Fasel Qadir

Senior Assistant Professor
Department of Computer Sciences
North Campus, University of Kashmir
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QUALIFICATIONS:

- **Ph. D** (Computer Science), University of Kashmir, March, 2013 (Awarded)
  Thesis: Cellular automata based digital image processing techniques with emphasis on edge detection-noise cleaning and related applications areas
- **B. Ed** (Distance Mode), University of Kashmir, 2011
- **MCA**, Rajiv Gandhi Technical University, M.P, 2009
- **Java Certification Course**, HCL, Certification, 2009
- **B. Sc.** (Non-Medical), University of Kashmir, 2004
- **Higher Sec. Part-II**, State Board of School Education, J&K, 2001

SUBJECTS TEACHING AT PG LEVEL:

- Computer Graphics
- Digital Image Processing
- Numerical Techniques
- Design and Analysis of Algorithms
- Theory of Computation
- C++ Programming
- Matlab Programming
- Python Programming

RESEARCH AND INTERESTS:

- Cellular Automata
- Low-level Digital Image Processing
- Self-replication in Image Processing
- Digital Image Forensics
- Image Cryptography

NUMBER OF M. PHILS AND PHDS

- **Mr. Zubair Jeelani (PHD), Degree awarded**
  Thesis: Cellular automata-based approach for digital image scrambling with emphasis on specific attacks
- **Mr. Gulnawaz Gani (PHD), Thesis Submitted**
  - Thesis: Developing efficient algorithm for copy-move forgery detection and localization in digital images using cellular automata
- **Ms. Iram Khurshid Bhat (PHD), Degree Perusing**
  - Thesis: Digital audio watermarking using elementary cellular automata

PROFESSIONAL EXPERIENCE:

- **Sr. Assistant Professor** at Department of Computer Sciences North Campus, University of Kashmir, since 31.08.2017.
- **Assistant Professor** at Department of Computer Sciences North Campus, University of Kashmir (31.08.2013 - 30.08.2017).

- Contractual **Lecturer** at North Campus, University of Kashmir (17.04.2013 – 30.08.2013).
- **Lecturer** at Govt. Higher Secondary Institute, Sheerabad, Pattan, Baramulla (01.03.2012 – 30.07.2012).
- **Database Administrator** at ICI, Sopore, Baramulla (01.01.2005 – 05.01.2006 & 07.01.2009 – 02.01.2010).

ORIENTATION AND REFRESHER COURSES ATTENDED:

- Attended a Refresher Course on "*Information Technology (Interdisciplinary)*", organized by HRDC, University of Kashmir, from 27-02-2021 to 12-03-2021.
- Attended a Refresher Course on "*Towards Excellence in Higher Education*", organized by HRDC, University of Kashmir, from 15-02-2017 to 08-03-2017.
- Attended Four week UGC sponsored 64th General Orientation Course, Organized by Academic Staff College, University of Kashmir, Hazratbal, 17-02-2014 - 17-03-2014.

ADMINISTRATIVE POSITION HELD/ROLE IN CORPORATE LIFE:

- **Coordinator,** P. G. Department of Computer Sciences, North Campus, University of Kashmir, from 10.11.2017 to 09.11.2020.
- **Coordinator**, Examination, P. G. Department of Computer Sciences, North Campus, University of Kashmir, since 18.09.2018 to 09.11.2020.
- **Placement Officer**, North Campus, University of Kashmir, since 01-04-2019.
- **Jt. Warden**, Boys Hostel, from 01-04-2019 till date.
- **Member,** Departmental Committee, from 31-08-2013 till date.
- **Member**, Departmental Research Committee, 25-11-2014 from till date.
- **Member,** Campus Purchase Committee, since 27th November 2017.
- **Member,** Campus Local Fund Committee, since 10th July 2017.
- **Nodal Officer,** DIQA from 18.09.2017 to 29.05.2019
- **Convener,** AISHE from 18.09.2017 to 29.05.2019
- **Convener,** IQAC from 18.09.2017 to 29.05.2019
- **Warden**, Boys Hostel, from 14-05-2016 to 31-03-2019.
- **NSS Officer**, North Campus from 18.09.2017 to 10.07.2018
- **Member,** Lab Development Committee from 21-11-2013 to 18-06-2014.
- **Member**, Seminar/Symposium/Debate/Cultural Committee from 21-11-2-13 to 18-06-2014.
- **Convener**, Dispensary Committee from 21-11-2013 to 18-06-2014.
- **Member,** Grievance/Social/Welfare/Excursion Committee from 21-11-2013 to 18-06-2014.
- **Member,** Hospitality/Protocol/Public Relation Committee from 21-11-2013 to 18-06-2014.
- **Member**, Library Committee from 19-06-2014 to 17-09-2017.
- **Convener**, IT Solutions Committee from *16-05-2015 to 14-10-2015*.
- **Member**, UGC Affairs/AICTE Committee from 16-05-2015 to 10-05-2017.
- **Member,** Publication Committee from 11-05-2017 to 17-092017.

PERSONAL DETAILS:

- Date of Birth: 01-12-1984
- Religion: Islam
- Nationality: Indian
- Gender: Male
- Married with one child

<u>**List of Publications**</u>

<u>**Theses/Book Publications**</u>
1. **Fasel Qadir**, M. A. Peer & K. A. Khan, "Cellular Automata Based Digital Image Processing Techniques with Emphasis on Edge Detection-Noise Filtering and Related Application Areas", Ph. D Thesis, University of Kashmir, J & K, India.

<u>**Publications in Refereed Journals**</u> (in reverse chronological order)
1. Gulnawaz Gani and **Fasel Qadir**, "Copy Move Forgery Detection using DCT, PatchMatch and Cellular Automata, *Multimedia tools and applications*, **Springer**, 2021. **[IF 2.757]**
2. Gulnawaz Gani and **Fasel Qadir**, "Cellular Automata-based CMF Detection under Single and Multiple Post-processing Attacks", *Multimedia Systems*, **Springer**, 2021. **[IF 1.935]**
3. Zubair Jeelani, **Fasel Qadir** and Gulnawaz Gani, "Cellular automata-based digital image scrambling under JPEG compression attack", *Multimedia Systems*, **Springer**, 2021. **[IF 1.935]**
4. Gulnawaz Gani and **Fasel Qadir**, "A robust copy-move forgery detection technique based on discrete cosine transform and cellular automata", *Journal of information security and applications*, **Elsevier**, 2020. **[IF 3.872]**
5. Zubair Jeelani and **Fasel Qadir**, "A comparative study of cellular automata-based digital image scrambling techniques", *Evolving Systems*, **Springer**, February 2020. **[IF 1.908]**
6. Gulnawaz Gani and **Fasel Qadir**, "A novel method for digital image copy-move forgery detection and localization using evolving cellular automata and local binary patterns", *Evolving Systems*, **Springer**, November, 2019. **[IF 1.908]**
7. Jasmeena Tariq, A.Kumaravel, **Fasel Qadir**, "Segmentation of Brain MRI with Tumor by Image Overlapping using Cellular Automata", International Journal of Recent Technology and Engineering (IJRTE), Scopus, 2019
8. **Fasel Qadir** and Imran Qadir Shoosha, "Cellular automata-based efficient method for the removal of high-density impulsive noise from digital images", *International Journal of Information Technology*, **Springer**, Volume 10, Issue 04, DOI No.: 529, ISSN: 25112112, 2018.
9. Zubair Jeelani and **Fasel Qadir**, "Cellular automata-based approach for digital image scrambling", *International Journal of Intelligent Computing and Cybernetics*, **Emerald**, Volume 11, Issue 03, Pages 353-370, DOI No.: 10.1108/IJICC-10-2017-0132, ISSN: 1756-378X, 2018.
10. Zubair Jeelani and **Fasel Qadir**, "Cellular automata-based approach for salt-and-pepper noise filtration", Computer and Information Sciences, **Elsevier**, DOI No.: 2018. **[IF 13.473]**
11. Zubair Jeelani and **Fasel Qadir**, "An insight into cellular automata based impulse noise filtration algorithms" *International Journal of Advance Research in Science and Engineering*, Volume 0**7,** Issue 04. Pages , ISSN: 2319-8354, 2018.
12. **Fasel Qadir**, "Cellular Automata Based Study of Spectral Signatures of Dal Lake Infrared Imagery", *Oriental Journal of Computer Science & Technology*, Volume 10, Issue 2, Pages 276 -281, ISSN: 0974-6471, 2017.
13. **Fasel Qadir**, "A few applications of digital image processing based on two-dimensional cellular automata" *IJCRT*, Volume 5, Issue 2, Pages 77 -82, ISSN: 2320-2882, 2017.
14. S. J. Wani and **Fasel Qadir**, "2D-Cellular Automata: Evolution and Boundary Defects" *International Journal of Science and Research*, Volume 6, Issue 7, Pages 1566 -1570, ISSN: 2319-7064, 2017.
15. A. R. Khan, **Fasel Qadir**, F. Al_Humaidan and M. Dawood, "Application of 2D Cellular Automata in Tumor Detection, Wulfenia: A Multidisciplinary, Peer Revived International ISI & SCI Journal, ISSN: 1561 – 882X, Volume 20, Issue 05, Pages 366-369, 2013. **[IF 0.941]**
16. **Fasel Qadir** & K. A. Khan, "Investigations of Cellular Automata Linear Rules for Edge Detection" International Journal of Computer Network and Information Security, Volume 06, Issue 03, Pages 47-53, ISSN: 2074-9104, 2012.
17. M. A. Peer, **Fasel Qadir** & K. A. Khan, "Investigations of Cellular Automata Game of Life Rules for Noise Filtering and Edge Detection" International Journal of Information Engineering and Electronics Business, Volume 04, Issue 02, Pages 22-28, ISSN: 2074-9031, 2012.

18. **Fasel Qadir**, M. A. Peer & K. A. Khan, "Cellular Automata Based Identification and Removal of Impulsive Noise from Corrupted Images" Journal of Global Research in Computer Science, Volume 03, Issue 04, Pages 12-15, ISSN: 2229-371X , 2012.
19. **Fasel Qadir**, M. A. Peer & K. A. Khan, "Pattern Generation of Digital Images with Two Dimensional Cellular Automata, Nine Neighborhood Model" Oriental Journal of Computer Science, Volume 05, Issue 01, Pages 9-13, ISSN: 0974-6471, 2012.
20. **Fasel Qadir**, S. jahan, M. A. Peer & K. A. Khan, "Replacement of Graphic Translations with Two Dimensional Cellular Automata, Twenty Five Neighborhood Model" International Journal of Computational Engineering and Management, Volume 15, Issue 04, Pages 33-39, ISSN: 2230-7893, 2012.
21. **Fasel Qadir**, M. A. Peer & K. A. Khan, "A Novel Method for Generating Self-replicate Patterns Based on Two Dimensional Cellular Automata, Twenty-five neighborhood Model" International Journal of Computer Applications, Volume 47, Issue 02, Pages 43-48, ISSN: 0975-888, 2012.
22. **Fasel Qadir**, M. A. Peer & K. A. Khan, "Efficient Edge Detection Methods for Diagnosis of Lung Cancer Based on Cellular Automata" Advances in Applied Science Research, Volume 03, Issue 04, Pages 2050-2058, ISSN: 0976-8610, 2012.
23. **Fasel Qadir**, M. A. Peer & K. A. Khan, "Digital Image Scrambling Based on Two Dimensional Cellular Automata". International Journal of Computer Network and Information Security, Volume 08, Issue 03, Pages 36-41, ISSN: 2074-9104, 2012.

Publications in Proceedings of Refereed Conferences/Seminars

1. **Fasel Qadir** & M. A. Peer, "Complex Pattern Formation using Cellular Automata", Proceedings of International Conference on Machine Intelligence and Research Advancement (ICMIRA), India, Pages 545-548, IEEE explorer, 2014.
2. **Fasel Qadir**, Zahoor Ahmad Peer & M. A. Peer, "Quantum-dot Cellular Automata: Theory and Application", Proceedings of International Conference on Machine Intelligence and Research Advancement (ICMIRA), India, Pages 540-544, IEEE explorer, 2014.
3. S. J. Wani, **Fasel Qadir**, K.A. Khan & M. A. Peer "Pattern Generation using 2d cellular automata on Multiple Geometrical Shapes", Proceedings of ICICIC Global Conference, Springer, Dec 2013.
4. A. R. Khan and **Fasel Qadir** "Two Dimensional Cellular Automata and its Application in Tumor Detection, Proceedings of ISCA International Conference on Computer Applications in Industry and Engineering, Los Angeles, California, USA, 2013.
5. **Fasel Qadir**, M. A. Peer & K. A. Khan, "An Effective Image Noise Filtering algorithm using Cellular Automata". Proceedings of International Conference on Computer Communication and Informatics (*ICCCI* -2012), Jan. 10 – 12, IEEE explorer, Coimbatore, INDIA, Pages 1-5, ISBN: 978-1-4577-1580-8, 2012.
6. **Fasel Qadir** & K. A. Khan, "Cellular Automata Based Noise Filtering and Edge Detection of Grey-Scale Images". Proceedings of 5th National Conference on Computing for National Development, Bhartia Vidyapeeth's Institute of Computer Applications and Management, INDIACom, New Delhi, India, Pages 457-461, ISSN: 0973-7529, ISBN: 978-93-80544-03-8, 2012.
7. M. A. Peer, K. A. Khan & **Fasel Qadir** "Cellular Automata Based Image Noise Filtering Using Mathematical Morphology". Proceedings of 5th National Conference on Computing for National Development, Bhartia Vidyapeeth's Institute of Computer Applications and Management, INDIACom, New Delhi, India, Pages 517-520, ISSN: 0973-7529, ISBN: 978-93-80544-03-8, 2012.
8. K. A. Khan, M. A. Peer & **Fasel Qadir**, "Adaptive Edge Detection of Images using Cellular Automata ", proceedings of 5th National Conference on Computing for National Development, Bhartia Vidyapeeth's Institute of Computer Applications and Management, INDIACom, New Delhi, India, Pages 477-480, ISSN: 0973-7529, ISBN: 978-93-80544-03-8, 2012.

Presented Papers at Refereed Conferences/Seminars

1. Zubair Jeelani and Fasel Qadir, "An insight into cellular automata based impulse noise filtration algorithms" ist international conference on recent developments in science, humanities and management, organized by *Amar Singh College, Cluster University, Srinagar.*, from 17-04-2018 to 18-12-2018.

2. Imran Qadir & **Fasel Qadir**, "Digital Image Interpolation Based on 2D Cellular Automata", Presented at 9th JK Science Congress, University of Kashmir, India, Page 406, 2013.
3. Peer Zahoor Ahmad & **Fasel Qadir**, "Quantum-Dot Cellular Automata Models for Fabrication of Logic Gates", Presented at 9th JK Science Congress, University of Kashmir, India, Page 406, 2013.
4. **Fasel Qadir**, M. A. Peer & K. A. Khan, "Cellular Automata Based Digital Document Processing Techniques" Presented at National Seminar on Emerging Frontiers of Digital Libraries, March 13th-14th, 2012.
5. **Fasel Qadir**, M. A. Peer & K. A. Khan, "Diffusion Scheme for Medical Image Noise Reduction utilizing Cellular Automata", Presented at National Conference on Recent Trends in Biosciences, S. P. College, Srinagar, India, Oct 3rd-4th, Pages 94-99, 2011.

Conferences/Seminars/Symposium/Workshops/FDPs Attended
1. Attended one week online FDP on recent trends in microwave engineering and its industrial applications, sponsored by A.P.J. Abdul Kalam Technical University, Lucknow and organized by department of Electronics and Communication Engineering, Kanpur Institute of Technology, from November 24 to 28, 2020.
2. Attended one week FDP on Data Science using Python Programming, Organized by E & ICT Academy IIT Guwahati, from 02 to 09 November 2020.
3. Attended an e-FDP on Cloud Computing, Organized by the UGC-HRDC, University of Kashmir, from July 20 to 25, 2020.
4. Attended a Conference on "*13th Session of Jammu and Kashmir Science Congress (JKSC-2018)*, organized by University of Kashmir in collaboration with the Jammu and Kashmir state Science. Technology and Innovation Council, from 02-04-2018 to 04-04-2018.
5. Attended a Workshop on "*Open Access Platforms in Research*", organized by Department of Library and Information Science, University of Kashmir, Srinagar, (J & K) India, from 14-03-2017 to 15-12-2017.

Conferences/Seminars/Symposium/Workshops/FDPs Organized
1. **Coordinator** for one week faculty development programme (online) on Data Sciences using Python Programming, organized by department of computer science in collaboration with Electronics & ICT Academy IIT Guwahati, Assam, from 02-09 November, 2020.
2. **Coordinator** for two weeks certificate programme (online) on ICT tools for teaching, learning process and institutes, jointly organized by IIT Guwahati, IIT Kanpur, IIT Roorkee, MNIT Jaipur, PDPM IITDM Jabalpur and IIT Patna, from March 15-26, 2021.