



UNIVERSITY
OF MANITOBA

DEPARTMENT OF ELECTRICAL AND COMPUTER
ENGINEERING

ECE 7670

OPTIMIZATION METHODS FOR COMPUTER-AIDED DESIGN

ASSIGNMENT 2

Due Date: February 26, 2009

Instructor: J. LoVetri

- 1) Write Matlab programs for the following minimization techniques and solve again the last problem in Assignment 1. Compare the computational effort between the methods and with the steepest descent (with the Swann/Fibonacci line-search) method used previously:
 - a) Powell's conjugate direction method;
 - b) all three versions of the conjugate-gradient technique;
 - c) the Hooke-Jeeves technique;
 - d) the Nelder-Mead version of the simplex method;
 - e) Newton's method; and
 - f) the Levenberg-Marquardt modification of Newton's method;