

GUJARAT TECHNOLOGICAL UNIVERSITY
M.E.in Energy Engineering
Semester: I

Subject Name: **Advanced Computational Techniques for Research**
Subject Code : **711604**

Sr. No	Course Content (List of Experiments to be performed on)
1	Algebraic Equation Solver.
2	Differential Algebraic Equation Solver (DAE).
3	Partial Differential Equation Solver (PDE).
4	Use of Fortran Solver in C/C++ Environment.
5	Mat lab/ MathCAD for solution of set of equation/ Algebraic Equation/ Differential Algebraic Equation/ Partial Differential Equation
6	Genetic Algorithm.
7	Artificial Neural network
8	Simulated Annealing.
9	Data reconciliation.
10	Solution of Algebraic Equation using Optimization methods like Pattern Search, Box Complex etc.