Himanshu Mittal

Assistant Professor, Dept. of Computer Science
Jaypee Institute of Information Technology, India

himanshurepo.github.io/Himanshu-Mittal
himanshu.mittal224@gmail.com
Mob. No.: +91-9958687894

RESEARCH PROJECT

- **Design and Development of a Cognitive System for Leukocytes Identification in Hematoxylin and Eosin Stained Images.** *(Ongoing)*
  Co-Principal Investigator, SERB-DST, New Delhi

PH.D. THESIS

- **Design and Development of Efficient Clustering Methods for Image Segmentation.** *(Submitted)*
  Supervisor: Dr. Mukesh Saraswat, Jaypee Institute of Information Technology, Noida
  - A novel cluster validity index has been proposed to identify the optimal cluster number.
  - A meta-heuristic based superpixel clustering method has been developed to perform segmentation.
  - A new non-local means 2D histogram has been proposed for multi-level image segmentation.

PUBLICATIONS

- **Himanshu Mittal** and Mukesh Saraswat, *"An automatic nuclei segmentation method using intelligent gravitational search algorithm based superpixel clustering"*, Swarm and Evolutionary Computation, vol. 45, pp. 15-32, 2019. (SCI Indexed. Impact Factor: 6.3)

- **Himanshu Mittal** and Mukesh Saraswat, *"An optimum multi-level image thresholding segmentation using non-local means 2D histogram and exponential Kbest gravitational search algorithm"*, Engineering Applications of Artificial Intelligence, vol. 71, pp. 226-235, 2018. (SCI Indexed. Impact Factor: 3.6)

- **Himanshu Mittal** and Mukesh Saraswat, *"An image segmentation method using logarithmic kbest gravitational search algorithm based superpixel clustering"*, Evolutionary Intelligence, vol. 12, pp. 1-13, 2018. (Scopus Indexed.)

- **Himanshu Mittal** and Mukesh Saraswat, *"Classification of histopathological images through bag-of-visual-words and gravitational search algorithm"*, in Lecture Notes of Springer International Conference on Soft Computing for Problem Solving, India, pp. 231–241, 2017.

- **Himanshu Mittal** and Mukesh Saraswat, *"cKGSA based fuzzy clustering method for image segmentation of RGB-D images"*, in Proc. of IEEE International Conference on Contemporary Computing, India, pp. 1–6, 2018.

- **Himanshu Mittal** and Mukesh Saraswat, "A new fuzzy cluster validity index for hyper-ellipsoid or hyperspherical shape close clusters with distant centroids", IEEE Transactions on Fuzzy Systems. *(Communicated)*

EDUCATION

- **M. Tech. in Computer Science**   Aug. 2010 – July. 2012
  Delhi Technological University (Formerly Delhi College of Engineering)   *New Delhi, India*
- **B.Tech. in Information Technology**   Aug. 2006 – July. 2010
  Gautam Budha Technical University   *Gr. Noida, India*

RESEARCH INTERESTS

- Computer Vision, Machine Learning, Deep Learning, Nature-Inspired Optimization

PROGRAMMING SKILLS

- Python, MATLAB, Tensorflow, Keras, Tensorflow.js, Javascript, HTML, node.js, Java, C

REFERENCES

- **Dr. Mukesh Saraswat**   mukesh.saraswat@jiit.ac.in
  Associate Professor, Jaypee Institute of Information Technology, Noida
- **Dr. Daya Gupta**   d.gupta@dce.ac.in
  Professor, Department of Computer Science, DTU, New Delhi