**Department of Electrical Engineering**
**EENG 5850 & EENG 4010**
**Spring 2019**
**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**
M/W 1 to 2 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 25%, Final 25%, and Project: 30%