

Homework 1, 2019

Programming project. Write a subprogram or procedure that implements that Gaussian elimination with column pivoting. The input parameters are the coefficient matrix A and the column vector b on the right side. Return the unknown vector x . Solve this system by your procedure:

$$\begin{bmatrix} 0.05x_1 + 0.07x_2 + 0.06x_3 + 0.05x_4 = 0.23 \\ 0.07x_1 + 0.10x_2 + 0.08x_3 + 0.07x_4 = 0.32 \\ 0.06x_1 + 0.08x_2 + 0.10x_3 + 0.09x_4 = 0.33 \\ 0.05x_1 + 0.07x_2 + 0.09x_3 + 0.10x_4 = 0.31 \end{bmatrix}.$$

1. Write your original procedure code and test results into your report including your full name, School number and Department;
2. Hand your paper report to your class monitor in our class of 8th, April, 2019.