

<b>COURSE TITLE</b>	<b>TE142307: Intelligent Computation in Power Systems</b> Credits: 2 Semester: II
<b>LEARNING OBJECTIVE</b>	<ul style="list-style-type: none"> <li>• Student can be able to implement the concept and structure of the biological inspired computation to the power system and drive system.</li> <li>• Student can solve, examines and analyse the principle of the biological inspired computation that is used to the power and drive system.</li> </ul>
<b>COMPETENCY</b>	<ul style="list-style-type: none"> <li>• Student can develop and implement the package software of the biological inspired computation to solve the problems in the field of electric power through a simulation.</li> </ul>
<b>SUBJECTS</b>	<ul style="list-style-type: none"> <li>• <b>Artificial Neural Networks:</b> review on: supervised and unsupervised learning, paper discussion.</li> <li>• <b>Fuzzy Logic:</b> review on some fuzzy theories, paper discussion.</li> <li>• <b>Evolutionary Algorithm:</b> review on genetic algorithm, genetic programming, ant colony method, particle swarm optimization, artificial immune system and paper discussion.</li> </ul>
<b>MAIN REFERENCES</b>	<ul style="list-style-type: none"> <li>• Purnomo, MH . "Supervised Learning Neural Networks" Graha Ilmu. 2006.</li> <li>• Matlab toolbox (NN,Fuzzy logic,GA.)</li> <li>• Latest journal of IEEE, INNS, &amp; other related soft computing journals.</li> </ul>
<b>OPTIONAL REFERENCES</b>	<ul style="list-style-type: none"> <li>• Some thesis of S2 and S3 which are implemented the soft computing.</li> </ul>
<b>PREREQUISITE</b>	A good working knowledge of programming on C or Matlab