**Gauss Elimination using Scilab**

**Source Code:**

funcprot(0)

function[x] =gauss\_elimination(coefficient, constant)

[row, col] = size(coefficient)

[c\_row, c\_col] = size(constant);

if row~=col | c\_row ~= row | c\_col ~= 1 then

error('-------not possible-------');

abort;

else

a = [coefficient, constant];

end

l = 1;

for i=1 : row

for j=1 : i-1

if a(j, j)==0

i = row + 1;

j = row + 1;

l = 0;

abort;

else

p = a(i, j)/a(j, j);

for k=1 : row+1

a(i, k) = a(i, k) - (p \* a(j, k));

end

end

end

end

if l == 0 then

error('-------not possible for this matrix-------');

abort;

else

x(row) = constant(row)/a(row, row);

for i = row : -1 : 1

h = 0;

for j = i+1 : row

h = h + a(i, j) \* x(j);

end

x(i) = (a(i, row+1) - h)/a(i, i);

end

end

endfunction

**Output:**

