Department of Electrical Engineering  
EENG 5850 & EENG 4010  
Spring 2020  
Video Processing and Communications

INSTRUCTOR
Dr. Kamesh Namuduri, Office: NTRP B-234, Phone: 940-369-8960

CLASS MEETINGS
T/TH: 4:00PM – 5:20 PM

OFFICE HOURS
T/Th 2 PM to 4 PM OR APPOINTMENT

COURSE DESCRIPTION
This course explores topics ranging from the fundamentals of video coding, motion estimation, source and channel coding, transform (wavelet and discrete cosine) coding to the state-of-the-art compression and multimedia standards such as MPEG-4, H.264, MPEG-7, and MPEG-21. Advanced research topics including video streaming, joint source-channel coding, distributed video coding, and video surveillance using sensor networks will be discussed.

TEXTBOOK

PREREQUISITES
Background in Probability and Random Processes, Digital Signal Processing, and Digital Communications are required for this course. Contact the Instructor for more details.

COURSE OBJECTIVES
Students will be able to understand the general principles of video coding, gain hands-on experience in developing video processing applications, and become familiar with the industry standards in video coding.

GRADING POLICIES
Grading will be based on a weighted combination of class participation, exams, final project presentation, and project report.

Homework: 20%, Midterm I: 20%, Midterm II: 20%, Quizzes: 10% and Project: 30%