


Faculty Details for IGNOU Website

	Name		Dr. R Baskar FGS (<i>Ind</i>), FGGS
	Designation		Professor in Geology
	Contact Address		School of Sciences Indira Gandhi National Open University Maidan Garhi, New Delhi-110068 (India)
	Contact No.	Office	+91-11-29571678
		Cell	+91-9416439339
E-mail		rbaskar@ignou.ac.in	
EDUCATIONAL QUALIFICATIONS			
Degree	Year	Institute/University	
Ph.D (Geology)	1992	Panjab University, Chandigarh Title: Petrology and Geochemistry of the alkali granites and the associated acid volcanics around Goliya Bhaylan, District Barmer, W. Rajasthan, India	
M.Phil (Geology)	1989	Panjab University, Chandigarh Title: Petrology and Geochemistry of the alkali granites and the associated acid volcanics around Mawri, District Barmer, W. Rajasthan	
M.Sc. (Geology)	1988	Panjab University, Chandigarh	
B.Sc. (Geology, Physics, Chemistry)	1987	Panjab University, Chandigarh	
PG Diploma in Environmental Education and Management	2007	University of Hyderabad, Hyderabad.	
PG Diploma in Environmental Economics	2008	University of Hyderabad, Hyderabad.	
PG diploma in Environmental Law	2012	National Law School of India University (NLSIU), Bangalore.	
One-year Training course in Science Journalism	2012	National Council for Science and Technology Communication, Department of Science and Technology (DST), Government of India and Indian Science Communication Society (ISCOS), Lucknow.	
CAREER PROFILE			
Research and Teaching Experience: > 26 years			
<ul style="list-style-type: none"> • 16.09.2021 onwards Professor, School of Sciences, IGNOU, New Delhi • 22.08.2010 to 15.09.2021 Professor, Department of Environmental Sciences and Engineering, Guru Jambheshwar University of science and Technology, Hisar • 22.08.2007 to 21.08.2010 Associate Professor, Department of Environmental Sciences and Engineering, Guru Jambheshwar University of science and Technology, Hisar • 22.08.2005 to 21.08.2007 Reader, Department of Environmental Sciences and Engineering, Guru Jambheshwar University of science and Technology, Hisar • 22.08.1995 to 21.08.2005 Lecturer, Department of Environmental Sciences and Engineering, Guru Jambheshwar University of science and Technology, Hisar • 29.08.92 to 9.10.92 Lecturer (Part-time), Department of Geology, Kurukshetra University, Kurukshetra 			

<ul style="list-style-type: none"> 10.05.89 to 02.08.89, Stipendiary Geologist (10.05.89 to 02.08.89), Atomic Minerals Division, Department of Atomic Energy, Government of India.
<p>AREA OF INTEREST / SPECIALIZATION Environmental Geology, Geomicrobiology, Environmental Science, Environmental Geochemistry</p>
<p>ROLE AND RESPONSIBILITIES AT IGNOU</p> <ul style="list-style-type: none"> Planning, Design, Development and Coordination of courses and programmes in Geology at Post Graduate Certificate, Graduate, Post Graduate and Ph. D. levels Course Coordinator: Environmental Geology (BGYET-141), Laboratory (BGYEL-142) and Elements of Applied Geology (BGYET-145); Laboratory (BGYEL-146) (B.Sc. General with Geology) (under development) Course Co-ordinator for In Introduction to Geoinformatics (MGY-101), Applications of Geoinformatics (MGY-007) (under development) Preparation of self learning materials in print & development of audio / video programmes as part of Learning Materials Face-to-face teaching activities for PhD Geology Course work Participation in the live educational programmes (Teleconferencing) Participation in the Interactive Radio Counselling through Gyan Vaani Evaluation of Academic Programmes and Courses Examination related duties (Preparation of assignments, Paper setting, Evaluation, Participation in Moderation Board Meetings, Invigilation and Observer duties) Maintenance of Programmes and Courses Member, Editorial Team (and the International Editorial Advisory Board) of the refereed 'Indian Journal of Open Learning' of IGNOU, housed at STRIDE, for a three-year term (2021-2023) Member, Monitoring Committee, Institutional Development Plan (IDP) of IGNOU 2030, New Delhi, 23.011.2021 Master Trainer, SANKALP (IGNOU and MSDE). Member, 'Programme Implementation Committee' for the implementation of "Awareness Development of University and College Teachers on NEP-2020" programme which has been agreed by- the MOE and has been approved by the UGC for the design, development, delivery and evaluation of the Awareness Development Programme for training (above 15 lakhs university and college teachers in the country) with support from IGNOU RCs and university HRDCs.
<p>Contribution to the Department at GJUST University HISAR</p> <p>Active academic and administrative contribution has been made in the following capacities:</p> <ol style="list-style-type: none"> 1. Warden, Boys Hostel, GJUST, Hisar (20.09.1995 to 15.10.2003). 2. Chairperson, Department of Physiotherapy, Guru Jambheshwar University of Science, and Technology, Hisar (6.10.2016 to 31.12.2016). 3. Director, Public Outreach, GJUST, Hisar (5th Feb 2018 to 1st August 2019). 4. Chairperson, Department of Physiotherapy, Guru Jambheshwar University of Science, and Technology, Hisar (w.e.f 26th September 2018 to 20th June 2019). 5. Chairperson, Department of Environmental Science and Engineering, Guru Jambheshwar University of Science, and Technology, Hisar (21st June 2019 to 15th June 2020). 6. Local Co-ordinator, GIAN (Global Initiative of Academic Networks, Ministry of Education), Guru Jambheshwar University of Science, and Technology, Hisar (5.03.2021 to 15.09.2021). 7. In-Charge, Department of Environmental Science and Engineering, Guru Jambheshwar University of Science, and Technology, Hisar (15th April 2021 to 7th June 2021).
<p>Other academic contributions in the Department / University at GJUST, Hisar:</p> <ol style="list-style-type: none"> 1. New Courses introduced are Natural Disasters, Environmental Geology, Geomicrobiology, Geobiology. 2. Admission, examination work, proctorial duties and other duties assigned by department/university from time to time like Admission committee, Training and Placement Advisor, Study Tour Incharge, Credit Seminar Incharge, Timetable Incharge, Computer Lab incharge, Centre Superintendent, Deputy Superintendent, Invigilator / paper setter / evaluator for conduct of examinations (both regular as well as distance examinations), NET classes (for SC/ST students). 3. Member, Academic Council, GJUST, 2000-2002. 4. Member, Post Graduate Board of Studies and Research of the Department of Environmental Science

- and Engineering, 2.7.2001-1.7.2003
5. Member, Post Graduate Board of studies and Research of the Department of Environmental Science and Engineering, 05.8.2005-4.8.2007
 6. Member, Court, GJUST, 20-3-2006 to 19-3-2008.
 7. Member, Board of Post Graduate Studies and Research of the Department of Environmental Science and Engineering, 5.8.2007 to 5.8.2009
 8. Member, Institutional Animals Ethics Committee (IAEC), GJUST, 2008-2011.
 9. Member, Enforcement of students Discipline, Good Behavior, Residence and Health 23.8.2009 to 22.8.2011.
 10. Member, Unfair Means Committee (UMC) for examination purposes 1.8.2010-31.7.2011.
 11. Member, Faculty of Non-Conventional Sources of Energy and Environmental Sciences, 12-02-2011 to 11-02-2013
 12. Member, Academic Council, GJUST, 25.11.2010-24.11.2012.
 13. Member, Faculty of Environmental and Biosciences & Technology, 10-08-2011 to 11.02.2013.
 14. Member, Post-graduate studies and Research in Environmental Sciences and Engineering, GJUST from 24.09.2011-23.09.2013.
 15. Member, Post Graduate Board of studies and Research of the Department of Environmental Science and Engineering, 18.4.2016-17.4.2018.
 16. Member, Faculty of Environmental and Biosciences & Technology, 21-07-2017 to 20.07.2019.
 17. University Observer, Constitution of Governing body, Asha Girls College, Hisar, 28th September 2018.
 18. Chairman of the Committee to prepare the Publicity document (Video) of the University, 2018.
 19. Chairman of Committee for practical and viva voce examination for the post of Demonstrator, Department of Physiotherapy, GJUST, Hisar 21st and 22nd Jan 2019.
 20. Member, Alumni meet 2018.
 21. Convenor, Publicity and Media Committee, Convocation 2018
 22. GJUSTAA (Alumni) Executive Council Member 2018, 29th October 2018
 23. Deputy Superintendent, Examination, 11th May 2018 to 25th May 2018
 24. Member, Advisory and Quiz Committee; Convenor, Publicity and Media Committee, Science Conclave, GJUST, Hisar, 13th and 14th February 2019.
 25. Member, Advisory, Publicity and Media, Stage Management Committee, Alumni Meet 2019.
 26. Convenor, Publicity and Media Committee, State Level Pool Campus Drive by Infosys, 23-24 April 2019.
 27. Chairman, Green Campus Meeting, GJUST, Hisar on 8th May 2019.
 28. Convener, Solid Waste Management Committee, GJUST, Hisar
 29. Convener, Solar lights Committee, GJUST, Hisar
 30. Convener, Rainwater Harvesting Committee, GJUST, Hisar
 31. Member, Enforcement of students Discipline, Good Behavior, Residence and Health 25.7.2019 to 15.7.2021.
 32. Social Media Champion, GJUST, (AISHE, MHRD), Hisar
 33. Convener, Kargil Vijay Diwas, Media and Publicity Committee
 34. Member, Faculty of Environmental and Biosciences & Technology, 25-07-2019 to 24.07.2021.
 35. Member, Silver Jubilee Celebration Committee
 36. Convenor, Department Anti-ragging Committee 2020-2021.
 37. Program Co-ordinator, MSc 2020-2021.
 38. Webinar Coordinator, Natural Disasters, October 10-13, 2020
 39. Convenor, Evaluation of PhD reports, 2020
 40. Member, MSc Environmental Science, Admission Committee 2020
 41. Member, MSc Environmental Science, Induction program. 17th December 2020
 42. Member, Admission Committee, Pre-Ph.D program December 2020
 43. Convenor, Monitoring and Vigilance Committee, Solid Waste Management rules w.e.f 9th June 2021.

Research Guidance

1. Biocalcification Abilities of Bacterial Communities and their role in Speleothem Genesis from caves of Chattisgarh, India. Swati. Submitted on 19 May 2017. Awarded February 2018.
2. Microbial diversity and biomineralization potential of bacterial communities from speleothems in Garo and Khasi Hills, Meghalaya, India" Devender Mudgil Submitted on 20th September 2018. Awarded February 2019.

A. Books/Monographs (Authored/Edited)/ Book Chapter/ Lecture Notes**Publications****Books**

1. Environmental Sciences for Engineering Undergraduates (First Edition) (As per AICTE notified syllabus), Dr. Sushmitha Baskar and Dr. R. Baskar, 2007 Unicorn Publishers, New Delhi, 166p. (Best seller).
2. Environmental Studies (First Edition) (As per UGC notified syllabus for undergraduates), Dr. Sushmitha Baskar and Dr. R. Baskar, 2007 Unicorn Publishers, New Delhi, 363p.
3. Natural Disasters (First Edition) by Dr.Sushmitha Baskar and Dr.R.Baskar, 2009 Unicorn Publishers, New Delhi, 159p.

Book Chapter**International**

1. Natuschka M. Lee, Daniela B. Meisinger, Roman Aubrecht, Lubomir Kovacic, Sushmitha Baskar, Ramanthan Baskar, Cesaero Saiz Jimenez, Megan Porter and Annette S. Engel, 2012. Caves and Karst Environments, published in Life at Extremes: Environments, Organisms and Strategies for Survival, pp 320-344. Edited by E.M Bell, CABI Publishing.
2. Baskar, S and Baskar, R 2012. Calcite Moonmilk controversy: An Overview, pp. 231-243. Published in Calcite, Edited by Joana Dobrev and Petra Markovi a, Nova Publishing, New York.
3. Baskar S, Baskar R, Tiwari V, Thorseth IH,  vreas L, Lee NM and Routh J. 2011. Cave geomicrobiology in India: Status and prospects, The Stromatolites: Interaction of microbes with sediments. Eds. Joseph Seckbach and Vinod Tewari. Cellular Origin, Life in Extreme Habitats and Astrobiology, 2011, Volume 18, Part 5, 541-569, DOI: 10.1007/978-94-007-0397-1_24, Springer Publication.

National

1. S Baskar and R Baskar (2018) Microbial diversity in some Indian caves and biomineralization processes: A Summary, published in *Environmental and Ecological Sustainability Edited by B. Rupini, Baskar S, Sahoo S and Kapoor N S* Environmental Sciences.
2. Dr.S Baskar and Dr.R.Baskar (2015) Environmental assessment and planning published in Introduction to Environmental Sciences, The Energy and Resources Institute Publications (TERI), ISBN 978-81-7993-455-5, pp 325- 340. Edited by R S Khoiyangbam and Navindu Gupta.
3. Baskar S and Baskar R. 2015. Speleothems from Krem Mawsmaj, Meghalaya, India: Some biogenic evidence. In: *Frontiers of Earth Science K.L. Shrivastava & Pankaj Srivastava* (Eds) ISBN 978-81-7233-926-9, 670p.
4. Baskar R and Baskar S. 2015. Introducing Microbiology in the Indian Earth System Science Curriculum: A game changing decision. In: *Frontiers of Earth Science K.L. Shrivastava & Pankaj Srivastava* (Eds) ISBN 978-81-7233-926-9, 670p.
5. Baskar S and Baskar R. 2021. Cave Ecosystems: Sites for potential biogenic signatures. In: *Cave Science: Insights from the Indian subcontinent* (Accepted) (Eds) Jayant Biswas, ISBN (ISBN-978-81-939423-0-7).

Edited Books / Journals

1. Proceedings of National Conference on Multidisciplinary approach in frontier areas of environmental science and engineering, Edited by Prof N R Bishnoi, Prof A Kaushik, Dr R Baskar, Dr Asha Gupta, Dr Namita Singh, Dr Rajesh Lohchab. Published by Arihant Prakashan Pvt Ltd, New Delhi, 258p.

Journal publications**International**

1. Mudgil D, Paul D, Baskar S, Baskar R, and Shouche YS. 2021. Cultivable microbial diversity in speleothems using MALDITOF spectrometry and DNA sequencing from Krem Soitan, Krem Lawbah, Krem Mawpun, Khasi Hills, Meghalaya, India. Submitted to Archives of Microbiology, Springer Publication.
2. Gurmeet Kaur; M F Makki,; R K Avasia,; Bhaskar Bhusari,; Raymond A. Duraiswami; Manoj K.Pandit; R Fareeduddin; R Baskar and Sashi Kad. 2018. The Late Cretaceous-Paleogene Deccan Traps: A Global Heritage Stone Province from India. *Geoheritage*, Springer Journal (Published online 08 January 2019).
3. Mudgil D, Baskar S, Baskar R, Paul D and Shouche YS. 2018. Biomineralization potential of *Bacillus*

subtilis, *Rummeliibacillus stabekisii* and *Staphylococcus epidermidis* strains *in vitro* isolated from speleothems, Khasi hill caves, Meghalaya, India. Geomicrobiology Journal, Taylor and Francis Publication, 35, 8, 675-694.

4. Swati C , Sushmitha B , Meenakshi P , Baskar R , Ranjan K 2107. Biomineralization abilities of Cupriavidus strain and Bacillus subtilis strains *in vitro* isolated from speleothems, Rani cave, Chattisgarh, India. Geomicrobiology Journal, 2017, 34, 9, 737-752, Taylor and Francis Publication.
5. Baskar S, and Routh J, Baskar R, Kumar A, Miettinen H and Itävaara M 2016. Evidences for microbial precipitation of calcite in speleothems from Krem Syndai in Jaintia Hills, Meghalaya, India: Geobiological significance. Geomicrobiology Journal 2016, 33, 10, 906–933, Taylor and Francis Publication.
6. Baskar S, Baskar R and Routh J, 2014. Biogenic precipitation of moonmilk in Shastradhara caves from Shiwalik Mountains, Northwest India. Geomicrobiology Journal, 31, 8, 664-681, Taylor and Francis Publication.
7. Baskar S, Baskar R, Thorseth I H, Øvreaas L, Pedersen R B 2012. Microbially induced iron precipitation associated with a neutrophilic spring at Borra caves, Vishakapatnam, India. Astrobiology, Volume 12, Number 4, 327-346
8. Baskar S, Baskar R and Routh. J. 2011. Biogenic Evidences of Moonmilk deposits in the Krem Mawmluh Cave, Meghalaya, India. Geomicrobiology Journal, 28, 3, 252-265, Taylor and Francis Publication.
9. Baskar S, Baskar R, Lee N and Theophilus P.K. 2009. Speleothem formations of Mawsmai caves and Krem Phyllut caves, Meghalaya, India: Some biogenic evidences. Environmental Geology, 2009 (Springer Publication), Volume 57, Number 5, 1169-1186.
10. Baskar S, Baskar R, Lee N, Kaushik A and Theophilus P.K. 2008 Precipitation of iron in the microbial mats of the spring waters of Borra Caves, Vishakapatnam, India: Some geomicrobiological aspects. Environmental Geology, Springer Publication, Vol. 56, No.2 237-243.
11. Haritash, A.K, Baskar. R, Nirmal and Sumit Paliwal 2007 Impact of Slate quarrying on Soil properties in Semi-arid Mahendragarh in India, Environmental Geology (Springer publisher), Vol. 51, pp.1439–1445.

National

1. Baskar S and Baskar R. 2021. Studies on geomicrobiology in some Indian caves. JGSI (submitted).
2. Baskar S, Mudgil D, and Baskar R. 2018. Microbes from Some Caves of Khasi and Garo Hills, Meghalaya, India, Ambient Science, 2018: Vol. 05(2); Published by: National Cave Research and Protection Organization, India
3. Baskar S, Chalia S, and Baskar R. 2018. Calcite precipitation by *Rhodococcus sp.* isolated from Kotumsar cave, Chattisgarh, India. Current Science, Vol. 115, No 5, 1063-1074.
4. Baskar S, Chalia S, and Baskar R. 2017. Microbes Identified from Some Caves in Chattisgarh And Their Biocalcifying Abilities. Ambient Science, published by National cave research and protection organization, India. Vol. 4 (2). ISSN- 2348 5191 (Print) & 2348 8980 (Electronic), 38-39.
5. Baskar S and Baskar R. 2014. A summary of some microbes identified from different Indian caves and their possible role in mineral formation. Ambient Science, published by National cave research and protection organization, India. 1 (2), 9-16.
6. Baskar S, Baskar R and Barton HA 2009. Cave Geomicrobiology in the Indian context. Current Science, Vol. 97, No. 5, 620-622
7. Baskar S and Baskar R. 2009. Geobiology and Geomicrobiology: Importance and need for studies in the Indian context, Current Science, Vol. 96, No 1, 200-201.
8. Baskar S, Baskar R and Anubha Kaushik 2007 Evidence for Microbial Involvement in the genesis of Speleothem Carbonates, Borra Caves, Vishakapatnam, India. Current Science, Vol. 92 (No. 3), pp 350-355.
9. Baskar S, Baskar R, L.Mauclaire and McKenzie J.A 2006 Microbially induced calcite precipitation by Culture Experiments: Possible origin for Stalactites in Sahastradhara, Dehradun, India. Current Science, Vol. 90 (No. 1), pp 58-64.
10. Baskar S, R. Baskar, L.Mauclaire and J.A.McKenzie 2005 Role of microbial community in stalactite formation, Sahastradhara caves, Dehradun, India. Current Science, Vol. 88 (No. 8), pp 1305-1308.
11. Baskar, R. and Kochhar, N. 2006 Titan-aegirine from the peralkaline Siwana granite, Western Rajasthan, India. Journal of Applied Geochemistry, Vol.8, No.2, pp. 133-136.
12. Baskar. R and Kochhar, N. 2005 Amphibole and Pyroxene chemistry of Siwana alkali granite, Western

- Rajasthan, India, Journal of Geological Society of India, Vol. 66 (No. 4), pp 427-437.
13. Baskar, R. 2004 A note on the Aenigmatite from the Siwana granite, Western Rajasthan, India. Indian Journal of Geochemistry, special volume on alkaline rocks, Vol 19, pp 71-78.
 14. Baskar S, R. Baskar and Anubha Kaushik 2003 Role of Microorganisms in the Konkan-Goa laterite formations. Current Science, Vol.85, pp 1129-1134.
Quoted as an interesting paper in Journal of Geological Society of India, Vol 63, March 2004.
 15. Baskar S, R. Baskar and A. Kaushik 2002 Mineralogical variations in the Konkan-Goa Laterites. Journal of Indian Association of Sedimentologists, Vol. 21, pp. 31-37.
 16. Baskar S, R. Baskar and A. Kaushik 2002 Geochemical behaviour of major and Trace elements in laterites from Konkan-Goa coastal Belts, India. Journal of Applied Geochemistry, Vol.4, No.2B, pp. 475-486.
Quoted as an interesting paper in Journal of Geological Society of India, Vol.61, Jan. 2003
 17. Baskar, R. and Sharma, R. 1994 An assessment of the rare metal potential of the granitoids of Siwana, Jalor, Jhunjhunu and Tosham, Northwestern peninsular India. Current Science, Vol.66 (No.1), pp 67-69.
Quoted as an interesting paper in Journal of Geological Society of India, Bangalore, Vol.43, April, 1994.

Conferences / Seminar / Symposia:

International

1. Giulia Realdon, Gina P. Correia, Xavier Juan, Ramanathan Baskar, Guillaume Coupechoux, Yamina Bourgeois and Chris King. 2020. Field Officers take on the Geoscience Education world, European Geophysical Union (EGU), Vienna, Austria, (3rd-8th May).
2. Mudgil D, Baskar S, Baskar R, Paul D and Shouche YS. 2018. Assessment of microbial diversity of speleothems, Khasi hills, Meghalaya, India. International Conference on Microbiome Research, Pune 19-22 Nov 2018.
3. Gurmeet Kaur, M. F. Makki, Avasia, B. Bhusari, R. Duraiswami, M.K. Pandit, Fareeduddin, R. Baskar, Shashi Kad 2018. The Late Cretaceous/Paleogene Deccan traps : A Geoheritage and Global Heritage Stone Resource from India. Workshop on Heritage Stones, Salamanca, Spain, October 2-4, 2018.
4. Baskar R and Baskar S 2017. Microbe-mineral interactions from some Indian caves, lecture delivered, 11th Scientific Conference "Research, Use and Protection of Caves", Liptovsky Mikulas, Slovakia, October 25-26 2017.
5. Baskar R and Baskar S 2017. An Overview of Moonmilk deposits from some caves in India, lecture delivered, Man and Karst 2017, Zadar, Croatia, June 26-29 2017.
6. Baskar R and Baskar S 2016. Genesis of the Moonmilk deposits at Sahastradhara cave, India: Some geochemical, mineralogical and microbiological observations. 35th International Geological Congress, Cape Town, South Africa, 27th August 2016 to 4th September 2016.
7. Baskar R and Baskar S. 2013 Mineral precipitation *in vitro* using isolated bacterial strains from Syndai caves, Meghalaya, 16 th ICS, Brno, Czech Republic, July 21-29, 2013. *funded by DST, New Delhi.
8. Baskar R, Baskar S, and Routh J. 2011. Moonmilk deposits in the Mawmluh Cave Ecosystem, Meghalaya, India: Some biogenic evidences. International Biodeterioration and Biodegradation Symposium, Austria, Vienna, September 19-24 2011.
9. Rangarajan R, Routh, J, Ghosh P, Mangini A, Fohlmeister, Baskar S, Baskar R and Holzkamper, S. (2011). Variation in contribution of Bay of Bengal moisture from stable isotopic composition of cave carbonates from Meghalaya, India. European Geophysical Union (EGU), Vienna, Austria, (3-8th April).
10. Baskar R and Baskar. S (2010). Geobiology and Geomicrobiology: An emerging field in earth system science. 6th Nepal Geological Congress, 15-17 November 2010, Kathmandu, Journal of Nepal Geological Society, 2010, vol.41 (Sp. Issue), p.169.
11. Baskar S, Baskar R, Thorseth I H, Øvreas L, Pedersen R B, Lee N M and Routh J. (2009). Microbial involvement in the precipitation of iron in organic mats associated with a neutrophilic spring of Borra caves, Vishakapatnam, India. Winter Conference (January 13-15), Geological Survey Norway, Bergen.
12. Engel AS, Meisinger DB, Porter ML, Baskar S, Baskar R, Lee NM. (2008). Cave microbiology as a window into the subsurface. Summary of presentation for CAREX meeting, Sant Feliu de Guixols, Spain, 30 November – 2 December, 2008, WG4 – Deep biosphere
13. Baskar S, Baskar R, Thorseth I H, Øvreas L, Pedersen R B, Lee N M and Routh J (2008). Microbial iron precipitation in an organic mat associated with a neutrophilic spring of Borra caves, Vishakapatnam, India: A SEM and TEM approach. International workshop on Geobiology (20-22 October 2008), Centre

for Geobiology (CGB), University of Bergen, Bergen, Norway.

14. Baskar R, Baskar S, Natuschka Lee, Kaushik A and Theophilus PK (2008). Precipitation of iron in the microbial mats of the spring waters of Borra caves, Vishakapatnam. International Kalkowsky-Symposium "Geobiology of Stromatolites" Gottingen, Germany, 4-11 October.
15. Baskar S, Baskar R, Mauclaire L and McKenzie J.A (2008). Microbially induced precipitation of calcite in culture experiments – Possible origin for Stalactites in Sahastradhara, Dehradun, India, International Geological Congress (IGC), August 6-14, Norway.
16. Baskar S, Baskar. R. and Kaushik. A. (2004). Role of microorganisms in weathering of the Konkan-Goa laterite formations. International Geological Congress (IGC), August 20-28, Italy.
17. Baskar S., Baskar R., Mauclaire L. and McKenzie. J.A. (2004). Initial results of mineralogical and geomicrobiological study of stalactites from Sahastradhara caves, Dehradun, India. Swiss Sedimentologists Meeting (Swissed), 31 Jan, Fribourg, Switzerland, p.7.
18. Baskar S, Baskar. R. and Kaushik. A. (2003). The Laterites of Konkan-Goa coastal belts: Geochemistry, mineralogy, and microbiology. Swiss geoscience meeting SGM 2003, Nov. 28-29, Basel, Switzerland.
19. Baskar, R. and Kochhar, N. (1995) Peralkaline granites and the associated acid volcanics of the Siwana ring structure, Rajasthan, India: some mineralogical constraints for magma peralkalinity. Proc. Second South Asia Geological Congress (GEOSAS II), January 19-24, 1995, Colombo, Sri Lanka.
20. Baskar, R (1994) Rare metal assessment of the Malani granites: A geochemical approach. IV Joint International Symposium on Exploration Geochemistry, Russia.

National

1. Baskar R (2020) Climate change: Threat to Economy and Social Stability, National Seminar on Environment, Society and Culture: Interdisciplinary perspectives, 28th Jan 2020, SOITS, IGNOU, New Delhi (Invited talk and Chaired Panel discussion).
2. Baskar S and Baskar R (2020). Evidence of biologically influenced speleothems in some Indian caves in Jaintia and Garo hills, Meghalaya, Indian Science Congress, 3rd-7th January 2020, UAS, Bangalore.
3. Baskar R and Baskar S (2020). Linkages between Microorganisms and Climate change: Frontier areas of research, Indian Science Congress, 3rd-7th January 2020, UAS, Bangalore. Invited talk and Chaired a session
4. Baskar R (2019) Importance of Geomicrobiology in Understanding Climate Change, International Conference on Knowledge and Policy for sustainable development: Global lessons and local challenges, Guru Gobind Singh Indraprastha University, New Delhi, 26th September 2019 (Plenary Lecture).
5. Baskar R and Baskar S (2019) Microbes and Climate, National Conference on Global Climate Change: Concerns and Solutions, MDU, Rohtak, 15th Feb 2019 (Invited speaker).
6. Baskar S and Baskar R (2019). Bacteria isolated from Caves: Potential to restore stone monuments, Indian Science Congress, 3rd-7th January 2019, LPU, Punjab.
7. Baskar R and Baskar S (2019). Geo-microbiological Studies from some Indian Caves: role of microbes as geochemical agents, Indian Science Congress, 3rd-7th January 2019, LPU, Punjab. Invited talk and Chaired a session.
8. Chaired a session in Science Communicators Meet 2019, LPU, ISCA, January 3rd to 7th 2019.
9. 3-Days Interdisciplinary Seminar on Sustainable Urbanization, Environment and Spatial Planning Concerns), December 17-19, 2018, HRDC, GNDU, Amritsar.
10. National conference on "Chemistry for Human Health and Environment" (CHHE-2018) being held on 15-16 December 2018 at Conference Centre, University of Delhi, Delhi-110007. Chaired a session, organized by Green Chemistry Network Centre, Department of Chemistry, University of Delhi; Royal Society of Chemistry, North India Section in collaboration with National Environmental Science Academy (NESA). 15th and 16th Dec 2018.
11. Mudgil D, Baskar S and Baskar R, 2018. Biomineralization ability of bacterial strains in vitro isolated from speleothems, Khasi hills, Meghalaya, India. Environmental and Ecological Sustainability: Engaging the Stakeholders, SOITS, IGNOU, New Delhi, 4-5th October 2018.
12. Baskar S and Baskar R 2018 Microbial diversity in some Indian caves and their possible role in Biomineralization processes. Environmental and Ecological Sustainability: Engaging the Stakeholders, SOITS, IGNOU, New Delhi, 4-5th October 2018.
13. Baskar R, 2018. Earth-Life Interactions: Need for an integrated approach. Environmental and Ecological Sustainability: Engaging the Stakeholders, SOITS, IGNOU, New Delhi, 4-5th October 2018.(Plenary talk).

14. Baskar, R (2018). Role of microbes in cave ecosystems and their potential applications. International Colloquium on Ambient Science to Strengthen the Green Economy, 7th to 10th June 2018, National Cave Research and Protection Organization, Raipur, Chattisgarh. (Key note speaker).
15. Baskar, R (2018). Earth-Life Interactions. National Seminar on "Emerging Trends in Plant and Environmental Sciences" on March 29-30, 2018, Guru Nanak Dev University, Amritsar. (Lead speaker).
16. Baskar R and Baskar S (2018). Cave Geomicrobiology in India: Opportunities and Challenges. Indian Science Congress, 16th-20th March 2018, Manipur University, Imphal.
17. Baskar S and Baskar R (2018). Scientific criteria to differentiate biological and non-biological mineralized structures: Some studies from the Indian caves. 16th -20th March 2018, Manipur University, Imphal.
18. Baskar R and Baskar S (2017). "Introducing Microbiology in Earth System Science", National Seminar on "Challenges and Opportunities in Earth Science Education and Research", Department of Studies in Earth Science, University of Mysore, Mysore, Karnataka, 29-30 January 2018. (Keynote address).
19. Baskar S and Baskar R (2017). "Ecorestoration potential of microbes isolated from some Indian caves", National Seminar on "Challenges and Opportunities in Earth Science Education and Research", Department of Studies in Earth Science, University of Mysore, Mysore, Karnataka, 29-30 January 2018.
20. Baskar R and Baskar S (2017). Microorganisms and Climate Change: Some Highlights, National Conference on Climate Change and Sustainable Clean Environment. Central University of Haryana, Haryana, 22-23 November 2017 (Keynote address).
21. Baskar S and Baskar R (2017). Leptothrix Induced Iron Biomineralization at Borra Caves, India, National Conference on Climate Change and Sustainable Clean Environment. Central University of Haryana, Haryana, 22-23 November 2017
22. Baskar R and Baskar S (2017). Microbes as geochemical agents: Some studies from the Indian caves. AMI, Lucknow, 16-19 November 2017 (Lead talk).
23. Baskar S and Baskar R (2017). Biocalcifying abilities of some microbes identified from caves in Chhattisgarh, India: Applications in sustainable management. AMI, Lucknow, 16-19 November 2017.
24. Baskar R and Baskar S (2017). Cave microbes as geochemical agents: Some studies from the Indian caves. National Seminar on Recent advances and challenges in Geochemistry, Environmental and Sedimentary Geology, 27th February 2017, Aligarh Muslim University, Aligarh. (Invited talk)
25. Baskar S and Baskar R (2017). Biosignatures from Borra Caves, India. National Seminar on Recent advances and challenges in Geochemistry, Environmental and Sedimentary geology, 27th February 2017, Aligarh Muslim University, Aligarh.
26. Baskar S and Baskar R (2017). Biocalcification abilities of microorganisms identified from some caves in Meghalaya: Potential for Eco-restorative applications. National Conference on Environmental Sustainability in Wastewater Remediation: Current Status and Future Prospects, 19th-20th January 2017, Sri Venkateswara College, University of Delhi, Delhi.
27. Baskar R and Baskar S (2017). Microbes identified from different Indian caves: Their roles and potential applications. Indian Science Congress, 3-7th January 2017, S.V. University, Tirupathi.
28. Baskar S and Baskar R (2017). Biosignatures in speleothems from Krem Syndai, Meghalaya. Indian Science Congress, 3-7th January 2017, S.V. University, Tirupathi.
29. Baskar R and Baskar S 2016. Integrating Microbiology and Geology in the teaching and research in the Indian curriculum. AMI, Guwahati 24th -27th November 2016 (Invited talk).
30. Baskar S and Baskar R 2016. Calcite biomineralization by *Cupriavidus sp.* isolated from Rani caves, Chattisgarh. AMI, Guwahati 24th -27th November 2016.
31. Baskar R and Baskar S 2016. Rocks and human health. Recent trends in Health Care, GJUST, Hisar, 14th March 2016.
32. Baskar R and Baskar S (2016). Cave Biosignatures and their significance: Some observations in the Indian caves. Indian Science Congress, 3-7th January 2016, University of Mysore, Karnataka (Invited talk).
33. Baskar S and Baskar R (2016). Moonmilk deposits at Krem Mawmluh and Sahastradhara cave, India: An Overview. Indian Science Congress, 3-7th January 2016, University of Mysore, Karnataka.
34. Baskar S and Baskar R (2015). A comparison of the different sample preparation techniques used in SEM: A case study of iron mats in Borra caves. 56th International Annual Conference of The Association of microbiologists of India (AMI-2015), 7th – 10th December, Jawaharlal Nehru University, New Delhi.
35. Saroha S, Baskar S and Baskar R (2015). Calcite precipitating bacteria from caves in Chattisgarh. 56th International Annual Conference of The Association of microbiologists of India (AMI-2015), 7th – 10th December, Jawaharlal Nehru University, New Delhi.

36. Swati, Prasad M, Baskar S, Baskar R, Pawan K, Lambe U, Madhusudan. (2015). Isolation and characterization of microbes from unexplored Rani caves and their putative biomedical applications. National Seminar on "Translational research in biotechnology for improving animal health and production", 3rd Annual meeting of society of veterinary science and biotechnology, October 7th – 8th 2015, Department of Veterinary microbiology and biotechnology, College of Veterinary and Animal Science, Rajasthan University of Veterinary and Animal Science, Bikaner, Rajasthan.
37. Baskar R and Baskar S (2015). Microbes and climate change: some reported facts. 4th Convention on Climate Change & Water 16th – 17th Oct 2015, Suresh Gyan Vihar University, Jaipur, Rajasthan.
38. Baskar S, Rupini B, Baskar R, Biswas PK. (2015). Environmental Education through the Open and Distance Learning System: A Need Assessment Study. National Seminar on Open Distance Learning in India: Present Status & Future Prospects. September 29-30, 2015, IGNOU, Maidan Garhi, New Delhi 110068.
39. Baskar S and Baskar R. 2015. Speleothems from Krem Mawsmai, Meghalaya, India: Some biogenic evidence, ISCA, Mumbai.
40. Baskar R and Baskar S. 2015. Introducing Microbiology in the Indian Earth System Science Curriculum: A game changing decision, ISCA, Mumbai (Invited talk).
41. Baskar S and Baskar R (2014). Linkages between iron in an organic mat and bacteria from Borra cave, India. National conference on empowering mankind with microbial technologies (AMI-EMMT 2014), Association of microbiologists of India 55th conference, 12th – 14th November 2014, Tamil Nadu Agricultural University, Coimbatore, Tamil Nadu.
42. Baskar R and Baskar S. 2014 Need for Integrating Microbiology in Earth System Sciences Education, 5th-9th September 7th International Conference in Geoscience Education, Hyderabad, p.5.
43. Mudgil D, Baskar S, Baskar R and Saroha S 2014 An initial geomicrobiological report on the Rongai Dobhakhhol Cave, Garo Hills, Meghalaya, National Conference On Pollution Mitigation For a Sustainable Future, 26 March 2014, MDU, Rohtak.
44. Baskar S and Baskar R. 2014. Bacterial involvement in Iron precipitation from Borra caves, Andhra Pradesh: Some evidence, ISCA, Jammu.
45. Baskar R and Baskar S. 2014. Cave geomicrobiology in India: A frontier area of research, ISCA, Jammu.
46. Mudgil D, Baskar S and Baskar R 2013 Geomicrobiological studies on Siju caves, Garo Hills, Meghalaya, India: Some initial results, 54th Association of Microbiologists of India (AMI), Rohtak.
47. Saroha S, Baskar S and Baskar R 2013 Initial results from Kotumsar caves, Chattisgarh, India: some preliminary evidence of microbe-mineral association, 54th Association of Microbiologists of India (AMI), Rohtak.
48. Baskar R and Baskar S. 2013. Cave bio-signatures from Borra Caves, Visakhapatnam, India: some possible astrobiological relevance. ISCA, Kolkatta
49. Baskar S and Baskar R. 2013. Eco-restorative applications of some microorganisms identified in Meghalaya caves. ISCA, Kolkatta.
50. Baskar, S and Baskar, R 2012. Microbial Diversity of Cave Ecosystems: A study of the iron mats of the Borra Caves, Andhra Pradesh, India. Second National Conference on Environment and Biodiversity of India (EBI), 29-30th Dec 2012, New Delhi.
51. Baskar S, Baskar R and Kaushik, A. 2012. Biocalcification by cave microbes: Eco-restorative Applications. Strategies for mitigation of environmental degradation and climate change, GJUST, Hisar (2nd -3rd March) p.135.
52. Baskar S, Baskar R and Kaushik, A. 2012. Initial geomicrobiological report on Syndai Cave Ecosystem, Jaintia Hills, Meghalaya: Some SEM observations. ISCA, Bhubaneswar.
53. Baskar R and Baskar S 2012. Role of geomicrobiology in enhancing understanding of earth processes: Some solid examples. ISCA, Bhubaneswar.
54. Baskar S, Baskar R, Rana D, Panghal S and Dhanda Y 2011. A report on geomicrobiology of Mawmluh caves, Meghalaya. Multidisciplinary approaches in frontier areas of Environmental Science and Engineering. Department of Environmental Science and Engineering, Guru Jambheshwar University of Science and Technology, Hisar (4-5th March) p.167.
55. Baskar S, Baskar R, Kaur A, Singh K and Srivastava R, Panghal S and Dhanda Y 2011. A report on geomicrobiological studies of Sahastradhara caves, Dehradun. Multidisciplinary approaches in frontier areas of Environmental Science and Engineering. Department of Environmental Science and Engineering, Guru Jambheshwar University of Science and Technology, Hisar (4-5th March) p.168.
56. Baskar S, Baskar R and Mudgil, D 2011. A report on some aspects of geomicrobiology studies of

- Dharamsala caves, Dharamshala. Multidisciplinary approaches in frontier areas of Environmental Science and Engineering. Department of Environmental Science and Engineering, Guru Jambheshwar University of Science and Technology, Hisar (4-5th March) p.168.
57. Baskar S and Baskar R. 2011. Microbial diversity of spring mats from Borra caves, Vishakapatnam. Multidisciplinary approaches in frontier areas of Environmental Science and Engineering. Department of Environmental Science and Engineering, Guru Jambheshwar University of Science and Technology, Hisar (4-5th March) p.167.
 58. Presented a paper "Geomicrobiology: Applications in Earth and Beyond" in the National Workshop on "Application of microbiology for human welfare" (09.02.2008) at Baba Farid Institute of Technology, Dehra dun.
 59. Haritash, A.K, Baskar. R and Kaushik, C.P 2006. Impact of stone mining on environment in Haryana, National seminar on "Environmental stresses and biodiversity", November 8-9, 2006, K.V.A. D.A.V College for Women, Karnal, India, p 68.
 60. Baskar S, Baskar. R. and Kaushik. A 2003. Mineralogy and geomicrobiology of the Konkan-Goa laterites, National seminar on "Emerging environmental issues and technological challenges", September 1-2, Guru Jambheshwar University, Hisar, India, pp. 13-14.
 61. Baskar S, Baskar. R. and Umashankar, Sandeep Jain, Vikas, Haritash. A.K and Baskar. R 2003. Soil quality status of Mining area, Haryana, National seminar on "Emerging environmental issues and technological challenges", September 1-2, 2003, Guru Jambheshwar University, Hisar, India, pp.41-42.
 62. Haritash, A.K, Patwal, S, Nirmal and, Baskar. R. 2003. Impact of stone mining on environment, Haryana, National seminar on "Emerging environmental issues and technological challenges", September 1-2, 2003, Guru Jambheshwar University, Hisar, India, pp.153-154.
 63. Baskar S, Baskar. R. and Kaushik. A 2002 A study of the mineralogical changes in the Konkan-Goa Laterites using XRD. National Seminar, Indian Association of Sedimentologists, Nov. 6-8, Aligarh Muslim University, Aligarh, India, p. 12.
 64. Baskar S, Baskar. R. and Kaushik. A 2002 Geochemical behaviour of major and trace elements in laterites from Konkan-Goa coastal Belts, India. International Symposium on Applied Geochemistry in the coming decades, August 10-12, 2001, Osmania University, Hyderabad, India, p.36.
 65. Baskar, R 1996 Geochemical environment for the occurrence of rare metals: a study of peralkaline Siwana granites, W. Rajasthan, India. Seminar on "Environmental management- challenges and strategies", Guru Jambheshwar University, Hisar, India, March 8-9, 1996. p.60.
 66. Baskar, R 1994 Mineralogical and Geochemical profile of Siwana granites, Barmer district, Rajasthan, India. National symposium on Applied Geochemistry, March 23-25, 1994, Madras, India, p.50.
 67. Baskar, R., Vallinayagam, G., and Kochhar, N 1993 Chemical nature of the Siwana granites and the associated acid volcanics, Barmer district, Western Rajasthan, India. Proc. ISCA, 80th session of the Indian Science Congress, Goa-1993.
 68. Vallinayagam, G., Baskar, R and Kochhar, N. 1990 Petrology and geochemistry of the alkali granites and the associated acid volcanics around Mokalsar-Mawri area, district Barmer, Western Rajasthan, India. Proc. ISCA, 77th session of the Indian Science Congress, Cochin-1990.

Webinar

1. Webinar on "Climate Action for Sustainable Planet" Earth day, 22 April 2020, Amity University, Noida, Lecture on "Microbes and Climate Change".
2. Webinar on "Environmental Law" PGDEOH, IGNOU, New Delhi, 22nd May 2020
3. Webinar on "Microbes and Climate Change", Chaudhary Bansi Lal University Bhiwani, Department of Geography, Faculty of Earth, Environment and Space, Faculty Development Programme on "Earth, Environment and Space Sciences for Mankind, 24 May 2020
4. Webinar on "Environmental Perspective of COVID-19", Lecture on COVID-19 and its linkages with the environment, 5th June 2020, Sanatan Dharma College, Ambala.
5. National Webinar on "on "Holistic Approach for Sustainable Environment- Post Covid-19", Lecture on COVID-19 and its linkages with the environment, 5th June 2020, IGNOU, New Delhi.
6. Webinar meeting, Department of Education, Lecture on COVID-19 and its linkages with the environment, 6th June 2020, AMU, Aligarh.
7. Webinar on "Disaster Management with special reference to Flood Disaster", 15th July 2020, Department of Environmental Science, Government degree college for Women, Anantnag, Jammu and Kashmir.
8. Webinar Lecture on "Some Emerging areas in Geology: Geomicrobiology, Medical Geology,

- Agrogeology and Forensic Geology”, BSc (Geology), SOS, IGNOU, New Delhi, 15th August 2020.
9. Webinar Lecture on “Some aspects of Environmental Law, Appreciation Course on Environment, SOS, IGNOU, New Delhi, 16th September 2020.
 10. Webinar Lecture on “Landslide Education”, 28th -29th October 2020, International Workshop on Assessment and Mitigation of Landslides in the Himalaya, Wadia Institute of Himalayan Geology, Dehradun.
 11. Webinar Lecture on “COVID 19 and Environment, Appreciation Course on Environment, SOS, IGNOU, New Delhi, 17th March 2021.
 12. Webinar Lecture on “Sustainable Development Goals”, VIBHA (Hisar chapter) in collaboration with GJUST, Hisar, World Environment Day, 7th June 2021.
 13. Webinar Lecture on Life Earth Interactions, Pt. R S University, Raipur and Government V Y T P G Autonomous College, Durg 21st October 2021.
 14. Lecture on “Importance of Disaster Education”: 2nd International Webinar on Natural Hazards and Management, 22-23 November 2021 organized by Bundelkhand University, Jhansi; Institute of Geology, Karelian Research Centre, Russian Academy of Sciences, Petrozavodsk, Russia and Government Degree College, Gururabanj, Almora, Uttarakhand.
 15. Invited speaker and moderator, Tribal communities and the Environment, India International Science Festival (IISF), Goa, organized by DBT along with MoES and VIBHA, 12th December 2021 (online).

Popular / General Articles

1. Baskar, R (1994). Antarctica blues, Down to Earth, Vol 3, No 7, August 31, 1994, pp.39-40.
2. Are we heading towards doomsday? S Baskar, R Baskar and Dharam Vir, Haryana Review, July 2010, vol 24, issue7 p 6-8. Edited and published for Govt of Haryana by the Dept of Information, Public relations and Cultural affairs, issued from Samvad.
3. Workshop on Geomicrobiology and Microbe-Sediment Interaction-A Report, R. Baskar and S Baskar, Jour.Geol.Soc.India, vol 76, Nov.2010.
4. Survival Compels Introduction of Geology in Indian School Education by R. Baskar and R. Shankar, India International Geoscience Education Organization (IGEO) Newsletter, Vol. 1/12,2012, p 8-9.
5. Forests, pieces of heaven on earth by S Baskar, R Baskar and Dharam Vir, Haryana Review, March 2012, vol 26, issue 3 p 30-31. Edited and published for Govt of Haryana by the Dept of Information, Public relations and Cultural affairs, issued from Samvad.
6. Let’s have an eco-friendly holi by S Baskar, R Baskar and Dharam Vir, Haryana Review, March 2012, vol 26, issue 3, p 55. Edited and published for Govt of Haryana by the Dept of Information, Public relations and Cultural affairs, issued from Samvad..
7. Why we should observe World Wetlands Day? by S Baskar, R Baskar and Dharam Vir, Haryana Review, February 2013, vol 27, issue 2, p. 48-49. Edited and published for Government of Haryana by the Dept of Information, Public relations and Cultural affairs, issued from Samvad.
8. Geobiology and Geomicrobiology: Frontier areas in Earth System Science by R Baskar, Journal Geological Society of India, Volume 81, Number 1, Jan 2013, 147-148p).
9. L’Aquila earthquake prediction judgment: an eye-opener, R. Baskar and S. Baskar, Current Science, Vol. 104, No. 8, 25 April 2013, 1003-1004 p.
10. Why do we observe Earth Day? by Sushmitha Baskar, R Baskar and Dharam Vir, Submitted to Haryana Review. Edited and published for Govt of Haryana by the Dept of Information, Public relations, and Cultural affairs, issued from Samvad.
11. Incredible IESO in incredible India by R. Shankar and R. Baskar, India International Geoscience Education Organization (IGEO) Newsletter, 2013, Vol.1/14 , 2014, 4-5 p.
12. Cave Biosignatures on Earth: Implications for Extraterrestrial life by S Baskar and R Baskar, PRL Newsletter, Vol. 5 , Issue-3, July 2015, 16-20p.
13. Workshop in INSA on Knowledge for Flood Disaster Risk Reduction (DRR) in India-Siddhartha Kumar Lahiri and R Baskar (2017), JGSI, vol 89, p. 485-486.
14. Published in Current Science-Seaweed to Clean Water-Science Last Fortnight 25 April 2017, vol 112, 8, 1618-1621.
15. Published in Current Science-Defluoridating Water-Science Last Fortnight 10 May 2017, vol 112 , 9, 1798-1801.
16. Published in Current Science-Solar Water Stills-Science Last Fortnight 25 May 2017, vol 112, 10, 1982-1985.
17. Published in Current Science-Fly Ash in Embankments-Science Last Fortnight 10 June 2017, vol 112,

- 11, 2177-2180.
18. Published in Current Science-Chromium removal from Water-Science Last Fortnight 25 June 2017, vol 112, 12, 2353-2356.
 19. Published in Current Science-Arsenic in rice-Science Last Fortnight 25 July 2017, vol 113, 2, 198-201.
 20. Published in Current Science-Pollution and Rationing Traffic-Science Last Fortnight 10 August 2017, vol 113, 3, 370-373.
 21. Published in Current Science-Flexible and Disposable Batteries-Science Last Fortnight 25 August 2017, vol 113, 4, 540-543.
 22. STEAM India Reports-freelance reporter on advances in Science, Technology, Environment, Agriculture and Medicine.
 23. Published in Current Science-Oil spill in Chennai Coast-Science Last Fortnight 10 June 2018, vol 114, 11, 2224-2227.
 24. Published in Current Science-Carcinogens in the Ganga-Science Last Fortnight 25 June 2018, vol 114, 12, 2420-2423.
 25. Published in Current Science-E-waste Recycling- Science Last Fortnight 10 July 2018, vol 115, 1, 11-14.
 26. Published in Current Science-Brick Manufacturing -Using Water Hyacinth- Science Last Fortnight 25 July 2018, vol 115, 2, 194-197.
 27. Published in Current Science-Polycyclic Aromatic Hydrocarbons- PM2.5 adds to burden of disease - Science Last Fortnight 10 August 2018, vol 115, 3, 372-375.
 28. Published in Current Science - Combo for heavy metal pollution- The right plants and earthworms- Science Last Fortnight 25 August 2018, vol 115, 4, 600-603.
 29. STEAM India Reports-Maximizing Wind Energy, Hair dyes as pollutants.
 30. STEAM India Reports-Particulate Matter Matters: How five cities breathe
 31. Geological Survey of India proposes introduction to school geology course to 'catch them young and attract talent', IGEO April 2019 Newsletter (p.13)
 32. Published in Current Science – Bengal Gram Husk - Adsorbing organic dyes- Science Last Fortnight 25 May 2019, vol 116, 10, 1620-1623.
 33. STEAM India Reports-Travel and Multitasking- Digital and Social divide.
 34. Published in Current Science – Cyanide Degrading Bacteria - Containing water contamination- Science Last Fortnight 25 December 2019, vol 117, 12, 1936-1939.
 35. IGEO Report, April 2020 Report from India by R Baskar and R Shankar
 36. Gina P. Correia, Giulia Realdon, Guillaume Coupechoux, Xavier Juan, Ramanathan Baskar, Yamina Bourgeois and Chris King. 2020. Geoscience Education Field Officer international programme: The first year of activity (May 2019 – April 2020). No 10, August/September 2020; The Association for Science Education, UK.
 37. Published in Current Science – Murrah Buffalo Fertility – Fermented yeast fortify feed- Current Reports 25 September 2020, vol 119, 6, 889-892.
 38. Published in Current Science – Vitamin B 12 deficiency – Dietary habits- Current Science Reports 10 October 2020, vol 119, 7, 1069-1072.
 39. Published in Current Science – Groundwater contamination – In Chidambaram- Current Science Reports 25 October 2020, vol 119, 8, 1237-1240.
 40. Published in Current Science – Blue Ice in Antarctica – Preserving extra-terrestrial dust- Current Science Reports 10 November 2020, vol 119, 9, 1397-1400.
 41. Giulia Realdon, Guillaume Coupechoux, Gina P. Correia, Xavier Juan, Ramanathan Baskar, Yamina Bourgeois and Chris King, 2020. EGU (European Geosciences Union) Education Field Officer programme: teachers' appreciation, perceptions and needs, European Geologist Journal.
 42. Giulia Realdon, Gina P. Correia, Xavier Juan, Guillaume Coupechoux, Ramanathan Baskar, Yamina Bourgeois and Chris King, 2021. Watery world - hands-on experiments from Earthlearningidea, Science in School, The European journal for Science teachers, issue 54, 1 September 2021.

Workshops / Training Programs / Refresher Courses attended

International

1. Deep water sediments: Modern and Ancient (17.1.95 to 19.1.95), Institute of Fundamental Studies, Kandy, Sri Lanka.
2. International FISH Course "In Situ Detection of Microbial Structure and Function in the Environment" (15.7.2007-21.7.2007), Technical University of Munich, Freising, Germany.
3. Astrobiology Workshop (29.09.2008-30.09.2008), Centre for Geobiology (CGB), University of Bergen,

Bergen, Norway. Presented a paper "Cave bio-signatures from some Indian caves: Applications beyond Earth".

4. International workshop on Geobiology (20.10.08-22.10.2008), Centre for Geobiology (CGB), University of Bergen, Bergen, Norway. Poster presentation: Baskar S, Baskar R, Thorseth I H, Øvreas L, Pedersen R B, Lee N M and Routh J. Microbial iron precipitation in an organic mat associated with a neutrophilic spring of Borra caves, Vishakapatnam, India: A SEM and TEM approach
5. AEON-CGB Barberton Early Earth Workshop (24.11.08-25.11.2008), Centre for Geobiology (CGB), University of Bergen, Bergen, Norway.
6. Geobiotechnology training (18.02.2014-28.02.2014), VTT, Finland.
7. International course "Characterization and Engineering of Karst Aquifers" held at Trebinje, Bosnia and Herzegovina, 1-8 June 2017.
8. 25th International Karstological School "Classical Karst": Milestones and challenges in Karstology (Postojna, June 19 to 23, 2017).

National

1. Databases, Numerical methods and Computer Applications in modern approach to Petrology (11.5.93 to 31.5.93), SERC school (Science and Engineering Research Council), Department of Science and Technology, Government of India, Department of Geology, University of Delhi, Delhi, India.
2. Intensive training course for four weeks in Petrology, (1994) Department of Science and Technology, Government of India, University of Delhi, Delhi, India.
3. Analytical techniques and data interpretation in Petrology (14.2.94 to 25.2.94), Wadia Institute of Himalayan Geology, Dehradun, India.
4. Orientation course in Natural Science (22.7.96 to 16.8.96), Academic Staff College, Jawaharlal Nehru University, New Delhi.
5. Databases, Numerical methods and Computer modelling as an approach to modern Petrology (23.3.99 to 7.4.99), SERC school (Science and Engineering Research Council), Department of Science and Technology, Government of India, Department of Geology, University of Delhi, Delhi, India.
6. Refresher course in Environmental Education (8.12.99 to 28.12.99), Devi Ahilya University, Indore, India.
7. National Workshop on Teacher Education (9.2.01 to 18.2.01), Environmental Sciences (Environmental Magnetism), Mangalore University, Mangalore, India.
8. Patent Awareness Workshop (25th August 2001), Guru Jambheshwar University, Hisar, Haryana, India.
9. Accelerator Mass Spectroscopy (5th October 2001), Nuclear Science Center, New Delhi, India.
10. Refresher course in Environmental Sciences (2.9.02 to 22.9.02), Guru Jambheshwar University, Hisar, Haryana, India.
11. Refresher course in Earth System Science (25.6.2005 to 6.7.2005), Indian Academy of Sciences, Bangalore, India.
12. Accelerator Mass Spectroscopy (23rd September 2005), Inter-University Accelerator Centre, New Delhi, India.
13. Workshop on Sustainable Resource Management (27.04.2007), DAAD, India International Centre, New Delhi, India.
14. Staff Development Programme on Hydropower and Environment, All India Council for Technical Education (AICTE), New Delhi (18.6.2007 to 29.6.2007) G B Pant University of Agriculture & Technology, Uttarakhand, India.
15. Workshop on E-waste management (25.10.07), Guru Jambheshwar University of Science and Technology, Hisar, Haryana, India
16. Workshop on Nuclear Energy and Environment (15.12.07), Guru Jambheshwar University of Science and Technology, Hisar, Haryana, India
17. National Workshop on "Application of microbiology for human welfare" (09.02.2008) at Baba Farid Institute of Technology, Dehra dun.
18. Public awareness programme on "Atom for Peace", Indian Association for Radiation Protection (15.4.08-17.4.08), Guru Jambheshwar University of Science and Technology, Hisar, Haryana, India.
19. DST workshop in Geomicrobiology (19th August 2010), MS University of Baroda, Gujrat.
20. National Workshop on Chemistry in our lives, March 14, 2011, GJUST, Hisar.
21. National Workshop on Recent trends in Engineering Technology, March 15, 2011, GJUST, Hisar.
22. Work on "Content Development for Distance Learning", March 17-19, 2011, GJUST, Hisar.

23. Workshop on “Intellectual Property Rights and Technology Commercialization” (18.03.2013), Guru Jambheshwar University of Science and Technology, Hisar, Haryana, India.
24. Workshop on “Emerging trends in quality education: The road ahead”, August 29-30, 2013, Guru Jambheshwar University of Science and Technology, Hisar, Haryana, India.
25. MHRD’s National Mission for Teachers and Administrators on “Management Capacity Enhancement Programme” 12-18 January 2014, Indian Institute of Management, Indore.
26. Workshop on “Research Innovations and intellectual Property Rights: Strategies and Challenges for Technology Commercialization” (21.02.2015), Guru Jambheshwar University of Science and Technology, Hisar, Haryana, India.
27. TEQIP short term course on “Soil Health and Food Security”, 7-11 December 2015, IIT Delhi.
28. Participated in the Green Educator’s Network (1st Knowledge Conclave for Colleges and Universities) organized by Centre for Science and Environment, New Delhi, January 28th -29th, 2016.
29. Workshop on Knowledge for Flood Disaster Risk Reduction (DRR) in India, 10th -12th February 2017, INSA, New Delhi.
30. Participated in the Green Educator’s Network (2nd Knowledge Conclave for Colleges and Universities) organized by Centre for Science and Environment, New Delhi, March 6th -7th, 2017.
31. Science Writing Workshop, 3-8 April 2017, Indian Academy of Sciences, Current Science Association, Bengaluru.
32. Attended National Workshop on Risk and Resource Mapping-Data bases and GIS Enabled system, 11 May 2017, NIDM, New Delhi.
33. Attended CII Public Health Conference-“Redressing 21st Century Health Challenges-Fostering Public Private Collaborations”, 22 Aug 2017, Hotel The Lalit, New Delhi.
34. Short course on Challenges and Advances in Planetary Sciences, 18-22 September 2017, IISc Bengaluru.
35. Attended CII “Inverterization for Energy Efficiency: Technology, Applications and Opportunities”, 26 September 2017, LE Meridien, New Delhi.
36. Participated in the Green Educator’s Network (3rd National Knowledge Conclave for Colleges and Universities) organized by Centre for Science and Environment, AAETRI campus, Nimli, Rajasthan, Jan 30th to Feb 2nd, 2018. Host for the session: In Conversation with Sunita Narain.
37. Training course ‘Early Warning and Communication’, 18th to 22 June 2018, National Institute of Disaster Management, Ministry of Home Affairs, New Delhi.
38. How to create E-content: A one day Swayam Workshop for NRC’s, 11 July 2018, New Delhi Institute of Management, New Delhi.
39. Training program on ‘Role of Technology in Community Level Disaster Mitigation for Scientists and Technologists’, August 20th to 24th 2018, Centre for Disaster Management, Lal Bahadur Shastri National Academy of Administration, Mussoorie.
40. National level Training Programme on “Drought Mitigation and Management” from 22-26 October 2018 at NIDM South Campus, APHRDI Bapatala, Andhra Pradesh.
41. Participated in the Workshop on ‘Northern Regional Conclave on Green Sense: Educational Campus Inventory’ at Guru Nanak Dev University, Amritsar, Organised by the Centre for Science and Environment from 15-16 November 2018.
42. Workshop cum Orientation on Leadership in Educational Administration for Academic Administrators in Universities and Colleges, January 14-16, 2019, National Institute of Educational Planning and Administration (NIEPA), New Delhi.
43. Blended Capacity Building Programme on “Climate Smart Governance”, sponsored by DST, 28th January to 1st February 2019, Indian Institute of Public Administration, New Delhi.
44. Participated in the Green Educator’s Network (4th National Knowledge Conclave: Climate Change) organized by Centre for Science and Environment, AAETRI campus, Nimli, Rajasthan, March 4th to 7th, 2019.
45. Training course on “Landslide Mitigation and Detailed Project Report (DPR) Preparation”, 18-19 March 2019, National Institute of Disaster Management, Ministry of Home Affairs, New Delhi.
46. Professional Development Training (PDT) at IIM Visakhapatnam, 26-30 August 2019.
47. Participated in the Green Educator’s Network (5th National Knowledge Conclave: Climate Change) organized by Centre for Science and Environment, AAETRI campus, Nimli, Rajasthan, 28th to 31st January 2020.
48. AICTE Experts training programme, AICTE New Delhi, 27th February 2020.
49. NAAC-Virtual Assessors Orientation Program, 19th and 20th July 2021.

50. Induction cum Orientation Programme, Staff Training and Research Institute of Distance Education (STRIDE), IGNOU, New Delhi, October 22-28, 2021.
51. NAAC Webinar on National Education Policy 2020, 12th November 2021
52. Orientation Programme cum Workshop on 'SWAYAM, SWAYAM PRABHA and Online Programmes of IGNOU' during 25th - 26th November, 2021, Centre for Online Education (COE), IGNOU, New Delhi.

Conferences / Seminars / Training programs / Orientation / Refresher courses organized

1. Member, Organizing Committee-National Seminar on Environmental Management: Challenges and Strategies, GJU, March 8-9, 1996.
2. Member, Organizing Committee- National Seminar on Challenges in Higher Education in India, GJU, March 3-4, 2001.
3. Member, Organizing Committee- First Refresher Course in Environmental Science and Engineering, GJU, 2001.
4. Member, Organizing Committee- Second Refresher Course in Environmental Science and Engineering, GJU, 2002.
5. Member, Organizing Committee- National Seminar on Human Rights and Duties: Challenges in the New Millennium, GJU, April 27-28, 2002.
6. Member, Organizing Committee- National Seminar on Emerging Environmental Issues and Technological Challenges, GJU, September 1-2, 2003.
7. Organizing Secretary "Ozone awareness week"; 16-23, September 2006, under the auspices of TEQIP (World Bank), GJUST, Hisar.
8. Coordinator, 1st Orientation Course, Academic Staff College, GJUST, 17.6.09 to 27.6.09.
9. Coordinator, 2nd Orientation Course, Academic Staff College, GJUST, 14.9.09 to 10.10.09
10. Organizing Secretary, National Conference on Multidisciplinary approach in frontier areas of Environmental Science and Engineering, March 4-5, 2011.
11. Organizing Secretary, Earth day celebrations, GJUST, Hisar April 21-22, 2011.
12. Organizing Secretary, National Workshop on Save Mother Earth, April 22, 2011.
13. Member, Organizing Committee-National conference on Strategies for mitigation of environmental degradation and climate change, GJUST, Hisar (2nd -3rd March), 2012.
14. Convener, "Ozone awareness week"; 16th-23rd September 2012, GJUST, Hisar.
15. Coordinator, UGC sponsored training program on Disaster Management, Academic Staff College, GJUST, 14.02.13 to 16.02.13.
16. Convener, "Ozone awareness week"; 16th-23rd September 2013, GJUST, Hisar.
17. Coordinator, UGC sponsored Special Winter School on Disaster Management, Academic Staff College, GJUST, 13.11.13 to 03.12.13
18. Organizing Secretary, Earth day celebrations, GJUST, Hisar April 22, 2014.
19. Organizing Secretary, Earth day celebrations, GJUST, Hisar April 22, 2016.
20. Co-ordinator Science Writing Course, Guru Jambheshwar University of Science and Technology, Hisar, Nov 23rd to 29th, 2017.
21. Coordinator, Refresher Course in Research Methodology, HRDC, GJUST, 15.11.18 to to 05.12.2018
22. Webinar Chair, World Environment Day, Department of Environmental Science and Engineering, GJUST, Hisar 5th June 2020.
23. Webinar Coordinator, International Day for Disaster Risk Reduction, Department of Environmental Science and Engineering, GJUST, Hisar 13th October 2020.
24. Hosted the virtual Annual General Meeting (AGM-2021) of the Geological Society of India, Bangalore, coinciding with a virtual National Conference on "Disaster Management with a focus on Geohazards" (23rd and 24th September, 2021) along with NIDM, New Delhi.
25. International Disaster Day 13th October , Organized by School of Sciences in collaboration with National Institute of Disaster Management: Moderator Prof R Baskar

Research Projects

1. Awarded UGC major research project (Rs 3,29,080) (1998-2002) "Mineralogy, geochemistry and genesis of lateritic profiles in Konkan-Goa coastal belts and adjoining uplands".
2. Awarded UGC major research project (Rs 7,01,600) (1.4.2006-30.9.2009) "Geomicrobiology of speleothems, Meghalaya caves, Meghalaya, India".
3. Awarded University minor project (Rs 30,000) (1.1.2010 to 31.12.2010) "Geomicrobiological investigations on speleothems from Dharamshala caves, HP, India".
4. Awarded UGC major research project (Rs 10,57,640)(1.2.2011-31.1.2014) "Geomicrobiological

processes in the subsurface Ecosystems: A study of speleothems from Garo Hills, Meghalaya”

5. Awarded University minor project (Rs 60,000) (24.11.2014 to 31.03.2015) “Mineral-microbe interactions in Rani Caves from Chattisgarh, India”.
6. Swedish South Asian Studies Network (SASNET) planning grant for a research project titled “Biogeochemical signatures and high-resolution paleoclimatic records in speleothems from caves in Meghalaya (India)” collaborative projects with Dr Joyanto Routh, Stockholm University, Stockholm.

Academic Awards/ Honors

1. Awarded Merit certificate in B.Sc. for securing Vth position.
2. Awarded Junior Research Fellowship (1988-1990), Department of Science and Technology, Government of India, Panjab University, Chandigarh, India.
3. Awarded Dr. K.S. Krishnan Research Fellowship (1990), Department of Atomic Energy, Government of India, Panjab University, Chandigarh, India.
4. Awarded Certificate in French (1985) (First Division), Punjab University, Chandigarh, India.
5. Awarded Distinction in M.Phil (Second Position), Punjab University, Chandigarh, India.
6. Awarded ICSC World Laboratory Scholarship (1990-1991) by Members of the International Committee “Science for Peace”, University of Paris-Sud, France.
7. Awarded Senior Research Fellowship (1992-1993), Council of Scientific and Industrial Research, Government of India, Panjab University, Chandigarh, India.
8. Awarded Research Associate ship (1993), Department of Ocean Development, Government of India, Wadia Institute of Himalayan Geology, Dehra Dun, India.
9. Awarded Research Associate ship (1993-1995), University Grants Commission, School of Environmental Sciences, Jawaharlal Nehru University, New Delhi.
10. Academic Guest, Swiss Federal Institute of Technology (ETH), Zurich, Switzerland (1.11.2003-4.7.2004).
11. Academic Guest, Technical University of Munich, Freising, Germany (15.7.2007-21.7.2007).
12. Academic Guest, Norwegian Centre for Excellence, Centre for Geobiology, Bergen, Norway (5.08.2008-9.4.2009).
13. Academic Guest, Department of Geology and Geochemistry, Stockholm University, Sweden (1.07.2009-23.8.2009).
14. Nominated as an Observer by the Geological Society of India, Bangalore in the Indian team to the IESO (International Earth Science Olympiad), held in Buenos Aires, Argentina, October 8-12, 2012.
15. Felicitated at the Tata Institute of Fundamental Research (HBCSE) (Dec 22, 2012) being one of the team leaders from India, who participated in International Earth Science Olympiad, Argentina, 2012.
16. Leader of the Indian team for the 7th International Earth Science Olympiad, Mysore, September 11-19, 2013, nominated by the Geological Society of India, Bangalore.
17. Felicitated at the Tata Institute of Fundamental Research (HBCSE) (Dec 22, 2013) being the team leader from India, who participated in International Earth Science Olympiad, Mysore, India, 2013.
18. Academic Guest, VTT, Finland (18.02.2014-28.02.2014).
19. Academic Guest, Institute of Geological Sciences, Jagiellonian University, Krakow, Poland (20.10.2017 to 31.10.2017).
20. Academic Guest, Slovak Caves Administration, Slovakia (24.10.2017 to 27.10.2017).
21. Felicitated by the Chhattisgarh Council of Science and Technology, Raipur for Outstanding contribution in the field of Environmental Sciences, February 27th and 28th, 2018.
22. IUGS-IGEO Geoscience Education Field Officer 2019, conferred honorary appointment in EGU, Vienna, 2019.
23. Council Member, Geological Society of India, Bangalore (for the triennium 2019-2022).
24. Research Advisor of the Asia-Pacific Science Center (APACSCI) w.e.f 13th January 2020, Singapore.
25. Member, Steering Committee for the Global Network for Geoscience and Society, Geology in the Public Interest (GPI), Washington, 23rd June 2021.
26. Member, Awards Nomination Committee, Geological Society of India (2021-2022)
27. Member, Technical Advisory Committee, Geology in the Public Interest (GPI), Washington, 29th July 2021.
28. Member, Geoscience Education Subcommittee, Global Network for Geoscience and Society, Geology in the Public Interest (GPI), Washington, 30th June 2021.

Visits abroad for Research/ lectures/ Conferences/ Workshops/ Outreach activities/ Field work/ Training programs

His interest in academics is reflected by his active participation in several national and international conferences, workshops, field work and training programs including outreach activities (France, Switzerland, Norway, Sweden, Germany, Sri Lanka, Nepal, Thailand, Myanmar, Argentina, Austria, Czech Republic, South Africa, Finland, Bosnia and Herzegovina, Slovenia, Croatia, Montenegro, Italy, Qatar, Malaysia, Slovakia, Poland and Hungary, Indonesia).

Membership, Professional Organizations

International

1. IUGS-IGEO Geoscience Education Field Officer
2. Corresponding member, Commission on Geoscience for Environmental Management (GEM), (IUGS), The Netherlands.
3. Member of the Association of Geoscientists for International development (AGID)
4. Deputy Counsellor in India, IGEO (International Geoscience Education Organization)
5. Member, Project on the Indian Heritage Stone Program (IUGS)
6. Member, Sigma Xi, The Scientific Research Honor Society, USA.
7. Member, International Association for promoting Geoethics, Italy.
8. Member, IUGS Geoheritage Collections Working group.

National

1. Life Member, Indian Science Congress Association, Calcutta.
2. Fellow, GSI, Bangalore
3. Fellow, Society of Earth Scientists, India
4. Member, Editorial Board, Journal Nature and Environment, Society Green Cover.
5. Regional Co-ordinator, Hisar district for Society for Promotion of Science and Technology in India (SPSTI). Also, Committee member of Celebration of Important days and Environment related activities, SPSTI, Member, Governing Council
6. Member of the Sectional Committee of the section of Earth System Sciences, ISCA 2014-2015 (102nd Session of the Indian Science Congress).
7. Life Member, Gondwana Geological Society (GGS)Nagpur
8. Life Member, Association of Microbiologists of India.
9. Member of the Sectional Committee of the section of Earth System Sciences, ISCA 2017-2018 (105th Session of the Indian Science Congress).
10. Guardians of Geoheritage, Member, Committee for Geoheritage Website: Guide, support and provide write ups/material for website.

Invited Lectures (International)

1. Invited talk "Cave Geomicrobiology in India: An Overview", VTT, Finland, 26.02.2014.
2. Need for Integrating Microbiology in Earth System Sciences, 4.05.2015, Mahidol University, Thailand.
3. Microbe-Mineral interactions in Caves: An Overview, Lecture delivered during the course "Characterization and Engineering of Karst Aquifers" held at Trebinje, Bosnia and Herzegovina, 6-6-2017.
4. "Moonmilk deposits in the Mawmluh cave, Meghalaya, India: Some biogenic evidence" lecture delivered in the 25th International Karstological School "Classical Karst": Milestones and challenges in Karstology (Postojna, June 19 to 23, 2017).
5. "Geobiology and Geomicrobiology: Frontier areas in Earth System Science, Geological Society of Malaysia, Department of Geology, University of Malaya, 7th August 2017.
6. Geobiology and Geomicrobiology: Frontier areas in Earth System Science- Invited lecture, 23rd October 2017, Institute of Geological Sciences, Jagiellonian University, Krakow, Poland.
7. UGM Summer School on Speleology, Universitas Gadjah Mada, Yogyakarta, Indonesia, Lecture on Cave Geomicrobiology, 07.08.2018.

Invited Lectures (National)

1. Delivered lecture on importance of "Protection of our Environment" at Ved Vyasa DAV Public School, Vikaspuri, New Delhi on 2.8.07.
2. Delivered lecture on environmental impacts of stone crushing units in "Training programme on Pollution control strategies in the State of Haryana", Organized by the Haryana State Pollution Control

- Board (Hisar) on 13.3.07.
3. GJUS&T ASC Orientation course lecture (08.10.2009) on Natural Disasters.
 4. GJUS&T ASC lecture on Solid Waste Management: An Engineering Approach (23.12.2009) Refresher course in Engineering Sciences
 5. GJUS&T ASC Refresher course lecture on Environmental geochemistry and health, 12 May 2010.
 6. GJUS&T ASC Refresher course lecture on Natural Disasters, 13 May 2010.
 7. GJUS&T ASC Orientation course lecture on Natural Disasters, 24.11.2010.
 8. KUK, ASC Orientation course lecture on Disaster management, 30 July 2010.
 9. KUK, ASC Orientation course lecture on Floods and earthquakes, 30 July 2010.
 10. Invited speaker on "Geomicrobiological processes in the Subsurface Ecosystems: A Study of Speleothems from Syndai and Puban Rupasor Caves, Jaintia Hills, Meghalaya" DST Workshop in Geomicrobiology (19th August 2010), MS University of Baroda, Gujrat.
 11. GJUS&T ASC Research Methodology course, Lecture on AAS, 3 March 2011.
 12. KUK, ASC Orientation course lecture on Disaster management, 12 May 2011.
 13. GJUS&T ASC Orientation course lecture on Natural Disasters, 21 June 2011.
 14. KUK, ASC Orientation course lecture on Disaster management, 12 Nov 2011
 15. GJUS&T ASC Refresher course in Life Sciences- "Geobiology: Some Exciting Discoveries and Applications", 12 December 2011.
 16. GJUS&T, ASC Orientation course, lecture on Environmental Law, 9 June 2012.
 17. KUK, ASC Orientation course lecture on Disaster management, 4 August 2012.
 18. KUK, ASC Orientation course lecture on Environmental Law, 4 August 2012.
 19. GJUS&T ASC Refresher course, lecture on Environmental geochemistry and health, 19.09.2012.
 20. Panjab University, Chandigarh ASC Orientation course lecture on Disaster Management: Towards preparedness, 8 December 2012.
 21. GJUS&T ASC Refresher course, lecture on Natural Disasters, 20.12.2012.
 22. BPS Mahila Vishwavidhyalya, ASC Refresher course, lecture on Natural Hazards, 28.12.2012
 23. Geobiology and Geomicrobiology: Frontier areas in Earth System Science- Invited lecture, Geological Society of India, Bangalore (Journal Geological Society of India, Volume 81, Number 1, Jan 2013, 147-148p).
 24. Lecture Natural Hazards, FC College, Hisar, Jan 28 2013.
 25. GJUS&T ASC UGC sponsored Training program on Disaster Management, lecture on Natural Hazards: An Overview, 14.02.2013.
 26. Punjabi University, Patiala, ASC Orientation course, lecture on Disaster Management: An Overview; Natural Hazards, 20.02.2013.
 27. Panjab University, Chandigarh, ASC Refresher course in Environmental Studies, lecture on Disaster Management: An Overview, 23.02.2013.
 28. GJUS&T, ASC Orientation course, lecture on Disaster Management, 23.04.2013.
 29. Punjabi University, Patiala, ASC Orientation course, lecture on Disaster Management: An Overview; Natural Hazards, 09.05.2013.
 30. GJUS&T, ASC Refresher course in Social Sciences, lecture on Disaster Management in India, 16.05.2013.
 31. KUK, ASC Orientation course, lecture on Disaster Management in India, 23.05.2013.
 32. GJUS&T, ASC Orientation course, lecture on Disaster Management: Some case studies, 02.07.2013
 33. Punjabi University, Patiala, ASC Orientation course, lecture on Disaster Management: An Overview, 03.08.2013
 34. Punjabi University, Patiala, ASC Refresher course in Social Sciences, lecture on Disaster Management: Some concepts and Case Studies; Disaster Management: An Overview, 16.10.2013
 35. Punjabi University, Patiala, ASC Orientation course, lecture on Natural Hazards: An Overview; Disaster Management: Some issues, 17.10.2013
 36. GJUS&T, ASC Winter School on Disaster Management, lecture on Overview of the subject: Disaster Management, 14.11.2013
 37. Punjabi University, Patiala, ASC Orientation course, lecture on Natural Hazards: An Overview; Disaster Management: Some issues, 17.12.2013
 38. Panjab University, Chandigarh, ASC Refresher course in Environmental Studies, lecture on Disaster Management: An Overview, 27.03.2014.
 39. IGBP Symposium, Organized by IISc Bangalore, Geosphere-Biosphere interactions in Indian Caves: Frontier areas of research, 7 April 2014

40. Punjabi University, Patiala, ASC Orientation course, lecture on Natural Hazards: An Overview; Disaster Management: Some issues, 11.04.2014
41. Society of Earth Scientists (SES), Lucknow 6th founday day lecture-Integrating Microbiology in Earth System Sciences Education in India: A game changing decision, 17 April 2014, GJUST, Hisar
42. GJUS&T ASC Refresher course, lecture on Environmental geochemistry and health, 1.05.2014.
43. Training programme for the National Earth Science Olympiad programme, Bangalore, lecture on Weathering and its Significance, 16.05.2014.
44. Training programme for the National Earth Science Olympiad programme, Bangalore, lecture on Natural Hazards: An Overview, 18.05.2014.
45. GJUS&T, ASC Orientation course, lecture on Disaster Management, 3 June 2014.
46. Punjabi University, Patiala, ASC Orientation course, lecture on Disaster Management: An Overview; Natural Hazards, 9.06.2014
47. Punjabi University, Patiala, ASC Orientation course, lecture on Disaster Management: An Overview; Natural Hazards, 10.06.2014
48. Punjabi University, Patiala, ASC Refresher course, lecture on Disaster Management: An Overview; Natural Hazards, 12.09.2014
49. Punjab University, Chandigarh, ASC Refresher course, lecture on Disaster Management: An Overview; Natural Hazards, 13.09.2014
50. Cave Geomicrobiology in India: Status and Prospects- Invited lecture, Geological Society of India, Bangalore, 26.11.2014
51. GJUS&T, ASC Winter School on Disaster Management, lecture on Disaster Management, 28.11.2014
52. Punjabi University, Patiala, ASC Orientation course, lecture on Disaster Management: An Overview; Natural Hazards, 13.12.2014
53. Guru Nanak Dev University, Amritsar, ASC Orientation course, lecture on Natural Hazards: An Overview; Special Winter School (Environment and Development), lecture on Disaster Management, 24.12.2014
54. Past habitability on Mars and life in extreme environment on Earth: an analogy, 9th January 2015, 15th The Planetary Sciences and Exploration (PLANEX) programme (ISRO), Physical Research Laboratory, Ahmedabad, on the theme "*Mars and Moon : Remote Sensing and Analogue Studies*"
55. GJUS&T, ASC Workshop on Research Methodology, Lecture on Sampling Methods, 11.02.2015
56. Panjabi University, Patiala, ASC Refresher course in Environmental Studies, Lecture on Disaster Management: An Overview, 26.02.2015
57. GJUS&T, ASC Orientation Course, Lecture on Disaster Management; Natural Hazards, 17.04.2015
58. Panjabi University, Patiala, ASC Orientation Course, Lecture on Disaster Management: An Overview, 20.04.2015
59. Training programme for the National Earth Science Olympiad programme, Anna University, Chennai, lecture on Natural Hazards: An Overview, 14.05.2015.
60. Training programme for the National Earth Science Olympiad programme, Anna University, Chennai, lecture on Weathering and Soil formation, 14.05.2015.
61. Training programme for the National Earth Science Olympiad programme, Anna University, Chennai, lecture on Geochemistry and human health, 15.05.2015.
62. Training programme for the National Earth Science Olympiad programme, Anna University, Chennai, lecture on Geosphere-Biosphere interactions, 15.05.2015.
63. Panjabi University, Patiala, ASC Orientation Course, Lecture on Disaster Management; Natural Hazards, 20.05.2015
64. GJUS&T, ASC Orientation Course, Lecture on Disaster Management; Natural Hazards, 25.05.2015
65. Panjabi University, Patiala, ASC Orientation Course, Lecture on Disaster Management: An Overview, 18.06.2015
66. Panjabi University, Patiala, Summer School Relevance of Environmental issues and Sustainable Development, Lecture on Disaster Management: An Overview, 30.06.2015
67. Panjab University, Chandigarh, ASC Refresher course in Environmental Studies, lecture on Disaster Management: An Overview, 1.07.2015.
68. Panjabi University, Patiala, HRDC Orientation Course, Lecture on Disaster Management: An Overview, 13.10.2015.
69. GJUS&T, UGC-HRDC Refresher Course on Emerging issues in Information Technology, Lecture on Natural Hazards: An Overview; Role of IT in Disaster Management, 20.10.2015.
70. Delivered lecture on "Global issues: Ozone Depletion, Climate Change and Acid Rain" at Hans Raj

- College, Delhi University, New Delhi on 29.10.15.
71. Delivered lecture on "Natural Hazards" on 19.11.2015, Mentor, DST-INSPIRE (Innovation in Science Pursuit for Inspired Research) Camp, Mata Sundri Girls College, Bathinda.
 72. GJUS&T, HRDC Orientation course, lecture on Natural Disasters: An Overview, 04.12.2015.
 73. KUK, HRDC Orientation course lecture on Disaster management, 13 December 2015.
 74. KUK, HRDC Orientation course lecture on Environmental Law, 13 December 2015.
 75. KUK, HRDC Refresher course lecture on Natural Disasters and Disaster management, 18 December 2015.
 76. Panjabi University, Patiala, HRDC Orientation Course, Lecture on Natural Disasters and Disaster Management, 19.12.2015.
 77. GJUS&T, HRDC Workshop on Research Methodology, Lecture on Sampling Methods, 18.02.2016
 78. Panjabi University, Patiala, HRDC Orientation Course, Lecture on Natural Disasters and Disaster Management, 20.04.2016.
 79. GJUS&T, HRDC Orientation course lecture on Natural Disasters and Disaster Management, 2.05.2016
 80. GJUS&T, HRDC Orientation course lecture on Technological Disasters; Global environmental issues, 24.05.2016
 81. Panjabi University, Patiala, HRDC Orientation Course, Lecture on Disaster Management: An Overview, 6.6.2016.
 82. Panjabi University, Patiala, HRDC Summer School, Lecture on 1. Global Environmental Issues 2. Technological Disasters, 28.6.2016.
 83. Panjabi University, Patiala, HRDC Refresher Course, Lecture on 1. Global Environmental Issues 28.6.2016.
 84. Panjabi University, Patiala, HRDC Orientation Course, Lecture on 1. Disaster Management: 2. Natural Hazards, 8.7.2016.
 85. Punjabi University, Patiala, HRDC Orientation course, Lecture on Disaster Management, Natural Hazards, 7.11.2016.
 86. GJUS&T, HRDC Workshop on "How to Write and Publish Quality Research Paper"; Lecture on "Writing scientific research paper", 14.11.2016.
 87. GJUS&T, HRDC Orientation course lecture on Natural Disasters and Disaster Management, 21.11.2016.
 88. Punjabi University, Patiala, UGC-HRDC Refresher course in Information Technology, Lecture on Natural Hazards; Role of IT in Disaster Management, 6.12.2016.
 89. Punjabi University, Patiala, UGC-HRDC Winter School- Sustainable Development and Research, Lecture on Natural Hazards; Disaster Management, 7.12.2016
 90. DIPSAR (Delhi Institute of Pharmaceutical Sciences and Research), New Delhi, AICTE sponsored QIP, Lecture on Rock Chemistry and Human health, 16.02.2017.
 91. Punjabi University, Patiala, ASC Orientation course, lecture on Natural Hazards: An Overview; Disaster Management, 04.05.2017.
 92. GJUS&T, HRDC Refresher course lecture on Natural Disasters, 19.05.2017
 93. Cave Geomicrobiology: An Overview, Shoolini University, Himachal Pradesh 24.05.2017.
 94. Jammu University, Jammu, HRDC Orientation Course, Lecture on 1. Disaster Management: 2. Natural Hazards, 19.8.2017.
 95. "Past habitability on Mars and life in extreme environment on Earth: an analogy" lecture delivered in the Short course on Challenges and Advances in Planetary Sciences, 18-22 September 2017, IISc Bengaluru.
 96. Global Environmental issues lecture, 25 th September 2017, One day Workshop on Ozone Day and World Environment Health day celebration, Amity University, Noida.
 97. "Geomicrobiology: Frontier areas in Earth System Science, Birbal Sahni Institute of Paleosciences, Lucknow, 17th November 2017.
 98. BPS Mahila Vishwavidhyalya, HRDC Refresher course in Environmental Studies, lecture on Natural Hazards; Disaster Management in India, 21.11.2017.
 99. GJUS&T, HRDC Orientation course lecture on Natural Disasters; Disaster Management in India, 30.11.2017
 100. Punjabi University, Patiala, HRDC Orientation course, lecture on Disaster Management: An Overview; Natural Hazards, 9.02.2018
 101. Central University of Punjab, Bathinda, "Introducing Microbiology in Earth System Science", 26th March 2018.
 102. GJUS&T, HRDC Orientation course lecture on Natural Disasters and Disaster Management, 24.05.2018.

103. Training programme for the National Earth Science Olympiad programme, Anna University, Chennai, lecture on Weathering and its types; Earth-Life Interactions, 28.05.2018.
104. Training programme for the National Earth Science Olympiad programme, Anna University, Chennai, lecture on Global Environmental Issues, 29.05.2018.
105. Panjabi University, Patiala, HRDC Orientation Course, Lecture on Disaster Management: An Overview; Natural Disasters, 02.06.2018.
106. IGNOU, New Delhi, Department of Science and Technology, New Delhi, Vigyan Jyoti programme, Lecture on Grand Challenges in the field of Environmental Sciences, 04.06.2018.
107. IGNOU, New Delhi, Department of Science and Technology, New Delhi, Vigyan Jyoti programme, Lecture on Green Careers, 15.06.2018.
108. GJUS&T, HRDC Orientation course lecture on Natural Disasters, 02.07.2018.
109. SRMS College of Engineering and Technology, Bareilly, Department of Science and Technology, Inspire Internship program, Lecture on Natural Hazards, 8th September 2018.
110. Delivered lecture on Natural Hazards, Refresher Course in Disaster Management, HRDC, GNDU on 16 November 2018.
111. GJUS&T, HRDC Orientation Course, Lecture on Global Environmental Issues, 22.11.2018
112. GJUS&T, HRDC Refresher course on Research Methodology, Lecture on Sampling Methods, 29.11.2018
113. TEQIP-III/CEP Short Term Course on "Technologies for Organic Biomass Production" at Indian Institute of Technology Delhi Sonapat Campus, Haryana, Lecture on Farming with rock fertilizers, 3rd December 2018.
114. BPS Mahila Vishwavidhyalya, HRDC Refresher course, lecture on Natural Hazards, Disaster Management, 07.12.2018.
115. Lecture on "Natural Hazards and Role of Teachers" Department of Education, Aligarh Muslim University, Aligarh, 11.01.2019.
116. Panjabi University, Patiala, HRDC Orientation Course, Lecture on Disaster Management: An Overview; Natural Disasters, 19.01.2019.
117. Panjabi University, Patiala, HRDC Workshop on MOOCs, e-content development and Open Educational Resources, Lecture on Natural Disasters, 19.01.2019.
118. Panjabi University, Patiala, HRDC Orientation Course, Lecture on Disaster Management: An Overview; Natural Disasters, 16.02.2019.
119. Training programme for the National Earth Science Olympiad programme, Anna University, Chennai, lecture on Weathering and its types; 15.05.2019.
120. Training programme for the National Earth Science Olympiad programme, Anna University, Geosphere-Biosphere Interactions, 18.05.2019.
121. Training programme for the National Earth Science Olympiad programme, Anna University, Global Environmental Issues, 24.05.2019.
122. Training programme for the National Earth Science Olympiad programme, Anna University, Relative age determination, 25.05.2019.
123. Training programme for the National Earth Science Olympiad programme, Anna University, Locating the Epicentre and estimating the origin time of the Earthquakes, 25.05.2019.
124. Training programme for the National Earth Science Olympiad programme, Anna University, Air Pollution, 31.05.2019.
125. GJUS&T, HRDC Orientation course lecture on Natural Hazards and Disaster Management, 10.06.2019.
126. GJUS&T, HRDC Orientation course lecture on Natural Hazards, 28.06.2019.
127. Central University of Punjab, Bathinda, Teaching Learning Centre, Pandit Madan Mohan Malaviya National Mission on Teachers and Teaching (PMMMNTT), Lecture on 'Disaster Management', National Workshop on 'Environmental management', 4th September 2019.
128. GJUS&T, HRDC Refresher course in Environmental Science, lecture on Natural Hazards; Disaster Management, 08.10.2019.
129. Panjabi University, Patiala, HRDC Orientation Course, Lecture on Disaster Management: An Overview; Natural Disasters, 9.11.2019.
130. GJUS&T, HRDC Refresher course, Lecture on Natural Hazards and Disaster Management, 9.12.2019.
131. GJUS&T, HRDC Faculty Induction Program - I, Lecture on Life on land, 23rd October 2020 (online).
132. BPS Mahila Vishwavidhyalya, HRDC Refresher course in Environmental Management and Disaster Management, lecture on Floods, 23.11.2020 (online).
133. GJUS&T, HRDC Faculty Induction program - II, Lecture on Natural Hazards and Disaster Management,

8.12.2020 (online).

134. Panjab University, Chandigarh, HRDC Refresher course in Environmental Studies, lecture on Disaster Management: An Overview, 28.12.2020 (online).

135. Panjab University, Chandigarh, HRDC Refresher course in Environmental Studies, lecture on Life on Land, 1.01.2021 (online).

136. GJUS&T, HRDC Faculty Induction Program, Lecture on Life on land, 1st March 2021 (online).

137. Maharshi Dayanand University, Rohtak, Environmental Sustainability Management Cell, Lecture on Energy Resources, World Sustainability Energy Day, 4th March 2021.

138. Guru Nanak Dev University, Amritsar, HRDC, Lecture on Life on land, 1st September, 2021.

139. GJUS&T, HRDC Refresher Course on Life Sciences, Lecture on Life-Earth Interactions, 20th September 2021 (online).

140. GJUS&T, HRDC Faculty Induction program, Lecture on Lecture on Life on land, 22nd September, 2021

141. Panjab University, Chandigarh, HRDC Refresher course on Environmental Studies, lecture on Natural Hazards, 23.11.2021 (online).

Reviewer/Expert

Journals

1. Reviewer of Journal of Environmental Science and Engineering, National Environmental Engineering Research Institute, Nagpur
2. Reviewer of Quaternary International
3. Reviewer of Journal Geological Society of India, Bangalore
4. Reviewer of Journal of Basic Microbiology.
5. Reviewer of Acta Biochimica, Polonica.
6. Reviewer of International Journal of Speleology
7. Reviewer, Royal Society of Chemistry Advances.
8. Reviewer, Geomicrobiology Journal
9. Reviewer, NIDM's Journal Disaster and Development

Examiner

1. Examiner (paper setting, evaluation and practicals) KUK, CDLU, MDU, AMU, PU, Chandigarh University, CUH
2. PhD Examiner, Panjab University, Chandigarh, Aligarh Muslim University, Aligarh, MDU Rohtak, GNDU Amritsar, Doon University, Dehradun, Pune University, Pune, PT Ravi Shankar Shukla University, Raipur, Chattisgarh, IGNOU, New Delhi.
3. External Examiner, Universiti Tunku Abdul Rahman Jalan Universiti, Malaysia
4. PhD viva, MDU, Rohtak, 25 July 2017.
5. MSc. Project Expert, Central University, Jammu, 21.07.2017
6. Examiner, 27.09.2017, Geophysics Department, Kurukshetra University, Kurukshetra.
7. AMU Practical Examiner 13th December 2017.
8. CUH Haryana Examiner 12th Jan 2018
9. KUK Examiner, Feb 3rd, 2018.
10. KUK Examiner, Institute of Environmental Studies, 23.05.2018.
11. CUH Haryana Examiner 12th Jan 2018
12. Doon University, Dehradun, Ph. D Examiner
13. Savitri Bhai Phule Pune University, PhD Examiner
14. KUK Examiner 31-08-2018
15. CUH Haryana Examiner 18th Oct 2018
16. PhD Viva Voce MDU, Rohtak 30th October 2018
17. MDU PhD Examiner 30th Nov 2018.
18. Examiner, Department of Geology, KUK, Kurukshetra 4th December 2018.
19. MSc. Environmental Science External Expert, Central University, Jammu, 10.12.2018
20. Examiner, CUH, Haryana, 14 February 2019
21. GNDU, Amritsar, PhD examiner, 25 February 2019
22. KUK Examiner 14 March 2019
23. KUK Examiner 25 April 2019.
24. Examiner, CUH, Haryana, 11th June 2019
25. CUH Examiner, 2nd July 2019

26. Amity University, Noida, PhD examiner, 9th October 2019.
27. Examiner, Institute of Environmental Studies, Kurukshetra University, Kurukshetra, 27th November 2019.
28. CDLU, Sirsa Examiner, 2nd December 2019.
29. Examiner, CUH, Haryana, 13th December 2019.
30. Examiner, Pt.B.D. Sharma University of Health Sciences, Rohtak.
31. Expert, Moderation (Question papers - PGDEOH program), 19th February 2020, SOITS, IGNOU
32. PhD Examiner MDU Rohtak 29th February 2020.
33. PhD Examiner GGS Indraprastha University, New Delhi, 10th March 2021 (online).
34. MDU Examiner, 1st April 2021.
35. Expert, Student Research Committee, Delhi Technological University, Delhi, 13th April 2021.
36. Expert, Student Research Committee, Delhi Technological University, Delhi, 15th September 2021.

Projects / Grant / Award evaluation

1. Reviewer of National Geographic Society Grant applications
2. Reviewer of DST projects
3. Reviewer of Hungarian Scientific Research Fund projects
4. Expert member of the Committee for the program entitled "Understanding Paleoclimate, Sea-level changes, CO₂ sequestration, reactive Nitrogen, Phosphorus and Carbon cycles, Coral reefs and Ocean acidification with reference to Climate Change"- Ministry of Earth Sciences, Government of India (2015-2018).
5. Expert for project evaluation, MoES, 3-4 November 2014, NEERI Nagpur
6. Nomination Jury Member, 9th Competitive CMS VATAVARAN: International Environment and Wildlife Film Festival and Forum 2017.
7. Subject Expert (Geology) in MOOC, Consortium for Education Communication, New Delhi 10th January 2018
8. Jury Member in Environmental Sciences, 16th Chhattisgarh Young Scientist Congress, February 27th and 28th 2018.
9. Subject Expert AICTE, Kanpur, 27th December 2019.
10. Subject Expert (Geology) in MOOC, Consortium for Education Communication, New Delhi 17th February 2020.

Subject expert

1. INSA invitee, Climate change issues, 19 May 2014.
2. Union Public Service Commission (UPSC), New Delhi 4.07.2014 to 10.07.2014
3. Subject Expert, Selection Committee, Ch Devi Lal University, Sirsa (5.08.2014)
4. Union Public Service Commission (UPSC), New Delhi 15.01.2015 to 24.01.2015
5. Union Public Service Commission (UPSC), New Delhi 20.06.2015 to 28.06.2015
6. Subject Expert, Geology Department, Punjab University, Chandigarh-Committee for upgrading JRF to SRF (13.09.2015).
7. Subject Expert, Member of Committee to evaluate research work of faculty for promotion, Al al-Bayt University, Jordan.
8. INSA invitee, Workshop on Floods and Rains in Jammu and Kashmir in 2014; Supported by Indian National Science Academy (INSA) and United States National Academy of Sciences; 13th and 14th May 2016, Jammu University, Jammu.
9. Union Public Service Commission (UPSC), New Delhi 7.06.2016 to 15.06.2016
10. Union Public Service Commission (UPSC), New Delhi 10.07.2017 to 17.07.2017.
11. Expert reviewer for Scientists, WIHG, Dehradun (12th October, 2017, 12th November 2017).
12. Subject Expert, Geology, Andhra Pradesh Public Service Commission, 2018.
13. Subject Expert, Environmental Sciences, Andhra Pradesh Public Service Commission, 2018.
14. Invited subject expert, Workshop, Haryana State Higher Education Council, Panchkula, Haryana, 15th September 2018.
15. Subject Expert, IIT, Delhi - Committee for upgrading JRF to SRF (12.12.2018).
16. Subject Expert, Department of Environmental Studies, NEHU, Shillong-Selection Committee for selecting JRF (22.04.2019).
17. Subject Expert KUK Scientific Officer recruitment (RUSA), 12th September 2019.
18. Subject Expert, Key discussant, 1st International Conference on Landslides Risk Reduction and Resilience-2019, 28th November, National Institute of Disaster Management, New Delhi.

19. Union Public Service Commission (UPSC), New Delhi 12.10.2020 to 14.10.2020.
20. Subject Expert, IIT, Delhi -Committee for extension of CSIR (SRF) and evaluating PhD progress (28.10.2020).
21. Maharshi Dayanad University, Rohtak, Selection Committee, 20th November 2020.
22. Panjab University, Chandigarh, Selection Committee, 24th January 2021.
23. Subject Expert, SOITS, IGNOU, New Delhi -Committee for extension of CSIR (SRF) and evaluating PhD progress (12.02.2021).
24. Union Public Service Commission (UPSC), New Delhi 30.07.2021 to 1.08.2021
25. Subject Expert, Haryana State Higher Education Council, Panchkula, Haryana (14.08.21).

BoS / Academic bodies

1. Member, School Board of SOITS, IGNOU, New Delhi (27th January 2017 to 26th January 2019).
2. Member, Board of Studies, North-Eastern Hill University, Shillong (05.09.2017 to 04.09.2020).
3. Member, Board of Studies, Geology Department, Kurukshetra University, Kurukshetra (22.09.2017 to 21.09.2019).
4. Area Expert, Board of Studies, Amity Institute of Environmental Sciences, Amity University, Noida
5. Member, School Board, School of Earth, Environment and Space Studies, Central University of Haryana, Haryana (19.06.2018 to 18.06.2021).
6. Member, School Board, School of Sciences, IGNOU, New Delhi (28th October 2019 to 27th October 2021).
7. Member, Board of Studies, Department of Geology, School of Earth and Environmental Sciences, Central University of Punjab, Bathinda with effect from 27th February 2020 to 26th February 2022.
8. Member, Board of Studies, Institute of Environmental Studies, Kurukshetra University, Kurukshetra 17.06.2020 to 16.06.2022).
9. Member, Board of Studies, Amity Institute of Environmental Toxicology, Safety and Management, Amity University, Noida.
10. Member, Board of Studies, Department of Vocational Studies and Skill Development, Central University of Haryana, Haryana (14.09.2020 to 13.09.2023).
11. Member, Governing Council, Society for Promotion of Science and Technology in India (SPSTI), 17th October 2020 to 16th October 2025.
12. Member, Board of Studies, Department of Environmental Sciences, Central University of Jammu, Jammu with effect from 29th December 2020 to 28th December 2023.
13. Member, Centre for Internal Quality Assurance (CIQA), Directorate of Distance Education, Guru Jambheshwar University of Science and Technology, Hisar (12-11-2021 to 11-11-2023).

Observer for National Level Examinations/ events

1. UGC NET Examination, CBSE Observer 27th December 2015.
2. JEE Examination, CBSE Observer 3 April 2016
3. AIPMT Examination, CBSE Observer 1 May 2016
4. UGC NET Examination, CBSE Observer 10th July 2016.
5. NEET-II Examination, CBSE Observer 24th July 2016.
6. NEET Examination, CBSE Observer 6th May 2017.
7. KVS recruitment examination, CBSE Observer 22 and 23 December 2018.
8. Duty Magistrate, Containment and Buffer zone (COVID-19), Hisar from 11/07/2020 to 4/08/2020.

Outreach activities

1. Conducted International Earth Science Olympiad Test for School students in Hisar on behalf of the Geological Society of India on Jan 24th, 2010, as part of the outreach programme.
2. Conducted International Earth Science Olympiad Test for School students in Hisar on behalf of the Geological Society of India on Jan 23rd 2011, as part of the outreach programme.
3. Conducted International Earth Science Olympiad Test for School students in Hisar on behalf of the Geological Society of India on Jan 22nd, 2012, as part of the outreach programme.
4. Co-ordinator for SPSTI (Society for Promotion of Science and Technology in India) in Hisar district.
5. Co-ordinated on behalf of SPSTI the celebration of Earth day 2012 in Vidhya Devi Jindal School, Hisar on 21 April 2012.
6. Co-ordinated on behalf of SPSTI and delivered lecture on Awareness about some Environmental issues at OP Jindal Modern School, Hisar on 24th April 2012.
7. Co-ordinated on behalf of SPSTI and delivered lecture on Awareness about some Environmental issues at Delhi Public School, Hisar on 27th April 2012.

8. Co-ordinated on behalf of SPSTI the celebration of Earth day in T.I.T Senior Secondary School, Bhiwani on 22 April 2013.
9. Conducted International Earth Science Olympiad Test for School students in Hisar on behalf of the Geological Society of India on April 28th, 2013, as part of the outreach programme.
10. Environmental awareness campaign in Village Mothsara; 2.08.2013.
11. Conducted International Earth Science Olympiad Test for School students in Hisar on behalf of the Geological Society of India on April 19th 2014, as part of the outreach programme.
12. Co-ordinated on behalf of the Society of Earth Scientists (SES), Lucknow 6th founday day celebrations-17 April 2014, GJUST, Hisar
13. Co-ordinated on behalf of SPSTI the celebration of Earth day in T.I.T Senior Secondary School, Bhiwani on 24 April 2013.
14. Course In charge of the training programme for the National Earth Science Olympiad programme, Bangalore from 13th May to 1st June 2014.
15. Conducted International Earth Science Olympiad Test for School students in Hisar on behalf of the Geological Society of India on Feb 15th, 2015, as part of the outreach programme.
16. Conducted International Earth Science Olympiad Test for School students in Hisar on behalf of the Geological Society of India on Jan 16th, 2016, as part of the outreach programme.
17. Conducted International Earth Science Olympiad Test for School students in Hisar on behalf of the Geological Society of India on Jan 22^{nd, 2017}, as part of the outreach programme.
18. Co-ordinated on behalf of SPSTI the celebration of Earth day in T.I.T Senior Secondary School, Bhiwani on 22 April 2017.
19. Conducted International Earth Science Olympiad Test for School students in Hisar on behalf of the Geological Society of India on Jan 21st, 2018, as part of the outreach program.
20. Co-ordinated and organized a Green School Program Workshop, Centre for Science and Environment in GJUS & T, Hisar, 18th September 2018.
21. Conducted International Earth Science Olympiad Test for School students in Hisar on behalf of the Geological Society of India on Jan 19^{th, 2019}, as part of the outreach program.
22. Co-ordinated the USEIF outreach program in GJUST, Hisar, 23 January 2019.
23. Training In charge of the training programme for the National Earth Science Olympiad programme, Anna University, Chennai from 15th May to 7th June 2019.
24. Organized a Workshop on "Population and Environment", 11th July 2109.
25. Organized a Workshop on the "Digital initiatives of the Government of India in Higher Education", 15th July 2109.
26. Organized Water Conservation poster and slogan competition, 22nd July 2019.
27. Organized "Hands on training Workshop on Creating Vertical Gardens", 9th August 2019.
28. Chairperson, Recent trends in Chemical Sciences and RSC Workshop on Periodic Table: Boon for Mankind, 1st September 2019, Green Chemistry Network Centre, Delhi.
29. Organized GIFT (Geoscience Information for Teachers) Workshop in Hisar, 2nd September 2019.
30. Organized Ozone day awareness program, 16th September 2019.
31. Panelist, online release of the State of India's Environment Report (SOE) by CSE 2021 on 25th Feb 2021.
32. Webinar, Himalayan Ecological Systems, by Dr Shailesh Nayak, Director, NIAS, Bangalore, 9th March 2021, organized on behalf of SPSTI, India.
33. Prof. Shailesh Nayak, Director NIAS on Himalayan Ecological Systems on March 09, 2021 organized on behalf of SPSTI, India.
34. GIFT Webinar, Water in the Classroom and the World, by Prof. Chris King, Chair, European Geosciences Union, Earth day, 22nd April 2021 organized on behalf of SPSTI, India.
35. Webinar, World Biodiversity Day, by Dr Sunita Narain, Chair, Director General, Centre for Science and Environment, 21st May 2021, organized on behalf of SPSTI, India.
36. Webinar, World Environment Day, by Eminent Environmental Lawyer M C Mehta, 6th June 2021, organized on behalf of SPSTI, India.
37. Webinar, World Ocean Day, by Eminent Scientist Prof Harsh Gupta, 8th June 2021, organized on behalf of SPSTI, India.
38. Webinar, World Population Day, by Dr Vandana Shiva, 11th July 2021, organized on behalf of SPSTI, India.
39. Chair, Session on Virtual National Conference titled 'Emerging Trends to Heal the Earth and Environment' on 18th September, 2021 jointly organized by SOITS, IGNOU and Save the Environment, Kolkata. Member, National Advisory Committee.

Contribution to E-Resources / ODL**Study Material - PG Diploma in Environment and Occupational Health (IGNOU, New Delhi)****Expert Committee member:**

1. Post Graduate Diploma in Environmental and Occupational Health Programme PGDEOH: Courses: MEV-001; MEV-002; MEV-003; MEV-004; MEV-005; MEVP-001; MEVE-001; MEVE-002; MEVE-003; MEVE-004 Programme Design and Expert Committee Member

Content Editor:

1. Course: MEV-002 Environmental and Occupational Hazards: Block 1 Natural Hazards; 2019; ISBN: 987-93-88498-82-1 Content Editor
2. Course: MEV-002 Environmental and Occupational Hazards: Block 2 Environmental Hazards; 2019; ISBN: 987-93-88498-83-8 Content Editor
3. Course: MEV-002 Environmental and Occupational Hazards: Block 4 Management of Environmental and Occupational Hazards; 2019; Content Editor; ISBN: 987-93-88498-85-2
4. Course: MEV-003 Environmental Law and Management: Block 1 Environmental Act, Law and Policy; 2019; Content Editor; ISBN: 978-93-88498-93-7
5. Course: MEVE-001 Environmental Impact Assessment for Environmental Health. Block 2: Air, Water Quality and Socio-economic Impact Analysis. 2019; Content Editor; ISBN: 978-93-88980-01-2
6. Program: MSc Environmental Science (IGNOU), Course Earth Processes, Block 3 Hydrology; 2020 (Unit 1: Introduction to Oceanography; Unit 2: Ocean Currents; Unit 3: Hydrology; Unit 4: Hydrogeology)
7. Program: MSc Environmental Science (IGNOU), Course Earth Processes, Block 1 Earth processes; 2020 (Unit 1: Origin and formation of the earth; Unit 2: Plate Tectonics; Unit 3: Earth Surface Processes; Unit 4: Rocks and Minerals)
8. Program: MSc Environmental Science (IGNOU), Course Disaster Management, Block 1 Disaster preparedness and mitigation; 2020 (Unit 1: Concepts, Types and Challenges of Disasters; Unit 2: Disaster Preparedness; Unit 3: Disaster Mitigation; Unit 4: Disaster Mitigation Strategies)
9. Program: MSc Environmental Science (IGNOU), Disaster Management, Block 2 Risk Assessment and Vulnerability; 2020 (Unit 1: : Fundamentals of Risk and Vulnerability Concepts; Unit 2: Risk and Vulnerability Assessment for Geological Hazards Disaster ; Unit 3: Risk and Vulnerability Assessment for Hydrological Hazards)
10. Program: MSc Environmental Science (IGNOU), Disaster Management, Block 3 Disaster Medical Management; 2020 (Unit 1: Planning and Preparedness, Unit 2: Public Health Response and Relief Measures, Unit 3: Disaster Epidemiology, Unit 4: International Cooperation for Disaster Medical Management).
11. Program: MSc Environmental Science (IGNOU), Disaster Management, Block 4 Agencies and Government in Disaster Preparedness; 2020 (Unit 1: Role and responsibilities of different agencies, Unit 2: Education and Technologies for Disaster Management, Unit 3: Reconstruction and Rehabilitation, Unit 4: Disaster Management in India.

Unit writer

1. Course: MEV-002 Environmental and Occupational Hazards: Block 1 Natural Hazards; 2019; ISBN: 987-93-88498-82-1 Unit 3: Unit writer: Floods and Landslides 48 - 64 pages.
2. Course: MEV-003 Environmental Law and Management: Block 1 Environmental Act, Law and Policy; 2019; Unit 1 Unit writer; International Environmental Policies, Agreements and Treaties 5-19 pages; ISBN: 978-93-88498-93-7
3. Program: MSc Environmental Science (IGNOU), Course Earth Processes, Block 4 Natural Hazards, Unit I Introduction to Natural Hazards by R Baskar and S Baskar
4. Program: BSc Geology (IGNOU), Course Elements of Applied Geology, Block 4: Emerging Areas and Applications; Unit 15: Medical Geology, Forensic Geology and Geobiology by R Baskar and S Baskar

Study Material – E-pathshala- M. Sc. Environmental Sciences

1. Paper coordinator for Environmental Geology (24 modules)

Study Material - MOOC

1. MOOC AMU Environmental Education, National Resource Centre (NRC), AMU, Aligarh, "Restriction of Radioactive Pollution"-39 C

Study Material – SWAYAM

1. Earthquakes: Course MEV-002, Environmental and Occupational Hazards, 3rd November, 2020, SWAYAM (IGNOU).

2. Floods: Course MEV-002, Environmental and Occupational Hazards, 4th November, 2020. SWAYAM (IGNOU).
3. Volcanoes: Course MEV-002, Environmental and Occupational Hazards, 5th November, 2020. SWAYAM (IGNOU).
4. Landslides: Course MEV-002, Environmental and Occupational Hazards, 17th November, 2020. SWAYAM (IGNOU).
5. EIA Laws and guidelines: Course MEVE-001, Environmental and Occupational Hazards, 17th November, 2020. SWAYAM (IGNOU).
6. Noise impact on Human health: Course MEVE-001, Environmental and Occupational Hazards, 18th November, 2020. SWAYAM (IGNOU).
7. Ozone layer depletion: MEV-001, Introduction to Environmental Health, 30th September, 2021. SWAYAM PRABHA (IGNOU).
8. Climate Change: MEV-001, Introduction to Environmental Health, 16th November, 2021. SWAYAM PRABHA (IGNOU).
9. Ozone layer depletion: MEV-003, International Environmental Policies, Agreements and Treaties, 23rd November 2021. SWAYAM PRABHA (IGNOU).

Radio talk

1. Baskar, R (2007). Role of Environmental Scientists in Disaster Management, All India Radio Talk on 17.10.2007.
2. Radio talk, Natural Hazards: An Overview, 6th February 2017, IGNOU, New Delhi.
3. Radio talk, EIA-an effective Environmental Management Mantra, 27th April 2017, IGNOU, New Delhi.
4. Radio talk, International Environmental Law: An Overview, 31st August 2017, IGNOU, New Delhi.

Video talk

1. Tele-Conference on "Environment and Health", School of Interdisciplinary and Trans-disciplinary Studies, IGNOU, Lecture on Environmental Geochemistry and Health, 29th March 2017.
2. Weathering, its types and Significance, Video talk, Geology, School of Sciences, 29th September 2017, IGNOU, New Delhi.
3. Hazardous Earth Processes, Video talk, SOITS, 3rd October 2017, IGNOU, New Delhi.
4. Lecture on "Earthquakes" for Gyan Darshan Live on 3rd October 2018, Electronic Media Production Centre (EMPC), Indira Gandhi National Open University, New Delhi.
5. World Environment Day 2019: Beat Air Pollution, Panel Discussion on 3rd June 2019, Electronic Media Production Centre (EMPC), Indira Gandhi National Open University, New Delhi.
6. Lecture on "Climate change" for Gyan Darshan Live on 3rd November 2021, Electronic Media Production Centre (EMPC), Indira Gandhi National Open University, New Delhi.
7. Lecture on " International Environmental Policies, Agreements and Treaties" for Gyan Darshan Live on 8th December 2021, Electronic Media Production Centre (EMPC), Indira Gandhi National Open University, New Delhi.

Last updated January 2022