



<b>Course:</b> M.Tech	<b>Name of Faculty:</b> Varna C Prakash
<b>Topic:</b> ELE 3208 Neural Networks	<b>Semester:</b> II
<b>Lecture Hall:</b>	<b>Timings:</b> as per CBCS

<b>Week and date</b>	<b>Lecture topics</b>	<b>Assignments</b>	<b>Remarks</b>
Week 1 (3 <sup>rd</sup> January 2017)	<b>Module I</b> -Artificial neural net terminology - Model of a neuron -Topology		
Week 2 (9 <sup>th</sup> January 2017)	-Types of learning -Supervised, Unsupervised, Re-inforcement learning. -Knowledge representation and acquisition.	<b>Assignment I</b> Applications of neural networks	
Week 3 (16 <sup>th</sup> January 2017)	<b>Module II</b> -Basic learning laws -Unsupervised learning -Competitive learning		
Week 4 (23 <sup>rd</sup> January 2017)	-K-means clustering algorithm -Kohonen's feature maps.		
Week 5 (30 <sup>th</sup> January 2017)	<b>Module III</b> -Basic learning laws in RBF nets -Recurrent back propagation	<b>Assignment I Submission</b>	
Week 6 (6 <sup>th</sup> February 2017)	<b>First Internals</b>		
Week 7 (13 <sup>th</sup> February 2017)	-Introduction to counter propagation networks -CMAC network		
Week 8 (20 <sup>th</sup> February 2017)	-ART networks. <b>Module IV</b> -Pattern recognition -Optimization -Associative memories, -Speech		
Week 9 (27 <sup>th</sup> February 2017)	<b>Seminar</b>		
Week 10 (6 <sup>th</sup> March 2017)	-Decision-making -VLSI implementation of neural networks		

Week 11 (13 <sup>th</sup> March 2017)	<b>Module V</b> -Basic concepts of fuzzy logic -Fuzzy vs. Crisp set -Linguistic variables -Membership functions,	<b>Assignment II</b> - FKBC & PID control - Antilock Breaking system (ABS) -Industrial applications.	
Week 12 (20 <sup>th</sup> March 2017)	-Operations of fuzzy sets -Fuzzy IF- THEN rules -Variable inference techniques -De Fuzzification		
Week 13 (27 <sup>th</sup> March 2017)	<b>Second Internals</b>		
Week 14 (3 <sup>rd</sup> April 2017)	-Basic fuzzy inference algorithm -Fuzzy system design	<b>Assignment II submission</b>	