



# DR. KHUSHBOO PACHORI

## ASSOCIATE PROFESSOR

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### EDUCATIONAL QUALIFICATION

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**Ph.D\* (pursuing) in Artificial Intelligence**

*National Institute of Technology (NIT), Jamsedpur, Jharkhand*

**Ph.D in Wireless Communication & Neural Network**

*Jaypee University of Engineering & Technology, Guna, Madhya Pradesh*

**M.Tech. in Electronics & Communication Engineering**

*Jaypee University of Engineering & Technology, Guna, Madhya Pradesh*

**B.E. in Electronics & Communication Engineering**

*Rajiv Gandhi Pradyogiki Vishwavidyalaya, Bhopal, Madhya Pradesh*

### EXPERIENCE

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*Total Experience : 12.5 years [Academia – 9 years, Research – 3.5]*

### AREA OF INTEREST

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- Data Science
- Neural Network
- Machine Learning
- Cyber Security
- Internet of Things
- Artificial Intelligence
- Wireless Communication
- Signal Processing
- Deep Learning

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## BRIEF PROFILE

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- Dr. Khushboo Pachori hold PhD. And M.Tech in Electronics and Communication Engineering from Jaypee University of Engineering & Technology, India. She has about 12.5 years of experience in Teaching and Research in various areas of ECE. She has around 30 research papers, 3 Patents (1 Granted) and 10 conference publications. Her research interest includes Data Science, Neural Network, Machine Learning, Cyber Security, Internet of Things, Artificial Intelligence, Wireless Communication, Signal Processing and Deep Learning.

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## RESEARCH PUBLICATIONS

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### PATENTS

- Dr. Khushboo Pachori & Dr. Nikita S Mitra, "Automatic Ventilator Equipment", Design Patent Application No. 368971-001 **[Granted]**
- Dr. Manish D Sawale, Dr. Khushboo Pachori, Dr. Nikita S Mitra & Divya Rai, "Centralized Health Monitoring System Using Convolution Neural Network", **Application No. 202121034968 [Published]**
- Dr. Khushboo Pachori, Dr. Harpreet Kaur, Dr. Md Rashid, Dr. R. K. Singh & Dr. Vikas Maheswari, "COVID-19 Outbreak Analysis and Prediction with Deep Learning and AI Based", **Application No. 202141045772 [Published]**

### INTERNATIONAL JOURNALS

- Computer vision-based predictive analysis of chronic cardiovascular disease using heartbeat features, A Bhatt, SB Choubey, A Choubey, K Pachori, V Thakur - Multimedia Tools and Applications, 2023 **[SCI]**
- Performance prediction of metasurface-loaded ceramic-based MIMO antenna for B41/n41 bands using ML algorithms, K Pachori, A Prakash, N Kumar - Electromagnetics, 2023. **[SCI]**
- Performance prediction of dielectric resonator based MIMO antenna for sub-6.0 GHz using machine learning algorithms, K Pachori, A Prakash, N Kumar - Electromagnetics, 2023 **[SCI]**
- Hybrid PAPR Reduction Techniques for 5G System: A Survey A Sahu, TB Rehman, K Pachori - 2022 IEEE International Conference on Current CCET 2022 **[IEEE]**
- Birinderjit Singh Kalyan, Harpreet Kaur, Khushboo Pachori & Balwinder Singh (2022), "An Efficient Design of D Flip Flop in Quantum-Dot Cellular Automata (QCA) for Sequential Circuits", VLSI Architecture for Signal, Speech, and Image Processing **[Scopus]**
- Khushboo Pachori, Harpreet Kaur, Sarabpreet Kaur, Manpreet Kaur (2022), "PAPR Reduction in MIMO-OFDM System Using Artificial Neural Network", Wireless Communication with Artificial Intelligence, 2022 **[Scopus]**
- Raksha Bhargava & Pachori, K. (2021), "An Adaptive Approach Based on Cooperative Energy Efficiency Maximization for 5G Ultra-Dense Networks Application", VLSI Communication and Signal Processing **[Scopus]**
- Chang, L., Rani, P. & Pachori, K. (2021), "Sustainable circular supplier selection and evaluation in the manufacturing sector using Pythagorean fuzzy EDAS approach", Journal of Enterprise Information Management **[SCI]**
- CSN Koushik, Choubey, A., Bhargava S., & Pachori, K., (2020), "A literature review on quantum experiments at space scale - QUESS satellite", Innovation in Electronics & Communication Engineering, Springer.
- Choubey, A., Bhargava, S., & Pachori, K., (2019), "Object Detection using Higher Quality optimization Techniques in Video Encoders", Innovation in Electronics & Communication Engineering, Springer.
- Sugumar, Pachori, K., & Chowhan, T., (2018), "Assets Management Device using Embedded based IoT and RFID System for Remote Monitoring", International Journal of Research and Analytical Review. **[Scopus]**
- Pachori, K., Mishra, A., Pachauri, R., and Singh, N. (2016) "Envelope Fluctuation Reduction for WiMAX using Adaptive Networks Fuzzy Inference Systems," 3<sup>rd</sup> International Conference on Information System Design and Intelligent Applications (INDIA 2016), Visakhapatnam, Springer AISC series, vol. 435, chapter 3. **[Scopus]**
- Pachori, K. and Mishra, A. (2015), "PAPR reduction in MIMO-OFDM by Using Active Partial Sequence," Circuits, Systems & Signal Processing (CSSP), Springer, vol. 34, no. 12, pp. 3999-4010. **[SCI]**

- Pachori, K. and Mishra, A. (2015), "An efficient combinational approach for PAPR reduction in MIMO-OFDM system," *Wireless Networks (WINE)*, Springer, DOI. 10.1007/s11276-015-0974-4. [SCI]
- Pachori, K. and Mishra, A. (2015), "A Hybrid Envelope Fluctuations Reduction Approach Using Multilayer Neural Network for MIMO-OFDM Signals," *Wireless Networks (WINE)*, Springer, DOI. 10.1007/s11276-015-1126-6. [SCI]
- Pachori, K. and Mishra, A. (2015), "Performance Analysis of MIMO Systems under Multipath fading channels using Linear Equalization Techniques," *4<sup>th</sup> International Conference on Advances in Computing, Communications and Informatics*, pp. 190-193. [Scopus]
- Mishra, A., Pachori, K., and Zaheeruddin (2012), "Design of 1-Dimensional FIR Filter using Modified Widrow-Hoff Neural Network," *International Journal of Computer Applications*, Vol. 59 (20), pp. 23-28. [Scopus]
- Pachori, K. and Mishra, A. (2012), "Design of FIR Digital Filters using ADALINE Neural Network," *IEEE Computer society*, DOI. 10.1109/CICN.2012.93. [Scopus]

## BOOK

- Dr. Khushboo Pachori, FINITE IMPULSE RESPONSE (FIR) FILTER DESIGN USING NEURAL NETWORK, ISSN - 978-620-4-20283-9, Lambert Academic Publishing

## AWARDS & CONFERENCES

- Won Best Paper Award in 3<sup>rd</sup> International Conference on Information System Design and Intelligent Applications (INDIA 2016), Springer, Visakhapatnam, Andhra Pradesh, India, January 8-9, 2016.
- Participated in 4<sup>th</sup> International Conference on Advances in Computing, Communications and Informatics (ICACCI 2015), Aluva, Kochi, Kerala, India, August 10-13, 2015
- Participated in 30<sup>th</sup> M.P. Young Scientist Congress, MPCST, Vigyan Bhawan, Bhopal (M.P.), February 28-March 01, 2015.
- Attended 102<sup>nd</sup> Indian Science Congress, University of Mumbai, January 3-7, 2015.
- Participated in 29<sup>th</sup> M.P. Young Scientist Congress, MPCST, Vigyan Bhawan, Bhopal (M.P.), February 28-March 01, 2014.
- Participated in 4<sup>th</sup> International Conference on Computational Intelligence and Communication Networks, GLA University Mathura, Nov. 03-05, 2012.
- Attended 3<sup>rd</sup> International Symposium on Emerging Trends and Technologies in Libraries and Information Services, JUET, Guna, October 26-27, 2012.
- Won 3<sup>rd</sup> prize in a National Level Symposium, BIST, Bhopal (M.P.), Oct. 20-22, 2008.
- Participated in a National Seminar on VLSI Design and Embedded Systems, OIST, Bhopal (M.P.), Oct. 28-29, 2008.

## EXTRACURRICULAR ACTIVITIES

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- Course certificate by COURSERA on Programming with Everybody (Getting Started with Python)
- Course certificate by COURSERA on Machine Learning with Python
- Course certificate by COURSERA on Introduction to Data Science in Python
- Course certificate by COURSERA on Python Data Structure
- Organized various technical events, webinars, talks in organization.
- Organized Various Development Programs for faculty and students.