Факултет за електротехника и информациски технологии - Скопје

Операциски истражувања

ЛАБОРАТОРИСКА ВЕЖБА БР. 7

- Метода на Монте Карло и Матлаб -

Име	Коментар на асистентот
Презиме	
Датум:	

1 Monte Carlo

Подолу е даден пример на Монте Карло во Матлаб. Да се проучи кодот, да се пушти во Матлаб, и да се даде објаснување што прави истиот.

Пример 1:

```
a = 1/3;   % probability of a customer each day
days_for_delivery = 2;   % days from order to delivery of new tanks
stock = 1;   % number of tanks in stock
deliv = -1;  % number of days until delivery of tank on order
                % -1 means none on order
total_cust = 0;
total_sold = 0;
total_lost = 0;
disp(' ')
disp('   week  day   stock  cust  sold  lost')
disp(' ')
random_num = rand(1);     % generate random number
     if random_num < a         % use this number to tell if a customer arrived
       customers = 1;
             else
              customers = 0;
             end

     if customers==1
       if stock>0            % we have a tank to sell the customer
                sold = sold+1;
                stock = stock-1;
                if deliv < 0
                  deliv = days_for_delivery;  % sold a tank; order another
                  end
              else
                lost = lost+1;      % we didn't have a tank and lost a customer
              end
             end
% keep track of total statistics:
     total_cust = total_cust + customers;
     total_sold = total_sold + sold;
     total_lost = total_lost + lost;
    disp([week day stock customers sold lost]);   % display results for
                                          % this day
     end
   end
  end
disp(' ')
  disp('total over entire simulation:')
  disp(' ')
  disp('   customers   sold       lost')
  disp(sprintf('%8.0f  %8.0f  %8.0f ', ...
     total_cust, total_sold, total_lost))
  disp(' ')
  fraction_served = total_sold / total_cust;
```