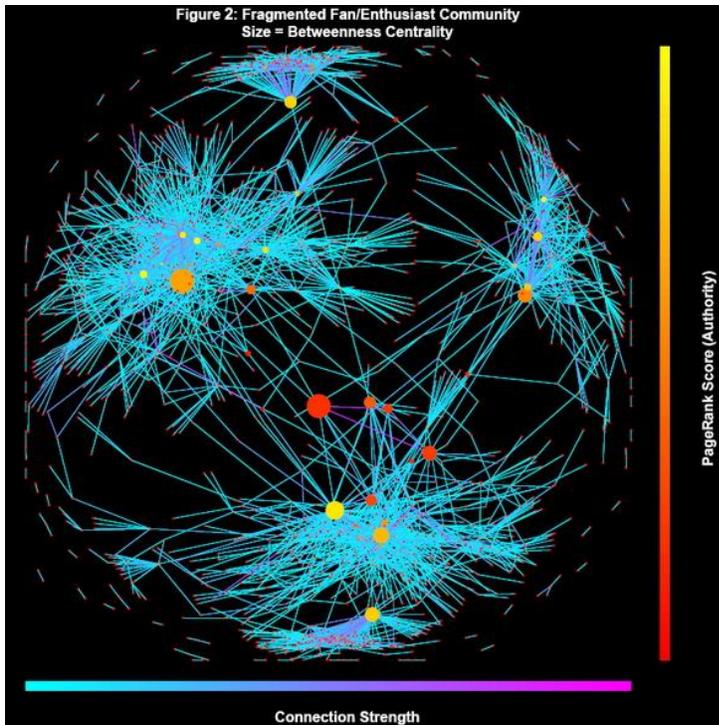


Course Announcement

EECS 453: Applied matrix algorithms for signal processing, data analysis and machine learning



$$A = U \cdot W \cdot V^T$$

Course Number: EECS 453

Credit Hours: 4 (counts as a 400L Upper Level EE Elective, a System Core Elective and as flexible technical elective for CS)

Instructor: Prof. Raj Rao Nadakuditi

Lectures: Tuesday & Thursday 9:00 am – 10:30 am, 1200 EECS

Recitation: Fridays 9:30 am – 10:30 am 2305 GG Brown

Prerequisites: EECS 301 or MATH 425 or STATS 25 or STATS 412 or STATS 426 or IOE 265 or equivalent

Description: Theory and application of matrix algorithms to signal processing, data analysis and machine learning. Theoretical topics include subspaces, eigenvalue and singular value decomposition, projection theorem, constrained, regularized and unconstrained least squares techniques and iterative algorithms. Applications such as image deblurring, ranking of webpages, image segmentation and compression, social networks, circuit analysis, recommender systems and handwritten digit recognition. Greater emphasis on applications than in EECS 551.