of Scientific and Industrial Research*** *(CSIR, New Delhi)* ***Extended Senior Research Fellowship*** in March 1999.
14. ***German Academic Exchange Service (DAAD, Bonn) Long-Term Fellowship*** to pursue a part of Ph.D. research at the *Ruprecht-Karls-Universität Heidelberg (Germany)* in 1997.
15. ***Council of Scientific and Industrial Research*** *(CSIR, New Delhi) Senior Research Fellowship* (***CSIR-SRF***) in 1996.
16. ***Fieldwork grant*** **from the** ***William Greenwood Scholarship Fund of the Association of Geoscientists for International Development (AGID), Brazil*** in 1995 to carry out field studies in southern Aravalli region, India.
17. ***M.S. University Research Scholarship*** in 1995.
18. ***Dr. V.N. Kulkarni Memorial Gold Medal*** for securing 1st rank in ***M.Sc***. (Geology) in 1993.
19. ***Shri Dinesh Shantilal Chokshi Memorial Prize*** for securing 1st rank in ***M.Sc***. (Geology) in 1993.
20. ***Shri Dinesh Shantilal Chokshi Memorial Prize*** for securing 1st rank in ***B.Sc***. (Geology) in 1991.

*(** did not join as job was obtained at the Indian Institute of Technology, Kharagpur)*

LABORATORY FACILITIES DEVELOPED:

1. ***Anisotropy of Magnetic Susceptibility (AMS) Laboratory*** (equipped with KLY-4S Kappabridge analysis digital image analysis workstation for fabric analysis) – funded by Department of Science & Technology (DST, New Delhi).
2. ***Correlative Microscopy Laboratory*** (equipped with Carl Zeiss Axio Imager M2m automated polarizing microscope, Axiovision digital image analysis software, and Shuttle & Find software for correlative microscopy between SEM and light microscope) – funded by Ministry of Earth Sciences (MoES, New Delhi).
3. ***SEM-EBSD sample preparation unit*** (comprises Vibromet Polisher and petrographic thin section histolic slide holder from Buehler, USA).

SPONSORED RESEARCH PROJECTS:

1. Structural control on gold mineralization in Gadag region (Karnataka) – a study based on fabric quantification and kinematic analysis. (Ministry of Earth Sciences; 2014-2017).
2. Rock strength investigations of the metabasalts of Gadag region – implications for vein emplacement and mineralization (DST Fast Track Proposal for Young Scientists awarded to Dr. C.S.Vishnu with *Prof. M.A. Mamtani as Mentor*; 2013-2016).
3. The thermal evolution of Peninsular India: past behaviours and future potential (DST funded; *nearing completion*).
4. The relationship between anisotropy of magnetic susceptibility, strength anisotropy and microstructure in rocks devoid of mesoscopic foliations (DST funded; 2008-2012).
5. Analyses of deformation fabrics in granitoids of Chhota Udepur-Alirajpur region from Anisotropy of Magnetic Susceptibility (AMS) studies-Implications for Proterozoic tectonic events in southern parts of Aravalli Mountain Belt (DST funded: 2003-2006)
6. Tectonic evolution of the Precambrian granites and gneisses around Godhra (Gujarat State) (DST funded: 2000-2004).
7. Training of Young Scientists in Anisotropy of Magnetic Susceptibility Studies (Project-I: DST funded; March-June 2004).
8. Training of Young Scientists in Anisotropy of Magnetic Susceptibility Studies (Project-II: DST funded; July-October 2004).

CONSULTANCY PROJECT:

Magnetic Laboratory Maintenance Project (MLMP)

Initiated in 2004, through this project Anisotropy of Magnetic Susceptibility (AMS) analysis is done on rocks for researchers from all over India on payment of a nominal amount. The funds generated are used to maintain the instruments.

PROFESSIONAL ACTIVITIES

1. ***Co-Chairman***, Session on *"Fault Processes, Fault rock evolution, Seismicity"* at the 20th ***Deformation Mechanisms, Rheology and Tectonics (DRT) International Conference*** held at RWTH Aachen University (Germany) from 9-11 September 2015.
2. ***Co-Convenor*** (Designate) - ***Annual General Meeting*** of the ***Geological Society of India*** and seminar entitled ***"Developments in Geosciences in the Past Decade: Emerging trends for the Future and Impact on Society"*** (2016; IIT Kharagpur)
3. Included as ***"Referee"*** for evaluation of research projects by ***Grantová Agentura České Republiky (GAČR; Czech Science Foundation)***, ***Prague (Czech Republic)*** (2015).
4. ***Co-Chairman***, Session-1(Tectonics of northeast India with a special emphasis on hydrocarbon exploration) at the ***3rd Rock Deformation & Structures (RDS-III) conference*** held at Dibrugarh University (Assam) from 29-31 October 2014.
5. ***Chairman***, Session 12 (Methods in Structural Geology) at the ***19th Deformation Mechanisms, Rheology and Tectonics (DRT) International Conference*** held at KU Leuven (Belgium) from 16-18 September 2013.
6. ***Expert Committee Member (Earth & Atmospheric Sciences), Women Scientists Scheme-A (WOS-A)*** of the Department of Science & Technology (DST, Government of India) (2013-2016).

7. ***Editorial Board Member*** for *Fast Track Articles*, Journal of the Geological Society of India (since July 2012).
8. Included as ***"Referee"*** for evaluation of research projects and results by the ***Ministero dell'Istruzione, dell'Università e della Ricerca (MIUR; Italian Ministry for Education, University and Research)*** (from April 2012).
9. ***TectTask Officer*** of the ***IUGS Commission on Tectonics & Structural Geology*** (from July 2011).
10. ***External Teacher:*** Ph.D. Course in Earth Sciences (University of Catania, Sicily, Italy) since 2011.
11. ***Guest Editor*** : *International Journal of Earth Sciences*, Special Issue entitled ***"Rocks, Fabrics and Magnetic Anisotropy"*** (vol. 101, No. 3, April 2012).
    Editors: Manish A. Mamtani (Kharagpur, India), Martin Chadima (Prague, Czech Republic), Helga de Wall (Erlangen, Germany) and R.O. Greiling (Karlsruhe, Germany).
12. ***Guest Editor*** : *Journal of the Geological Society of India*, Special Issue entitled "***Structural Geology-From Classical To Modern Concepts"*** (vol. 75, No. 1, January 2010).
13. ***Council Member***: *Geological Society of India, Bangalore* (2011-2013).
14. ***Editorial Board Member*** : Journal of the Geological Society of India, Bangalore (2008-2010).
15. ***Founding Committee Member and Honorary Secretary***: *Structural Geology & Tectonic Studies Group – India.*
16. ***Joint-Coordinator***: DST-DCS sponsored contact programme entitled "Applications of Anisotropy of Magnetic Susceptibility (AMS) in Structural Geology/Tectonic Investigations (Magnetic Observatory of Indian Institute of Geomagnetism at Alibag from 10^{th} - 21^{st} March 2003).
17. ***Co-Convenor***: First conference on *"Rock Deformation & Structures"* (RDS-I) (Jadavpur University, Kolkata; 29^{th} -31^{st} October 2010).
18. ***Coordinator (Kharagpur Centre)***: *International Earth Science Olympiad Entrance Test* conducted by the Geological Society of India in January 2011.
19. ***Reviewer*****:** ***(a) Journal Papers:*** Journal of Structural Geology, Tectonophysics, Precambrian Research, International Journal of Earth Sciences, Geological Magazine, Geological Journal, Gondwana Research, Journal of Applied Geophysics, Journal of Asian Earth Sciences, Journal of the Geological Society of India, Current Science, Journal of Earth System Science. ***(b) Projects:*** Department of Science & Technology (DST, New Delhi, India); Ministry of Earth Sciences (MOES, New Delhi, India); Ministero dell'Istruzione, dell'Università e della Ricerca (MIUR; Italian Ministry for Education, University and Research, Italy), Grantová Agentura České Republiky (GAČR; *Czech Science Foundation*; Prague, Czech Republic) ***(c) Ph.D. thesis:*** James Cook University (Australia), Jadavpur University (Kolkata, India), University of Kerala (Trivandrum, India), IIT Roorkee (India), Calcutta University (Kolkata, India) ***(d)*** E-Pathshala.

INVITED LECTURES

1. Kinematic analysis in deformed granitoids using AMS data – contributions from India during the past decade. (National Conference on *Recent Trends in the Tectonics of Peninsular India*, University of Keral, Thiruvananthapuram; 6^{th} February 2016).
2. EBSD in Geosciences. (Department of Geology, M.S. University of Baroda, Vadodara, India; 23^{rd} October 2015).

3. Fabric analysis of naturally deformed rocks using EBSD. (3rd annual seminar of Oxford Instruments entitled *Bringing the Nanoworld Together*; Saha Institute of Nuclear Physics, Kolkata, India; 25th November 2014).
4. The role of mica in fabric evolution of quartz in micaceous quartzite - results from AMS and EBSD analysis. (Geologie-Endogene Dynamik, RWTH Aachen, Germany; 21st July 2014).
5. Integrating AMS and EBSD data – Applications in Kinematic and Vorticity analysis. (Karlsruhe Institute of Technology, Karslruhe, Germany; 9th July 2014).
6. Kinematic analysis and vorticity quantification using Anisotropy of Magnetic Susceptibility (AMS) data. (Dipartimento di Scienze Geologiche, Università degli Studi di Catania, Italy; 24th June 2014).
7. The role of mica in controlling fabric evolution of quartz in micaceous quartzite – learning from microdynamics of ice? (Maison des Géosciences, Institut des Sciences de la Terre, Université Joseph Fourier, Grenoble, France; 13th June 2014).
8. Rock deformation, fabric analysis, and applications (*Green Earth Day -2012 and workshop on Recent trends in Ocean Science & Technology*; OASTC, IIT Kharagpur; 22nd April 2012).
9. Microcrack anisotropy quantification and its application in exploration of mineral resources. (National Seminar on *Geology and Geo-Resources of Himalaya and Cratonic Regions of India, GGHCRI-2012*, Department of Geology, Kumaun University, Nainital; 11th March 2012).
10. Anisotropy of Magnetic Susceptibility (AMS) - Principles, Methods, Scope and Limitations (Workshop on *Structural Mapping in Complex terrain*, Department of Earth Sciences, Sambalpur University; 1st March 2012).
11. Application of Anisotropy of Magnetic Susceptibility (AMS) in Structural Geology and Tectonics - Examples from India. (Workshop on *Structural Mapping in Complex terrain*, Department of Earth Sciences, Sambalpur University; 1st March 2012).
12. AMS, AARM and SEM-EBSD Analyses – implications to infer strain, deformation processes and fabric development. (delivered on 20th September 2011 in Central University Hyderabad at the *Goals for Earth Sciences in the Decade 2011-2020*).
13. Fabric analysis in granites: integrating field, microtructural and magnetic anisotropy data. (delivered on 30th June 2011 at the *Penrose Conference of the Geological Society of America* held in Cadaques/Cap de Creus, Spain).
14. Fractal analysis of patterns in deformed rocks - implications to unravel ductile and brittle deformation processes (*Karlsruher Geowissenschaftlisches Kolloquium, Karlsruhe Institute of Technology*, Karslruhe, Germany; 21st June 2011).
15. Case studies in Anisotropy Magnetic Susceptibility with special reference to Structural Geology and Tectonics (Department of Geology, Mizoram Univeristy; 1st April 2011).
16. Anisotropy of Magnetic Susceptibility (AMS) & Rock Magnetism: Principles, Methods, Scope and Limitations (Department of Geology, Mizoram Univeristy; 1st April 2011)
17. AMS, AARM and SEM-EBSD analysis and the deformation mechanism of magnetite in polymineralic rocks (Dipartimento di Scienze Geologiche, Università degli Studi di Catania, Italy; 24th June 2010).
18. Structural Geology and Anisotropy of Magnetic Susceptibility (Indian Statistical Institute, Kolkata; 24th February 2010)

19. Deformation mechanism of magnetite in the Godhra Granite – inferences from AARM and SEM-EBSD analysis (Jadavpur University, Kolkata; 31st October 2009).
20. Fabric quantification in naturally deformed rocks: examples, importance and challenges. (*Karlsruher Geowissenschaftlisches Kolloquium*, Universität Karslruhe (TH), Karslruhe, Germany; 30th June 2009).
21. Techniques of fabric analysis in naturally deformed rocks (Dipartimento di Scienze Geologiche, Università degli Studi di Catania, Italy; 17th June 2009).
22. Analysing internal fabric in plutonic rocks: integrating AMS, SPO and fractal data (Geozentrum Nordbayern, Friedrich-Alexander-Universität Erlangen-Nürnberg, Erlangen, Germany; 25th May 2009).
23. Deformation, magnetic fabric and applications. (Technical Session on *Recent Trends in Earth Sciences*, Geological Society of India Golden Jubilee Celebrations, IISc Bangalore, 13th October 2008).
24. Fractal analysis, microstructures and deformation processes – potential in the Indian context. (Centre of Earth Science Studies, Trivandrum, 18th September 2008).
25. Quantifying deformation fabrics in rocks. (Geological Society of India, Bangalore, 28th May 2008).
26. Anisotropy of Magnetic Susceptibility (AMS): Introduction to Fundamentals (Department of Geology, Kerala University, Trivandrum; 14th May 2008).
27. Graphical Representation of AMS Data (Department of Geology, Kerala University, Trivandrum; 14th May 2008).
28. Application of AMS in Structural Geology (Examples from Naturally Deformed Rocks) (Department of Geology, Kerala University, Trivandrum; 14th May 2008).
29. Evaluating strain gradients in granites (Geologie-Endogene Dynamik, RWTH Aachen, Germany; 14th May 2007).
30. Integrating mesoscopic, microstructural, magnetic and fractal dimension data from granites: implications for analysis of deformation fabric and regional strain (Institute of Petrology & Structural Geology, Charles University, Prague, Czech Republic; 31st January 2007).
31. Regional strain gradients in granites-AMS and SPO measurements in the Godhra Granite, India (Ludwig-Maxmilians Universität München, Germany; 19th December 2006).
32. Analysis of deformation fabric in granites: integrating field, microstructural and magnetic data (Geologicsh-Paläontologisches Institute, Universität Heidelberg, Germany; 30th October 2006).
33. Analyses of Deformation Fabrics In the Granitoids of the southern parts of Aravalli Mountain Belt, India - Implications For Proterozoic Tectonic Events. (Laboratoire des Méchanismes de Transfert en Géologie, Université Paul-Sabatier, Toulouse, France; 13th June 2005).
34. Anisotropy of Magnetic Susceptibility (AMS) and Strain: Experiments and Natural Examples (Department of Geology, Banaras Hindu University; 10th December 2004).
35. Microstructures in the rocks of the Lunavada Group of Precambrian rocks, Aravalli Mountain Belt, India (Geological Society of India, Bangalore, 26th February 1997).

CONFERENCES/WORKSHOPS ATTENDED

1. National Conference on *"Recent Trends in the Tectonics of Peninsular India"*, University of Kerala (Thiruvananthapuram, India), February 2016.
2. 20th International Conference on *"Deformation Mechanisms, Rheology and Tectonics"*; RWTH Aachen University (Germany); September 2015.
3. 3rd annual seminar of Oxford Instruments entitled *Bringing the Nanoworld Together*, Saha Institute of Nuclear Physics (Kolkata, India); November 2014.
4. National Seminar on *"Making of the Indian Continent"*; Presidency University (Kolkata, India), November 2014.
5. Third *"Rock Deformation & Structures (RDS-III)"* conference, Dibrugarh University, Dibrugarh; October 2014.
6. *Annual General Meeting of the Geological Society of India and International Conference on Future Challenges in Earth Sciences for Energy & Mineral Resources*, ISM Dhanbad; November 2013.
7. 19th International Conference on "*Deformation Mechanisms, Rheology and Tectonics*"; KU Leuven (Belgium); September 2013.
8. Field workshop on *"Deformation style in the Great Boundary Fault Zone around Chittaurgarh, Rajasthan"*; January 2013.
9. Second *"Rock Deformation & Structures (RDS-II)"* conference, Lucknow University, Lucknow; October 2012.
10. National Seminar on *"Mining and Community Welfare"* and *Annual General Meeting of the Geological Society of India*, SGAT (Bhubaneshwar); September 2012.
11. Workshop on *"Goals of Solid Earth Geosciences in India in the next decade"*, Department of Geology & Geophysics, IIT Kharagpur; September 2012.
12. "*Green Earth Day-2012*" and workshop on *"Recent trends in Ocean Science & Technology*", OASTC, IIT Kharagpur; April 2012.
13. National Seminar on "*Geology and Geo-Resources of Himalaya and Cratonic Regions of India (GGHCRI-2012)*", Department of Geology, Kumaun University, Nainital; March 2012.
14. Workshop on "*Structural Mapping in Complex terrain*", Department of Earth Sciences, Sambalpur University; March 2012.
15. National Seminar on "*Geodynamics and Metallogenesis of the Indian Lithosphere"* and *Annual General Meeting of the Geological Society of India*, Banaras Hindu University, Varanasi; September 2011.
16. National Workshop on *"Goals for Earth Sciences in the Current Decade (2011-2020)"*, University of Hyderabad; September 2011.
17. Penrose Conference of the Geological Society of America on *"Deformation Localization in Rocks: New Advances"*, Cadaques and Cap de Creus (Spain); 27 June – 2 July 2011.
18. First *"Rock Deformation & Structures (RDS-I)"* conference, Jadavpur University, Kolkata – October 2010.
19. *DST Sponsored Field Workshop* in Kumaun Himalayas, Kathgodam; February 2010.
20. *Geodynamics, Sedimentation and Biotic Response in the Context of India-Asia Collision* and *Annual General Meeting of the Geological Society of India*, Mizoram University, Aizawl; November 2009.
21. *Structural Geology Today* – A Seminar in memory of Prof. S.K. Ghosh, Jadavpur Univeristy (Kolkata); October 2009.

22. Technical Session on *Recent Trends in Earth Sciences*, Geological Society of India Golden Jubilee Celebrations 1958-2008, (IISc Bangalore); October 2008.
23. National Symposium on *Geodynamics and Evolution of Indian Shield – Through Time and Space*, Centre of Earth Science Studies (CESS, Trivandrum, India); September 2008.
24. *Tectonics of the Indian Subcontinent* (TOIS), IIT Mumbai (India); 2008.
25. National Seminar on *Tectono-Thermal Evolution of the South Indian shield* and *Training Workshop on Anisotropy of Magnetic Susceptibility* (AMS), University of Kerala (Trivandrum, India); March 2008.
26. *Deformation Mechanisms, Rheology & Tectonics* (DRT)-2007, Milano (Italy); 2007.
27. *European Workshop on Fabric Quantification*, Technische Universität, München (Germany); 2006.
28. *Deformation Mechanisms, Rheology & Tectonics* (DRT)-2003, St Malo (France); 2003.
29. Tektonik, Strukturalgeologie und Kristallingeologie (TSK-7), University of Freiberg (Germany); 1998.
30. *Indian Science Congress (90th Session)*, Bangalore; 2003.
31. *GIS Workshop and Annual General Convention of Geological Society of India*, Panjab University, Chandigarh; 2002.
32. *National Interactive Workshop on Palaeomagnetism and Rock Magnetic research in India*, Cochin; 2002.
33. *National Symposium on Late Quaternary Geology and Sea Level Changes & Annual Convention Geological Society of India*, Cochin University, Cochin; 1998.
34. *Indian Science Congress (80th Session)*, Goa; 1993.
35. *Annual Convention of the Geological Society of India*, M.S. University of Baroda, Vadodara; 1993.

SCIENTIFIC AFFILIATIONS:

1. Fellow : Geological Society of India
2. Life Fellow: Geological Mining and Metallurgical Society of India
3. Life Fellow: Mineralogical Society of India
4. Member : TecTask (IUGS Commission on Tectonics & Structural Geology)

LIST OF PUBLICATIONS

Journal Special Issues Edited

1. **Mamtani, M.A.**, Chadima, M., de Wall, H. and Greiling, R.O. (*Editors*) (2012). ***Rocks, Fabrics and Magnetic Anisotropy***. Special Issue of ***International Journal of Earth Sciences***, volume 101 (No.3, April 2012), pp. 605-888.
2. **Mamtani, M.A.** (*Editor*) (2010). ***Structural Geology–From Classical to Modern Concepts***. Special Issue of ***Journal of the Geological Society of India***, volume 75 (No. 1, January 2010), pp. 1-344.

Full Papers

1. Renjith, A.R., **Mamtani, M.A.**, Urai, J.L. (2016). Fabric analysis of quartzites with negative magnetic susceptibility - does AMS provide information of SPO or CPO of quartz? ***Journal of Structural Geology***, 82, 48-59.
2. Mondal, T.K. and **Mamtani, M.A.** (2016). Palaeostress analysis of normal faults

in granite; implications for interpreting Riedel shearing related to regional deformation. ***Journal of the Geological Society, London***, 173, 216-227.

3. **Mamtani, M.A.** and Renjith, A.R. (2015). Using EBSD data to analyze effect of heat supplied by granite on CPO of quartz in deformed quartzite. ***Journal of the Geological Society of India***, 86, 5-8.
4. **Mamtani, M.A.** (2014). Magnetic fabric as a vorticity gauge in syntectonically deformed granitic rocks. ***Tectonophysics***, 629,189-196.
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