Generarea unei populatii prin nr reale

function [pop] = gen\_pop\_nr\_reale(a,b,dim)

%genereaza o populatie initiala din [a1,b1]x...x[an,bn]

% I: dim - dim. populatie; a - capetele din st.; b - capetele din dr.

[~,n]=size(a);

pop=zeros(dim,n);

for k=1:dim

pop(k,:)=unifrnd(a,b,1,n);

end;

end

Generarea op de mutatie in reprez cu siruri reale(mutatia neuniforma)

function [ popNoua ] = mutatie\_neunif\_reala( pop, pm, a, b, sigma)

%MUTATIE\_NEUNIF\_REALA Summary of this function goes here

% E:populatia noua

%pop=gen\_pop\_nr\_reale(a,b,dim);

[dim, n]=size(pop);

popNoua=pop;

for i=1:dim

c=0;

for j=1:n

r=unifrnd(0,1);

if(r<pm)

x=normrnd(0, sigma);%x=generat normal cu medie0 si

%deviatie sigma

popNoua(i, j)=pop(i, j)+x;

if(popNoua(i,j)<a)

popNoua(i,j)=a;

else

if(popNoua(i,j)>b)

popNoua(i,j)=b;

end;

end;

c=1;

end;

end;

if(c)

disp('populatia dupa mutatie:')

disp(popNoua(i,:));

end;

end;

end