# **CENTRAL UNIVERSITY OF JAMMU**

### **FACULTY PROFILE**

| Name Dr. Palak Mahajan      |  |      |  |
|-----------------------------|--|------|--|
| Title & Designation         | Assistant Professor  |      |  |
|                             | Department of Computer Science &                           |      |  |
|                             | Engineering,   |      |  |
|                             | Central University of Jammu.                               |      |  |
|                             | Rahya-Suchani (Bagla),                                     |      |  |
|                             | District Samba, Pincode - 181 143,                         |      |  |
|                             | Jammu & Kashmir (J&K), India                               |      |  |
| Residence Address           | 369-B, Sector-7 Extension, Channi Himmat Jammu, J&K-180015 |      |  |
| 3.6 1.01 3.7                | ,  |      |  |
| Mobile Number               | 8492025256   |      |  |
| Email                       | palak.cse@cujammu.ac.in                                    |      |  |
| Educational Qualifications: |  |      |  |
| Degree                      | Institution  | Year |  |
| Ph.D.                       | University of Jammu, Jammu, J&K                            | 2023 |  |
| M.Tech.                     | Shri Mata Vaishno Devi University (SMVDU),<br>Jammu, J&K   | 2014 |  |
| B.E.                        | University of Jammu, Jammu, J&K                            | 2012 |  |

## **Competitive Exams:**

- Qualified **GATE** (Computer Science and Engineering)
- Qualified **UGC-NET** (Computer Science and Applications)
- Qualified **JKSET** (Computer Science and Applications)

### **Career Profile:**

| Designation   | University                             | Period                                       |
|---|--|--|
| Assistant Professor (Dept. of Computer Science & Engineering) | Central University of Jammu, J&K India | July 2023 onwards                            |
| Lecturer (Dept. of Computer Science & IT)                     | University of Jammu,<br>J&K, India     | Nov 2021 - June 2023<br>Sep 2014 - July 2017 |

### **Areas of Interest / Specialization:**

Computer Vision, Image Processing, Machine/Deep Learning, Pattern Recognition

### **Subjects Taught:**

- ↓ Digital Image Processing
- **4** Python Programming
- **4** Artificial Intelligence
- **4** Machine Learning
- Operating Systems
- Data Warehousing and Mining
- DBMS

### **Research Guidance:**

- Mentored M.Tech students in Dissertation
- Guided MCA students in their mini and major project work.

#### **Publications Profile:**

#### a. Research Papers in Journals

- 1. P. Mahajan, V. Jakhetiya, P. Abrol, P. Lehana, B. N. Subudhi and S. C. Guntuku, "Perceptual Quality Evaluation of Hazy Natural Images," in IEEE Transactions on Industrial Informatics, vol. 17, no. 12, pp. 8046-8056, 2021. [SCI, IF=13].
- 2. P. Mahajan, P. Abrol, P. Lehana, "Scene-based Classification of Aerial Images using Convolution Neural Networks", Journal of Scientific and Industrial Research, vol. 79, pp. 1087-1094, December 2020. [SCI, IF=1.05].
- 3. N Karlupia, P Mahajan, P Abrol, PK Lehana, "A genetic algorithm based optimized convolutional neural network for face recognition", International Journal of Applied Mathematics and Computer Science, vol. 33, no. 1, pp. 21-31, 2023. [SCI, IF=2.15].
- 4. N. Mahajan, P. Mahajan, A.Khajuria, B. Kotwal, B. Kaul, R.Gupta, "Role of Cumulative Anti-epileptic Drug Load on the Periodontal Health Tissues and Seizure Related Traumatic Oro-dental Injuries A Comparative Cross-sectional Study in a Tertiary Health Institution in Jammu City", International Journal of Scientific Study, vol. 8, no. 2, 2020. [MEDLINE/PUBMED, IF=2.6].
- 5. N. Sandotra, P Mahajan, P Abrol, PK Lehana, "Analyzing performance of deep learning models under the presence of distortions in identifying plant leaf disease", International Journal of Informatics and Communication Technology, vol. 12, no. 2, pp. 115-126, 2023 [Scopus indexed].
- 6. P. Mahajan, Dr. Ajay Koul, "CEET: A Compressed Encrypted & Embedded Technique for Digital Image Steganography", IOSR Journal of Computer Engineering (IOSR-JCE), vol. 16, no. 2, pp. 44-52, Mar-April 2014. [UGC Approved].
- 7. P. Mahajan, "Steganography: A Data Hiding Technique", International Journal of Advanced Research in Computer Science and Software Engineering (IJARCSSE), vol. 4, no. 11, Nov 2014.

### b. Articles/Research Paper in Books

- 1. P. Mahajan, P. Abrol, P. K. Lehana, "Effect of Blurring on Identification of Aerial Images Using Convolution Neural Networks", Lecture Notes in Electrical Engineering, vol 597. Springer. 2020. [Scopus indexed].
- 2. P. Mahajan, N. Karlupia, P. Abrol, P. K. Lehana, "Analyzing Performance of Masked RCNN under the Influence of Distortions Networks", Lecture Notes in Networks and Systems, vol 680. Springer. 2023. [Scopus indexed]. (In process)

#### c. Conference Proceedings

- 1. P Mahajan, N Karlupia, P Abrol, PK Lehana, "Identifying COVID-19 pneumonia using chest radiography using deep convolutional neural networks", Proceedings of IEEE International Scientific Conference on Information Technology and Management Science organized by Riga University, Latvia, October 2021. (IEEE)
- 2. P. Mahajan, P. Dhar, P. Abrol, P. K. Lehana, "Eye Based Feature Detection using Object Identification Models", Proceedings of International Conference RISET-2020 on Industry 4.0 Generation, J&K, September 2020.
- **3.** P. Mahajan, P. Dhar, P. Abrol, P. K. Lehana, "Object Identification in Spatial Domain using Convolution Neural Networks", Proceedings of JK Science Congress, J&K, December 2019.
- **4.** P. Mahajan, P. Abrol, P. K. Lehana, "Convolution Neural Networks using Object Identification", Proceedings of National Conference on Emerging Trends in Quality Assurance and Enhancement in Software Development, J&K, March 2019.
- 5. P. Mahajan, M. Ishrat, P. Abrol, "Object Identification Models for Eye Based Feature Detection", Proceedings of International Conference on Next Generation Computing and Information Systems (ICNGCIS), J&K, December 2017.
- **6.** P. Mahajan, H. Gupta, "Improvisation of Security in Image Steganography using DWT, Huffman encoding & RC4 based LSB Embedding", Proceedings of IEEE International Conference on Computing for Sustainable Global Development INDIACom, Delhi, March 2016. (**IEEE**)

#### **Awards and Distinctions:**

- Awarded Best Paper Award at International Conference on Innovations in Computational Intelligence and Computer Vision, November 2022.
- Awarded Best Paper Award on National Science Day, February 2020 at University of Jammu.
- Won 1<sup>st</sup> prize in the Innovative Project Idea Contest for poster title, "Identification of Plants Species Using Gaussian Mixture Models and Deep Convolution Neural Networks" held during the International Conference on Recent Advances on Interdisciplinary Sciences, Jan 2019.
- AICTE GATE Scholarship (2013-14)

#### **Conference / Workshops Organized:**

- 1. Organized one day lecture series on World's Telecommunication Day at University of Jammu during May 2023.
- 2. Organized and Coordinated one week Faculty Development Programme(FDP) on the topic "Artificial Intelligence" from 15<sup>th</sup> 19<sup>th</sup> February 2022 under Microsoft's TechSaksham Program organized by University of Jammu
- 3. Member of Organizing committee and coordinated Faculty Development Programme (FDP) on the topic MOOCS and e-learning" from 1<sup>st</sup> 6<sup>th</sup> December 2022 organized by Department of Computer Science & IT, University of Jammu.
- **4.** Member of Organizing committee of one week Faculty Development Programme (FDP) on "Internet of Things" organized by Department of Computer Science & IT, University of Jammu sponsored by AICTE Training and Learning (ATAL) Academy, during 1<sup>st</sup> to 5<sup>th</sup> July 2021.
- 5. Member of Organizing committee and coordinated Two Days Workshop on "Latest Trends and Challenges in Cyber-Security" organized by Department of Computer Science & IT, University of Jammu during 6<sup>th</sup> 7<sup>th</sup> December 2019.
- **6.** Member of Organizing committee and coordinated NAAC sponsored National Conference on Emerging Trends in Quality Assurance and Enhancement in Software Development organized by University of Jammu during 6<sup>th</sup> 7<sup>th</sup> March 2019.

## Workshops/Training attended:

- 1. Attended one week Online Faculty Development Programme on "Artificial Intelligence" from 15<sup>th</sup> 19<sup>th</sup> February 2022 under Microsoft's TechSaksham Program organized by University of Jammu
- 2. Participated in the 6 days Faculty Development Programme on "MOOCS and e-learning" from 1<sup>st</sup> 6<sup>th</sup> December 2022 organized by Department of Computer Science & IT, University of Jammu.
- 3. Attended 5 days AICTE training and learning academy(ATAL) Faculty Development Programme(FDP) on the topic "Internet of Things", during 1<sup>st</sup> to 5<sup>th</sup> July 2021 organized by Department of Computer Science & IT, University of Jammu.
- **4.** Participated in 4 weeks workshop on "**Artificial Intelligence and Data Analysis**" organized by IIT Jammu from 30<sup>th</sup> September 25<sup>th</sup> October 2019
- 5. Participated in one day short term training Programme NVIDIA certified on "Fundamentals of Deep Learning for Computer Vision" during April 2019 organized by the Department of Computer Science & Engineering, Model Institute of Engineering & Technology, Jammu.

31st July 2023

Dr. Palak Mahajan