1. **Area / Group Name:** Multimedia Technology and Applications

2. A brief write-up covering importance of area, its present status, activities completed at JIIT and activities going on and those proposed to be taken up in near future.

Use of multimedia in computing and presentation of data has been revolutionary and still evolving. This enlisted thrust area aims to develop applications, algorithms, architectures and prototypes using multimedia information from text, audio, video and novel sensory forms. Multimedia Technology and Applications have been acknowledged as emerging area by premier organizations and funding agencies such as DRDO, DIT, MHRD, UGC and DST.

Convergence and multimedia technologies is one of thrust areas identified by Department of Electronics & IT, India. Thrust areas identified by DRDO’s Centre for Artificial Intelligence and Robotics (CAIR) include Computer Vision and Signal Processing. ACM recently started transactions on Multimedia Computing, Communications and Applications (2006) and Speech and Language Processing. IEEE started transactions to promote research in Audio, Speech and Language Processing (Started 2006). IFIP established technical committee on entertainment computing in 2002.

Researchers working in this group focus on core concepts and advancements in Audio and Video Water Marking, remote sensing images, biometric feature classifiers and visual cryptography. Currently, 16 faculty members are working in this broad area. Four Ph.D.s have been completed and 3 more are in progress. Around 70 research papers have been published in this area by JIIT faculty and students. 15 M.Tech. and more than 450 B.Tech. projects have been completed in this area.

Further, the department is teaching several courses in these areas- Computer Graphics, Image Processing, Multimedia Interaction Design, Multimedia Computing and Computer Vision.

3. **External fundings received, if any, amount, and details of funding agency, P.I.’s, duration etc.**

   NIL

4. **Major resources available in area :**
   
   (a) **Physical** - NIL
   
   (b) **Human** -

   1. Sanjay Goel
   2. Vikas Saxena
   3. Manish Kumar Thakur
   4. Mukesh Saraswat
   5. Bharat Gupta
   6. Tribhuwan Kumar Tiwari
   7. Suma Dawn

Publication:

Publications in International Journals


2. Madhulika; Bansal, Abhay; Yadav, Divakar; and Madhurima, Survey and Comparative Study on Statistical Tools for Medical Images, Advanced Science Letters, Volume 21, Number 1, January 2015, pp. 74-77(4). (Indexe d in Thomson Reuter, Scopus, SJR: 0.14, SNIP: 0.27, H index: 17)


Publications in Indian Journals


Papers in International Conferences


30. Anita Sahu, Satish Chandra, "L’evy-Flight Firefly Algorithm based Active Contour Model for Medical Image Segmentation", In Proc. of International Conference of


70. Yadav, D. “OCR for printed Hindi Text in Devnagari Script”, First Northern Region Conference on Advances in Engineering and Technology, Moradabad, India, September 2006.

patents and Process / Equipment / Software Developed. NIL

6. Details of collaborations, if any. NIL