



Department of Mathematics

# Numerical Mathematics and Applied Analysis Group Seminar (NMAA)

---

## LECTURES ON MOTION-FREE SUPER-RESOLUTION IMAGING

Dr. M. V. Joshi

Electronics and Communication Engineering Department  
Gogte Institute of Technology, India

Most of the super-resolution methods proposed in the literature use motion between the observed frames as a cue for estimating the high resolution image, i.e., they use motion as a cue for super-resolution. The method starts with the capture of multiple low resolution observations of the same scene through subpixel shifts due to the camera motion. However, this method being a 2D dense feature matching technique, it requires an accurate registration or motion estimation which is a difficult task. We explore the use of cues other than the motion cue for super-resolution.

### Talk 1: Super-Resolution: Use of Blur and Zoom Cues

Date and Time: January 31, 2005 (Monday), 3:00 - 4:00pm

Venue: Meng Wah Complex Room 517

### Talk 2: Learning of Priors from Zoomed Observations and Wavelets

Date and Time: February 2, 2005 (Wednesday), 3:00 - 4:00pm

Venue: Meng Wah Complex Room 517

### Talk 3: Use of Photometric Cue for Super-Resolution

Date and Time: February 4, 2005 (Friday), 2:30 - 3:30pm

Venue: Meng Wah Complex Room 517

---

*All are welcome*

---

*For enquiries, please call 2859 2255.*