# Department of Electronics and Communication Engineering

## Dr. Salma Fauzia

- **Assistant Professor**
- Qualification: B.E (ECE), M.Tech (Embedded systems), Ph.D(ECE)
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| Experience | |
| 16 | |
| Publications | |
| Journals-08 | |
| Area of Expertise | |
| Wireless Sensor Networks, Computer Networks, Internet of Things | |
| Research Interest | |
| Ad hoc and Sensor Networks, Body area networks | |

## I. List of publications - Journals

[1]. Fauzia, S. and Anjum, R. 2022. Predicting The Discharge of Patients Via Machine Learning Based Discharge Predictive Model. *International Journal on Recent and Innovation Trends in Computing and Communication*. 10, 7 (Jul. 2022), 58–69. DOI:https://doi.org/10.17762/ijritcc.v10i7.5571. (Scopus Indexed)

[2]. Fauzia S.,, "A survey of routing protocols in Mobile Ad hoc Networks", Stochastic Modeling & Applications (In press) (UGC Care) ISSN: 0972-3641

[3]. Fauzia S.,, "Body Area Networking And Live Location Tracking System In War Fields IJME, ISSN: 0974-5823 Vol.7 No.5 (May, 2022)

[4]. An Approach to mobile ad hoc network directional routing, Vol. 7 No. 4 April, 2022 IJME, ISSN: 0974-5823 Vol.7 No.4 (April, 2022)

[5]. Pulse Monitoring System Using Light Fidelity (Li-Fi) Stochastic Modeling & Applications, Vol. 26 No. 3 (January - June, Special Issue 2022 Part - 1) (UGC Care) ISSN: 0972-3641

[6]. Fauzia, S., Fatima, K," QoS based Routing for Free Space Optical Mobile Ad Hoc Networks.," 2019 International Journal of Vehicle Information and Communication Systems (IJVICS). (Scopus Indexed)

[7]. Fauzia, S., Fatima, K," Routing in Optical Mesh Networks - A QoS Perspective.," 2018 International Journal of Ad hoc, Sensor & Ubiquitous Computing (IJASUC). http://airccse.org/journal/ijasuc/current.html. (UGC recognized)

[8]. S. Fauzia and Nazma Sultana,"Performance Analysis of Routing Protocols based on Simulation Models in MANET's", International Journal of Engineering Research & Technology (IJERT) ISSN: 2278-0181 Vol. 5 Issue 01, January-2016.

## II.  List of Conferences

| 2022 | IEEE- WINTECHCON 2022, IEEE CAS Bangalore Chapter, June 02-03, 2022<br>Title: Wearable Devices and Body Area Networking (Invited Tutorial) |
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| 2022 | 7th International Conference on Applied Sciences, Engineering, Technology and Management, ICASETM-2022, April 09-10, 2022<br>Title: QoS based AODV and DSR for Free space Optical Networks |
| 2022 | 4th International Conference on Advancements in Artificial Intelligence, Machine Learning and Automation, ICAAIMLA-2022, April 08-09, 2022<br>Title: Modified AODV and DSR for Wireless ad Hoc Networks |
| 2022 | CSMCS-2022, Manipal Institute of Technology, Manipal March 28-30, 2022<br>Title: Analysing Health Care Using Machine Learning |

| 2022 | CSMCS-2022, Manipal Institute of Technology, Manipal March 28-30, 2022<br>Title: Deep Learning Models For Alzheimers Disease Detection |
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| 2022 | ICEAT-2022, will be held on 8th & 9th July, 2022 at Malla Reddy institute of Engineering and Technology, Hyderabad<br>Title: A survey of Routing protocols in Mobile Ad Hoc Networks |
| 2022 | 5$^{Th}$ international conference on Engineering Science and Technology, 16-17 Feb 2022, Egypt, (Online )<br>Title: Modified LEACH protocol for Wireless Sensor Networks |
| 2022 | 8th International Conference on Recent Trends in Multi-Disciplinary Research,  held during January 22-23, 2022<br>Title: Precision Agriculture Using Wireless Sensor Network |
| 2022 | 5th International Conference on Applied Science, Engineering and Management, ICAEM-2022 held during January 21-22, 2022<br>Title: Smart Attendance Monitoring System |
| 2021 | Advancing Knowledge from Multidisciplinary Perspectives in Engineering & Technology<br>ICAKMPET, 23-24 December, Turkey<br>Title: Body area networking and Live Location tracking system in War fields |
| 2019 | IEEE International Conference on Innovative Technologies in Engineering , ICITE , OU, 2019<br>Title: A New Approach to Directional Routing in MANETs |
| 2017 | Lightening talk on "Design of Wireless Sensor Network Based Attendance System" Manipal University, Karnataka.15 September |
| 2014 | Eleventh International Conference on Wireless and Optical Communications Networks (WOCN), Vijayawada<br>Title: Routing in FSO MANETs QoS and directionality |

## III.  Books Published

I.    Wireless Body Area Networks and IoT- A design approach, 2022, Weser Books, Germany.

II.   WSN for Precise Irrigation in Farming-A project based approach, 2021.

## IV.   Book Chapter

[1]   Quantum Cryptograpy (In- Press), ISBN: 9781119904861

[2]   Energy Efficient Cost Aware Secure Routing (CASER) Protocol Design using Self-Adaptive Sleep/Wakeup Scheduling Approach for Wireless Sensor Networks in Advances in Electronics and Communication Engineering.    ISBN:    978-93-5570-063-6    Book    DOI: https://doi.org/10.22271/ed.book.1429

[3]   Fauzia S., Fatima K. (2018) Performance Evaluation of AODV Routing Protocol for Free Space Optical Mobile Ad-Hoc Networks. In: Thampi S., Mitra S., Mukhopadhyay J., Li KC., James A., Berretti S. (eds) Intelligent Systems Technologies and Applications. ISTA 2017. Advances in Intelligent Systems and Computing,vol 683. Springer, Cham.(Springer)
https://www.springerprofessional.de/en/performance-evaluation-of-aodv-routing-protocol-for-free-space-o/15153978.    ).    (Scopus Indexed)

## V.   Workshops attended

1.    AICTE Sponsored ATAL Five Days Faculty Development Programme on "Cyber Security" from 25/10/2021 to 29/10/2021 at SRM Institute Of Management Technology.

2.    ATAL FDP on Cybersecurity, from 5th July-9th July 2021, conducted by Manonmaniam Sundaranar University.

3.    ATAL FDP on Augmented Reality and Virtual Reality, from 09th Aug - 13th Aug 2021, Maulana Azad National Urdu University Polytechnic, Hyderabad.

4. AICTE FDP on Emerging Trends in RF and Energy device and Circuits, from 22$^{nd}$ –26$^{th}$ February, organized by NIT Meghalaya.

5. Innovation and sustainability in teaching and learning, on 18th Jan 2021, conducted by The University of Technology and Applied Sciences – Salalah.

6. Smart India Hackathon 2020, from 1st Aug -3rd Aug 2020, organized by MHRD, AICTE with others.

7. Covid 19: Technological and Digital Transformation for a New Era on 23-5-2020, conducted by G. Narayanamma Institute of Technology and Science.

8. A two day workshop on Microwave Engineering, from 03rd Jan - 4th Jan 2018, conducted by, Muffakham Jah College of Engineering and Technology, Hyderabad.

9. Anweshana, Project Prosthetic Arm, Jan 2018, organized by Institution of Engineers.

10. GIAN Workshop on Opportunities, Challenges and Research Trends in Wireless Sensor Networks, from 11th Dec - 15th Dec 2017, organized by Osmania University, Hyderabad.

11. Recent Advances in Communications and Signal Processing, from 19th- 21st November 2015, organized by Vasavi College of Engineering, under TEQIP-II.

12. National Mission on Education through ICT (MHRD)-Technical communication, from 08th- 05th Dec 2015, conducted by Indian Institute of Technology, Bombay, organized by Muffakham Jah College of Engineering and Technology, Hyderabad.

13. ISTE workshop on Computer Networking, from May 28th – June 29th and 30th June-05th July 2014, conducted by Indian Institute of

Technology, Bombay, organized by Muffakham Jah College of Engineering and Technology, Hyderabad.

14. Three day workshop on Engineering Research Methodology, from 26th -28th August 2013, organized by Osmania University, Hyderabad.

15. System on Chip (SoC) Design, from 17th-18th August 2013, organized by Muffakham Jah College of Engineering and Technology, Hyderabad.

## VI. Workshops conducted

1. Two day orientation workshop on Introduction to Electronics, Coordinator, from 09th -10th May 2016, Muffakham Jah College of Engineering and Technology.

2. National Conference on Circuits, Signals and Systems, Program Committee from 22nd-24th January 2015, Muffakham Jah College of Engineering and Technology.

## VII. As speaker/Judge of student events

1. Program committee member and reviewer for 5th international conference on communication and computational technologies held during January 28-29 2023.

2. Program committee member and reviewer for ICCIS, NIT Delhi December 2022.

3. Session Chair in IJCACI 2021 on 15/10/2022.

4. International womens engineering day 2021, WIE, as judge on 23/06/2021.

5. PANACAST 2K16, as Judge, held at Muffakham Jah College of Engineering and Technology.

6. Elocution competition on Engineers day, as Judge, on 14 September 2019, held at Muffakham Jah College of Engineering and Technology.

7. Lightening talk on Design of Wireless Sensor Network Based Attendance System, Speaker, on $15^{th}$ September, 2017, $6^{th}$ International conference on Advances in Computing, Communications and Informatics, Manipal University, Karnataka.

8. Engineering as a career option for girls, as Speaker, on $22^{nd}$ April 2017, International Indian School- Al Jubail, Department of Career Guidance and Competitive Examinations, Saudi Arabia.

9. Engineering as a career option for girls, as Speaker, on $22^{nd}$ April 2017, International Indian School- Jeddah, Saudi Arabia, Department of Career Guidance and Competitive Examinations, Saudi Arabia.

## VIII. Online Certifications

1. Introduction to Packet Tracer, 28 June 2021, by Cisco Networking Academy.

2. Earned a badge on successfully completing Introduction to IoT, June 2021, by Cisco Networking Academy.

3. Wireless Ad-Hoc and Sensor Networks, NPTEL, Jan-March 2017, organized by Indian Institute of Technology, Kharagpur, Secured a score of 77%.

4. Demystifying Networking NPTEL – AICTE FDP July-August 2019, organized by Indian Institute of Technology, Madras, Secured a score of 70%

5. Introduction to programming with Matlab, Coursera, June 2015, organized by Vanderbuilt University Successfully Completed.

6. Wireless Communication Emerging Technologies, Coursera, September 2015 organized by Yonsei University.