EE368c

- Advanced Topics in Image, Video and Multimedia Systems
- Targets students interested to carry out research in this area
- Prerequisites: EE261, EE278, recommended EE368b
- Emphasis on systems aspects
- Topics covered depend on students' interests
People

- Bernd Girod, Professor, EE&CS, bgirod@stanford.edu
- Eckehard Steinbach, Consulting Assistant Professor, EE, steinb@stanford.edu
- TA: t.b.a., temporarily Sung-Won Yoon,
- ISE lab TA: Sung-Won Yoon, yoons1@stanford.edu
- Course admin: Kelly Yilmaz, yilmaz@stanford.edu
Areas of interest

- Media server architectures
- Audio and video streaming over the Internet
- Internet telephony
- Wireless multimedia
- Watermarking and authentication of multimedia documents
- Synthetic-natural hybrid coding
- Vision and graphics techniques in image communication
- Networked video and graphics applications
EE368c format

- Presentations by students, guest lecturers, and instructors
- Students pick topic for a small research project at the start of the quarter
- Project groups encouraged
- Each project group presents twice
  - Background and project proposal after 3-4 weeks
  - Final presentation in March
- Will support travel for a conference presentation of outstanding project(s)
EE368c grading

- NO exams
- First in-class presentation 10%
- Final in-class presentation 15%
- Quality and originality of project 35%
- Web report 20%
- Peer review of other proposal 10%
- Peer review of other project 10%
EE368c schedule

- Two regular slots per week for class meetings:
  
  *Tu, Th 4:15-5:30*

- See Web for current class schedule

- Some of the guest lectures will be joint with EE392J, *Mo, We, 4:15-5:30 p.m.* Students with conflicts can be excused.
Guest lectures

- Michaela van der Schaar, Philips Research: Video Coding with Fine-grained Scalability
- Minerva Yeung, Intel: Multimedia Technology and Infrastructure for Emerging Applications - from Desktop to Wireless to Peer-to-Peer.
- Kannan Ramchandran, UC Berkeley: Distributed Compression: Theory and Practice
- Ali Tabatabai, Sony Research: An Introduction to MPEG-7 Standards
- Avideh Zakhor, UC Berkeley: Unicast and Multicast video streaming over packet switched networks.
- More have been invited . . .
Picking your project topic

- Form teams and declare area *by Thursday, Jan. 11*
- Begin reading papers immediately
- Identify open question(s) or new idea(s) that you want to investigate
- It is o.k. if open questions/new ideas are related to your ongoing research
- Submit a written project proposal (400 words + workplan + references) by email by Feb. 2, earlier if you can.
- Approval of project shortly after submission of written proposal and class-room presentation