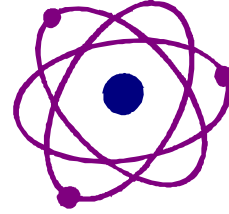


**ECEN 5773 Intelligent Systems**  
**Section: 1**  
**CID: 59351**  
**Fall 1999**



**Time:** Monday/Wednesday 5:00-6:15 PM

**Place:** Engineering South 211A

**References:** *Neural Network Design*, Hagan, Demuth and Beale  
PWS, 1996  
*Introduction to Artificial Neural Systems*, Zurada  
PWS, 1992  
*Fuzzy Set Theory*, Klir and Folger  
Prentice-Hall, 1988  
*Fuzzy Engineering*, Kosko  
Prentice-Hall, 1997  
*Genetic Algorithms in Search, Optimization & Learning*, Goldberg  
Addison-Wesley, 1989  
*Reinforcement Learning*, Sutton and Barto  
MIT, 1998

**Instructor:** Professor Gary G. Yen,  
<http://www.okstate.edu/elec-engr/faculty/yen>  
744-7743, [gyen@master.ceat.okstate.edu](mailto:gyen@master.ceat.okstate.edu)  
Engineering South 202D  
Office Hours: Tuesday/Thursday 2:00-5:00 PM  
or by appointment only

**Objectives:** An overview of emerging computational intelligence tools and hand-on working knowledge with specific application domains

- feedforward neural network- RBF network;
- feedback neural network - Hopfield associative memory;
- fuzzy logic and its applications;
- derivative-free combinatorial optimization;
- evolutionary computation- genetic algorithm; genetic programming; evolutionary programming; artificial life;
- reinforcement learning;

<b><u>Grading:</u></b>	Homework Assignments	<b>30%</b>
	Midterm Exam: novel application	<b>30%</b>
	Final Exam: proposal, final report, oral presentation	<b>40%</b>

