

# Curriculum Vitae

**Name:** Dr. Shabana Mehfuz

**Designation:** Professor

**Address:** Department of Electrical Engineering, Faculty of Engineering and Technology, Jamia Millia Islamia, New Delhi.

## **Professional Experience**

Since 2014 : Professor  
2011-2014 : Associate Professor  
2008-2011 : Reader  
2003-2008 : Sr. Lecturer  
1998-2003 : Lecturer

## **1. TOPIC OF Ph.D. THESIS**

**“Quality of Service Issues in Mobile AdHoc Networks”**

## **2. CURRENT RESEARCH INTEREST**

Cloud Computing, Application of Computational Intelligence, Artificial Intelligence, Internet of Things, Wireless Sensor Networks

## **3. AWARDS/SCHOLARSHIPS RECEIVED:**

- Secured **First** position in the order of merit in B.Tech. (Electrical Engineering).
- International Inspirational Women Award 2020 for Best Performer in Government Award by GISR Foundation.
- National award for Excellence in Education 2021 in the AMP organization's university/college teachers category.
- Best paper award at INDICON 2015 held in New Delhi.

## **4. VISITS TO FOREIGN INSTITUTIONS**

Attended Course on “Distributed Laboratory Instrumentation Systems” at ICTP, Trieste, Italy (22nd Nov.- 17th Dec., 2004).

## **5. RESEARCH PAPERS PUBLISHED:**

**Citation Indices:** <https://scholar.google.com/citations?user=Sc8Vj08AAAAJ>  
<https://www.scopus.com/authid/detail.uri?authorId=24465237900>

<b>i. International Journals:</b>	<b>62</b>
<b>ii. National Journals:</b>	<b>5</b>
<b>iii. International Conferences/Seminars/Workshops:</b>	<b>58</b>
<b>iv. National Conferences/Seminars/Workshops:</b>	<b>13</b>
<b>v. Book Chapters/Articles</b>	<b>6</b>
<b>vi. Books:</b>	<b>2</b>
<b>vii. Patents Awarded/Published:</b>	<b>6</b>

**(For details see Annexure-I)**

## 6. CONFERENCES/SEMINARS/WORKSHOPS ATTENDED:

**INDIA: 33**

**ABROAD: 1**

## 7. CONFERENCE ORGANISED:

**Track Chair:** Artificial Intelligence, Internet of Things and Cloud Computing, International Conference on Recent Advances in Electrical, Electronics and Digital Healthcare Technologies, 2023, Technically Sponsored by IEEE Delhi Section

**Track Chair:** Applications of Image Processing and Computer Networking in Power Electronics and Automation, International Conference on Power Electronics, Control & Automation, 2019, Technically Sponsored by IEEE Delhi Section

**Track Chair:** Computer and Information Technology, IEEE International Conference INDICON 2015

## 8. REFRESHER/SHORT-TERM COURSES ATTENDED: 10

## 9. RESEARCH PROJECTS

See Annexure - I

## 10. RESEARCH GUIDANCE

**Ph.D.: Ongoing: 9      Awarded/Submitted: 10**

See Annexure I for details

## 11. TEACHING

### Courses taught at B.Tech. level:

Programming Languages, Artificial Intelligence, Computer Architecture, Switchgear and Protection, Basic Electrical Engineering, AI & Soft Computing

### Courses taught at M.Tech. level:

Intelligent Techniques, Digital Communication, Wireless Sensor Networks.

## 12. MEMBERSHIPS IN TECHNICAL SOCIETIES

- IEEE, Senior Member
- Ex-officio member, IEEE Delhi Section executive committee-2005.
- Chairperson, GOLD affinity group of IEEE Delhi Section.
- Executive member of Jamia Engineering Alumni Association.
- Co-ordinator, WIE affinity group, Jamia Chapter, IEEE Delhi Section.
- Life Member, ISTE
- Member, IE
- Life Member, CSI

## 13. Major Administrative Responsibilities Inside/Outside University

- Chairperson, Students Grievance Redressal Committee, Faculty of Engineering & Technology (since 2023)
- Chief Public Information Officer and Nodal Officer RTI-MIS, Jamia Millia Islamia (Since 2022)
- Nodal Officer, Jamia Millia Islamia, ACITE Doctoral Fellowship Scheme (Since 2022)
- Mentor & Nodal Officer, Jamia Millia Islamia, AICTE Prime Minister Special Scholarship Scheme. (Since 2018)
- President, Basket Ball, University Sports Committee, JMI (since 2022)
- AICTE Certified Mentor for Teachers of Higher Education Institutes
- Review Board, Indo-Canadian Sashtri Institute, New Delhi
- Area Advisory Board Member, Department of IT, Amity University
- Research Advisory Committee Member, DTU and NSUT

## Annexure-I

### Publications in International Journals:

1. Shahnawaz Ahmad , **Shabana Mehfuz S**, Javed Beg, “An efficient and secure key management with the extended convolutional neural network for intrusion detection in cloud storage”, *Concurrency Computation Practice and Experience* 2023; e7806. doi: 10.1002/cpe.780. (SCIE, Impact Factor = 1.831)
2. Shahnawaz Ahmad, Iman Shakeel, **Shabana Mehfuz**, Javed Ahmad, “Deep Learning Models for Cloud, Edge, Fog, and IoT Computing Paradigms: Survey, Recent Advances, and Future Directions”, *Computer Science Review* (Accepted). (SCIE, Impact Factor = 8.757).
3. Shabana Urooj, Sonam Lata, Shahnawaz Ahmad, **Shabana Mehfuz**, S Kalathil, “Cryptographic Data Security for Reliable Wireless Sensor Network”, *Alexandria Engineering Journal*, Volume 72, 2023, Pages 37-50, ISSN 1110-0168, <https://doi.org/10.1016/j.aej.2023.03.061> (SCIE, Impact Factor = 6.626)
4. Shahnawaz Ahmad, **Shabana Mehfuz**, Javed Beg., “Hybrid cryptographic approach to enhance the mode of key management system in cloud environment”, *J Supercomputing* (2022). <https://doi.org/10.1007/s11227-022-04964-9>, (SCI, Impact Factor = 2.557.)
5. Christian Emeka Okafor, Sunday Iweriolor, Okwuchukwu Innocent Ani, Shahnawaz Ahmad, **Shabana Mehfuz**, Godspower Onyekachukwu Ekwueme, Okechukwu Emmanuel Chukwumuanya, Sylvester Emeka Abonyi, Ignatius Echezona Ekegwu, Okechukwu Peter Chikelu, *Advances in machine learning-aided design of reinforced polymer composite and hybrid material systems*, *Hybrid Advances*, Volume 2,2023, 100026, ISSN 2773-207X, <https://doi.org/10.1016/j.hybadv.2023.100026>.
6. Shahnawaz Ahmad, **Shabana Mehfuz**, Fateh Mebarek-Oudina, Javed Beg, “RSM analysis based cloud access security broker: a systematic literature review”, *Cluster Computing*, Springer, May 2022. DOI: <https://doi.org/10.1007/s10586-022-03598-z>. (SCIE, Impact factor: 2.303).
7. Mariyam, Farhana, **Mehfuz, Shabana**, Sadiq, Mohd., “RAGOSRA: Rough attributed goal-oriented software requirements analysis method”, *Journal of Intelligent Fuzzy Systems*. pp. 1-11, 2023. DOI: 10.3233/JIFS-221300, (SCIE Indexed, Impact Factor: 1.737).
8. Aakib Jawed Khan and **Shabana Mehfuz**, “Cloud Access Control Mechanism Based on Fuzzy Logic User Access Trust Model”, *Computer System Science and Engineering*, Vol 44, No 1, 2023, ISSN 0267-6192 (print) (SCIE, Impact factor: 4.397)
9. Shahnawaz Ahmad, **Shabana Mehfuz**, Javed Beg, “Cloud security framework and key management services collectively for implementing DLP and IRM”, *Materials Today*, Volume 62, Part 7, 2022, Pages 4828-4836. Scopus: ISSN no: 22147853.
10. Shahnawaz Ahmad, **Shabana Mehfuz**, Javed Beg, “Assessment on potential security threats and introducing novel data security model in cloud environment”, *Materials today*, Volume 62, Part 7, 2022, Pages 4909-4915, Scopus: ISSN no: 22147853.
11. Sonam Lata, **Shabana Mehfuz**, Shabana Urooj, “Secure and Reliable WSN for Internet of Things: Challenges and Enabling Technologies” *IEEE Access*, volume 9, 2021, doi: 10.1109/ACCESS.2021.3131367 (SCI, Impact factor: 3.367) ISSN no: 2169-3536.
12. Aakib Jawed Khan and **Shabana Mehfuz**, “Big-data Driven Approaches in Materials Science on Cloud Storage API through Optimal Homomorphic Encryption”, *Materials today*, May 2021. Scopus: ISSN no: 22147853.
13. Naved Alam, **Shabana Mehfuz**, “Semi-distributed resource allocation and power quantization control algorithm for device-to-device network”, *International Journal of Communications Systems*, Wiley, March 2021, pp 1-15 (doi.org/10.1002/dac.4820) SCI impact factor: 1.319, ISSN no:
14. Shahnawaz Ahmad, **Shabana Mehfuz**, Javed Beg, Nadeem Ahmad Khan, and Afzal Husain Khan, “Fuzzy cloud based COVID-19 diagnosis assistant for identifying affected cases globally using MCDM”, *Materials today: Proceedings*, Scopus, January-2021. ISSN no: 22147853
15. Aakib Jawed Khan and **Shabana Mehfuz**, “Secure Access Control Model for Cloud Computing Environment with Fuzzy Max Interval Trust Values” *International Journal of Advanced Computer Science and Applications* (IJACSA), 11(8), October 2020. <http://dx.doi.org/10.14569/IJACSA.2020.0110867>, Scopus indexed.ISSN no 2156-5570

16. Shahnawaz Ahmad, **Shabana Mehfuz**, and Javed Beg, "A Genetic Algorithm based Key Management Approach for Enhancing Data Security in Cloud Environment", *International Journal of Advanced Trends in Computer Science and Engineering* 9(5):8943-8951, ISSN: 2278 – 3091, September 2020. (Scopus Indexed)
17. Shahnawaz Ahmad, Nazim Ali Khan, **Shabana Mehfuz**, "Impact and Challenges of Coronavirus on Daily Life and Living: A Cloud Based Communication Assistant during the COVID-19Pandemic", *International Journal for Modern Trends in Science and Technology*, UGC Journal Id: 43137, Volume 6, Issue 9, PP-91-100, Septmber-2020, India
18. Sonam Lata, Shabana Mehfuz, S. Urooj and F. Alrowais, "Fuzzy Clustering Algorithm for Enhancing Reliability and Network Lifetime of Wireless Sensor Networks," in *IEEE Access*, vol. 8, pp. 66013-66024, 2020, doi:10.1109/ACCESS.2020.2985495. (SCI, Imapct factor: 4.64) ISSN no: 2169-3536.
19. Sonam Lata, **Shabana Mehfuz**, Shabana Urooj, Asmaa Ali, Nidal Nasser, "Disjoint Spanning Tree Based Reliability Evaluation of Wireless Sensor Network", in *MDPI Sensors*, 2020, <https://doi.org/10.3390/s20113071>. (SCIE, Impact factor: 3.275), ISSN No.: 1424-8220
20. Md Ashar Alam, **Shabana Mehfuz**, Md Shams Tabraiz Alam, Tazeem A Khan, "Comparative Study of Fuzzy Logic and ANFIS based MPPT of PV Systems", *Journal of Natural Remedies*, volume 21, Issue 5(S1), pp 40-50, 2020
21. Mohd Asim Aftab, Saeed Roostae, S.M. Suhail Hussain, Iqbal Ali, Mini S. Thomas, **Shabana Mehfuz**, "Performance evaluation of IEC 61850 GOOSEbased inter-substation communication for accelerated distance protection scheme", *IET Generation, Transmission & Distribution*, 12(18), pp. 4089-4098, 2018. (SCI, impact factor: 2.862)
22. Usha Tiwari, **Shabana Mehfuz**, "An adaptive entropy-based Data compression technique for Wireless Sensor Networks" in *Journal of Fundamental and Applied Sciences*, indexed in ESCI, ISSN1112-9867, vol.10, April 2018.
23. Usha Tiwari, **Shabana Mehfuz**, "An efficient tag generation-based data compression algorithm for wireless sensor network", in *International Journal of Engineering Research and Technology*. ISSN 0974-3154 Volume 11, Number 1 (2018), pp. 117-143 a SCOPUS-indexed journal.
24. Usha Tiwari, Monika Jain, **Shabana Mehfuz**, "Handwritten character recognition" in *LNEE- Lecture note in Electrical Engineering a Advances in System Optimization and Control*, SCOPUS indexed journal by Springer Publications, 2018.
25. Gauri Katiyar, Ankita Katiyar, **Shabana Mehfuz**, "Off-Line Handwritten Character Recognition System Using Support Vector Machine", *American Journal of Neural Networks and Applications*, 2017; 3(2), pp 22-28.
26. Saeed Rastoo, Mini S. Thomas, **Shabana Mehfuz**, "Experimental Studies on Impedance Based Fault Location for Long Transmission Lines", *Journal of Protection and Control of Modern Power Systems*, Springer, 2017.
27. Rai R., Sahoo G., **Shabana Mehfuz**. "Effect of VM Selection Heuristics on Energy Consumption and SLAs During VM Migrations in Cloud Data Centers", *Advances in Computational Intelligence. Advances in Intelligent Systems and Computing*, vol 509. 2017 Springer.
28. Gauri katiyar, **Shabana Mehfuz**, "A hybrid recognition system for off-line handwritten characters", *SpringerPlus*, ISSN: 2193-1801, 5(357), 2016, pp. 1-18 (SCI, Impact factor: 0.447).
29. Reetu, **Shabana Mehfuz** and Parmod Kumar "Intelligent decision support algorithm for distribution system restoration", *Springer Plus, Springer*, (DOI 10.1186/s40064-016-2810-4), July 2016, Impact factor - 0.982. (SCI, impact factor: 0.447).
30. Sumit Kumar, **Shabana Mehfuz**, "Efficient Fuzzy Logic Based Probabilistic broadcasting for mobile ad hoc network", *International Journal of Computational Intelligence Systems*, Vol. 9, No. 4, pp. 666-675, June 2016. (Impact factor =0.391, Taylor & Francis SCI /Scopus Indexed)
31. Sumit Kumar, **Shabana Mehfuz**, "Intelligent probabilistic broadcasting in mobile ad hoc network: A PSO approach", *Journal of Reliable Intelligent Environments*, Vol. 2, Issue 2, pp. 107-115, July 2016. (Springer)
32. Sumit Kumar, **Shabana Mehfuz**, "Energy Efficient Probabilistic broadcasting for mobile ad hoc network" *Journal of the Institution of Engineers (India): Series B*, (2016), doi: 10.1007/s40031-016-0265-1. (Springer)
33. Saeed Rastoo, Mini S. Thomas, **Shabana Mehfuz**, "Laboratory Investigation of Fault Location in transmission Lines", *Journal of Electrical Engineering, Electronics and Computer Science* (2.2), 2016.

34. Rashmi Rai, G.Sahoo, **Shabana Mehfuz**, "Advancement in Cloud Migration: A Systematic Literature Review", International Journal of Communication Networks and Distributed Systems (Inderscience), 2015.
35. Rashmi Rai, G.Sahoo, **Shabana Mehfuz**, "Migrating on Premise Application to Clouds: Drivers and Challenges", Advance Science Letters (American Scientific Publishers), 2015.
36. Munna Khan, **Shabana Mehfuz**, Ghazala Parveen, "Multicompartmental Models to Assess the Body Composition of Indian Subjects and Validation of Result by Developing Prediction Equation", International Journal of Research Studies in Biosciences, ISSN: 2349-0357, vol. 3 Issue 5, May 2015, pp 209-228.
37. Rashmi Rai, G.Sahoo, **Shabana Mehfuz**, "Exploring the factors influencing the cloud computing adoption: a systematic study on cloud migration", SpringerPlus, ISSN: 2193-1801, vol. 4 Issue 1, April 2015, pp. 1-12(SCI Indexed)
38. Shabana Mehfuz, Farah Rashid, "Optimal Network Configuration Using Ant Colony System Algorithm", Journal Of Computational Intelligence Systems, ISSN: 1875-6891, Taylor & Francis, vol.7, issue 6, September 2014, pp. 1074-1082.(SCI Indexed)
39. **Shabana Mehfuz**, Sumit Kumar, "Two-Dimensional Particle Swarm Optimization Algorithm for Load Flow Analysis", Journal of Computational Intelligence, Systems, ISSN: 1875-6891, Taylor & Francis, vol. 7, issue 5, September 2014, pp 973-978.(SCI Indexed)
40. Munna Khan, **Shabana Mehfuz**, Ghazala Parveen, "Interpreting Health Status of Indian Population Using Phase Angle as Health Parameter", International Journal of Engineering Research and Sciences, ISSN (Online): 2320-9364, ISSN (Print): 2320-9356, vol. 2, issue 8, August 2014, pp 45-56.
41. Munna Khan, **Shabana Mehfuz**, Ghazala Parveen, "Interpreting Health Status of Mixed Population Using BCA", Journal of Medical Sciences, ISSN 2320- 1282, Journal of Medical Sciences, Vol. 3, issue 1, March 2014, pp 1-18.
42. Munna Khan, **Shabana Mehfuz**, Ghazala Parveen, "Bioelectrical Impedance Analysis (BIA) for Assessing Tbw and Ffm of Indian Females", International Journal of Computational Engineering Research, ISSN: 2250-3005, Vol 4, Issue 3, March 2014, pp. 1-17.
43. Rashmi Rai, G.Sahoo, **Shabana Mehfuz**, Advances in Cloud Migration: A Systematic Literature Review, Asian Journal of Information Technology, ISSN: 19935994, 16823915
44. Rashmi Rai, **Shabana Mehfuz**, G. Sahoo, Efficient Migration of Application to Clouds: Analysis and Comparison, GSTF Journal on Computing (JoC), Springer, ISSN: 2010-2283, DOI: 10.5176/2251-3043\_3.3.272 Vol. 3 No. 3, Dec 2013.
45. Rashmi, G.Sahoo, **Shabana Mehfuz**, "Securing Software as a Service Model of Cloud Computing: Issues and Solutions", International Journal on Cloud Computing: Services and Architecture (IJCCSA) ISSN: 2231 - 5853, Vol.3, No.4, August 2013, pp 1-11.
46. Ghazala Parveen Khan, Munna Khan, **Shabana Mehfuz**, "Generalized Sex and Age Specific Body Composition Prediction Equations for Indian Subjects", International Journal of Computational Engineering Research, ISSN: 2250-3005, Vol. 3, Issue 12, Dec 2013, pp 1-15.
47. Ghazala Parveen Khan, Munna Khan, **Shabana Mehfuz**, "Development and validation of Prediction for Estimating Resting Energy Expenditure in Indian Subjects", IOSR Journal of Electrical and Electronics Engineering, ISSN 2278-1676, Vol. 7, Issue 2, Jul 2013, pp. 6-9.
48. **Shabana Mehfuz** , "Strategies of Swarm Intelligent Secure Routing Algorithms for MANETs", International Journal of Modern Embedded System, ISSN: 2320-9003, Volume 1, issue 2, April 2013, pp 16-20.
49. Ghazala Parveen Khan, Munna Khan, **Shabana Mehfuz**, "Comparative study of 2C molecular level, 3C water molecular level and 3C mineral molecular level of Indian subjects", International Journal of Advancement in Research and Technology, ISSN 2278-7763, Volume 2, Issue2, February-2013, pp 1-21.
50. Ghazala Parveen Khan, Munna Khan, **Shabana Mehfuz**, "Development of Bioelectrical Impedance Analysis Equations (BIA) to predict body composition of Indian Males", World Applied Programming, ISSN: 2222-2510, Vol. 3, Issue-1, Jan 2013, pp 14-33.

51. Ghazala Parveen Khan, Munna Khan, **Shabana Mehfuz**, “Developing Linear Regression Multiple Model for Indian Males and Validating the Results with BIA Analyser”, *Journal of Medical Sciences*, ISSN 2320-1282, Vol. 1, Issue 1, Dec. 2012, pp. 12-24.
52. **Shabana Mehfuz**, “Performance Analysis and Modeling of Broadband Power Line Communications”, *International Journal of Advanced Research in Electronics and Communication Engineering (IJARECE)*, (ISSN: 2278 – 909X), Volume 1, Issue 2, August 2012.
53. Ghazala Parveen Khan, Munna Khan, **Shabana Mehfuz**, “Development of Bioelectrical Impedance Analysis Equation (BIA) to Predict Body Composition of Indian Males”, *Journal of Exercise Physiology*, ISSN 1097-9751, Vol. 14, Issue 3, June 2011, pp. 1-21.
54. Rashmi, **Shabana Mehfuz**, G.Sahoo, “A five-phased approach for the cloud migration”, *International Journal of Emerging Technology and Advanced Engineering* (ISSN 2250-2459), Volume 2, Issue 4, April 2012.
55. Sumit Kumar, **Shabana Mehfuz**, “Review of Survivable initiatives for Key Management and Access Control” *International Journal of Science, Engineering & Computer Technology*, ISSN 2231-508X, Volume 1, Issue 2, March 2012, pp. 186-188.
56. Gauri Katiyar, **Shabana Mehfuz**, “Evolutionary Computing Techniques in Off-line Handwritten Character Recognition: A Review”, *UACEE International Journal of Computer Science and its Applications*, Vol-1, Issue-1, [ISSN-2250-3765], 2012, pp-133-137.
57. **Shabana Mehfuz**, Gauri Katiyar, “Intelligent Systems for Off-line Handwritten Character Recognition: A Review”, *International Journal of Emerging Technology and Advanced Engineering*, Vol-2, Issue- 4, [ISSN-2250-2459], April 2012, pp-538-544.
58. Ghazala Parveen Khan, Munna Khan, **Shabana Mehfuz**, “Multifrequency Bio Impedance Analysis (BIA) for Assessing TBW and FFM of Indian Females”, *International Transactions in Mathematical Sciences and Computers*, ISSN-1814-0424, Volume-4, Jan-June 2011.
59. **Shabana Mehfuz**, M. N. Doja, “Swarm Intelligent Power Aware Detection of Unauthorized and Compromised Nodes in MANETs”, *Journal of Artificial Evolution and Application*, Article ID 263803, Vol. 2008, pp. 1-16.
60. R. Radhakrishnan, Majid Jamil, **Shabana Mehfuz**, Moinuddin, “A robust routability procedure for mobile IPV6”, *International Journal of Computer Science & Network Security*. ISSN: 1738-7906, Vol.8 No.5, May 2008.
61. Javed Beg, **Shabana Mehfuz**, M. N. Doja, “SOA Based Universal Application Integration Framework”, *Gyan Management, International Journal of Management and Technology*, Vol.2, Issue 1, 2008, pp. 100-113.
62. **Shabana Mehfuz**, M. N. Doja, “Nature Inspired Energy Efficient Routing Algorithm for MANETs”, *International Journal of Computational Intelligence: Theory and Practice*, Vol. 2, No. 2, December 2007, pp. 113-124.

#### **Publications in National Journals:**

1. G.Sahoo, **Shabana Mehfuz**, Rashmi Rai, Applications of Cloud Computing for Agriculture Sector, *CSI Communications*, ISSN 0970-647X Volume No. 37, Issue No. 8 , November 2013.
2. G.Sahoo, **Shabana Mehfuz**, Rashmi, “ Cloud Computing: Changing the Way We Communicate”, *Communication Express*, BITS Mesra, Ranchi, Macmillan Publishers, 2012.
3. Reetu, Parmod Kumar, **Shabana Mehfuz**, “Switching Sensitivity of Distribution Network for Restoration after Blackout/Partial Blackout”, *National Electrical Engineering Conference (NEEC-2011) on Power and Energy Systems for Tomorrow*, December 2011.
4. M. N. Doja, **Shabana Mehfuz**, “Challenges and Issues Faced by Secure Routing Protocols for MANETs”, *Communications, CSI Communications*, Vol. 31, No. 4, July 2007, pp 38-41.

5. Majid Jamil, **Shabana Mehfuz**, Bal Krishna, "Fuzzy Logic Based Analysis of Effect of Electrical and Physical Conditions on Electrical Parameters of ACSR Conductors", Journal of Engineering & Technology Education, vol. 1, no. 1, 2007, pp 30-37.

#### **Publications in International Conferences:**

1. Z. A. Haq, M. Ashhad, Z. A. Jaffery and **Shabana Mehfuz**, "Infrared Imaging Technique and Multi-Input Neural Network for Potato Defect Detection," 2023 International Conference on Recent Advances in Electrical, Electronics & Digital Healthcare Technologies (REEDCON), New Delhi, India, 2023, pp. 196-200, doi: 10.1109/REEDCON57544.2023.10150501.
2. I. Shakeel, **Shabana Mehfuz** and S. Ahmad, "Implementing a Serverless Workflow using AWS Step Function," 2023 International Conference on Recent Advances in Electrical, Electronics & Digital Healthcare Technologies (REEDCON), New Delhi, India, 2023, pp. 68-73, doi: 10.1109/REEDCON57544.2023.10150562.
3. S. Bhatia, Z. A. Jaffery and **Shabana Mehfuz**, "Development and Analysis of IoT based Smart Agriculture System for Heterogenous Nodes," 2023 International Conference on Recent Advances in Electrical, Electronics & Digital Healthcare Technologies (REEDCON), New Delhi, India, 2023, pp. 62-67, doi: 10.1109/REEDCON57544.2023.10150466.
4. T. A. Sofi and **Shabana Mehfuz**, "Drowsiness and fatigue detection using multi-feature fusion," 2023 International Conference on Recent Advances in Electrical, Electronics & Digital Healthcare Technologies (REEDCON), New Delhi, India, 2023, pp. 672-675, doi: 10.1109/REEDCON57544.2023.10150459.
5. M. Dutta, F. Najm, D. Tomar and **Shabana Mehfuz**, "Smart Queueing Management System for Digital Healthcare," 2023 International Conference on Recent Advances in Electrical, Electronics & Digital Healthcare Technologies (REEDCON), New Delhi, India, 2023, pp. 541-546, doi: 10.1109/REEDCON57544.2023.10151351.
6. M. Weqar, **Shabana Mehfuz** and D. Gupta, "DNS Traffic Monitoring to Access Vulnerability in the Internet of Healthcare Things Networks: A Survey," 2023 International Conference on Recent Advances in Electrical, Electronics & Digital Healthcare Technologies (REEDCON), New Delhi, India, 2023, pp. 89-94, doi: 10.1109/REEDCON57544.2023.10150996.
7. M. Kashif, **Shabana Mehfuz**, I. Shakeel and S. Ahmad, "Employing an ECC-Based Hybrid Data Encryption Method to Improve Multitenancy Security in Cloud Computing," 2023 International Conference on Recent Advances in Electrical, Electronics & Digital Healthcare Technologies (REEDCON), New Delhi, India, 2023, pp. 79-83, doi: 10.1109/REEDCON57544.2023.10150684.
8. Shahnawaz Ahmad, **Shabana Mehfuz**, and Javed Beg, "Service-Centric Attribute Based Block Level Two Step Encryption Scheme for Improved Cloud Security", International Conference on Advance Computing and Ingenious Technology in Engineering Science (AIP Conference Proceeding), Accepted.
9. Shahnawaz Ahmad, **Shabana Mehfuz**, and Javed Beg, "Enhancement of Key Management System in Cloud Environment", 6th International Joint Conference on Computing Sciences (ICCS-2022), Accepted.
10. Shakeel, **S. Mehfuz** and S. Ahmad, "Securing Data in Cloud: Major Threats and Recent Strategies", 2022 11<sup>th</sup> International Conference on System Modeling & Advancement in Research Trends (SMART), Moradabad, India, 2022, pp. 1602-1607, doi: 10.1109/SMART55829.2022.10047308.
11. Tanviruzzama, **Shabana Mehfuz**, "Review: Lane Detection for Autonomous Vehicles Using Image Processing Techniques", IEEE International Conference on Power, Instrumentation, Energy, and Control (PIECON-2023).

12. Farhana Mariyam, **Shabana Mehfuz**, Mohd. Sadiq, "SelectGoREATech: Selection of Goal-Oriented Requirements Elicitation and Analysis Techniques", International Conference on Computing in Engineering & Technology, ICCET 2022, Springer.
13. Ahras Moon, **Shabana Mehfuz**, S Ahmad, "Design and Implementation of SEPIC Converter for PV System Based Smart Home Application", 1st International Conference on Sustainable Technology for Power and Energy Systems (STPES), 2022
14. Zeeshan Ali Haque, Zainul Abidin Jaffery, **Shabana Mehfuz**, "A Novel Framework for Smart Agriculture using Internet of Things and Enabling Technologies:", IEEE International Conference for Advancement in Technology (ICONAT) 20-21 Jan 2022, Goa, India.
15. Z. A. Haq, Z. A. Jaffery and **S. Mehfuz**, "A Novel Framework for Smart Agriculture using Internet of Things and Enabling Technologies," 2022 International Conference for Advancement in Technology (ICONAT), Goa, India, 2022, pp. 1-6, doi: 10.1109/ICONAT53423.2022.9725953.
16. Ansar Ahmad, **Shabana Mehfuz**, "Explainable AI-based early Detection of Diabetes for Smart Healthcare", 7th International Conference on Computing in Engineering & Technology (ICCET 2022), 2022 p. 150 – 154.
17. Farhana Mariyam, **Shabana Mehfuz**, Mohd. Sadiq, "Classification and Evaluation of Goal-Oriented Requirements Analysis Methods", International Conference on Applied Soft Computing and Communication Networks, Springer, 2021.
18. Shahnawaz Ahmad, **Shabana Mehfuz**, and Javed Beg, "Securely work from home with CASB policies under COVID-19 pandemic-A Short Review", Ninth International Conference on System Modelling and Advancement on Research Trends (SMART-2020), IEEE, UP Section, TMU, December 2020, Moradabad UP, India.
19. Shahnawaz Ahmad, **Shabana Mehfuz**, and Javed Beg, "Enhancing Security of Cloud Platform with Cloud Access Security Broker", Fifth International Conference on Information and Communication Technology for Competitive Strategies (ICTCS-2020), SpringerLink, December-2020, Jaipur, India.
20. Shahnawaz Ahmad, **Shabana Mehfuz**, and Javed Beg, "Fuzzy TOPSIS based Cloud Model to Evaluate Cloud Computing Services", Congress on Advances in Materials Science and Engineering (CAMSE-2020), SpringerLink, December-2020, India.
21. Farhana Mariyam, **Shabana Mehfuz**, and Mohd. Sadiq, "Classification and Evaluation of Goal Oriented Requirements Analysis Methods", International Conference on Applied Soft computing and Communication Networks (ACN'20), 2020, Chennai, India.
22. Shahnawaz Ahmad, **Shabana Mehfuz**, "Fuzzy Cloud Access Security Broker for Requirements Negotiation and Prioritization", International Conference on Power Electronics, Control & Automation (ICPECA-2019) on 16 & 17 November 2019 held at Jamia Millia Islamia, New Delhi.
23. Usha Tiwari, **Shabana Mehfuz**, Satyam Sharma, Vinayak Triguna Pandey "Design of Python-based Lost and Found Website for College Campus" in International Conference on Power Electronics, Control & Automation (ICPECA-2019) on 16 and 17 November 2019 held at Jamia Millia Islamia, New Delhi.
24. Sonam Lata, **Shabana Mehfuz**, "Machine Learning based Energy Efficient Wireless Sensor Network", IEEE International Conference on Power Electronics, Control, and Automation, 16th-17th November 2019.
25. Sajjad Ahmad, Sonam Lata, **Shabana Mehfuz**, Abrar Ahmad, "Lossless Compression Algorithm for Energy Efficient Wireless Sensor Network", IEEE International Conference on Power Electronics, Control and Automation, 16th-17<sup>th</sup>, November 2019.
26. Naved Alam, **Shabana Mehfuz**, "Cross-Tier Interference Control Through Mode Selection and Resource Allocation (MSRA) in a D2D Network Using Uplink Frequency Reuse", International Conference on Power Electronics, Control and Automation (ICPECA), Jamia Millia Islamia, New Delhi, India. Nov 16-17, 2019.
27. Sonam Lata, **Shabana Mehfuz**, "Source to Multiple Sink Capacity Related Reliability of Wireless Sensor Networks, IEEE INDIACom - 2019; 13th INDIACom; International Conference on "Computing for Sustainable Global Development" from 13th March to 15<sup>th</sup> March 2019 at Bharati Vidyapeeth Educational Complex, New Delhi.
28. Naved Alam, **Shabana Mehfuz**, "Research Challenges on Device-to-Device Communication: A Technology for Next Generation Cellular Network", IEEE International Conference on Computing, Power and Communication Technologies (GUCON) Galgotias University, Greater Noida, UP, India. Sep 28-29, 2018.



29. **Shabana Mehfuz**, Sumit Kumar "PSO based malicious node detection and clustering in wireless sensor network" 3rd IEEE International Conference NANO FIM (Nanotechnology for Instrumentation and Measurement Workshop), pp 291-294, Greater Noida, Nov 2017.
30. Saeed Roostae, **Shabana Mehfuz**, and Mini S Thomas," Research and Implementation of the Communication Topologies of Process Bus based on IEC 61850", IEEE Nanotechnology for Instrumentation and Measurement Workshop, IEEE NANO FIM 2017.
31. Saeed Roostae, **Shabana Mehfuz**, and Mini S Thomas" Novel Line Protection Scheme based on the Remote IEC 61850 Sample Values in the Line", IEEE Nanotechnology for Instrumentation and Measurement Workshop, IEEE NANO FIM 2017.
32. Saeed Roostae, **Shabana Mehfuz**, and Mini S Thomas" Experimental Study of Impedance-based Fault Location in the Transmission Line using IEC 61850 Process Bus Data", IEEE Nanotechnology for Instrumentation and Measurement Workshop, IEEE NANO FIM 2017.
33. Sonam Lata and **Shabana Mehfuz**, " Reliability Issues of WSN: A Survey", IEEE International Conference on Nanotechnology for Instrumentation and Measurement (Nanofim), Nov 2017, Gautam Budh University, Greater Noida.
34. Saeed Rastoo, Mini S. Thomas, **Shabana Mehfuz**, "Practical Consideration of IEC61850 in Interlocking Functions in Substation Automation Systems", INDIACom - 2017; 11th INDIACom; 2017 04th International Conference on "Computing for Sustainable Global Development" from 01st March to 3rd march 2017 at Bharati Vidyapeeth Educational Complex, New Delhi.
35. Saeed Rastoo, **Shabana Mehfuz**, Mini S. Thomas, "Techno-Economic Assessment of IEC 61850 based Substation Automation System" International Symposium on Resistive Economy, Action and Implementation, Jamia Millia Islamia, March 2017.
36. Aakib Jawed Khan, **Shabana Mehfuz**, "Access control models for cloud computing: A literature review and analysis" INDIACom - 2017; 11th INDIACom; 2017 04th International Conference on "Computing for Sustainable Global Development" from 01st March to 3rd march 2017 at Bharati Vidyapeeth Educational Complex, New Delhi.
37. **Shabana Mehfuz**, Usha Tiwari, "A Tunstall Based Lossless Algorithm for Wireless Sensor Networks", IEEE India Conference (INDICON), JMI New Delhi, 2015, pp. 1-4.
38. Mohammad Ali Akhter Siddiqui, **Shabana Mehfuz**, "Artificial neural networks based incipient fault diagnosis for power transformers", IEEE India Conference (INDICON), JMI New Delhi, 2015, pp. 1-6.
39. Gauri Katiyar, **Shabana Mehfuz**, "SVM based off-line handwritten digit recognition", IEEE India Conference (INDICON), JMI New Delhi, 2015, pp. 1-5.
40. **Shabana Mehfuz**, Sumit Kumar "Energy-Aware Probabilistic Broadcasting for Mobile Ad Hoc Network" Proceedings of the 9<sup>th</sup> INDIACom; INDIACom-2015 2015 2<sup>nd</sup> International Conference on "Computing for Sustainable Global Development", 11<sup>th</sup> – 13<sup>th</sup> March 2015 Bharati Vidyapeeth's Institute of Computer Applications and Management (BVICAM), New Delhi (INDIA).
41. **Shabana Mehfuz**, Shabana Urooj, Shivaji Sinha on "Wireless Body Area Networks-: A Review with Intelligent Sensor Network-based Emerging Technology" in 2nd International Conference on Information Systems Design and Application-2015 (INDIA 2015) at University of Kalyani, West Bengal, on 08-09 Jan 2015 in Proceeding of Springer (Advances in Intelligent and Soft Computing (AISC) series) (indexed by ISI Proceedings, EI-Compendex, DBLP, SCOPUS, Google Scholar).
42. **Shabana Mehfuz**, Pramod Kumar, Reetu, "Distribution system restoration using fuzzy multi-criteria evaluation" IEEE International Conference on Innovative Applications of Computational Intelligence on Power, Energy, and Controls with Their Impact on Humanity (CIPECH-14), KIET Ghaziabad, U.P., 28-29 Nov 2014.
43. **Shabana Mehfuz**, Usha Tiwari, "A Huffman Based Lossless Compression Algorithm for Wireless Sensor Networks" IEEE International conference CIPECH-2014, KIET group of Institutions Ghaziabad, pp. 28-29 Nov- 2014.
44. Sinha S, **Mehfuz S.**, Urooj S. "Energy Detection of Unknown Signals over Rayleigh Fading Channels, " IEEE Proc. Int. Conf. On Issues and Challenges in Intelligent Computing Techniques (ICICT-14), 07-08 Feb 14, KIET, India (ISBN No: 978-1-4799-2900-9/14/@ 2014), pp. Pp 303 – 307, Accession Number: 14210983, DOI: 10.1109/ICICT.2014.6781297

45. Rashmi Rai, G. Sahoo, **Shabana Mehfuz**, Migrating On-Premise Application to Clouds: Drivers and Challenges, (IntelSys-2014), WIT Transactions on Information and Communication Technologies (ISSN:1743- 3517).
46. **Shabana Mehfuz**, Usha Tiwari “Recent Strategies of Data Compression in Wireless Sensor Networks” International Conference on Advances in Engineering and Technology (AET 2013), 13-14 Dec 2013, Gurgaon.
47. Rashmi, **Shabana Mehfuz**, G. Sahoo, “A new waterfall model for cloud migration”, National Conference on Recent Advances in Communication, Control and Computing Technology (RACCCT-12), March-2012, Surat, India.
48. Rashmi, G. Sahoo, **Shabana Mehfuz**, “A software engineering approach for cloud migration”, International Conference on Advances in Cloud Computing (ACC-2012) July-2012, Bangalore, India.
49. **Shabana Mehfuz**, Sumit Kumar, "Review of Survivable Initiatives for Key Management and Access Control in MANET" at UGC sponsored National Conference on Role & Applications of ICT in Inaccessible Areas (RAICTIA – 12), Guru Jambheshwar University of Science and Technology, 21st March 2012.
50. Reetu, **Shabana Mehfuz**, Mini S. Thomas, “Development of Wireless Sensor Network for Distribution System Management”, International Conference on Control, Communication and Power Engineering 2010, pp 263-267.
51. R Radhakrishnan, Majid Jamil, **Shabana Mehfuz**, Moinuddin, “Security Vulnerabilities in mobile IPv6”, International Conference on Computer Networks and Security, ICCNS 08, September 27-28, 2008, pp 293-296.
52. **Shabana Mehfuz**, Abhishek Sinha, Mini S. Thomas, “Modeling of Indoor power line for Substation monitoring using Broadband Power line Communications”, Tencon 2008, pp 1-4.
53. **Shabana Mehfuz**, Iqbal Ali, Mini S. Thomas, “Ad Hoc Based Secure Architecture for Survivable and Reliable Substation Automation System”, Powercon 2008, pp 1-6.
54. **Shabana Mehfuz**, M. N. Doja, “Trust Based Unauthorized and Malicious Node Detection Scheme for Secure data Transfer”, International Conference on Data Management 2008.
55. R Radhakrishnan, Majid Jamil, **Shabana Mehfuz**, Moinuddin, “Security Issues in IPv6”, Networking and Services, 2007. ICNS. Third International Conference. Digital Object Identifier 10.1109/ICNS.2007.106, pp. 110-114.
56. M. N. Doja, **Shabana Mehfuz**, “A Comprehensive Review of Power Conservation Strategies for Mobile Ad Hoc Network”, International Conference on Wireless Networking & Mobile Computing, December 28-30, 2005, pp 12-18.
57. M. N. Doja, **Shabana Mehfuz**, “Graphical Query Language for Document Repository”, Third International Conference on Flexible Systems Management, New Delhi, March 13-14, 2004.
58. M. N. Doja, **Shabana Mehfuz**, “Graphical Data Model Based Repository for HTML Documents”, Third International Conference on Flexible Systems Management, New Delhi, March 13-14, 2004.

#### **Publications in National Conferences:**

1. Shahnawaz Ahmad, **Shabana Mehfuz**, “Challenges and Solutions for Cloud Robotics Management in Smart Manufacturing Environment - A Short Review”, National Conference on Robotics and Mechatronics, 3<sup>rd</sup> & 4<sup>th</sup> March, Jamia Millia Islamia, New Delhi, 2020.
2. Mehwish Waqar, **Shabana Mehfuz**, “Security Challenges Faced in IOT and Proposed Solutions”, National Conference on Robotics and Mechatronics, 3<sup>rd</sup> and 4<sup>th</sup> March, Jamia Millia Islamia, New Delhi, 2020.
3. **Shabana Mehfuz**, Gauri Katiyar, “Combined Feature Extraction Method for ANN Based Handwritten Character Recognition”, National conference on Emerging Trends in Electrical and Electronics Engineering at JMI, New Delhi, 2-3 Feb 2015.
4. **Shabana Mehfuz**, Pramod Kumar, Reetu, “Multi-objective Distribution System Service Restoration Using Two Stage PSO Algorithm”, National Conference on Emerging Trends in Electrical and Electronics Engineering, JMI New Delhi, 2-3 Feb 2015.
5. Mohammad Ali Akhter Siddique, **Shabana Mehfuz**, “Fault Diagnosis Strategies in Wireless Sensor Network: A survey”, National Conference on Emerging Trends in Electrical and Electronics Engineering, JMI New Delhi, 2-3 Feb 2015.

6. Rajaz Khan Amitava, Burhan Haider, **Shabana Mehfuz**, “Maximum Power Point Tracking of a Partially shaded Photovoltaic Generation System using Particle Swarm Optimization”, National Conference on Emerging Trends in Electrical Engineering, JMI New Delhi, 2-3 Feb 2015. and Electronics
7. **Shabana Mehfuz**, Sumit Kumar, “Recent Trends in Anonymous Routing Protocols in Manets”, National Conference on Emerging Trends in Electrical Engineering, JMI New Delhi, 2-3 Feb 2015. and Electronics
8. Reetu, Parmod Kumar, **Shabana Mehfuz**, “Switching Sensitivity of Distribution Network for Restoration after Blackout/Partial Blackout”, National Electrical Engineering Conference (NEEC-2011) on Power and Energy Systems for Tomorrow, December 2011.
9. M. N. Doja, **Shabana Mehfuz**, “Philosophies of Swarm Intelligent Secure Routing Algorithms for MANETs”, National Conference on Next Generation Computing & Information Systems, 12-13 May 2007.
10. M. N. Doja, **Shabana Mehfuz**, “QoS Issues in Mobile Ad Hoc Networks”, National conference on High-Performance Computing for Next Generation, 27 September 2007, pp 165-169.
11. **Shabana Mehfuz**, M. N. Doja, “Energy Efficient Routing Algorithm for Mobile Ad Hoc Network’s Resource Management”, National Conference on Emerging Trends in Signal Processing & Communication (ETSPC-07), 27-29 December 2007, pp 325-331.
12. Majid Jamil, **Shabana Mehfuz**, Bal Krishna, “Fuzzy Model to Study Effect of Different Physical Conditions on Electrical Parameters of ACSR Conductors”, National Conference on Power Electronics and Intelligent Control, 2007, pp 169-173.
13. R. Radhakrishnan, Majid Jamil, **Shabana Mehfuz**, Moinuddin, “UPNP over IPv6”, National conference on Restructuring of Technical Education to meet the Global Industrial Needs – 2006, BIT Bangalore, pp. 35.

## Patents

1. South African Govt. Patent No 2022/08301, Title “Cyber Attack Prevention System for Automotive System Based on Artificial Intelligence”, (Granted – 28th Sept. 2022).
2. Australian Govt. Patent No 2021103249, Title “A Novel Multilevel Optimization for Task Scheduling and Load Balancing in Cloud”. (Granted – 8th Sept 2021).
3. Australian Govt. Patent No 2021102595, Title “A New Method of data sanitization for the privacy protection of cloud data in cloud computing”. (Granted – 9th day of March 2022).
4. Indian Patent Application No. 202141020723, Title “A System for Resource Aggregation to the Cloud with Optimal Path Detection”. (Published- 14th May 2021).
5. Indian Patent Application No. 2021111017841, Title “Integrated Solar Panel as per Sun direction using AI-based programming system”. (Published- 21st May 2021).
6. Indian Patent Application No. 2021311016697, Title “System for Control & Manage Artificial Intelligent Speaker Functionality and Operation Using Electronic Pen”. (Published- 7th May 2021).

## Research Projects

1. Projects Executed
  - **Co-PI** for Major Research Project funded by UGC (2007-2010). Title: **Development of Intelligent Communication Network for Substation Automation**. Grant received: Rs. 3,43,000
  - **Co-PI** for RPS project funded by AICTE (2007-2009). Title: **Development of Intelligent Wireless Sensor Network for Substation Automation**. Grant received: Rs. 10,59,00.
  - **PI** for RPS project funded by AICTE (2012-2014). Title: **Resilience Mechanisms for Survivable Mobile Ad Hoc Network**. Grant Received: Rs. 9,50,000.

## Articles/Chapters published in Books

1. Shahnawaz Ahmad, **Shabana Mehfuz**, and Javed Beg, "Empirical Impact of AI and IoT on Performance Management: A Review", in the book titled "Video Data Analytics for Smart City Applications: Methods and Trends", by Bentham Science, 2023, Vol 01, pp. 99-111, ISBN: 978-981-5123-70-8.
2. Sonam Lata, **Shabana Mehfuz**, "Efficient Ambient Energy-Harvesting Sources with Potential for IoT and Wireless Sensor Network Applications" in the book titled "Energy Harvesting: Enabling IoT Transformation" by CRC Press, Taylor & Francis Group 2022. ISBN: 978-1-003-21876-0
3. Shahnawaz Ahmad, **Shabana Mehfuz**, Javed Beg, "Empirical Analysis of Security Enabled Quantum Computing for Cloud Environment" In: Kumar, A., Gill, S.S., Abraham, A. (eds) Quantum and Blockchain for Modern Computing Systems: Vision and Advancements. Lecture Notes on Data Engineering and Communications Technologies, vol 133. Springer, 2022. ISBN: 978-3-031-04613-1 DOI: [https://doi.org/10.1007/978-3-031-04613-1\\_3](https://doi.org/10.1007/978-3-031-04613-1_3).
4. Mehwash Waqar, **Shabana Mehfuz**, Dhawal Gupta, "Autonomous Device Discovery for IoT: Challenges & Future Research Directions, in the book titled "Internet of Things Applications for Sustainable Development" by CRC Press, Taylor and Francis Group 2021
5. Course Writer for the course "**Emerging Technologies**" in Certificate in Computer and Information Technology, running at Center for Distance and Open Learning, JMI.
6. Course Writer for the course "**Computer Organization & Operating System**" in the Advance Diploma in Computer Hardware & Network Technology, running at Center for Distance and Open Learning, JMI.

### Books

1. Shahnawaz Ahmad, Shabana Mehfuz, Javed Beg, "Cloud Computing", By GCS Publishers, 2022. ISBN: 978-93-94304-10-9
2. Shahnawaz Ahmad, Shabana Mehfuz, Javed Beg, "Cloud Computing: An Industrial Approach", Lap Lambert Academic Publishing, 2022. ISBN: 978-620-49680-0

### Research Guidance

#### Ph.D. (Ongoing)

1. Interference Management in Device to Device Enabled 5G Network
2. Mitigation of Security Threats during Interoperability in IOT Networks
3. An Intelligent Approach for Goal Oriented Software Requirement Analysis.
4. Quality Assessment for Agro-products using Infrared Imaging (Co-Supervisor)
5. Development of Electronic System for Smart Grid Health Monitoring Applications (Co-Supervisor)
6. Condition Monitoring of Oil Immersed Transformer Based on Dissolved Gas Analysis. (Co-Supervisor)
7. Performance Optimization of Energy Efficient Precision Agriculture using WSN-IOT (Co-Supervisor)
8. Intelligent Stakeholders Modelling in Information System Design Processes
9. Effective Condition and Health Monitoring of Power Transformers Based on DGA (Co-Supervisor)

#### Ph.D. (Awarded/Submitted)

1. Securing Cloud Based Encryption Key Management Platform (submitted-2023)
2. Secure API Access Control Models for Cloud Computing Environment (2023)
3. Strategies for Enhancing Reliability of Wireless Sensor Networks (2021)
4. Robust Data Aggregation Techniques for Wireless Sensor Networks. (2020)
5. Reliability and availability assessment of transmission line protection functions based on IEC61850 standards (2018)
6. End-to-end security architecture and self-Resilient mechanism for Cloud Computing environment. (2017)
7. Hybrid Intelligent Algorithm for Handwritten Character Recognition (2017)
8. Resilience Mechanisms for Survivable AdHoc Networks. (2017)
9. Intelligent Decision Support System for Power System Restoration. (2017)
10. Prediction of Body Composition for Indian Population using Bioelectrical Impedance Analysis. (2015)