# **Curriculum Vitae**

# Name: Dr. Mazher Sarfaraz Khan

Address: Mujeeb Colony No.4 Roshan Gate, Chhatrapati. Sambhajinagar (Aurangabad)

**E-mail:** <u>mazher.khan@mit.asia</u>, **Date of Birth**: 09-11-1986



Academic Credentials						
Class/	Specialization	Institution	University	Year	%/CGP	Class
Degree					Α	
Postdoc	Data Science	Mum	University of	2024-		
		Institute of	South	Present		
		Business	Florida USA		-	-
		management				
		USA				
Ph.D.			Dr.			
			Babasaheb			
	Electronics		Ambedkar	February		
	Engineering		Marathwada	2020	-	-
			University,			
			Aurangabad			
M. Tech.						
	Electronics &					
	Telecommunic	V. J. T. I,	Mumbai	August	77	First
	ation	Mumbai	University	2011		Class
	Engineering					

B.E	Electronics & Telecommunic ation Engineering	Government College of Engineering , Aurangabad	Dr. Babasaheb Ambedkar Marathwada University, Aurangabad	July 2008	73.4%	First Class
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Ph. D (Electronics Engineering)				
Title	Strong Route Selection Using RSS in AODV by Implementing CLD for Improved			
	System Performance			
Guide	Dr. Sayyad Ajij			
University	Dr. Babasaheb Ambedkar Marathwada University, Aurangabad			
Completed on	February 2020			

M. Tech (Electronics & Telecommunication Engineering)				
Title	Implementation of Cross-Layer Design for AODV in MANET			
College	V. J. T. I, Mumbai			

Key Research Areas: Wireless Communication & Networking, IOT, Embedded System

## Experience

Sr. No.	Organization	Post	From-To	No. of Years
1	MIT	In-charge Center for Engineering Exploration	Feb 2024- till	01 yrs
2	MIT	Assistant Professor (ECED)	2011-till date	13 yrs
3	VJTI	Assistant Teacher(ETCED)	2010-2011	01 yrs

## List of Courses Taught/Teaching at Undergraduate level:

- Basic Electrical and Electronics Engineering,
- Electrical Machines and Measurements,
- Communication Engineering -I, II
- Electronics Devices and Circuits
- Embedded systems, Robotics,
- Internet of Things (IOT)
- Wireless Sensor Network (WSN)
- Computer Networking
- Programming languages

- Cloud computing, Bigdata Analytics
- Open-source operating System.

## List of Courses Taught/Teaching at Postgraduate level:

- Advanced Embedded system & Programming,
- IOT, Wireless Sensor Network
- Real time Operating System

## Skill development:

- Engineering Exploration I, II,
- RedHat.
- Robotics Club activity.

## Additional Assignments/Duties:

## Institute Level:

- Examination (Chief Superintendent)
- Admission (UG and PG),
- AICTE & University Affiliation,
- Research Committee,
- Various Observation Committee

## **Departmental Level**

- UG, PG Coordinator
- Exam, Placement Coordinator
- Lab In-charge
- Project/Seminar Coordinator

## Membership of Professional Bodies:

• Life member of ISTE

## Seminar/Workshop/Industrial Training/STTP//FDP/CEP/Conference Attended:

## Seminar/Workshop

- One day Workshop on eSim, a First Course in the IoT Series for Teachers, 21 September 2019, the Teaching Learning Centre ICT at IIT Bombay.
- Emerging Trends in Microwave & Micro strip devices, 7 May -11 May 2012, IETE workshop at MIT.
- Workshop on Advanced Antenna Technology, 3rd June 7th June 2013, IEEE Indian antenna week 2013

## **Faculty Development Program:**

- Python Programming for Beginners for Artificial Intelligence and Machine Learning, 25-10-2021 to 03-11-2021, National Institute Of Technology Warangal
- Java Programming & Android, 3rd July 2017 8th July 2017, FDP organized in MIT
- Industrial IoT, Industry 4.0 & Disruptive Technologies, May 05-10, 2020, TEQIP III

by Dr. B. A. Technological University, Lonere (Maharashtra)

- Energy Efficient TECHNIQUES FOR 5G Wireless Communication (Project Based Learning Approach), 17 22 August 2020, AICTE sponsored PICT NI LabVIEW
- Cyber-Physical Production Systems, August 9-11, 2021, TEAM INDAC-SM & Royal Academy of Engineering.

## Awards & Recognitions:

- Recognized Ph.D. Research Supervisor –
- Dr. Babasaheb Ambedkar Marathwada University
- Reviewer for IEEE Journals

## **Technical skills:**

- Programming: Python, C, Embedded C
- Tools: Embedded Systems, MATLAB, AWS, NS2, , Hadoop
- Platforms: Linux, Windows
- Certifications: RHCSA (Red Hat Certified System Administrator), Data Science with Python, Big Data Hadoop

## Skills

#### Academics:

• Student engagement, Programme development and management, Student development, Academic advising, Experiential learning.

#### Administrative:

• Leading the Center, Handling Major Institute portfolios, admissions, Coordination with under faculties.

Research:

• Interdisciplinary collaboration, Professional networking, Technology fluency, and independent research.

## **Intellectual Property Rights**

## **Details of Patent:**

- 1. Intelligent System and Method for Tracking Personal Financial Data Based on Blockchain, Patent Number: 202131042477
- 2. An Artificial Intelligent based on Trading System, Patent Number: 2020104079
- 3. Utilization of Internet of Things to Optimize the Human Task in an Industry 4.0 Context, Patent Number: 2021104364
- 4. Intelligent System and Method for Stress Detection Using EEG Signal for Emotional Health Care Monitoring through Artificial Intelligence and Machine Learning, Patent Number: 202141061342

## **Ongoing Research Project:**

• Indian Space Research Organization (ISRO) – Co-PI (2023–2025) "Spectral Deconvolution of Lunar Surface Mineral Composition using Bi-Directional Reflectance Function."

## **Book Publication**

- 1. Books: Mobile Communication with ISBN: 978-93-5625-034-5
- 2. Book Chapter: Smart Hospital System Implementation Using IoT on Big Data Platform and Predictive Models Using Artificial Intelligence and Data Science.

#### **List of Research Publications:**

- 1. Design technique for head selection in WSNS to enhance the network performance based on nodes residual status: An extension to EBRS method. International Journal of Advanced Science and Technology, Volume 29, 2020, Pages 3562-3575, [Scopus].
- 2. A feasible model for a smart transportation system using a vehicular ad-hoc network. Test Engineering and Management, 2020, Volume 83, Pages 7341-7348.
- 3. Testing reliable-AODV for mobile ad-hoc network using test-bed architecture. International Journal of Innovative Technology and Exploring Engineering, Volume 8, 2019, Pages 109-114.
- 4. Cross layer interaction for strong route selection in AODV for MANET. International Journal of Innovative Technology and Exploring Engineering, Volume 8, 2019, Pages 1637-1642.
- 5. Power Optimized Secure Routing Protocol in MANET. International Journal of Advanced Research in Computer and Communication Engineering (IJARCCE), Volume 5, 2016, Pages 13-15, ISSN (Print) 2319-5940, ISSN (Online) 2278-1021.
- 6. Review Paper on Issues of AODV and Study of Cross Layer Design in MANET. Journal of Telecommunication, Switching Systems and Networks, Volume 3, 2016, Pages 37-43, ISSN: 2454-6372.
- 7. Strong Route Selection in AODV Using RSS Through CLD. International Journal of Advanced Research in Engineering and Technology, Volume 5, 2014, Pages 151-156.
- Improvement of Throughput in MANET Using RSS in AODV by Cross Layer Design. International Journal of Applied Research (IJAR), Volume 4, 2014, Pages 210-212, ISSN - 2249-555X, DOI: 10.15373/2249555X.
- 9. Automation of Inter-Networked Banking and Teller Machine Operations Using Face Recognition. International Journal of Engineering Sciences & Research Technology, Volume 3, 2014, Pages 318-324.
- Automation of Inter-Networked Banking and Teller Machine Operations. International Journal of Engineering Research and General Science, Volume 2, Issue 6, October-November 2014, ISSN 2091-2730.
- 11. Survey on DSTC and PA-PSO Algorithm through Cross Layer Design in MANET. International Journal of Innovative Research in Computer and Communication Engineering (IJIRCCE), ISSN (Online): 2320-9801, ISSN (Print): 2320-9798.
- 12. A Performance Comparison of Reliable-AODV for MANET in NS-2, NS-3 and Qualnet. International Journal of Computer Applications, Volume 178, No. 15, May 2019, ISSN 0975-8887.
- IOT Based Smart Power Management System Using WSN. International Research Journal of Engineering and Technology (IRJET), e-ISSN: 2395-0056, p-ISSN: 2395-0072.
- WSN Based Smart Power Monitoring and Controlling System for Home Automation. International Journal of Innovative Research in Computer and Communication Engineering (IJIRCCE), Volume 5, Issue 12, December 2017, DOI: 10.15680/IJIRCCE.2017.0512018, ISSN (Online): 2320-9801, ISSN (Print): 2320-9798.
- 15. Congestion Control Using Signal Strength in MANET: Review Paper. International Journal on Recent and Innovative Trends in Computing and Communication (IJRITCC), ISSN: 2321-8169.
- Improving the Performance of Routing Protocols in MANETs: A Mathematical Model for Evaluating Intermediate Bottleneck Nodes. SSRG International Journal of Electronics and Communication Engineering (SSRG - IJECE), Volume 10, Issue 4, 2023, DOI: 10.14445/23488549/IJECE-V10I4P107.
- 17. Fabric Defect Detection through Thermal Image Processing Methodology, Challenges and Experimental Validation. Journal of the Textile Association, Volume

85, Issue 3, 2024, ISSN: 0368-4636.

 Fabric Defect Detection: A Novel Approach Using Hybrid Deep Learning and Image Segmentation. REDVET - Revista electrónica de Veterinaria, Volume 25, Issue 1, 2024, ISSN: 1695-7504.

## **Conference papers:**

- 1. IOT Based Smart Power Management System Using WSN. International Research Journal of Engineering and Technology (IRJET), e-ISSN: 2395-0056, p-ISSN: 2395-0072.
- WSN Based Smart Power Monitoring and Controlling System for Home Automation. International Journal of Innovative Research in Computer and Communication Engineering (IJIRCCE), Volume 5, Issue 12, December 2017, DOI: 10.15680/IJIRCCE.2017.0512018, ISSN (Online): 2320-9801, ISSN (Print): 2320-9798.
- 3. Congestion Control Using Signal Strength in MANET: Review Paper. International Journal on Recent and Innovative Trends in Computing and Communication (IJRITCC), ISSN: 2321-8169.
- 4. Improving the Performance of Routing Protocols in MANETs: A Mathematical Model for Evaluating Intermediate Bottleneck Nodes. SSRG International Journal of Electronics and Communication Engineering (SSRG IJECE), Volume 10, Issue 4, 2023, DOI: 10.14445/23488549/IJECE-V10I4P107.
- 5. Fabric Defect Detection through Thermal Image Processing Methodology, Challenges and Experimental Validation. Journal of the Textile Association, Volume 85, Issue 3, 2024, ISSN: 0368-4636.
- Fabric Defect Detection: A Novel Approach Using Hybrid Deep Learning and Image Segmentation. REDVET - Revista electrónica de Veterinaria, Volume 25, Issue 1, 2024, ISSN: 1695-7504.

## **Completed Certification:**

- RHCSA RedHat
- Python for Data Science
  - Big Data development using Spark

# Links/ IDs

LinkedIn: <u>https://www.linkedin.com/in/dr-mazher-khan</u> Scopus: <u>https://www.scopus.com/authid/detail.uri?authorId=57190967626</u> Orchid ID: 0000-0003-3873-4280 Researcher ID: AAZ-9007-2021

Google Scholar: O14Qau8AAAAJ

Date: 02/05/2025 Place: MIT CSN

> Dr. Mazher S. Khan Assistant Professor in ECED