

Project #2
ENGR 2450

Title: Set of Equations

Objective: Write a MATLAB program that solves a system of diagonally dominant linear equations using the Gauss-Seidel Iterative Method. The program should accept the coefficient matrix, A ; the right hand side vector, b ; the dimension of the matrix and vector, n ; the desired resolution between iterations, ϵ ; and the maximum number of iterations, I .

Program:

1. Arrange the coefficient matrix into diagonally dominant form if possible. If it is not possible, an error message should be displayed.
2. Apply the Gauss-Seidel algorithm to solve the set of linear equations.

You can test your program on the Eq. (2.20) from the text, page 121. Submit your MATLAB file via email. It is due on 28 January 2011.