

Brief Profile:

Name: Dr. Vartika Singh

Designation: Assistant Professor (II)

Experience: More than 13 Years

ORCID: <https://orcid.org/0000-0003-4400-8664>

Scopus ID: <https://www.scopus.com/authid/detail.uri?authorId=57213256391>

Google Scholar: <https://scholar.google.com/citations?hl=en&user=wRrgEkcAAAAJ>



Educational Qualification:

PhD – Hydrogeology, Environmental geology, Remote Sensing (2010)

M.Phil. – Hydrogeology (2007)

M.Sc. - App. Geology (2005)

Area of Research:

- Groundwater pollution
- Hydrogeoenvironmental Studies
- Remote Sensing & GIS Studies
- River Basin Management
- Climate Change and their effects on Groundwater.
- Watershed Managemet

No. of PhDs Supervised:

Completed - 02

- The title of the Thesis: “**ASSESSMENT OF ENVIRONMENTAL IMPACTS OF MANUFACTURING OF EARTH MOVING AND CONSTRUCTION EQUIPMENT AND DEVELOPMENT OF STRATEGIES FOR SUSTAINABILITY**”.Mr.Dheeraj Verma , Thesis Submitted January 2021, Awarded 13 March, 2021
- The title of the Thesis: “**MONITORING BIOACCUMULATION OF HEAVY METALS IN FISH THROUGH STATIC AND SEMI-STATIC TEST PROCEDURE**”. Ms. Sapna Gupta, Thesis Submitted June 2022, Awarded

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Ongoing - 03

- The title of the Thesis: “**IDENTIFICATION & BIODIVERSITY ASSESSMENT OF SACRED GROVES in PUNJAB**”. Mr. Gurharminder Singh
- The title of the Thesis: “**STUDY OF INTEGRATED RESOURCE MANAGEMENT IN THE SARBARI KHAD WATERSHED OF THE HIMACHAL PRADESH**”. Mr. Sunil Kumar

- The title of the Thesis: “SOIL EROSION ASSESSMENT OF BEAS RIVER BASIN, (INDIA) USING GEOSPATIAL TECHNIQUES”. Mr. Suraj Kumar Maurya

Projects and Consultancy:

Ongoing: (1 under process)

- ❖ “Protocol for Rejuvenation of springs in Uttarakhand with due preparedness for climate change” NATIONAL MISSION ON HIMALAYAN STUDIES (NMHS)
- ❖ “Radar-based Flood Forecasting and Information System for Kerla” ESSO-MoES

Completed: (03)

Associated in various important projects of Defence Research & Development Organization, DTRL lab like GIM, Thar and PISTA.

- ❖ “Geo Intelligence Mission” With Dr.B.G.Pursty, Scientist-G, DTRL, DRDO
- ❖ “Thar” With Dr.V.K.Panchal, Director -Scientist-G, DTRL, DRDO
- ❖ “Potential of Image Analysis and Situation Awareness in Terrain Assessment” With Dr.L.K.Sinha, Scientist-G DTRL, DRDO

Achievements

- ❖ Cleared GATE Examination in March-2005 with ‘91.6’ Percentile, All India Rank-47.
- ❖ NCC ‘C’ Certificate with ‘A’ Grade, 26 UP Girls BN NCC Saharanpur, in 2003.

Patent

- ❖ ANALYSIS OF IOT BASED WEATHER MONITORING AND REPORTING SYSTEM USING FUZZY LOGIC, Australian Government. 22/09/2021, Reference no 2021105092
- ❖ POLLUTION MONITORING AND ALERTING SYSTEM, Indian Government, 15/10/2021, Reference no 202111043554 A
- ❖ RAINFALL PREDICTION SYSTEM, Indian Government, 26/11/2021, Reference no 202111053047 A

Training

- ❖ “Interaction Between Landslides and Other Information Across Predetermined Cross Sections Along Patalganga Valley”, Summer Training from **15th June to 13th July 2005** in Central Road Research Institute, Delhi, under the guidance of Dr. Kishor Kumar, Senior Scientist.
- ❖ Workshop on “Concept of Map Projections & Datum Transformation for Terrain Modeling” from **16th to 18th September 2009** in Defence Terrain Research Laboratory, Delhi.
- ❖ Pre-Symposium Tutorial on “Computational Intelligence in Remote Sensing”, **3rd to 4th December 2012**, in Indian Agricultural Research Institute, New Delhi.
- ❖ Faculty Development Programme on ‘Amity Academic Structure & System’ on **26th to 27th December, 2013** at Amity University, Uttar Pradesh.

- ❖ Organize one-week training program for IFS Officers on “International Climate Change Conventions and REDD+ Issues: India’s Concern & Responses” **on 1-5 December 2014** Amity University, Noida.
- ❖ Organize two-day workshop on "Promotion of Handicraft through R&D Linking Chains and Supply Chains: Awareness among Stakeholders" **April 13 - 14, 2015** at Amity University, Noida.
- ❖ Faculty Development Programme on ‘Environmental Studies: Significance & Teaching in relation to various Under Graduate Discipline’ on **11th August, 2015** at Amity University, Uttar Pradesh.
- ❖ Post Graduate Certificate in Geoinformatics, from IGNOU Delhi, June 2016.
- ❖ Basic of Remote Sensing, GIS and Global Navigation Satellite System, EDUSAT, IIRS, November, 2016.
- ❖ "Principles of Polarimetric SAR Remote Sensing and its Processing", EDUSAT, IIRS Outreach Programme, **April 2019**.
- ❖ “Experimental Designs Research Methodology and Data Analysis in Agriculture Sciences” Faculty Development Program, Amity Academic Staff College, **25th to 26th June, 2020**, Amity University Uttar Pradesh.
- ❖ “Advances in Teaching and Research in the Field of Green Technology and UN Sustainable Development Goals” Faculty Development Program, Amity Academic Staff College, **1st to 5th June 2021**, Amity University Uttar Pradesh.
- ❖ "Green Technology & Sustainability Engineering" AICTE Training And Learning (ATAL) Academy Online FDP, **19th to 23rd January 2021**, Gautam Buddha University, Greater Noida.
- ❖ “Happy Teachers and Positive Pedagogy” Faculty Development Program, **2nd to 9th November 2020**, Amity University Uttar Pradesh.
- ❖ “Hydro-Meteorological Disaster: Techniques of Measuring, Monitoring, and Management of Floods” Seven Days Online Capacity Building Program, Centre for Disaster Management Studies, Shaheed Bhagat Singh College, University of Delhi in Collaboration with Teaching Learning Centre, Ramanujan College, Under the PMMMNMST scheme of the Ministry of Education.
- ❖ "Concepts of Mineral Exploration for Industrial and Fertilizer Minerals”, FTC, Raipur, Geological Survey of India Training Institute, Hyderabad, **31st May to 7th June 2021**.

Membership

- ❖ Life member of Vigyan Bharti
- ❖ Life member of Geological Society of India

Invited lectures

- ❖ Topic “Post Covid-19, Impact on Environmental Pollution”, **31st May, 2020**, N.A.S.College Meerut.

- ❖ Topic “Research Proposal”, **25th April, 2021**, Ghulam Nabi Azad Arts Commerce and Science College, Barshitakli, Akola, Maharashtra.
- ❖ Topic “Methods of Data Collection”, **28th April, 2021**, Ghulam Nabi Azad Arts Commerce and Science College, Barshitakli, Akola, Maharashtra.
- ❖ Topic “Relationship of Hydrological Cycle with Watershed”, **30th May, 2021**, Mahatma Gandhi Chitrakoot Gramodaya Vishwavidyalaya, Chitrakoot, Satna, MP
- ❖ Topic “Identification of Rock and Rock Cycle”, **30th May, 2021**, Mahatma Gandhi Chitrakoot Gramodaya Vishwavidyalaya, Chitrakoot, Satna, MP
- ❖ Topic “A virtual journey within the rock cycle”, **10th January, 2022**, Mahatma Gandhi Chitrakoot Gramodaya Vishwavidyalaya, Chitrakoot, Satna, MP

Book chapter

- ❖ “Disastrous aspects of earthquake events in Indian scenario – comments on the management strategy”, book name – “Environmental Management”, with co-author Dr.P.Dev, Daya Publishing House, Chapter 13, ISBN 978-81-7035-822-0 pp 103-114.**2013**
- ❖ “Remote sensing and geographic information system application in reflection of air pollution environment during a decade span in vicinity of Deharadun, Uttrakhand.”, book name- “Environmental Technology”, with co-author Dr.P.Dev, Daya Publishing House, Chapter 12, ISBN No 978-81-7035-8237, pp 111-126.**2013**
- ❖ “Impacts of Climate Change on Biodiversity and Ecosystem Services: Current Trends”, book name – “Climate Change and Its Impact on Ecosystem Services and Biodiversity in Arid and Semi-Arid Zones”, Chapter 8, IGI GLOBAL DOI: 10.4018/978-1-5225-7387-6, **2019**
- ❖ “Flood Hazard Casting and Predictions of Climate Change Impressions”, book name – “Decision Support Methods for Assessing Flood Risk and Vulnerability”, Chapter 10. IGI GLOBAL, DOI: 2019, 10.4018/978-1-5225-9771-1, **2020**
- ❖ “Sustainable Forestry” Book Name- Global Environmental Problems, Chapter 6, Redshine Publication, **November, 2020**, ISBN No 978-93-89840-77-3, pp 29-33.
- ❖ “The Influence of COVID-19, Deadly Outbreaks on the Rise: Indian Overview”, Book Name- “Emerging Facts: Covid-19 Novel Corona Virus”, Chapter 16, **October-2020**, ISBN No 978-93-80633-65-7, Saad Publication, pp 158-180.
- ❖ “Sustainable Development and Climate Change”, book name- “Eco-Friendly Energy Processes and Technologies for Achieving Sustainable Development”, Chapter 2, IGI GLOBAL, DOI: **October, 2020**, ISBN No 9781799849155.
- ❖ “Impact of Climate Change on Water Resources”, Book name- “Contemporary India: Issues and Challenges”, Chapter 12, Shriyanshi Prakashan, **2021**, ISBN No. 978-9381247-38-9, pp 91-98.
- ❖ “Effect of Climate Change on Natural Resources: Environmental Concern”, Book Name- Rejuvenating Environmental Studies A Multidisciplinary Approach”, Chapter 1, Upanayan Publications, **2021**, ISBN No. 978-81-949250-4-0, pp1-8.
- ❖ “Causes and Effects of Water Logging and Soil Salinity in India”, Book Name- “Regional Issues and Challenges in India”, Chapter 15, Sunrise Publisher, **2021**, ISBN No.978-93-90778-40-9, pp 126-135.

BOOK:

- ❖ Indian Agriculture- Natural Resource & Sustainability Issues And Benefits of Introducing Soilless Cultivation, LAP Lambert Academic Publishing (**2016-07-29**), ISBN-13: 978-3-659-92026-4, ISBN-10: 3659920266, Karsan Chaudhary and Vartika Singh, pages 68.
- ❖ Geological vulnerability of Khetri Jodhpur and Nakora Rajasthan India, LAP Lambert Academic Publishing (**2018-05-28**), ISBN-13: 978-613-9-84488-3 ISBN-10: 6139844886, Vartika Singh, pages 60

EDITORIAL BOARD:

- ❖ International Journal of Geosciences & Technology, New Delhi. (2013), ISSN 2321-2144
- ❖ SCIENCEDOMAIN International, UK, London. (2013)
- ❖ Computational Intelligence Research Magazine, CiRG, New Delhi. (2014)
- ❖ Satellite Oceanography and Meteorology, Singapore, ISSN:2424-8959 (2018)
- ❖ Remote Sensing, PiscoMed Publishing Pte Ltd ISSN: 2315-4675 (2018)
- ❖ International Journal of Environment and Climate Change ISSN: 2581-8627 (2022)

Papers in Refereed/Peer reviewed Journals:

Singh,V., and Dev,P., (2011) Ground water potential estimation of alluvial terrain of Saharanpur city and adjoining region , Uttar Pradesh, India. Journal of Nepal Geological Society. Nepal, Vol.43, p.261-266. ISSN 2091-0304

Singh,V., and Dev,P., (2011) Chemical quality evaluation of ground water for human domestic consumption in Saharanpur and adjoining area, Uttar Pradesh, India. International journal of economic and environmental geology. Pakistan, Vol 2, (1), No.1. p.1 – 10. ISSN 2223-957X

Dev,P., and Singh,V., (2011) Environmental noise pollution monitoring and impact on human health in Deharadun city, Uttarakhand, India. International journal of civil & environmental research, London, U.K. Vol.1, no.1 p 32-39. ISSN 2224-5790

Singh,V., and Dev,P., (2009) Rainfall variation analysis and future trend in Saharanpur district- environmental context. Indian journal of environmental protection, Varanasi, Uttar Pradesh. Vol.29, No 8, pp 710-718. ISSN 0253-7141

Singh,V., and Dev,P., (2010) Environmental impacts of noise pollution-A case study in Saharanpur city, western Uttar Pradesh. International journal of earth science and engineering. Vol.3, No 6, pp 869-874. ISSN 0974-5904

Singh,V., and Dev,P., (2011) Environmental impacts of industrial pollution on Saharanpur city area, western Uttar Pradesh. Indian journal of environmental protection, Varanasi, Uttar Pradesh. Vol.31, No 5, pp 381-386. ISSN 0253-7141

Singh,V., and Dev,P., (2012) Operation need of artificial recharge plan of ground water plan of ground water increase in Saharanpur area, Uttar Pradesh. Bhu-Jal News, Quarterly Journal, CGWB, Ministry of Water Resources Govt. of India.Vol.27, No-1-4, pp 19-24. ISSN No 09770-5775

Singh,V., and Dev,P., (2012) 50 year rainfall data analysis and future trend in Saharanpur region. Mausam, Delhi.Vol.63, No 1, pp 55-64. ISSN 0252-9416 /0.203

Singh,V., and Dev,P., (2013) Groundwater Exploration In Consolidated Material – Hard Rock Terrain. International Journal of Geoscience & Technology. IJGST, Ghaziabad, vol.1, issue no 2, 2013. Pp.1-9. ISSN No 2321-2144

Singh,V., and Panchal,V.K., (2015) Remote sensing data application in digital elevation model for feature extraction of Jaisalmer region, Thar Desert, Rajasthan, India. International Journal of Multidisciplinary Research & Development. Vol 2 (3), pp 244- 248. ISSN No: 2349-4182

Verma, D., Singh,V., and Kishwan, J., (2016) Material conservation –an approach to prevention of pollution. Octa Journal of Environmental Research, Vol 4(4), pp 312 -318. ISSN No. 2321-3655

Saini, R.K., Sharma, S. K., Tripathi, N., Singh, C.J., Singh, V., Singh, R., Singh, S., and Shukla, P., (**March, 2018**) Stereochemical Behaviour of Multidentate Complexes derived from Pyridine Derivatives. Universal Research Reports. Vol 5, Issue 2, pp ISSN : 2348 – 5612.

Singh, C.J., Tripathi, N., Singh, R., Singh, V., Rathna, K., Lepcha, S.T.S., Sharma, S.K., Saini, R.K., Singh, R., Singh, S., and Shukla, P., (**March, 2018**) Isolation and characterization of Lupeol from stems of Girardinia diversifolia. Innovative Research Thoughts. Vol 4, Issue 1, pp 307-311, ISSN: 2454-308X.

Dubey, P., Singh, S.P., Singh, V., Dhiman, S., Saini, S., Devi, M., and Mishra, P., (**December, 2020**). In-Depth Quantitative Analysis of Saharanpur Wood Handicraft Industry on the Specific Issues of Availability and Supply of Raw Material. Current Journal of Applied Science and Technology. 39(48): 136-144.

Verma, D., Singh,V., Bhattacharya, P., and Kishwan, J., (**2021**) Sustainable Manufacturing Strategies Adopted by Construction Equipment Manufacturing Industries in India. Circular Economy and Sustainability, Springer, Vol 1, pp 1-13. ISSN No. s43615-021-00091-4

Singh, V., Kumar, S., Singh, R., Singh, C. J., Singh, S.P., Rathna, K., Singh, R., Sharma, S.K., Lepcha S.T.S., and Tripathi, N., (**July, 2021**) Eco-hydrological impact of bamboo plantation in river bank. Turkish Online Journal of Qualitative Inquiry. Vol 12, Issue 9, pp 13504 – 13514, ISSN No. 1309-6591

Rathna, K., Singh, I., Singh, V., Singh, C.J., Singh, R., Singh, S.P., Singh, R., Sharma, S.K., Singh, S., Lepcha, S.T.S., and Tripathi, N., (**November, 2021**) Socio-Economic Study of Bamboo Artisans in Northern Floodplains of India"- A case study of Bahraich district of East Uttar Pradesh. Design Engineering. Issue 8, pp 17024 – 17037, ISSN No. 0011-9342

Gupta,S., Singh, V., Aggarwal, M.L. (**December, 2021**) Bioaccumulation of Lead in Rohu (Labeo rohita) Fish Collected from Four Different Locations of Yamuna River in Delhi Region. Asian Journal of Chemistry. Vol 33, Issue 12, page no 3070-3074, ISSN: 09707077.

Gupta,S., Singh, V., Aggarwal, M.L. (**December, 2021**) Cyprinus carpio: Bioindicator of Heavy metal pollution in Yamuna River, Delhi Region. Journal of Experimental Biology and Agriculture Sciences. Vol 9, Issue 6, page no 805-812, ISSN: 2320-8694.

Papers in Conference Proceedings:

Kumar, V., Panchal,V.K., Goyal, D., and Singh, V., (2013) Land Features Extraction from Image by the Probability Concept of Honey Bees: A Remote Sensing Perspective. International Conference on Electrical, Electronics and Computer Science – ICEEC 2013, Hyderabad. p 1- 4. ISBN: 978-81-923541- 0-3

Kumar, V., Singh,V., Panchal,V.K., and Shiwani, S., (2014) Simulation of bee’s biology for information extraction from Satellite Image. Second International Conference on Emerging Research in Computing, Information, Communication and Applications-ERCICA-2014, Bangalore, Vol.1, pp.926. ISBN No: 9789351072607

Kumar, G., Singh,V., and Panchal, V.K., (2014) Analysis and Estimation of Swarm Intelligence Techniques for Land Cover Feature Extraction. 9th IEEE International Conference on Industrial and Information System, ICIS-2014, Paper ID: 524

Singh,V., Kumar,G., and Panchal, V. K., (2014) Intelligent Water Drops Algorithm for Natural Terrain Feature Extraction. 9th IEEE International Conference on Industrial and Information System, ICIS-2014, Paper ID: 381

Singh,V., Kumar,G., and Sabherwal, D., (2015) A comparative study of computational intelligence based techniques in the field of Remote Sensing image classification. 9th India Com; IEEE, 2015 International Conference on Computing for Sustainable Global Development. ISSN 0973-7529

Singh,V., (2015) Green computing- A step towards the sustainable development and minimization of electronic waste. Joint International Conferences, Pattaya, Thailand. pp 142- 146. ISBN No: 819289492-4

Singh,V., Kumar,G., and Arora, G., (2016) Analytical evaluation for the enhancement of satellite images using swarm intelligence techniques. 10th INDIA Com-2016, IEEE Conference, New Delhi, pp 7300-7304. ISBN 9789380544205

Singh,V., and Dev,P., (2007) Application of artificial recharge phenomena in ground water resource management. National seminar on emerging trends of research in geology with special reference to northwestern India, Udaipur.

Singh,V., and Dev,P., (2009) Characterization of geology of alluvial terrain of Saharanpur area, western Uttar Pradesh, India. International conference on polar science and technology. New Delhi. Vol.1, pp 25-28

Singh,V., and Dev,P., (2010) Environmental pollution – A case study of Saharanpur city. National conference on emerging trends in environment and energy protection, Gwalior, Madhya Pradesh.

Kumar, N., Singh,V., and Panchal, V.K., (2011) Membrane computing for water body area extraction in satellite image. 5th International multi-conference on intelligent systems, sustainable, new and renewable energy technology& nanotechnology, Yamuna Nagar, Haryana.

Singh,V., and Dev,P., (2011) Appraisal of ground water resource potential of alluvial terrain in vicinity of Saharanpur city, Western Uttar Pradesh. National seminar on water and environment challenges for water resource management in 21st century, Bhopal. p- 34.

Singh,V., and Dev,P., (2011) Analysis of landslides and additional thematic features across selected sections along Patalganga valley, Chamoli district, Uttarakhand. National symposium on empowering rural India through space technology and annual convention of Indian society of remote sensing, Bhopal. pp 287.

Singh,V., and Dev,P., (2012) Rainwater harvesting model & environmental impact appraisal using Remote Sensing and GIS techniques in hard rock terrain of Malwa & Nimar regions of Madhya Pradesh. National seminar on ground water conservation with special reference to rain water harvesting, geomorphology & mineral wealth of Malwa & Nimar Region, Indore.

Singh,V., and Panchal, V.K., (2012) Novel approach to redefining connectedness in a social network. 6th International multi-conference on intelligent systems, sustainable, new and renewable energy technology & nanotechnology, Yamuna Nagar, Haryana, India.

Singh,V., (2013) Approach to Sustainable Development of Groundwater Resource- An Example From Saharanpur Environment, Uttar Pradesh India. International Humboldt Kolleg on Management of Water, Energy and Bio-Resources in Changing Climate Regime: Emerging Issues and Environmental Challenges. JNU, New Delhi.

Singh,V., Mittal, A., Saxena, G., and Panchal, V.K., (2013) Why study interplanetary exploration? National Symposium on Remote Sensing and GIS for environment with special emphasis on marine and coastal dynamics. ISG & ISRS, Visakhapatnam. p – 113. ISSN No 0971-670X

Singh,V., and Dev,P., (2013) Review of application of satellite remotely sensed data for mapping, monitoring & assessment of Geological & Geographical features. National Symposium on Remote Sensing and GIS for environment with special emphasis on marine and coastal dynamics. ISG & ISRS, Visakhapatnam. p – 140. ISSN No 0971-670X

Singh,V., and Dev,P., (2013) Contributions on geology, Hydrogeology and allied Aspects of Saharanpur Environs, Uttar Pradesh, India, A Review. Conservation of Environment for Human Health. pp.134-143. NESI, New Delhi.

Singh,V., (2018) Effect of climate change on groundwater. National Conference on Global Climate Change; Challenges & Solutions. Bhopal MPCST

Verma, D., Singh,V., and Bhattacharya, P., (2019) Advanced Technologies for Water Conservation in Engineering Industries: A Case Study. International Conference on Climate Change towards Health and Agriculture Sustainability (CCHAS-2019) p 113.

Verma, D., Singh,V., and Bhattacharya, P., (**January, 2020**) Economic development, Environmental impact and Carbon emission. World Environment Summit 2020.

Gupta, S., Aggarwal, M.L., Singh, V., and Joshi, M.R., (**January, 2020**) Bioaccumulation of Heavy Metals in Freshwater Fish Serving as A Biological Indicator for Water Pollution Load of Yamuna River. World Environment Summit 2020.

Gupta, S., Aggarwal, M.L., Singh, V., and Panda, B.N., (**January 2020**) Biological Indicator: Freshwater Fish Serving as a Biological Indicator for Water Quality of Yamuna River in Delhi-NCR Region. National Conference on Water Sustainability Conservation, Policy, Ethics and Science.

Gupta, S., Panda, B.N., Singh, V., and Aggarwal, M.L., (**October 2021**) Environment Risk Assessment: Using Freshwater Fish as Bioindicators of Heavy Metal Pollution in Yamuna River Ecosystem, Delhi Region. Climate Induced Hydrological Disasters, Policies and Management.

Kumar, S., Singh, V., and Saroha, J., (**11 September 2021**) Sustainable Development Planning in Sarbari Khad Watershed Using Geospatial Techniques. Environment, Pollution and Sustainable Development, The Deccan Geographical Society of India.

Kumar, S., Singh, V., and Saroha, J., (**October 2021**) Monitoring Spatial LULC Changes and its Growth in the Sarbari Khad Watershed of Himachal Pradesh, India. Population Environment, Health, Sustainable Development Goals and Appropriate Technologies: Post-COVID-19 Scenarios. Department of Geography, Institute of Science, BHU, Varanasi. 43rd Indian Geography Congress.

Kumar, A., and Singh, V., (**September 2021**) Importance of Wetlands Ecosystem for Sustainable Development in Darbhanga, Bihar. Environment, Pollution and Sustainable Development, The Deccan Geographical Society of India.

Singh, V., Kumar, A., Singh, R., Singh, C.J., and Tripathi, N., (**February 2022**) Neo-Tectonic Activities in Darjeeling Himalaya. International Conference RAiSE 2022, Recent Advances in Sustainable Environment.

Tripathi, N., Singh, R., Lepcha, S.T.S., Singh, V., Singh, C.J., Sharma, S.K., and Singh, S., (**February 2022**) Isolation of Scopoletin via LC-MS in roots of *Girardinia diversifolia*. International Conference RAiSE 2022, Recent Advances in Sustainable Environment.

Singh, V., (**11-13 February 2022**) Environmental Sustainability and Impact of Climate Change in Indian Scenario. International Multidisciplinary Webinar on "Climate Change Impact on Agriculture, Environment and Sustainable Development. Jointly Organised by International Academy of Science and Research (IASR), Kolkata, West Bengal, Gurukul Ectutech Education and Research Foundation, Kolkata, West Bengal and Scientific and Environmental Research Institute (SERI), Kolkata, West Bengal.