Dr. Deepika Gupta

Assistant Professor

Academic Qualifications

- **Ph.D.** in Computer Science and Engineering
  Institute: Indian Institute of Technology (Indian School of Mines) Dhanbad
  Thesis: Efficient Preprocessing and Recognition Strategies for Script Independent Indian OCR Systems
  Year: 2021
- **M.Tech** in Computer Science and Engineering
  Institute: Malviya National Institute of Technology (MNIT), Jaipur
  Year: 2011
- **B.Tech** in Information Technology
  Institute: Uttar Pradesh Technical University
  Year: 2008

Research Interests

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

Industry Experience

- **Senior Software Engineer**,
  Samsung Research Institute - Delhi, Samsung India Electronics PVT. LTD.
  Duration: July, 2011 – Dec, 2015

Publications

Journal Papers

[1] **Deepika Gupta** and Soumen Bag, "Handwritten Multilingual Word Segmentation Using Polygonal Approximation of Digital Curves for Indian Languages", *Multimedia Tools and Applications*, Springer, 2019.
DOI: https://doi.org/10.1007/s11042-019-7286-0

[2] **Deepika Gupta** and Soumen Bag, "CNN-based multilingual handwritten numeral recognition: A fusion-free approach", *Experrt Systems with Applications*, Elsevier, 2021.
DOI: https://doi.org/10.1016/j.eswa.2020.113784

[3] **Deepika Gupta** and Soumen Bag, "Holistic Vs. Segmentation-based recognition of handwritten Devanagari conjunct characters: A CNN-based experimental study", *Neural Computing and Applications*, Springer, 2021.
DOI: https://doi.org/10.1007/s00521-021-06672

Conference Papers

[1] **Deepika Gupta**, and Soumen Bag, "Degraded Document Image Binarization using Active Contour Model", *International Conference on Computer Vision and Image Processing*, Springer, 2020.
DOI: https://doi.org/10.1007/978-981-16-1092- 9_11

[2] **Deepika Gupta**, and Soumen Bag, "An Efficient Character Segmentation Approach for Handwritten Hindi Text", *International Conference on Signal Processing and Integrated Networks*, IEEE, 2018. DOI: https://doi.org/10.1109/SPIN.2018.8474047

[3] **Deepika Gupta**, and Soumen Bag, "A Local-to-Global Approach for Document Image Binarization", *Computational Intelligence in Pattern Recognition*, Springer, 2017. DOI: https://doi.org/10.1007/978-981-13-9042-5_60

[4] **Deepika Gupta**, Preety Singh, Vijay Laxmi, and Manoj Singh Gaur, "Comparison of parametric visual features for speech recognition", *International Conference on Network Communication and Computer*, IEEE, 2011.

[5] **Deepika Gupta**, Preety Singh, Vijay Laxmi, and Manoj Singh Gaur, "Boundary Descriptors for Visual Speech Recognition", *Computer and Information Sciences II*, Springer, 2011.
DOI: https://doi.org/10.1007/978-1-4471-2155-8_39

[6] Preety Singh, **Deepika Gupta**, Vijay Laxmi, Manoj Singh Gaur, "Contribution of Oral Periphery on Visual Speech Intelligibility", *International Conference on Advances in Computing and Communications*, Springer, 2011.
DOI:https://doi.org/10.1007/978-3-642-22714-1_20

[7] Preety Singh, Vijay Laxmi, **Deepika Gupta**, Manoj Singh Gaur, "Lipreading Using n-gram Feature Vector", *International Conference on Computational Intelligence in Security for Information Systems*, Springer-Verlag, 2011.
DOI: https://doi.org/10.1007/978-3-642-16626-6_9