CIRRICULUM VITAE

Asifa Mehraj Baba
Department of Electronics & Communication Engineering
Islamic University of Science and Technology

Residential Address

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Personal Information
Date of Birth: 10th of September 1977
Place of Birth: Srinagar, India
Nationality: Indian
Marital Status: Married
Gender: Female

Educational Qualifications
- *Ph. D: Department of Electronics & Instrumentation Technology, University of Kashmir, awarded on September 2008, under the Supervision of Late. G. Mohiuddin Bhat.*
- *M. Sc: Department of Electronics & Instrumentation Technology, University of Kashmir, secured a percentage of 72% (Rank 3rd).*

Title of Research Work:

Design Development and Computer Simulation of Artificial Neural Networks for Signal Processing Application

Research Interests:

Digital Image Processing, Artificial Neural Networks

Work Experience:

- *Presently working as Senior Assistant Professor in the Department of E&C Engineering, School Of Engineering & Technology, Islamic University of Science and Technology, Awantipora, Kashmir, India.*
- *Two years experience in teaching as an Assistant Professor in the Department of Electronics and Instrumentation technology, University of Kashmir.*
- *One year experience in teaching as Lecturer in the Department of Electronics, Government Degree College Bemina, Srinagar, Kashmir.*

Some of the Courses Taught at UG and PG levels:

- *Ph.D*

  - *Artificial Neural Networks and Fuzzy Logic.*
  - *Image Defogging.*
  - *Digital Image Processing*

- *PG:*
  - *Artificial Neural Networks and Fuzzy Logic.*
  - *Analog Electronics.*
  - *Digital Image Processing*
- *UG:*
  - *C-Programming & MATLAB Programming.*
  - *Digital Electronics.*
  - *Basic Electronics*

Symposia/workshops/other Programs attended & Organised:

- *Workshop on "Advances in Wireless Networks", held on 17th Jan. 2006 organized by DRS Program, department of Electronic Engineering, Aligarh Muslim University, Aligarh.*

- *Attended Three Week Special Winter School Refresher Course organized by University Grants Commission, Academic Staff College, University of Kashmir from 10th February 2015 to 3rd March 2015.*

- *Attended four Week General Orientation Course organized by University Grants Commission, Academic Staff College, University of Kashmir from 17th February 2014 to 17th March 2015.*

- *Attended Indian Nanoelectronics User Program (INUP); Familiarization Workshop on "Nanofabrication Technologies" from 28 -30 Jan 2015 at Centre for Nano Science and Engineering, Indian Institute of Science, Bangaluru.*

- *Attended 5 days workshop on "Modeling and Simulation of Large Scale Systems", organized by Department of Electrical Engineering, National Institute of Technology, Hazratbal Srinagar from 13th of April to 17th of April, 2015.*

- *Attended 3 day breakthrough facilitation workshop conducted by MANFORD, New Delhi in collaboration with HELP foundation J&k, Inderhama from 21st Oct, 2011 to 23rd Oct 2011.*

- *Attended 2 day national seminar on Contemporary Challenges and Issues in Higher education in Kashmir on 18th and 19th March, 2014 at Directorate of Distance Education, University of Kashmir.*

- *Attended 1 day workshop on Audino Tutorial at holiday Inn Melaka, Malaysia on 24th August, 2015.*

- *Attended 2 week ISTE STTP on Electric Power System conducted by IIT Kharagpur at IUST on 12th June 2017 to 15th July 2017*

- *Attended 10 days workshop on Artificial Neural Networks At CDAC Mohali from 14th January, 2019 to 23 January, 2019*

- *Attended and Organized three days workshop on "5G: an Evolution to Revolution" at IUST from 24-26 September, 2018*

- *Attended two days workshop on Scientific and Technical Demonstration using LATEX at IUST from 21st April, 2017 to 22nd April, 2017*

- *Attended 3 day workshop on "A Roadmap to Growth of Teaching, Learning and Research" at IUST on 16-18 August, 2018*

- *Attended workshop on Preparation of Research proposals to Funding Agencies at IUST on 26-28th September, 2017*

- *Attended faculty at North India Students Parliament at SMVDU, Katra on 26-27th March 2017*

- *Attended and Organized workshop on Outcome Based Education at IUST on 26-27th March 2018*

- *Attended and Organized workshop on Technical Paper Writing and Patent Filing at IUST on 12-14th December, 2017*

- *Attended and Organized one day international workshop on Cyber Communication Security & Laws at IUST on 8 th May, 2017*

- *Attended J&K STIP sponsored one day workshop on Scientific Innovation and IPR at SMVDU Katra from 27th March, 2017*

- *Attended Six Days National Workshop on, "Communication Research: Tools, Methods and Approaches", from August 31, 2021 to September 5, 2021 at Islamic University of Science and Technology.*

Short Term Courses/Training Program attended:
- *One month short term course on networking and JAVA programming at Technical Teachers Training Institute Chandigarh.*

Project done at PG level:

- *"Digital Frequency Counter" under the guidance of Prof. Nisar Ahmad Shah, Former Dean College Development, University of Kashmir, India.*

Projects Guided:

- *Optical Character Recognition using Artificial Neural Networks.*
- *Isolated digit recognition using LPC and MFCC coefficients of Speech Signal*
- *Image Enhancement using Novel Fuzzy logic Technique.*
- *Skin texture analysis using Support Vector Machine.*
- *Obstacle detection using 8086 Microcontroller.*
- *Image Compression using SOFM and Burrows Wheeler Transform.*

Incharge-ship Held in the Department:

- *Worked as an Incharge, head in the Department of Electronics and communication Engineering for two and a half years.*
- *Working as Coordinator, Intellectual Property Rights Cell, Islamic University of Science and Technology.*
- *Industrial training Incharge for managing trainings outside J&K since 2017 till Date.*
- *Seminar Incharge from 2017 till 2019.*
- *Project Incharge from 2015-2018.*
- *Research Coordinator since 2019 till date.*
- *Chairperson, Campus Improvement Committee, IUST.*

Journal/Conference papers:

[1] Haweez Showkat, Roohunnisa, Asifa baba, " Review-Video Watermarking Schemes", Turkish Journal of Computer and Mathematics Education, Vol. 12, No. 14, 2021.

[2] G. Mohiuddin Bhat, Asifa Baba, Ekram Khan, "Efficient Image Compression Technique using Self Organizing Feature Maps", International Journal of Engineering Science and Technology, vol 2 (12), 2010, 7609-7612.

[3] G. Mohiuddin Bhat, Asifa Baba, "Self Organising Feature Maps based hybrid Compression technique for Bio-medical Images", journal of Medical Sciences, SKIMS, Srinagar.

[4] G. Mohiuddin Bhat, Asifa Baba, "Secure Compressed image transmission using SOFM", Computer Engineering and Intelligent Systems, ISSN 2222-1719 (paper), ISSN 2222-2863 (online), Vol. 3, No.4, 2009.

[5]Asifa Baba, G. Mohiuddin Bhat, "Wavelet based Image Compression using Self Organizing Feature Maps", International Conference on Advances in Electronics and Communication Technology (ICAECT-06) 15,16 Dec 2006 at K C College of Engineering, Jalender, India.

[6] G. Mohiuddin Bhat, Asifa Baba, Ekram Khan, "Efficient Image compression technique using Artificial Neural Networks", in 4th J & K Science Congress held from 12-14 November, 2008 at University of Kashmir.

[7] G. Mohiuddin Bhat, Asifa Baba, "English to Kashmiri Word Translation using Translational Artificial Neural Networks", 2nd J & K Science Congress held at University of Kashmir from july 25-27, 2006.

[8] G. Mohiuddin Bhat, Asifa Baba, "Novel Technique of Feature extraction in Isolated Digit Recognition", IETE conference held at Jammu.

[9] Burhan-ul-Islam, Asifa baba, "SSM: Secure-Split-Merge Data Distribution in Cloud Infrastructure", in IEEE conference on e-learning, e-Management and e-Services (IEEE Computer Society, Malaysian Chapter) at Holiday Inn Melaka, Malaysia on 24th-26th August 2015.

Presenting Author: Dr. Asifa Mehraj Baba

[10] Burhan-ul-Islam, Asifa baba, ",RAED: Response Analysis of Educational Data for Leveraging Knowledge Dissemination System", in IEEE conference on Open Systems (IEEE Computer Society, Malaysian Chapter) at Holiday Inn Melaka, Malaysia on 24th-26th August 2015.

Presenting Author: Dr. Asifa Mehraj Baba

[11] BurhanUl Islam, Rashidah F. Olanrewaju, Roohie Naaz, Asifa Baba, Balogun Wasiu Adebayo "Strategic Profiling of Behavior Visualization of Malicious Node in MANETs using game Theory", Journal of Theoritical and Applied Information Technology, Vol. 77, No.1, 2015

[12] BurhanUl Islam, Rashidah F. Olanrewaju, Asifa Baba, Sajad Lone, " DTASR:

Dual Threshold Based Authetication for Secure Routing in Mobile Adhoc Network", in an international Conference on Computing Education and Information Technology", ICCEIT November 9-10, 2015, Paris, France.

Presenting Author: Dr. Asifa Mehraj Baba

[13] BurhanUl Islam, Asifa Baba, Rashidah F. Olanrewaju, "An Efficient Cache Replacement Algorithm for Minimizing the Error Rate in L2-STT-MRAM Caches", in a Fourth International Conference on Parallel, Distributed and Grid Computing (PDGC), on 22-24 December, 2016 at Jaypee University of Information Technology, Waknaghat, Solan- Himachal Pradesh- India.

Presenting Author: Dr. Asifa Mehraj Baba

[14] BurhanUl Islam, Asifa Baba, Rashidah F. Olanrewaju, "A Study on Performance Evaluation of Conventional Cache Replacement Algorithms: A Review", in a Fourth International Conference on Parallel, Distributed and Grid Computing (PDGC), on 22-24 December, 2016 at Jaypee University of Information Technology, Waknaghat, Solan- Himachal Pradesh- India.

Presenting Author: Dr. Asifa Mehraj Baba

{15} Bisma Rasool, Tehseen Mehraj, BurhanUl Islam, Asifa Baba, Zahoor Ahmad, "Securely eradicating Cellular dependency for E-banking Applications", International Journal of Advanced Computer Science and Applications, Vol. 9, No. 2, 2018.

{16} Tehseen Mehraj, Dr. Asifa Baba, "Scrutinizing Artificial Intelligence based Career Guidance and Counseling Systems: an Appraisal", International Journal of Interdisciplinary Research and Innovations, Vol. 7, Issue 1, March 2019.
Corresponding Author: Dr. Asifa Mehraj Baba

[17] Tehseen Mehraj, Dr. Asifa Baba ,"Rehashing State of Art Artificial Intelligence centered Career Counseling Platforms", Journal of Artificial Intelligence Research and Advances, Vol. 7, No.2, 2020.

Corresponding Author: Dr. Asifa Mehraj Baba

[19] Tehseen Mehraj, Dr. Asifa Baba , "International conference on signal processing, vlsi and communication engineering (icspvce-2019)", at Delhi Technological University, New Delhi

Presenting Author: Dr. Asifa Mehraj Baba

[21] Fifth international conference on ICT for sustainable development held from 23-24 July 2020 at Goa India presented a paper on, "Comparative re-evaluation of different single image defogging technique".

Presenting Author: Dr. Asifa Mehraj Baba

Chapters in Edited Books

- *Satbir Singh, Asifa Baba, Imtiyaz Anwar, Ayaz Moon, Arun Khosla, "Visibility Improvement in hazy conditions via Deep Learning based image, in Communications in Computer and Information Science, Springer. (ISSN: 1865-0929).*
- *Haweez Showkat, Roohunisa, Asifa Baba, "Hybrid Video Watermarking based on LWT, SVD and SWT Using Fused Images for Data Security" in Renewable Power for Sustainable Growth, Springer. (ISBN: 978-981-33-4080-0).*
- *Asifa baba, Imtiyaz Anwar, Ayaz Moon, Arun Khosla, "Comparative Re-evaluation of different Single Image defogging Techniques : A Review", in ICT Analysis and Applications, Springer. (ISBN: 978-981-15-8354-4).*
- *Roohun-nisa, Asifa Baba, Haweez Showkat, "A Mathematical Approach to Speech Enhancement for Speech Recognition and Speaker Identification Systems" in Renewable Power for sustainable Growth, Springer. (ISBN: 978-981-334-080-0).*
- *Roohun-nisa, Asifa Baba, Haweez Showkat, ""Meta-Heuristic Application in Suppression of Noise", in Metaheuristic and Evolutionary Computation: Algorithms and Applications, Springer. (ISBN: 978-981-15-7571-6).*
- *Burhan Ul Islam Khan, Rashidah F. Olanrewaju, Asifa Mehraj Baba, Nurul Zulkarnain, "STCM: Secured Trust-Based Communication Method in Vulnerable Mobile Adhoc Network", in Lecture Notes on Electrical Engineering. (ISBN: 978-981-10-1719-3)*
- *Burhan Ul Islam Khan, Nurul Fariza Zulkurnain, Rashidah F. Olanrewaju, Gousia Nissar, Asifa Mehraj Baba, Sajaad Ahmad Lone, "JIR2TA: Joint Invocation of Resource-Based Thresholding and Trust-Oriented Authentication in Mobile Adhoc Network", Lecture Notes in Networks and Systems, Springer. (ISBN: 978-3-319-56990-1).*

PHD Scholars Under Supervision:

- *03 in number in the field of Digital image processing & Artificial Neural Network and Image Defogging.*

Funded Projects (Completed):

- To Study the students attitude for career guidance: with special reference to Kashmir Valley.

  Funded Amount : Rs 1,60,000/-
  Funding Agency : Islamic University of Science & Technology.
  Status: Completed

- Development of Fusion Based Defogging Technique for visibility improvement.

  Funded Amount : Rs 12,12,000/-
  Funding Agency : Ministry Of Human Resource Development, Under CRS, Govt Of India.
  Status: Completed

- Fusion based Apple production system using Deep learning Techniques.
  Funded Amount: Rs. 18,00000/=
  Funding Agency: Department of Biotechnology, Government of India

  Status: Underprocess

Invited Lectures:

- 10 Invited lectures on Artificial Intelligence to the faculty of CDAC, Mohali
- Invited lecture on ICT for Economic Development at SMVDU Katra
- Invited Lecture on MATLAB Programming at Kashmir Government Polytechnic, Gogji Bagh Srinagar.

Other Relevant Information:

- Member Board of Studies, Islamic University of Science and Technology, Awantipora, Pulwama
- Member Islamic University Teachers Assosiation (IUTA), Islamic University of Science and Technology, Awantipora, pulwama.
- One day training Program conducted on MATLAB Neural Network Toolbox at Kashmir Government Polytechnic, Gogji Bagh Srinagar in collaboration with Teachers Technical Training Institute, Chandigarh.
- External Examiner for conducting Practical examination (year 2012 and 2015) of Post Graduate Diploma in Instrumentation Technology (PGDIT) at

University Science Instrumentation Centre (USIC), University of Kashmir, Hazratbal, Srinagar.

- Member Flying Squad Committee for the smooth conduct of examination in Department of Electronics Engineering, School of Technology, Islamic University of Science and Technology, Awantipora, Pulwama.
- Conducted Examination of DOEACC A, B, C level for three years at University of Kashmir in collaboration with DOEACC, Rangreth, Srinagar.
- Reviewer: American Journal of Engineering, Technology and Society, Open Science Journal with ISSN (print) 2381-6171; ISSN (online) 2381-618X.

- Reviewer: American Journal of Computer Science and Engineering, Open Science Journal with ISSN (print) 2381-6171; ISSN (online) 2381-618X.

Declaration:

I certify that above information is correct and complete to the best of my knowledge.

Dr. Asifa Baba
Senior Assistant Professor
IUST, Awantipora

Place: Srinagar (India)
Dated: 15-10-2021