

CURRICULUM VITAE

DR. ZAFAR IQBAL BUHROO

**Assistant Professor Cum Junior Scientist,
College of Temperate Sericulture, Mirgund
Sher-e-Kashmir University of Agricultural Sciences &
Technology of Kashmir, Shalimar Srinagar, J&K-190025,**

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CAREER OBJECTIVE:

To achieve professional excellence in my career and significant contribution in the advancement of our knowledge in basic as well as applied Biology, and translate that knowledge into a viable technology.

PERSONAL PROFILE:

Name : Zafar Iqbal Buhroo
Fathers Name : Mr. Gh. Mohiud-din Buhroo
Address for Correspondence : Nadihal Bandipora, Tehsil: Bandipora Distt: Bandipora
Jammu and Kashmir Pin code: 193502
Marital Status : Un-married
Religion : Islam
Nationality : Indian
Personality : Positive attitude, self-motivated, Capable of Working
In Challenging Atmosphere.

REGULAR SERVICE DETAILS:

S. NO	Period		Place of Employment	Designation	Scale of Pay
	From	To			
1	01-08-2017	Till date	College of Temperate Sericulture, Mirgund Sher-e-Kashmir University of Agricultural Sciences & Technology of Kashmir, Shalimar Srinagar.	Assistant Professor Jr. Scientist/	15600-39100 (6000)

RESEARCH TITLE OF PH. D. THESIS:**Genetic Diversity of some Potential Bivoltine Silkworm *Bombyx mori* L. Genotypes Using Molecular Markers****ACADEMIC PROFILE:**

Qualification	University	Year of Passing	Percentage/OGPA	Specialization
Ph. D (Sericulture)	SKUAST-K, Shalimar Srinagar.	2017	7.99 (OGPA)	Silkworm Biotechnology
M.Sc. (Sericulture & Seribiotechnology)	University of Mysore Karnataka	2010	77.55 (%)	Sericulture Biotechnology
B.Sc. (With Sericulture)	University of Kashmir Srinagar	2007	68.72 (%)	Sericulture

EXPERIENCES:

S. No.	Positions held	Employer	Job Description	From	To	Period
1.	Junior Research Fellow (DST, GoI, New Delhi)	SKUAST-K	Research	01/06/15	Continue	1.9 years
2.	Teaching Assistant (TSRI, SKUAST-K)	SKUAST-K	Teaching	01/06/12	31/12/14	2.5 years
3.	Bioinformatics Traineeship (BIF) DBT, GoI, New Delhi	SKUAST-K	Trainee	01/05/11	30/04/12	1 year

RESEARCH ACOMPLISHMENTS:

- ✓ Conducted first ever study on genomic selection in silkworm wherein genetic diversity among 12 *B. mori* races were assed and marker trait association was established.
- ✓ Successful introduction of Sericulture under DST, GOI Sponsored Project for the first time in the tribal belt of Ladakh.

MENTORSHIP AND TEACHING:

Mentoring & teaching Graduate and Post Graduate Students in the S.K. University of Agricultural Sciences and Technology (SKUAST-K). The focus of my teaching is on;

- Silkworm Genetics and Breeding
- Principles of Genetics and Breeding
- Sericulture Biotechnology

MENTORSHIP AS GUIDE OR CO-GUIDE OF POST GRADUATE STUDENTS:

S. No	Title of Thesis	Name	Ph. D/ M. Sc	Status	Year
1.	ITS Based Sequence Characterization in Silkworm <i>Bombyx mori</i> L.	Ms. Asma Haqqa	M. Sc (Seri.)	Co-Advisor	2017
2.	Influence of Antibiotics on Silkworm <i>Bombyx mori</i> L.	Iqra Rafiq	M. Sc (Seri.)	Major Advisor	2018
3.	Silk gene Characterization in Silkworm <i>Bombyx mori</i> L.	Ishafaq Ahmad	M. Sc (Seri.)	Co-Advisor	2018
4.	Molecular Characterization of Silkworm <i>Bombyx mori</i> L Genotypes.	Ms. Aina Bhat	Ph. D (Seri.)	Co-Advisor	2020

PUBLICATION SUMMARY:

Publications	Number
Full Length Papers	27
Abstracts	10
Book Chapters	02
Books	02
Technical Bulletins/Folders	02
Lecture Delivered	05

EXTENSION ACCOMPLISHMENTS:**Front Line Demonstrations of Research Trials/OFT/other trials conducted –**

Year	Crop	FLD/OFTS Conducted	No. of beneficiaries
2017	Mulberry Crop	08	90
	Silkworm Cocoon	03	112
2018	Mulberry Crop	07	120
	Silkworm Cocoon	04	143
2019	Mulberry Crop	05	110
	Silkworm Cocoon	20	127
	Total	47	702

SUMMARY OF TRAININGS/CONFERENCES/SEMINARS ATTENDED /CONDUCTED:

One Weeks Training	Attended	02
Ten days Training	Attended	01
Three Weeks Training	Attended	02
One month's Training	Attended	01
National Conferences/Seminars	Attended	06
International Conferences	Attended	03
Trainings	Coordinated	06
National/International Conferences/ Trainings	Conducted as organizer	01

ROLE AS A RESEARCHER:

- Development of climate/season specificified silkworm genotypes.
- Development of disease resistant silkworm genotypes.
- Marker Assisted Selection for selection of high quality silkworm breeds/hybrids.
- Genomic Dissection of economically important genes in Silkworm for qualitative and quantitative silk production.
- Intervention of biotechnology in Sericulture for sustainable Sericulture development in Jammu and Kashmir.
- Introduction of Sericulture to unexplored areas for women empowerment and Income augmentation to transform sericulture into a profitable enterprise.

TECHNICAL SKILLS:

Techniques

Seri-Biotechnology

Skills

- Routine techniques like Isolation of genomic DNA from plant and insect.
 - Genotyping/DNA fingerprinting.
 - SSR, ISSR, and RAPD genotyping and data analysis.
 - Marker assisted selection.
 - Molecular diagnostics using PCR, QPCR, RT-PCR.
 - cDNA library preparation, Southern Hybridization, Western blotting, Electrophoresis.
- Bio-Informatics
- Use of professional software's like, Clustal 1.81 msw, Bioedit, GeneIAex, Arlequin, PopGene, WU-BLAST, ClustalW, Cervus, Alpha View SA, MultAlign, Tandem repeat finder etc.
 - Use of NCBI and public domain software's for sequence analysis.
- Biochemical
- Biochemical estimations of Nucleic Acids, Proteins, Carbohydrates etc. (Qualitative and Quantitative).
 - Enzyme assay, estimation of protein, glucose, fructose, of Enzyme, Gel Filtration, SDS PAGE, Density gradient centrifugation.
- Agri-Statistics
- Experimental designing.
 - Use of Statistical tools, like SPSS, SAS, RAR, MS tools, R-Software for biological data analysis.
 - ANOVA, Multivariate Data analysis, Regression analysis, Linear modeling.
- Computers
- Certificate of Computing –NCPUL- Well acquainted with MS Office, Multilingual D.T.P
 - Day to day use of MS-DOS, MS Word, MS Power Point, MS Excel, Open Office, Internet and Web surfing.

COURSES TAUGHT AT UG AND PG LEVELS:

- Sericulture Biotechnology
- Silkworm Breeding and Genetics
- Morphology and systematics of Silkworms
- Silkworm and Mulberry Physiology
- Principles of Genetics & Cytogenetics
- Fundamentals of Cell and Molecular Biology
- Animal Genomics
- Non-Mulberry Sericulture
- Physiology of Host Plants of Silkworms
- Post Cocoon Technology

TRAININGS ATTENDED:

- Undergone 42 days Training on ‘ Large Scale Silkworm Rearing ‘ Organized by Department of Sericulture University of Mysore from 29-09-2009 to 09-11-2009.
- Attended Three (03) days Training program on ‘Demonstration of Large Scale Production of Potato mini-tubers through Tissue culture in Kashmir Valley’ Organized by Division of Olericulture, SKUAST-K, Shalimar, Sponsored by Ministry of Agriculture (GoI) from 28-30 March-2011.
- Attended one week’s Advanced Training program on ‘Molecular Biology and Biotechnology’, held at SKUAST-K, Shuhama, Organized by Division of Biotechnology, Fvsc&AH, SKUAST-K, Shuhamma, Sponsored by Département of Biotechnology, Ministry of Science and Technology. Govt. of India from 25- 30 March 2013.
- Attended NSS course training program as a part of curriculum during Ph.D program.
- Attended Two (02) days training program ‘Hands on Digital Exchange of Data Information” from March 20-21, 2017 Under Networking of multi-institutional Cold Desert (CODER) Programme Projects-Coordination, Monitoring and Evaluation Organized by Department of Science and Technology (DST), SEED Division, Govt. of India in collaboration with Directorate of Research, Sher-e-Kashmir University of Agricultural Sciences and Technology of Jammu.
- Attended First Orientation Course for Newly Recruited Scientific staff at SKUAST-K, Shalimar Organised by Directorate of Education SKUAST-K w.e.f 01-01-2018 to 30-01-2018.
- Attended Ten days Training Program on Integrative Module For Mulberry Based Farming System, Organised by Temperate Sericulture Research Institute, SKUAST-K w.e.f 19-12-2018 to 28- 03-2018.
- Attended Twenty one days Training Program on Mulberry and Silkworm Breeding at CSR&TI, Mysore, Organised by Division of Trainings w.e.f 19- 02- 2018 to 12- 03-2018.
- Attended one weeks traing program on Academic and Examination Management System organised by Agriculture Research Information System (ARIS) SKUAST-K, Shalimar w.e.f, May 22nd -27th,2018.

WORKSHOPS/TRAININGS COORDINATED:

- Coordinated 50 days Training Program as P.I at three remote villages of Kargil Ladakh under the University funded project titled ‘ Expansion of Bi-voltine Silkworm Rearing, Training and Demonstration to Non- traditional Areas of Kargil-Ladakh during June-July-2018. Under the Program 150 women benificeries were trained and demonstrated about Sericulture technology on Scientific lines.
- Coordinated 45 days Training Program as P.I at three remote villages of Kargil Ladakh under the University funded project titled ‘ Expansion of Bi-voltine Silkworm Rearing, Training and Demonstration to Non- traditional Areas of Kargil-Ladakh during July-

August-2018. Under the Program 163 women beneficiaries were trained and demonstrated about Sericulture technology on Scientific lines.

- Coordinated three days training on Cocoon Craft-A Value Addition to Sericulture at COTS, SKUAST-K, Mirgund w.e.f, December 26th – 28th, 2019.
- Coordinated three days online National Webinar on Mulberry Fruit : A Promising Nutraceutical With Inherent Bioactive Compounds w. e. f, June 29th - July 1st 2020 Sponsored by IDP, NAHEP, SKUAST-K.
- Coordinated Four Days National Skill Development Webinar Workshop On Distant Teaching Through online Tools w. e. f, August 31st-September 3rd, 2020 Sponsored by IDP, NAHEP, SKUAST-K.

AWARDS/ACHIEVEMENTS:

- ❖ Post-Doctoral Fellowship award by DST, SERB GoI Dated: October, 6th, 2017.
- ❖ Introduction of Sericulture for the first time in the non-traditional tribal belt of Kargil-Ladakh under DST, GOI sponsored Project.
- ❖ Trained Eighty (180) women farmers of Kargil in silkworm rearing and mulberry propagation through different techniques under the project.
- ❖ Conducted Kissan Mela single handedly at Kargil Ladakh under DST project during the year 2015.
- ❖ Record Cocoon Crop production 60 Kg/Ounce at Kargil (Double than the production under Kashmir conditions).
- ❖ Young Scientist Award-2020 by Department of Biotechnology and Microbiology, Kalp, Laboratories-The Bouquet Society, Mathura-India.
- ❖ Research Excellence Award-2020 by Institution of Scholars (INSc.) Benglore-India.
- ❖ Best Thesis Award-2020 by Plantica Foundation, Dehradun-India.
- ❖ Certificate of appreciation by Hon'ble Vice-Chancellor SKUAST-Kashmir for completion of Faculty details on UMS web portal as Incharge UMS, COTS, Mirgund.
- ❖ Successful Introduction and expansion of Sericulture for the first time in the non-traditional tribal belt of Kargil-Ladakh under University sponsored RCM Project.

RECOGNITION:

- Certificate of appreciation from **Chairman/Executive Councillor Ladakh Autonomous Hill Development Council-Kargil** for lead role in successful introduction of Sericulture under DST, GOI sponsored Project for the first time in the tribal belt of the state.
- Certificate of appreciation from **Executive Councillor Agriculture Ladakh Autonomous Hill Development Council-Kargil** in recognition of successful silkworm rearing and mulberry propagation Training programs conducted at Kargil under DST, GOI sponsored Project.
- Certificate of appreciation from **Principal Investigator of the DST, GOI Project** for successful implementation of project and good cocoon crop production at Kargil-Ladakh.

- Wide Coverage by local media to Hon'ble Vice Chancellors Visit to the adopted village (Poyen Kargil) during successful Cocoon crop production/harvesting under DST GOI sponsored Project for Kargil-Ladakh.
- Appreciation by **DST Project Evaluation and Monitoring Team** on successful execution of project at farmers/ground level in high altitude cold arid region of Himalayan belt.
- Best Presentation Certificate award for the Seminar Talk entitled “ Disease Resistance in Silkworm *Bombyx mori* L. delivered at University of Mysore, in the Department of Sericulture studies on 24th June 2009.
- Second Topper at M.Sc. level in the Department of Sericulture at University of Mysore.
- Certificate of appreciation by **Hon'ble Vice-Chancellor SKUAST-Kashmir** for completion of Faculty details on UMS web portal as Incharge UMS, COTS, Mirgund.

PUBLICATIONS:

Research Papers

- **Z. Buhroo**, S. A. Wani, M. A Malik and M. A Ganai. 2013. Disease resistance in mulberry silkworm *Bombyx mori* L. *Asian Journal of Science and Technology*. **4**(11): 157-166.
- S. A. Wani, M. A Bhat, **Z. Buhroo**, M. A Ganai and M. Naina. 2013. Role of molecular markers in silkworm improvement. *International Journal of Recent Scientific Research*. **4** (5): 515- 523.
- S. A. Wani, M. A. Bhat, A. S. Kamili, G. N. Malik, M. R. Mir, **Z. Iqbal**, M. A. Mir, F. Hassan and A. Hamid. 2013. Transgenesis: An efficient tool in mulberry breeding. *African Journal of Biotechnology*. **12**(48):6672-6681.
- Syed Maqbool Geelani, Shoukat Ara, S. J. A. Bhat, Basharat Maqbool Wani, **Buhroo Zaffar**, T. H. Masoodi, P.K. Mishra 2013. Eco friendly dyeing of Silk and Pashmina fabrics with *Quercus robur* L. as dye and *Punica granatum* L. as mordant. *Journal of Scientific and Innovative Research*. **2**(6): 1116-1120.
- S. M. Geelani, S. H. Geelani, S. J. A. Bhat, S. Haq , N. A. Mir , S. Junaid and **Z. Buhroo**. 2012. Green Building Development for Sustainable Environment with Special Reference to India. *International Journal of Environment and Bioenergy*. **4**(2): 86-100.
- **Z. I. Buhroo**, M. A. Bhat and N A Ganai 2016. Genotoxic effects of endosulfan an organochlorine pesticide on the silkworm *Bombyx mori* L. *International Journal of Applied Research* **2**(10): 235-253.
- **Buhroo, Z. I**, Bhat, M.A and Ganai, N. A. 2106. Molecular Marker Systems with special reference to Silkworm *Bombyx mori* L. *International Journal of Bioassay*. **5**(11): 5025-5040.
- **Buhroo, Z. I**, Malik, M. A, Ganai, N. A, Kamili, A. S and Bhat, B. A. 2016. Comparative performance of cocoon and associated traits in bivoltine silkworm (*Bombyx mori* L.) genotypes during different seasons. *International Journal of Current Research*. **8**(10): 40092-40097.

- **Buhroo, Z. I**, Malik, M. A, Ganai, N. A, Kamili, A. S and Bhat, B. A. 2016. Evaluation of some silkworm *Bombyx mori* L. genotypes for cocoon associated traits during different seasons. *International Journal of Advanced Research in Biological Science*. **3**(10): 225-231.
- **Buhroo, Z. I** and Bhat, M.A. 2016. Biofuels and their future perspectives. *Journal of Plant Sciences*. **4**(6): 256-264.
- **Buhroo, Z. I**, Malik, M. A, Ganai, N. A, Kamili, A. S and Bhat, B. A. 2016. Comparative performance and genetic polymorphism in some potential silkworm *Bombyx mori* L. *Journal of Cell and Tissue Research*. **16**(3): 5911-5920.
- **Buhroo, Z. I**, Ganai, N. A and Malik, M. A. 2016. An efficient protocol for Silk moth DNA extraction suitable for genomic fingerprinting and genetic diversity analysis. *Journal of Cell and Tissue Research*. **16**(3): 5921-5928.
- Bhat, M. A, **Buhroo, Z. I** and Manjunatha, H. B. 2016. Harsh impact of temperature on proteomic profile of the silkworm *Bombyx mori* L. *Journal of Cell and Tissue Research* **16**(3): 5929-5935.
- **Buhroo, Z. I**, Malik, M. A, Ganai, N. A, Kamili, A. S and Mir, S.A. 2017. Genomic DNA extracted from long preserved Silk moth samples suitable for genetic diversity studies. *Journal of Entomology and Zoology Studies*. **5**(1): 643-648.
- **Buhroo, Z. I**, Malik, M. A, Ganai, N. A, Kamili, A. S and Mir, S. A. 2017. Rearing Performance of Some Popular Bivoltine Silkworm (*Bombyx mori* L.) Breeds during Spring Season. *Advances in Research* **9**(1): 1-11.
- **Buhroo, Z. I**, Malik, M. A, Ganai, N. A, Kamili, A. S and Mir, S. A. 2017. Evaluation of some potential silkworm *Bombyx mori* L. genotypes during different seasons under temperate conditions. *Journal of Applied Nature and Sciences*. **9** (2): 1258 -1265.
- Bhat IA, Buhroo **ZI** and Bhat MA. 2017. Microsporidiosis in silkworms with particular reference to mulberry silkworm (*Bombyx Mori* L.). *International Journal of Entomology Research*. **2**(1) 01-09.
- Naveena Nazim, **ZI Buhroo**, Nighat Mushtaq, Kousar Javid, Sehreen Rasool and GM Mir 2017. Medicinal values of products and by products of sericulture. *Journal of Pharmacognosy and Phytochemistry*. **6**(5): 1388-1392.
- **Buhroo, Z. I**, Ganai, N. A, Malik, M.A and Kamili, A.S. 2018. DNA Polymorphism and Genetic Variation among Bivoltine Silkworm (*Bombyx mori* L.) Genotypes Revealed by RAPD Markers. *Biotechnology Journal International*. **20**(4): 1-12.
- **Buhroo, Z. I**, Bhat, M.A, Kamili, A.S, Ganai, N. A, Bali, G. K, Khan, I. L and Aziz. A. 2108. Trends in Development and utilization of sericulture resources for diversification and value addition. *Journal of Zoology and Entomology Studies*. **6**(4): 601-615.
- **Buhroo, Z. I**, Bhat, M.A, Ganai, N. A, Kamili, A.S, Bali, G. K, and Aziz. A. 2018. Molecular basis of growth and aging in model organisms with special reference to Silkworm *Bombyx mori* L. A Review. *Journal of Zoology and Entomology Studies*. **6**(4): 740-751.

- **Buhroo, Z. I**, Bhat, M.A, Bali, G. K, Kamili, A.S, and Ganai, N. A,. 2018. Antimicrobial peptides from insects with special reference to silkworm *Bombyx mori* L: A Review. *Journal of Zoology and Entomology Studies*. 6(4): 752-759.
- **Buhroo, Z. I**, Bhat, M.A, Ganai, N. A, Kamili, A.S, Bali, G. K, and Aziz. A. 2018. An efficient protocol for the inter-simple sequence repeat (ISSR) marker approach in population genetic studies. *Journal of Zoology and Entomology Studies*. 6(4): 597-600.
- **Buhroo, Z. I**, Bhat, M.A and Aziz. A. 2018. Sericulture. *Latest Trends In Zoology and Entomology Sciences*.6: 69-103. AkiNik Publications New Delhi.
- M.A Bhat, **Z. I Buhroo**, A. Aziz, Suraksha Chanotra, N.A Ganai and Jasmeena Qadir.2019. Approaches of genetic divergence studies conducted in the silkworm *Bombyx mori* L.: A review. *Journal of Pharmacognosy and Phytochemistry*.8(6): 1749-1762.
- M. A. Bhat, **Z. I. Buhroo**, A. Aziz, Jasmeena Qadir and M. Azam. 2020. An Overview of Current Scenario of Sericulture Industry in Jammu and Kashmir, India. *International Journal of Current Microbiology and Applied Sciences*. 9(6): 3813-3824.
- Asma S. Hakak, Malik Farooq, **Zafar I. Buhroo**, Mudasir A. Mir, Gowhar Ali, Firdos A. Nehvi, Nazeer Ahmed, Sheikh Mansoor and Khalid Z. Masoodi. 2020. Elucidating genetic divergence of silkworm (*Bombyx mori*) using internal transcribed Spacer1 (ITS1). *International Journal of Tropical Insect Science*. 10.1007/s42690-020-00366-7.

Book Chapter(s)

- **Buhroo, Z. I**, Bhat, M.A and Aziz. A. Sericulture. *Latest Trends In Zoology and Entomology Sciences*. 2018 **6**: 69-103. AkiNik Publications, Pvt. Ltd., New Delhi.

Books

- M.A Bhat, A Aziz, S.Chanotra, S.A. Banday, Jasmeena Qadir, **Z. I Buhroo** and M. Aza. A Text Book on -Sericulture and Soil Science. 2020. *Innovative Publications, Pvt. Ltd., New Delhi*.
- M.A Bhat, A Aziz, S.Chanotra, S.A. Banday, **Z. I Buhroo** and M. Azam. A Text Book on -Entrepreneurship Development in Sericulture. 2020 *Innovative Publications, Pvt. Ltd., New Delhi*.

ABSTRACTS:

- **Buhroo, Z.** 2011. Application of genetic principals for improving silk production in Kashmir valley. *Ist Jammu and Kashmir Agricultural Science congress “Mountain Agriculture in Transition – Challenges and way forward”* from 08 – 10 September 2011. Organized by: SKUAST-Kashmir Shalimar Srinagar Jammu and Kashmir. Pp.303-304.
- **Z, Buhroo.** 2015. Utilization of mulberry resources for value addition. *State level symposium on Prospects and challenges of Domestication and commercialization of non-timber forest products (NTFPs) including Bamboos*. J&K. 19-20th March, 2015. pp. 43.

- **Z. Buhroo**. 2015. Mulberry leaf-nature's wonderful life enhancer. *State level symposium on Prospects and challenges of Domestication and commercialization of non-timber forest products (NTFPs) including Bamboos*. J&K. 19-20th March, 2015. pp. 44.
- **Z. Buhroo**. 2015. Bio-fuels and their future perspectives. *State level symposium on Prospects and challenges of Domestication and commercialization of non-timber forest products (NTFPs) including Bamboos*. J&K. 19-20th March, 2015. pp. 45.
- N. Teli, N.A. Mir and **Z. Buhroo**. 2015. Global Scenario of non-timber forest products. *State level symposium on Prospects and challenges of Domestication and commercialization of non-timber forest products (NTFPs) including Bamboos*. J&K. 19-20th March, 2015. pp. 42.
- B. Maqbool, **Z. Buhroo**, A. Kazmi, M.M. Darezi, S.A. Kamil and M.S.Mir. 2015. Mulberry leaves as a source of forage for live stock. *State level symposium on Prospects and challenges of Domestication and commercialization of non-timber forest products (NTFPs) including Bamboos*. J&K. 19-20th March, 2015. pp. 41.
- Shabir. A. Wani, G. N. Malik, M. A. Mir, Naina Majid and **Buhroo Zafar**. 2016. Characterization of mulberry (*Morus spp*) germplasm. National Seminar on “*Sericulture Development in Temperate Region-Problems and Prospects*” from 21-22 March, 2016. pp - 68.
- **Z. I. Buhroo**, M. A. Malik, N.A. Ganai. 2016. Molecular marker approach for sustainable silk production in Kashmir Valley. National Seminar on “*Sericulture Development in Temperate Region-Problems and Prospects*” from 21-22 March, 2016. pp- 89.
- **Z. I. Buhroo**, I. L. Khan, N.A. Ganai, K. A. Dar and S. A. Wani. Utilization and diversification of sericulture resources for value addition. National Seminar on “*Sericulture Development in Temperate Region-Problems and Prospects*” from 21-22 March, 2016. pp- 122-123.
- **Buhroo, Z. I**, Malik, M. A, Ganai, N. A, Kamili, A. S and Mir, S. A. Multiple Trait Evaluation and Genetic relationship among Bivoltine Silkworm (*Bombyx mori* L.) Genotypes. 3rd international conference on “*Sustainable Economic Development- Paths and Obstacles*” from 24-25 March-2017, Held at Department of Economics, at Shri Mata Vashino Devi University Katra Jammu.

PARTICIPATION IN WORKSHOPS/INTERNATIONAL AND NATIONAL CONFERENCES:

- Participated in the 1st Jammu and Kashmir Agricultural Science congress “*Mountain Agriculture in Transition – Challenges and way forward*” from 08 – 10 September 2011. Organized by Sher-e- Kashmir University of Agricultural Sciences and Technology of Kashmir, Shalimar Srinagar Jammu and Kashmir.
- Participated in the “*6th Jammu and Kashmir Science congress*” from 2-4 December 2010, held at University of Kashmir Srinagar. Organized by J&K state council for Science and

Technology, Department of science and technology, Government of India and Jammu and Kashmir Academy of Sciences.

- Participated in the “*1st Stake holders workshop on conservation of Hangul and other endangered mountain wildlife biodiversity*” held at SKICC Srinagar, Organized by Sher-e-Kashmir University of Agricultural Sciences and Technology of Kashmir, Shalimar Srinagar from 27-28, November 2011.
- Participated in state level symposium on “*Prospects and challenges of domestication and commercialization of non- timber forest products (NTFPs) including Bamboos in J&K*” from 19-20 March 2015, held at SKUAST-K. Organized by Faculty of forestry SKAUST-Kashmir in collaboration with ICFRE Dehradun, National mission on Bamboo and scientific and Engineering Research board (SERB), DST, GoI.
- Participated in National Seminar on “*Technological Innovations in Saffron*” .from 25-26 November 2010, held at SKICC, Srinagar. Organized by Sher-e- Kashmir University of Agricultural Sciences and Technology of Kashmir, Srinagar in Collaboration with National Horticultural Board, GoI.
- Participated in the 9st Jammu and Kashmir Science Congress and Regional Science Congress “*Innovations and Advances in Science and Technology*” from 1-3 October 2013 held at University of Kashmir Srinagar. Organized by University of Kashmir Srinagar.
- Participated in International Geographical Union (IGU) Commission Conference. “*Geo-hazards, Biodiversity, Resource Sustainability and Mountain Response to Global Change*” from 4-5 June 2014, held at University of Kashmir, Organized by Department of Geography and Regional Development, University of Kashmir, Srinagar-India.
- Participated in National Seminar on “*Sericulture Development in Temperate Region- Problems and Prospects*” from 21-22 March-2016, Held at Hotel Pine View-Rajbagh, Srinagar-Kashmir. Organized by CSR&TI, CSB Pampore, J&K-India.
- Participated and presented paper in 3rd international conference on “*Sustainable Economic Development- Paths and Obstacles*” from 24-25 March-2017, Held at Shri Mata Vashino Devi University Katra Jammu Organized by Department of Economics, at Shri Mata Vashino Devi University Katra Jammu.
- Participated in Board Subject Matter (BSMA) Committee Workshop as member from SKUAST-Kashmir for revision of Post Graduate Syllabus in Sericulture held at University of Agricultural Sciences Bangalore on Feburay, 5th, 2019.Bangalore.

VIRTUAL TRAININGS, SEMINARS, SYMPOSIUMS, WEBINARS, CONFERENCES:

S. No.	Programmes Attended	Duration of the Programme	Organised by
1.	Webinar on “Accelerate Research Planning Using Elsevier, Science Direct and Mendeley”.	One day (May, 4 th , 2020)	Islamic University of Sciences and Technology Kashmir in coloration with Elsevier.
2.	Workshop on “Special Online E-Learning Tools -Hands on Training”.	One week (May,28 th , 2020 - June, 3 rd ,2020)	MakkSkills, Mumbai-India.
3.	International E-Conference on “Emerging Innovation and Advancement in Biological Sciences, Human Welfare and Agriculture Research In Current Era”.	Three days (July, 25 th , - July,27 th , 2020)	Department of Biotechnology and Microbiology, Kalp, Laboratories-The Bouquet Society, Mathura-India.
4.	National Workshop on “Underutilised Plant Species: Future Smart Crops for Food, Nutritional Security and Income Generation”.	Ten days (August, 20 th – 29 th , 2020)	ACRIP (VC), SKUAST-K, under IDP, NAHEP, SKUAST-K, Shalimar.
5.	International Training on “Leadership Development: Entering the Fundamental State of Leadership”.	Twenty Six days (August, 31 st – September, 25 th , 2020)	Ross School of Business, Michigan State University-USA under IDP, NAHEP, SKUAST-K, Shalimar.
6.	Webinar on “Mechanization in Sericulture”.	One day (September, 2 nd , 2020)	Deptt. Of Studies in Sericulture, University of Mysore-India.
7.	Training on “Understanding Biometrical Genetics: Statistical Maneuvering	Ten days (September, 7 th - 16 th , 2020)	Dry land Agriculture Research Station (DARS), SKUAST-K, Budgam under IDP, NAHEP, SKUAST-K, Shalimar.

	Towards Ensuring Food Security”.		
8.	Training on “Google Suite for E-Learning”.	Five days (September, 21 st , - 25 th , 2020)	Agriculture Research Information System (ARIS), SKAUST-K, Shalimar under IDP, NAHEP, SKUAST-K, Shalimar.

S.No.	Programs Conducted	Conducted in the Capacity of	Organized by
1.	Three days National Webinar Workshop on “Mulberry Fruit-A Promising Nutraceutical Resource with Inherent Bio-Active Compounds”.	Organising Secretary	Division of Silk Product Sciences, CoTS, SKUAST-K, Mirgund under IDP, NAHEP, SKUAST-K, Shalimar w.e.f, June, 29 th 2020, - July,1 st , 2020.
2.	Four days National Webinar ”Distant Teaching and Learning Through Online Tools”.	Organising Secretary	Division of Silk Product Sciences, CoTS, SKUAST-K, Mirgund under IDP, NAHEP, SKUAST-K, Shalimar w.e.f, August, 31 st 2020, - September,3 rd , 2020



S.No.	Presentations Delivered	Title of the Event/Conference	Organised by
1.	Genetic Diversity in Some Potential Bivoltine Silkworm <i>Bombyx mori</i> L. Genotypes Using Molecular Markers..	International E-Conference on Emerging Innovation and Advancement in Biological Sciences, Human Welfare and Agriculture Research In Current Era.	Department of Biotechnology and Microbiology, Kalp, Laboratories-The Bouquet Society, Mathura-India during July, 25 th , - July,27 th , 2020.

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DECLARATION:

I solemnly declare that the information given above is true to the best of my knowledge and belief.



(Dr. Zafar Iqbal Buhroo)
Assistant Professor/Scientist
CoTS, SKUAST- Kashmir.

Date: 10-02-2021

Place: Srinagar-Kashmir