Course Syllabus	**EECS 4120 – Intro to Fuzzy Systems and Applications**
Credits & Contact Hours	3 credit hours & 150 minutes lecture contact per week.
Coordinator	Dr. Devinder Kaur
Textbook	Timothy Ross, "Fuzzy Logic with Engineering Applications", John Wiley and Sons, Second Edition.
Course Information	Introduction to Fuzzy Rule Based Intelligent Systems. Basic Concepts of Fuzzy logic, Fuzzy Sets, Fuzzy Arithmetic, Fuzzy Relations, Fuzzy Graphs, Approximate Reasoning and Fuzzy Implications. Applications of Fuzzy logic in Intelligent Control, System Identification, Pattern Recognition, Image Processing and development of Intelligent Agents. Hybrid Fuzzy Systems and other Emerging Topics. Prerequisite: EECS 2110 Elective course for CSE program.
Topics	1. Introduction to Fuzzy Logic 2. Fuzzy Set Theory 3. Fuzzy Arithmetic 4. Fuzzy Relations 5. Possibility Theory 6. Fuzzy Inference 7. Approximate Reasoning 8. Fuzzy Logic in Databases 9. Information Retrieval with Fuzzy Logic 10. Fuzzy Intelligent Agents 11. Fuzzy Clusters 12. Fuzzy Hierarchical Control 13. Automotive Applications 14. Computer Network Applications 15. Medical Applications 16. Fuzzy Decision Trees 17. Knowledge Engineering and Data Mining