

Department of Botany
Central University of Jammu
Raya – Suchani (Bagla)
Distt. Samba 181143
Jammu & Kashmir

☎: +91 94191 65680

E mail: samanthavaishnavi@gmail.com

Samantha Vaishnavi

Date of Birth March 09, 1974

Nationality Indian

Education Ph.D. 2006 University of Delhi, Delhi

Thesis Title: “*DNA fingerprinting and karyotypic analysis as useful approaches to evaluate genetic diversity in endangered Himalayan medicinal herbs, Podophyllum hexandrum Royle and Aconitum heterophyllum Wall., and genomic relationships among Podophyllum species, and Aconitum species*”

M.Sc.(Hons.) Botany 1997 Panjab University, Chandigarh FIRST Division (61.9%)

B.Sc.(Hons.) Botany 1995 Panjab University, Chandigarh FIRST Division (63.2%)

X+2 1992 C.B.S.E. Chandigarh FIRST Division (73.0%)

X 1990 C.B.S.E. Chandigarh FIRST Division (80.8%)

UGC-CSIR NET Joint CSIR-UGC **National Eligibility Test (NET) for Lectureship, Dec 2001**

**Awards/
Fellowships**

- **IAS-NASI-INSA joint Summer Research Fellow, 2011**
- **Best Poster Award** (Second) during National Conference on Recent Developments in Plant Stress Biology organized by Central University of Jammu on 7-8, December, 2018.

Memberships

- Life member, Delhi University Botanical Society, Delhi.
- Life member, Indian Society of Genetics and Plant Breeding, New Delhi.
- Life member, The Orchid Society of India, Chandigarh
- Appointed as **Judge** for the Virtual Regeneron International Science and Engineering Fair (ISEF) 2021 being held in USA during May 3-6, 2021.

Languages Known English, Hindi, Kashmiri

Professional Experience

- **Assistant Professor Stage II**, Department of Botany, Central University of Jammu [13, August, 2016 - Continuing].
- **Assistant Professor**, School of Biotechnology, SMVD University [2006 – 12 August, 2016]. (CAS promotions from Stage I through III are pending)
- **Lecturer**, School of Biotechnology, SMVD University [2005 - 2006].
- **Research Associate** (Department of Biotechnology, GoI sponsored project), Department of Botany, University of Delhi, Delhi Feb. [Jan. 2005 – May 2005]
- **Senior Research Fellow** (Department of Biotechnology, GoI sponsored project), Department of Botany, University of Delhi, Delhi [Oct. 2000 – Jan. 2005]
- **Junior Research Fellow** (Department of Biotechnology, GoI sponsored project), Department of Botany, University of Delhi, Delhi [Sept. 1998 – Sept. 2000]

Field Experience

- **Group leader** in several field tours for collection of high altitude endangered medicinal and aromatic plants. Conducted tours in Uttaranchal, Himachal Pradesh and Jammu & Kashmir. [1999-2005]

Research Area

Molecular Biology, DNA Fingerprinting, Molecular Cytogenetics, Flow Cytogenetics, Chromosome Research, Medicinal plants

Research Projects

- **PI - Effect of developmental activities on vegetation composition and floral diversity in district Samba, Jammu & Kashmir**, funded by Science Technology & Innovation Council, (JKST&IC) J&K DST. (2021 - 2024) [7.49 Lacs]
- **PI - Network Programme for Enrichment and Update of Database on Genome Related Information for Indian Spermatophyta and Archegoniatae Taxa- Phase II**, funded by Department of Biotechnology, GoI (2021 - 2024) [Rs. 33,60,480/-]
- **PI - Study of synergistic effect of dietary molecules/ nutraceutical(s) in combination with clinically validated cancer chemotherapeutic agents** under UGC Major Research Project (MRP) scheme (2015-2018) **Completed** [14.05 Lacs].
- **Member NI Team**, MHRD funded Nationally Coordinated research project on **V-SAT enabled Mobile e-Learning Terminals at SMVDU**. IIT Roorkee is the lead institution in this project. (2009-2011). The money mobilized in the form of MeLTs and associated equipment along with the recurring budget as a part of this project amounted to over ~Rs 45 Lacs.
- **Coordinator- Establishment of Bioinformatics Infrastructure for the promotion of Biology Teaching** Through Bioinformatics (BTBI) Scheme of BTISnet funded by Department of Biotechnology, GOI, (2007) [Amount sanctioned Rs. 20 Lacs]

Research Supervision

Ph.D. Supervision:

1. Ms. Vrinda Sharma (Supervisor), Ongoing at CU Jammu.
2. Ms. Bhanu Sharma (as co-supervisor), Degree **Awarded** in 2022

3. Ms. Divya Bakshi (as co-supervisor), Degree **Awarded** in 2020.
4. Ms. Archana Pandita (as co-supervisor): Degree **Awarded** in 2016.
5. Ms. Niha Dhar (Supervisor) : Degree **Awarded** in 2016

Besides the above have also supervised several UG and PG dissertations.

1. Dhakate P, Sehgal D, Vaishnavi S, Chandra A, Singh A, Raina SN and Rajpal VR (2022), "Comprehending the evolution of gene editing platforms for crop trait improvement". Front. Genet. 2022 13:876987. doi: 10.3389/fgene.2022.876987. **SCIE-IF 4.772**
2. Vijay Rani Rajpal , Shashi Sharma , Deepmala Sehgal , Apekshita Singh , Avinash Kumar , Samantha Vaishnavi, Mugdha Tiwari , Hemal Bhalla , Shailendra Goel & Soom Nath Raina, "*A comprehensive account of SARS-CoV-2 genome structure, incurred mutations, lineages and COVID-19 vaccination program*" Future Virology 2022. In Press. <https://doi.org/10.2217/fvl-2021-0277>. **SCIE-IF 3.015**
3. Vijay Rani Rajpal, Shashi Sharma, Avinash Kumar, Samantha Vaishnavi, Apekshita Singh, Deepmala Sehgal, Mugdha Tiwari, Shailendra Goel & Soom Nath Raina, "*Mapping of SARS-CoV-2 spike protein evolution during the first and second waves of COVID-19 infections in India*" Future Virology 2022. VOL 17, NO. 8. <https://doi.org/10.2217/fvl-2021-0267>. **SCIE-IF 3.015**
4. Bhanu Sharma, Shabab Angurana, Ruchi Shah, Sonali Verma, Amrita Bhat, GR Bhat, Divya Bakshi, Rajeshwer Singh Jamwal, Mukesh Tanwar, Supinder Singh, Audesh Bhat, Samantha Vaishnavi, Rakesh Kumar, "*Genetic association of ARID5B with the risk of colorectal cancer within Jammu and Kashmir, India*" Genes & Genetic Systems 2021; (96), p. 1–5. <https://doi.org/10.1266/ggs.21-00010>. **SCIE- IF 1.517**
5. Amrita Bhat, Gh Rasool Bhat, Sonali Verma, Ruchi Shah, Ashna Nagpal, Bhanu Sharma, Divya Bakshi, Jyotsna Suri, Supinder Singh, Mukesh Tanwar, Samantha Vaishnavi, Audesh Bhat, Rakesh Kumar, (2021) "*Polymorphism in the TP63 gene imparts a potential risk for leukemia in the North Indian population*" African Health Sciences 2021;21(3). 1243-1249. <https://dx.doi.org/10.4314/ahs.v21i3.34>. **SCIE- IF 1.061**
6. Bhanu Sharma, Ruchi Shah, Rajeshwer Singh Jamwal, Sonali Verma, Amrita Bhat, Gulam Rasool Bhat, Divya Bakshi, Supinder Singh, Shabab Angurana, Audesh Bhat, **Samantha Vaishnavi**, Rakesh Kumar (2021), "*Evaluation of newly identified Ikaros family zinc finger 1 loci in colorectal cancer*" Journal of Cancer Research and Therapeutics, 17:46-50 |DOI:10.4103/jcrt.JCRT_844_20. **SCIE- IF 1.266**
7. D. Bakshi, A. Katoch, S. Chakraborty, R. Shah, B. Sharma, A. Bhat, S. Verma, G. R. Bhat, A. Nagpal, **S. Vaishnavi**, A. Goswami and R. Kumar, (2021) "*ANKLE1 as New Hotspot Mutation for Breast Cancer in Indian Population and Has a Role in DNA Damage and Repair in Mammalian Cells*" Frontiers in Genetics | <https://doi.org/10.3389/fgene.2020.609758>. **SCIE-IF 4.772**
8. D Bakshi, A. Nagpal, V. Sharma, I. Sharma, R. Shah, B. Sharma, A. Bhat, S. Verma, G. R. Bhat, D. Abrol, R. Sharma, **S. Vaishnavi** and R. Kumar (2020) *MassARRAY-based single nucleotide polymorphism analysis in breast cancer of*

north Indian population; BMC Cancer, 20: 861 <https://doi.org/10.1186/s12885-020-07361-8>. **SCIE-IF 4.672**

9. A. Pandita and **S. Vaishnavi** (2019) Investigating the role of nutraceuticals in improving cancer therapeutic regimens in *National Conference on Plant and Microbial Research: Present Scenario*, Feb. 18-19, 2019, Department of Botany, Punjabi University, Patiala, Punjab (abstract).
10. **S. Vaishnavi**, R. M. Devarumath and S. N. Raina (2018) Comparative cytogenetic analysis of high altitude, endangered congeneric *Aconitum* species in National Conference on *Recent Development in Plant Stress Biology: Translating Laboratory Research for Human Welfare (RDPSB-2018)*, December 7-8, 2018, Dept. of Botany, Central University of Jammu, Jammu, India. (Best Poster award, 2nd).
11. **S. Vaishnavi** (2017) Genetic diversity evaluation for optimum resource management in *12th JK Science Congress 2017 (Science and Technology: Emerging Trends and Innovations)*, March 2-4, 2017, Organised by University of Jammu, Jammu and J & K State Science, Technology and Innovation Council. (Abstract)
12. **S. Vaishnavi** and S. K. Wanchoo, STEM at senior secondary level; status of some schools in Jammu region of J&K State, *Proceedings of LINC-2016 international Conference held at Massachusetts Institute of Technology*, Cambridge USA during May 23-25, 2016.
13. A. Pandita, S. Manvati, S.K. Singh, **S. Vaishnavi*** and R.N.K. Bamezai* (2015) Combined effect of microRNA, nutraceuticals and drug on pancreatic cancer cell lines, *Chemico-Biological Interactions* 233:56-64 (*corresponding author) **SCIE-IF 5.168**
14. A. Pandita, B. Kumar, S. Manvati, **S. Vaishnavi**, S.K. Singh and R.N.K. Bamezai (2014) Synergistic Combination of Gemcitabine and Dietary Molecule Induces Apoptosis in Pancreatic Cancer Cells and Down Regulates PKM2 Expression *PLOS One* 9(9). **SCIE-IF 3.24**
15. N. Dhar, S. Rana, S. Razdan, W. W. Bhat, A. Hussain, R. S. Dhar, **S. Vaishnavi**, A. Hamid, R. Vishwakarma and S. K. Lattoo (2014), Cloning and Functional Characterization of Three Branch Point Oxidosqualene Cyclases from *Withania somnifera* (L.) Dunal *Journal of Biological Chemistry* 289: 17249-17267. **SCIE-IF 5.157**
16. A. Nagpal, K. Raina, R. Sadhotra, V. Bakshi, N. Verma, S. Vashnavi, R. Kumar 'BRCA1 plays a major role in the cellular response to DNA damage' Multi-disciplinary National Conference on Emerging Trends in Basic and Applied Sciences, organized by DAV College Jalandhar, Punjab, March 5-7, 2014 (poster)
17. N. Dhar, S. Rana, W. W. Bhat, S. Razdan, S. A. Pandith, S. Khan, P. Dutt, R. S. Dhar, **S. Vaishnavi**, R. Vishwakarma and S. K. Lattoo (2013) Dynamics of withanolide biosynthesis in relation to temporal expression pattern of metabolic genes in *Withania somnifera* (L.) Dunal: a comparative study in two morpho-chemovariants" *Molecular Biology Reports*, 40(12):7007-7016. **SCIE-IF 2.742**
18. S. K. Wanchoo, A. Kaul, **S. Vaishnavi**, H. Sinhal and H. K. Verma (2013) Educational Technology and its acceptance level among the students and teachers

- in some rural area *Proceedings of LINC-2013 International Conference held at Massachusetts Institute of Technology, Cambridge USA during June 16-19, 2013.*
19. S. P. Singh and **S. Vaishnavi** (2012) In-Silico Drug Designing for Diabetes Mellitus in 8th J&K State Science Congress organized by University of Kashmir from September 17-19, 2012. (Abstract)
 20. **S. Vaishnavi** (2012) Progenitors of *A. balfourii*: fresh insights during the *National Symposium on Plant Cytogenetics: New approaches* at Punjabi University, Patiala held from 23-24 February, 2012. (Abstract)
 21. S. N. Raina, S. Jain, D. Sehgal, A. Kumar, T. H. Dar, V. Bhat, V. Pandey, **S. Vaishnavi**, A. Bhargav, V. Singh, V. Rani, R. Tandon, M. Tewari and A. Mahmoudi (2011) Diversity and relationships of multipurpose seabuckthorn (*Hippophae* L.) germplasm from the Indian Himalayas as assessed by AFLP and SAMPL markers, *Genetic Resources and Crop Evolution* 59: 6, (2012),1033-1053. **SCIE-IF 1.876**
 22. A. Gupta, S. K. Pal, A. Trivedi, **S. Vaishnavi**, S. Rastogi, P. Srivastava, A. Runthala (2010) Insilico Microarray Analysis for Helicobacter pylori Using Gene Expression Data. *International Journal of Applied Biology and Pharmaceutical Technology* 1(3): 1175-1180.
 23. S. K. Wanchoo, A. Kaul, **S. Vaishnavi**, H. Sinvhal & H. K. Verma (2010), MeLTs; A new approach to delivery of e-learning in remote and un-served rural areas in India *Proceedings of the 5th International Conference of Learning International Networks Consortium (LINC-2010) held at Engineering Systems Division, Massachusetts Institute of Technology, USA, May 23- 26, 2010.*
 24. **S Vaishnavi**, RM Devarumath and SN Raina (2010) Applicability of DNA markers in elucidating ancestors of allotetraploid *Aconitum balfourii* in 5th J&K Science Congress, organized by University of Jammu, Jammu from Feb. 8 – 10, 2010. (Abstract)
 25. S K Wanchoo, A Koul, **S Vaishnavi**, H Sinvhal & HK Verma (2010) VSAT Enabled Mobile e-Learning Terminals for Education in Remote Areas 5th Jammu & Kashmir State Science Congress, organized by University of Jammu (February 08-10, 2010). (Abstract).
 26. **S Vaishnavi**, RM Devarumath and SN Raina (2009) DNA fingerprinting and karyotypic analysis as useful approaches to study genomic relationships among *Aconitum* species. National Conference on *Biodiversity: Present Status and Future Challenges* organized by Department of Botany, University of Kashmir, Srinagar from March 26-28, 2009. (Abstract)
 27. **S. Vaishnavi** and S. N. Raina (2005) Fluorescence in situ hybridization as a new tool for chromosomal localization of DNA sequences: Methodology. *Proceedings of Meeting on Utilization of Plant Genetic Resources, National Bureau of Plant Genetic Resources, Pusa Campus, N Delhi, 5-7 Oct. 2004.* pp 250-259.
 28. S. N. Raina, S Sharma, T Sasakuma, M Kishii and **S Vaishnavi** (2005). Novel repeated DNA sequences in safflower (*Carthamus tinctorius* L.) (Asteraceae): cloning, sequencing, and physical mapping by fluorescence in situ hybridization. *Journal of Heredity* 96(4):424-429. **SCIE-IF 2.679**
 29. V K Goswami, S Nandy, **S Vaishnavi**, A K Bhatnagar and SN Raina (2005).

Indian mayapple (*Podophyllum hexandrum*) leaf as an alternative source of podophyllotoxin; and RAPD fingerprinting between the Indian and American (*P. peltatum*) mayapple In: *Biodiversity – Status and Prospects* (eds P Tandon, M Sharma, R Swarup) Narosa Publishing House, N Delhi, pp 101-111. (Book Chapter)

Sequences submitted

30. PCR cloning of Internal Transcribed Spacer (ITS) regions of nrDNA. partial sequences of *Podophyllum* spp. AJ 717328 to AJ 717335 submitted to NCBI database.
31. PCR cloning of Internal Transcribed Spacer (ITS) regions of nrDNA. partial sequences of *Aconitum* spp. AJ 717336 to AJ 717345 submitted to NCBI database.

Invited Talks/ Resource person

1. **Expert member** DAC AcSIR Ph.D. student at IIIM-CSIR, Jammu.
2. **Invited Talk** “God Bless our ATGCs: What if they mutate!” delivered to the students and faculty of Amity Institute of Biotechnology, Amity University, Noida on 30th October, 2020.
3. **Session Chair** and Judge for poster session at 7th International Conference in the series **Youth 2025**, on the broad theme **“Re-Imagining Leadership for a Global Workforce”** (Fostering Professionalism and Ethics for Young Leaders) organized by Jaipuria Institute of Management, Jaipur held during **17-18 January, 2020**
4. **Co-chair** for the session Integrating Digital Tools and Technologies for Assessment in National Seminar on Assessment and Evaluation: Recent Trends and Challenges, organized by School of Education, CUJ, 5-6, February, 2020.
5. **Co-chair** for the session Political instability turmoil and conflict at International Conference on Revisiting the Virtues of Gandhian Philosophy: Relevance and Applicability in 21st century, organized jointly by University of Jammu and Central University of Jammu, 7-8, November, 2019.
6. **Invited Talk** “Effectiveness of DNA based markers on chromosomal approaches for genetic diversity assessment” delivered at International Conference on Applied Biology (ICAB-2019) & First Annual Convention of The Society of Biologists” Organized by School of Biotechnology, Shri Mata Vaishno Devi University, on 4-6, November, 2019.
7. **Resource person** organized by the Local J&K Chapter of National Academy of Sciences India and SMVD Gurukul, Katra on 3rd June 2019.
8. **Invited talk** “A Social Experiment with MeLTS in Jammu Region” at International Conference on STEM-Education and Research (STEM CON-16), organized by Ohio State University and Aligarh Muslim University at AMU, Aligarh during March 14-15, 2016.
9. **Resource person** for the teachers training workshop on popularization of science activities organized by Vigyan Prasar, DST, GOI in association with NCURDS from 14th to 17th October, 2015 at GCW, Parade, Jammu.
10. **Resource person** for the teachers training workshop on popularization of science activities organized by Vigyan Prasar, DST, GOI in association with NCURDS

from 26th to 29th October, 2015 at GCW, Parade, Jammu.

11. **Invited lecture** on “Synergistic effect of nutraceuticals and anticancer drugs” at DIT University, Dehradun on 6th August, 2015.
12. **Panelist** at “Genetically modified crops: bane or boon” Debate competition organized by the Local J&K Chapter of National Academy of Sciences India and IIIM Jammu at Jammu on 28th Feb. 2015.
13. Participated as **panelist/ resource person** in the “First Regional Multi-stakeholder Himalayan Sustainable Development Forum” supported by IHCAP, Swiss Agency for Development and Cooperation and DST, GOI held at Dehradun by GBPIHED, Almora on 4th August, 2015.
14. **Jury member** for the Debate Competition organized by the Local J&K Chapter of NASI and IIIM, Jammu at Jammu on 28th Feb. 2015.
15. **Resource person** for the teachers training workshop on popularization of science activities organized by Vigyan Prasar, DST, GOI in association with NCURDS, Jammu from 15th to 21st January, 2015 at State Institute of Education, Jammu.
16. Delivered an **invited talk** “Conservation of Endangered Medicinal Plants” in National Conference on Environmental Issues, Concerns and Solutions organized by Department of Environmental Sciences, University of Jammu on March 25, 2014.
17. Delivered an **invited talk** entitled, “Economic importance of plants as therapeutic agents” at Fascination of Plants Day held on behalf of European Plant Science Organization (EPSO) with JNU, New Delhi organized jointly by SICD and SBT, SMVDU on 18th May, 2012.
18. **Rapporteur** BTISNET XXIII Annual Bioinformatics Coordinators Meeting with the Focal Theme Bioinformatics in 21st Century-Looking Ahead organized by School of Biotechnology, SMVDU on Feb 3-4, 2012.
19. **Rapporteur** Technical Session IV: Science, Space Exploration and Applications National Seminar on Aviation and Outer Space: Science, Economics and Law for Sustainable Development held at SMVDU from April 24 – 25, 2010.
20. **Coordinator and resource person** for workshop on Fluorescence in-situ hybridization techniques conducted at Department of Botany, University of Delhi from July 30 to August 6, 2005.

Conferences/ Workshops/ FDPs Organized

1. **Organizing Secretary**, International Webinar on Climate Change and Sustainable Agriculture organized by Department of Botany, CU Jammu on 12-13 June, 2020.
2. **Coordinator** Fascination of Plants Day organized by Department of Botany, CU Jammu in May, 2020.
3. Member Venue Committee, National Conference on Education Employment and Empowerment: Issues and Challenges, organized by National Working Group Employment, New Delhi and CUJ on 18th March, 2019.
4. **Organizing Secretary** “National Conference on Recent Development in Plant Stress Biology: Translating Laboratory Research to Human Welfare” (RDPSB2018) organized by Department of Botany, Central University of Jammu, December 7-8, 2018.
5. Member, Scientific Event coordination for National Science Day, 28.02.2018 held at CUJ.

6. Conducted several field trips for collection of plant material for practical classes.
7. Organized No Tobacco Day on 31st May, 2017 at CUJ.
8. Member, Organizing Committee, National Science Day-2017 CUJ.
9. Member, organizing Committee - Wildlife Day Celebration-2017, CUJ.
10. Member, Organizing Committee, Swachhta Pakhwada-2017 at CUJ.
11. Conducted the proceedings of National Seminar on Relevance of Teachings of Swami Vivekananda in Modern Times organized by CUJ on 14th October, 2016.
12. Organized a one day workshop for the Range Officers (Trainees) who were on a field tour of J&K from Central Academy for State Forest Service, Burnihat, Assam on 2nd April 2015.
13. Organized the visit and expert invited talk of Prof. Altaf Wani, Ohio State University titled "Protein Modifications modulating DNA repair response" on 4 February, 2015.
14. Member organizing Committee, Innovation in Science Pursuit for Inspired Research Science Internship Camp held in SMVDU from 22 to 26 July, 2015.
15. Member Organizing Committee, Two days' workshop entitled "Recent Advances in Genomics and Proteomics" workshop at BIF lab, SBT, SMVDU on March 26 - 27, 2014.
16. Member organizing Committee, Innovation in Science Pursuit for Inspired Research Science Internship Camp held in SMVDU from July 19-23, 2012.
17. Member organizing committee Titiksha-2012 held at SMVDU during March 25-26, 2012.
18. **Organizing Secretary "International Symposium** on Biotechnological Advances in Cancer Biology" with a funding of Rs. 3 Lacs from UGC, DST and J&K Govt and held on February 13, 2012 in SMVD University.
19. Member Technical Committee, Titiksha – 2012, SMVDU.
20. Member organizing Committee, Innovation in Science Pursuit for Inspired Research Science Internship Camp held in SMVDU from 28 May to 1 June, 2011.
21. Member organizing Committee, Innovation in Science Pursuit for Inspired Research Science Internship Camp held in SMVDU from December 26-30, 2011.
22. Co-organized National Science Day celebrations on 28th February 2011.
23. Co-organized the National Science Day celebrations held at Government Higher Secondary School, Panthal on Feb. 28, 2011.
24. **Organizing Secretary "International Conference** on Mitochondria Research and Medicine (ICMRM-2010)", with a funding of Rs. 5,17,500/- from DST, CSIR, ICMR and J&K Govt. and held from November 12-13, 2010 at SMVD University.
25. **Co-coordinator** "Workshop on Hands-on Training in Bioinformatics" organized by School of Biotechnology, SMVD University in collaboration with BCS-in silico Biology, Lucknow Aug. 30 – Sept. 04, 2011.
26. Member organizing Committee, Innovation in Science Pursuit for Inspired Research Science Internship Camp held in SMVDU from 25 to 29 June, 2010.
27. Member organizing committee of DBT funded two-day Work Shop on Trends in Bioinformatics held in SMVD University in collaboration with Jammu University, March 18-19, 2009.
28. Actively participated in conceptualizing and organizing the Biotech Week at

School of Biotechnology, SMVDU from November 17-19, 2005 along with the other faculty members.

29. Actively participated in conceptualizing and organizing the National Science Day activities on February 28, 2006.

**Orientation/
Refresher courses/
FDPs attended**

1. FDP on Emerging Trends in Assessment and Evaluation for Teaching and Learning 16 – 22, March, 2021 organized by School of Education, Central University of Jammu.
2. Successfully completed two week Faculty Development Programme “**Pedagogy for Online and Blended Teaching-Learning Process (FDP101x)**” March, 8 – April, 12, 2018 (RC-1041) IIT Bombay.
3. Successfully completed two week Faculty Development Programme “**Foundation Program In ICT For Education (FDP201x)**” May, 3 –30, 2018 (RC-1041) IIT Bombay.
4. Participated in AICTE approved Four-week FDP on "Use of ICT in Education for Online and Blended Learning". 2nd May- 10th July, 2016
5. Participated in Two weeks AICTE sponsored FDP on Carving Human Resources: Approaches and Procedures organized by SoB, SMVDU from Dec. 21, 2015 – Jan. 03, 2016.
6. Attended two weeks ISTE training program on Environmental Studies conducted by Indian Institute of Technology Bombay at SMVDU-RC from June 2 – 12, 2015.
7. Attended two weeks National Faculty Development Programme (FDP) on Entrepreneurship at SICD, SMVDU organized in association with Entrepreneurship Development Institute, Ahmadabad from March 12-23, 2012
8. IAS-NASI-NSA joint Summer Research Fellow, 2011 in June – August, 2011 at Amity University, Noida.
9. Participated in UGC Sponsored Orientation programme at Jamia Milia Islamia, New Delhi from July 20 - August 16, 2010.
10. Participated in two week ISTE mega workshop on “Introduction to Research Methodologies” 25th June to 4th July, 2012, SMVDU organized by IITB under NMEICT, MHRD.
11. Participated in the National Workshop on Cheminformatics organized under the Bioinformatics Infrastructure Facility of Department of Biotechnology, New Delhi by Maulana Azad National Institute of Technology, Bhopal from May 28th to June 1st 2006.

**Conferences/
Workshops/
Seminars attended**

1. Participated in hands-on laboratory course on CRISPR-Cas Gene Editing jointly organized by Shree Guru Singh Tercentenary (SGT) University, Gurugram and

- Alliance of Biodiversity International and CIAT, New Delhi on March 23-27, 2021.
2. Attended webinar on Pandemics & Hunger organized by Department of Plant Sciences, University of Hyderabad on 8th June, 2020.
 3. Attended webinar on Molecular Taxonomy and DNA Barcoding: Concepts, Methods and Applications organized by RD&SH National College, University of Mumbai on 20th May, 2020.
 4. Participated in the Science Leadership Workshop organized by Central University of Punjab, Bhatinda from 22-28, June, 2020.
 5. Attended Webinar on Biodiversity and Public Health organized by Shivaji College, University of Delhi on 19th May, 2020.
 6. Participated in online conference on Environment Pollutants and Cancer organized by Central University of Himachal Pradesh from 20 – 21, May 2020.
 7. Attended Round Table Conference to establish dialogue with different stakeholders of J&K to review National Education Policy, 2019 held on 18th June, 2019 at JU organized jointly by CUJ and Jammu University.
 8. Attended World Health Day celebrations held on 09.04.2018 at CUJ.
 9. National Symposium on Recent Trends in Biotechnology and Drug Discovery (RTBDD-17), 30-31 March, 2017, Organised by Department of Biotechnology, Shri Mata Vaishno Devi University, Katra.
 10. Workshop on ‘Patent Drafting And Filing’, organized by Department of Biotechnology, SMVD University in association with TIFAC Department of Science & Technology, GoI on October 20, 2016.
 11. On-site Day Workshop on analytical techniques by Waters India Pvt Ltd. at TAB, Central University, Jammu on 12th May 2017.
 12. Attended the interaction session with Shri K. K. Sharma (IAS) the then OSD & Secretary designate, MHRD, GoI in January, 2017.
 13. Attended proceedings of the Constitution Day function held at TAB on 25th November.
 14. Attended the International Seminar on Kashmir Philosophy at CUJ, Mar 23, 2017.
 15. Attended the interaction session with Dr. Radhakrishnan Koppillil, Former Chairman ISRO at CUJ on April 6th, 2017.
 16. Attended the interaction session with Prof. Dev Raj, Vice Chairman, UGC on April 8th, 2017.
 17. Attended Workshop on Bioinformatics: “Genomics, Proteomics and System Biology” organized by Department of Biotechnology, SMVD University, March

10-11, 2016

18. Attended National Workshop on “Intellectual Property Rights: Implementation and Enforcement” January 14 – 15, 2016 at Central University of Jammu.
19. Participated in the National Conference on “Orchids Science and Commerce: Integration of Medicinal Orchids, Sustainable Development and Societal Benefits and Orchid Show” organized by TOSI and held at SMVDU during February 13-15, 2015.
20. Participated in a workshop on “Bioinformatics: Approaches in the –omic Era” organized by SBT, SMVDU during March 10-11, 2015.
21. Participated in Hands-on training workshop organized Central Mass Array Facility, SMVDU in association with Agena Biosciences, USA” from April 8-10, 2015.
22. Participated (invitation) in a “Brainstorming Workshop on Climate Change” organized by CSIR-Indian Institute of Integrative Medicine, May 19 -20, 2015.
23. Participated in two day 7th meeting of Programme Advisory Committee (PAC) on Himalayan Glaciology, May 14-15, 2015 at School of Innovation & Community Development (SICD), SMVD University.
24. Participated in two days advance workshop on “Modern Development and Applications in imaging techniques” from May 26-27, 2015 in the School of Biotechnology, SMVDU
25. Event Judge for the Resurgence 2015 organized from April 3-5, 2015.
26. Attended two day DBT sponsored workshop on Recent Trends in Genomics and Proteomics organized by Bioinformatics facility, SBT, SMVDU, March 26-27, 2014.
27. Attended Interdisciplinary Lecture Workshop on “Physics of earthquakes and Hazard Analysis” sponsored by INSA-NASI-IASc from May 27-29, 2014 organized by SICD at SMVDU.
28. Attended one day UKIERI sponsored workshop “Earthquake Hazard quantification in NW Himalaya” held on May 30, 2014 hosted in collaboration with IISERK and University of Cambridge, UK by SICD at SMVDU.
29. Participated in Brainstorming Workshop for capacity building of teachers associated with Mobile School System of J&K State on behalf of NCSTCD, DST, GOI held from September 12-13, 2013.
30. Participated by invitation in the 79th Annual Meeting of the Indian Academy of Sciences, Bangalore held at PU, Chandigarh during November 7-10, 2013.
31. Participated in National Symposium on Bioinformatics: Challenges in the Post Genomic Era held at University of Jammu, Feb 2, 2012.

32. Participated in UGC sponsored National Symposium on Interdisciplinary sciences, held at GGMS College, Jammu from 2-3 March, 2012.
33. Two day ISTE mega workshop on “Aakash for Education” November 10 - 11, 2012, SMVDU organized by IITB under NMEICT, MHRD.
34. Attended two day UGC sponsored lecture series on recent trends in Biotechnology organized by UGC SAP DRS-I program of SBT, SMVDU from November 9-10, 2012.
35. National Conference on Biodiversity Related International Conventions: Role of Indian Scientific Community organized by University of Delhi at INSA, New Delhi from March 8-10, 2006.
36. International Conference on Agricultural for Food Nutritional Security and Rural Growth organized by TERI School of Advanced Studies at India Habitat Centre, New Delhi from May 25-27, 2006.
37. Interfaced with corporate houses to market Youth Festival-2006 to make it fully self-supportive.

32.

**Other activities/
Responsibilities
(academic/administ
rative):**

August 2016 onwards at CUJ:

1. Coordinator, Department of Botany, CUJ (2017 – 2020)
2. Member, Departmental Local Purchase Committee, Department of Botany (2017 -
3. Member Secretary, BOS, Department of Botany, CUJ.
4. Member, Technical Committee, Department of Botany, CUJ.
5. Member, DRC, Department of Botany, CUJ.
6. Presented department presentation before the NAAC peer team in 2018.
7. Represented Department of Botany, CUJ before the academic audit committee of UGC.
8. Member, Founding Faculty responsible for establishment of teaching laboratories in Department of Botany, CUJ [August 2016 onwards]
9. Have been involved in developing the course contents of Integrated M.Sc. Botany and Ph.D. programmes being offered by Department of Botany, CUJ. [2016 onwards]
10. Counselor, GSCASH, CUJ.
11. Convener, Folk dance for UDDAAN-2019.
12. Convener, Folk dance committee, CUJ.
13. Member, Debating and public speaking club, CUJ.
14. Invigilator, CUCET, 2017.
15. Member, Security committee, 1st Convocation, CUJ, 2018.
16. Organizing Secretary, National Conference on RDPSB-2018, Department of Botany, CUJ.
17. Presently involved in compilation of SSR for Department of Botany for NAAC.
18. Prepared the NAAC-SSR report of Department of Botany jointly with the faculty

members in 2017.

19. Prepared the NAAC presentation of Department of Botany jointly with the faculty members in 2017.
20. External expert, Ph.D. Research Committee, CSIR-IIIM, Jammu, J&K, 2018.
21. Prepared departmental budget projections for the period 2017-2018 with other faculty members for submission to administration.
22. Contributed towards the drafting of the annual report of the Department.
23. Member, DSRC, SBT, SMVDU for 2 students
24. Member, Departmental Affairs Committee
25. Contributed towards setup and smooth functioning of the labs in the Department.
26. Convener, Folk Dance Committee, UDAAN-2019 held from 10-12, April, 2019
27. Cultural Committee, CUJ
28. Convener, Group Dance & Solo Dance (folk) Committee
29. National Service Scheme - 'Swachhta Shapath' - 2017
30. Member, University level committee to assess the maturity of Plantation in Nagrota by the Department of Social Forestry vide Cuj/Acad/Pla/2017/67 dated 15th Feb 2017.
31. Invigilator, CUCET – 2017
32. Member Safety security & discipline committee (Convocation) 2018
33. Student mentor for allotted group of students, Department of Botany, CUJ
34. Member, Food and Hospitality Committee, Sports Meet-2019 held on April 5, 2019
35. Member, Stage, Seating and Decoration Committee Foundation Day of the University & Induction Day-2018 (08.08.2018)
36. Represented Department of Botany in personal interaction with the Audit Committee, UGC which visited the University.
37. Have actively participated in the development of complete course details of the M.Sc. Botany (Integrated), MOOC courses and Pre-Ph.D. course work at CUJ

Prior to joining CUJ:

38. Member, Founding Faculty responsible for establishment of teaching laboratories for Molecular Biology, Biotechnology and Microbiology in School of Biotechnology, SMVD University [June 2005- August 2016]
39. I/c Admissions/ Convener Ph.D. (Biotech and Chemistry) (2016-17)
40. Member, Convocation Committee for the 5 Convocation at SMVDU, 2016.
41. Member Anti Ragging Squad, SMVDU (2015-16).
42. Member Anti Ragging Squad, SMVDU (2014-15).
43. Member PhD admissions committee, SBT (2014-15).
44. Member committee constituted to study the Biological Diversity Act (2002) & Rules (2004) and for adherence to the provisions of the Act by the University and to formulate University's Policy (2014-15).
45. Event Judge for the Resurgence 2015 organized from April 3-5, 2015.
46. Member, Academic Affairs Committee, SBT, SMVDU (2013-2016).
47. Member, SMVD University Level Medical Support System Advisory Committee

(2013-2016).

48. Member PhD admissions committee, SBT, SMVDU (2013-14).
49. Member, Convocation Committee for the 4 Convocation at SMVDU, 2013.
50. Co- Moderation I/c with Dr. Sakshi Arora for the 4 Convocation at SMVDU, 2013.
51. Warden, Shivalik Girls Hostel (January 2011-July 2012).
52. Faculty Advisor, dramatics club, SMVDU (2012)
53. Member PhD admissions committee, SBT, SMVDU (2012-13).
54. Member Enquiry Committee, SMVDU, 2012.
55. Member GSCASH, SMVDU (2011-2013).
56. Member Expert Committee for purchase of Scientific Equipment, SBT, SMVDU (2011-12).
57. In-charge Examinations, SBT, SMVDU (2011-12).
58. In-charge UG registrations, SBT, SMVDU (2011-12).
59. Member, Organizing committee, Resurgence 2011, SMVDU.
60. Member Stage Management Committee, 3rd Convocation, SMVDU – 2011.
61. In-charge UG Registrations, SBT, SMVDU (2010-11).
62. In-charge purchase of chemicals, glassware and plastic ware, SBT, SMVDU (2010-11).
63. In-charge Examinations, SBT, SMVDU (2010-11).
64. Convener, Faculty meetings, SBT, SMVDU (2010-11).
65. Member Sub-Committee, BOS, SBT, SMVDU to recommend rationalization of the B. Tech (IBT) 1st year syllabus vis-à-vis other branches of B.Tech (2010-11).
66. Member, College Research Committee (CRC), COS, SMVDU, 2011.
67. Member Expert Committee for purchase of Scientific Equipment (2010-11), SMVDU.
68. Member, Discipline Committee, Resurgence 2011, SMVDU.
69. Member, House advisory committee (Agni house), Resurgence 2011, SMVDU.
70. Member Enquiry Committee- 2011, SMVDU.
71. Conducted Lab work of M.Sc. Biotechnology Semester III to IIIM, CSAIR, Jammu (2010)
72. Member Secretary, Board of Studies, SBT, SMVDU (2010- 2016).
73. In-charge maintenance and upkeep of Biotechnology lab in COS (2009 to 2016), SMVDU.
74. Member Organizing Committee School Day (2009-10)
75. Coordinated the visit of Prof. Deepak Pental, Former VC, University of Delhi to SBT, SMVDU
76. In-charge Examinations, SBT, SMVDU (2009-10).
77. In-charge UG registrations, SBT (2009-10), SMVDU.
78. Convener, Faculty meetings, SBT, SMVDU (2009-10).
79. Compiled the NAAC report for SBT, SMVDU (2009-10).
80. Member, Student - Faculty interface committee, SBT, SMVDU and mentor (2009-10).
81. Was involved in organizing the UGC Expert team visit to the University for Grant

- 12(b) Status on 26-28 May, 2009, SMVDU.
82. Member Seating and Management Committee, 2nd Convocation – 2009, SMVDU.
 83. Member UG Admission committee, SMVDU (2009-10).
 84. In-charge UG registrations, SBT (2008-09), SMVDU.
 85. Member organizing committee of one-day Work Shop on National Bamboo Mission held in SMVD University in collaboration with SFRI, J&K on 8th December, 2008.
 86. Member Sponsorship Committee: Was responsible for bringing sponsorships worth over Rs. 1 Lac from Airtel & HPCL. This included souvenirs in the form of Caps, Banners, Gates, Hoardings etc. for the SpringFest 2007.
 87. Was part of organizing team for the visit of Prof. B. Jayaram, IIT Delhi to SBT (2006-07).
 88. Convener Timetable Committee SpringFest: Conceptualized and prepared the event timetable for the SpringFest 2007.
 89. Was deputed by the University to visit Department of Biotechnology, Career Institute of Technology & Management, Suraj Kund, Haryana on 12-13 of February 2007 by SMVDU.
 90. Member Decoration & Stage Management Committee: Assisted in the conceptualization and preparation of the venues for inaugural and valedictory functions of SpringFest 2007.
 91. Member of Committee for the auditing of service files/ Documents of SMVDU Staff (2007).
 92. Special Invitee member, Academic Council (7 Meeting), SMVDU (2007).
 93. SMVD University House System Coordinator 2006-07.
 94. Part of organizing team for Wilderness Adventure Camp for 48 students which was organized by Department of Sports, SMVDU at Sanansar near Patnitop from 1- 3 April, 2006.
 95. Coordinated the Nestle, Polo Fresher night, SMVD University September, 2006.
 96. Conceptualized and coordinated the cultural events of Youth Festival, 2006, SMVDU. Obtained sponsorships worth Rs. 1.75 Lacs from LG electronics and Airtel for Youth Festival. This included souvenirs in the form of T-shirts, Caps, and Banners etc.
 97. Part of organizing team for the visit of Sh. R. S. Pawar and Dr. S.S. Bloeria to SMVDU (2005-6).
 98. Was part of organizing team for the visit of Dr. G. N. Qazi, Director, RRL, Jammu to School of Biotechnology (2005-06).
 99. Faculty Editor for the second issue of the University Newsletter Pratibimba (2005-06).
 100. Invigilator for the conduct of written test for the post of STA and Lab Assistant for various colleges of SMVDU on 28th July, 2005.
 101. Member, UG admission committee, SMVDU (2006-07).
 102. Member School Purchase Committee, School of Biotechnology, SMVDU (2006-07)

103. Member Library Committee, SMVDU (2006)
104. Was deputed to Interface with the Central Counseling Team and students at Delhi College of Engineering during Counseling for UG Admissions process from 30 June to 7 July, 2006.
105. Member, UG admission committee (2005-06).
106. Member School Purchase Committee, School of Biotechnology, SMVDU (2005-06).
107. Teacher in-charge, Cultural Committee for Youth festival (2005-06).
108. Teacher advisor, Vayu House, SMVDU (2005-06).
109. Member Central Purchase Committee for purchase of Scientific Equipment, SMVDU (2006).
110. Member special purchase committee to collect offers for planting material (Hammelia petans hedge plants), SMVDU (2005-06).
111. Have been involved in developing the course contents of B.Tech and M.Sc. Programmes being offered by SBT, SMVD University. [2005 onwards]
112. Student Editor, The Botanica, official magazine of Delhi University Botanical Society(DUBS) [2001-03]

References

Prof. S. N. Raina, FNASc

Professor Emeritus
Amity Institute of Bioetchnology
Amity University, Noida, UP
+91- 8929212564
soomr@yahoo.com

Prof. R. N. K. Bamezai, Padma Shree, FNA, FNASc, FIMSA, FAMS

Professor, Human Genetics
SLS, Jawahar Lal Nehru University
New Delhi
+91- 9968131434
bamezai@hotmail.com