Computer Graphics @ CS-IITB
Computer Vision @ CS-IITB

- Reconstruction of deformable surfaces from video.
- Above results are from a BTP and a prior MTP – 1 paper published this year.
Computer Vision @ CS-IITB

- Segmentation for Cancer prognosis.
- PhD thesis results—1 paper published last year.
- Continuing PhD.
Computer Vision @ CS-IITB

- Projector-Camera Systems – Projecting in dual planar environments.
- PhD thesis results – 1 paper published this year.
- Continuing PhD.
Course Basket

- Courses This Semester
  - Computer Graphics (CS 675)
  - Digital Image Processing (CS 663)

- Next Semester
  - Advanced Computer Graphics (CS 775)
  - Computer Vision (CS 763)

- Allied Courses
  - Machine Learning, Computer Aided Geometric Design, Optimization, Data Mining, Probability & Linear Algebra
  - R&D Project, Seminar

- Don't Hesitate to Take UG courses
Work with us

CS475/CS675 Computer Graphics

No pre-requisite

CS775 Advanced Computer Graphics

Pre-requisite

CS663 Digital Image Processing

Pre-requisite

Seminar (Sem 1)

Pre-requisite

CS763 Computer Vision

Pre-requisite

Seminar (Sem 2)

Pre-requisite

Research in Graphics, Vision, Image Processing

Pre-requisite
Seminar & Research

• Current View of M.Tech Students: Help in bringing into focus the research capabilities
  – Good idea to choose to work with me earlier, rather than later
  – Demand that research be fun
• Essential to take the seminar with me ideally this semester
• You can opt out of a M.Tech Project; however the default is that you will be opting in
Working Together

- Building a fruitful working relationship takes time and mutual respect
  - Different from being friends
  - Different from being a course instructor
- Building a research idea into fructification takes a lot of time
  - Necessary but not sufficient
Practical Realities

- Key problem: Limited resources
- Probability of multiple students wanting to work with the same professor is high
- Vice versa

Possible Solutions:
- Take the seminar in the first semester
- 3 Year RA
Topics and Number

- Anything in Graphics and Vision
  - From photographs to 3D
  - Light Transport in Computational Photography
  - Histopathology imaging based Cancer detection
- Success stories from ML in Comp Vision
- GPU computing (with Prof. Aluru)
- Link on dept wiki

Number of students:
- $\infty$ (if first semester),
- 0 if second semester (you need to convince me)