CSc 59955  Satellite Image Processing

Professor:  Gladkova
Times:  Tu, Th 3:30-4:45pm

Course Description:
This course will deal with concepts and methods that are involved in appropriately defining and analyzing the information content of various kinds of data. We will introduce and discuss concepts from Shannon's treatment of information theory: the basic notions of entropy, relative entropy, and mutual information, and show how they arise as natural answers to questions of data compression, channel capacity, rate distortion and hypothesis testing. The subject of information, and various ways in which it can be represented, is of course closely linked to the study of data compression. As the semester progresses, we will increasingly stress the compression aspects of the subject, and the course will conclude with a detailed study and analysis of data representing observations of the Earth from space.

Pre-requisites: [CSc 21700 or EE 31100] and CSc 22000

For computer science students: This course can be used in CS elective group B: Computational Techniques or as a technical elective.
For computer engineering students: Pending approval, this course can be used as a CpE elective.