

Proiect:
SURSA STABILIZATĂ DE CURENT CONTINUU
CU FUNCȚIONARE ÎN COMUTAȚIE

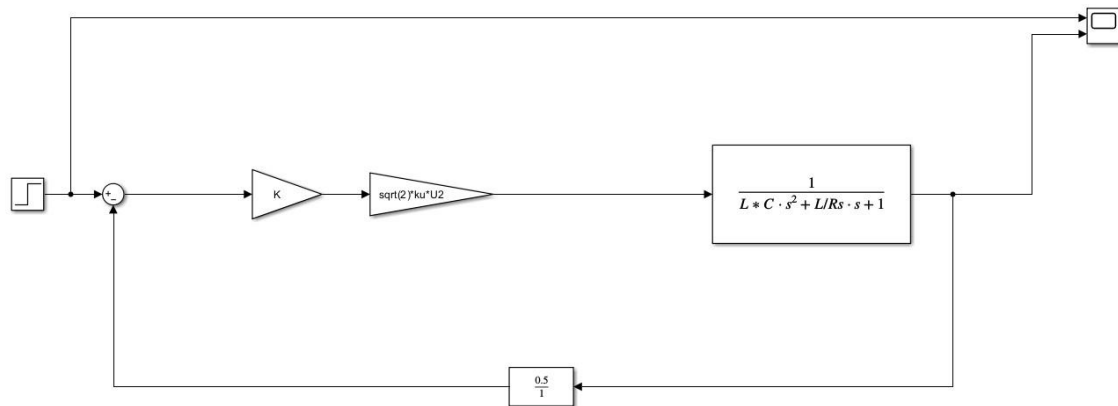
D.
SIMULĂRI AFERENTE SURSEI
STABILIZATE

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Grupa: 30131

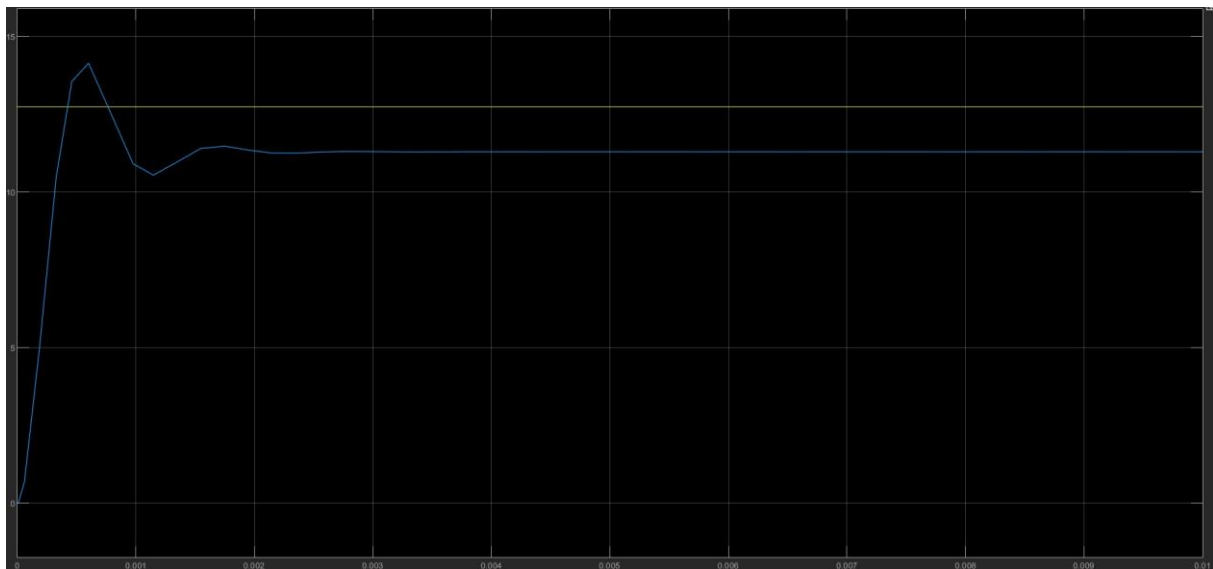
2023-2024

1. Procesul inițial:

Schema Simulink:



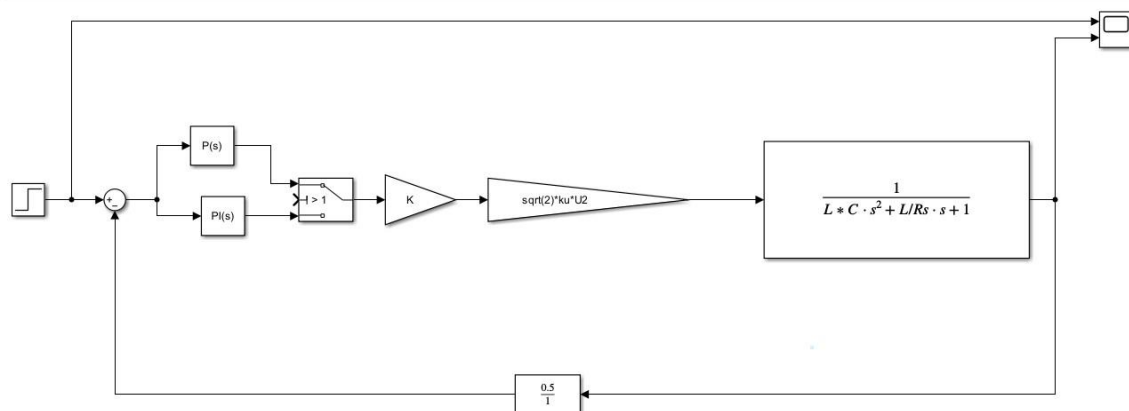
Simularea:



$K = 0.0625$;
 $k_u = 0.6$;
 $U_2 = 30 \text{ V}$;
 $R_s = 15 \Omega$;
 $C = 13.89 \mu\text{F}$;
 $L = 3.5 \text{ mH}$;
 $k_f = 0.5$ – reacția;
 $P = 0.6285$ – regulator P;
 $P = 1, I = 750$ – regulator PI;

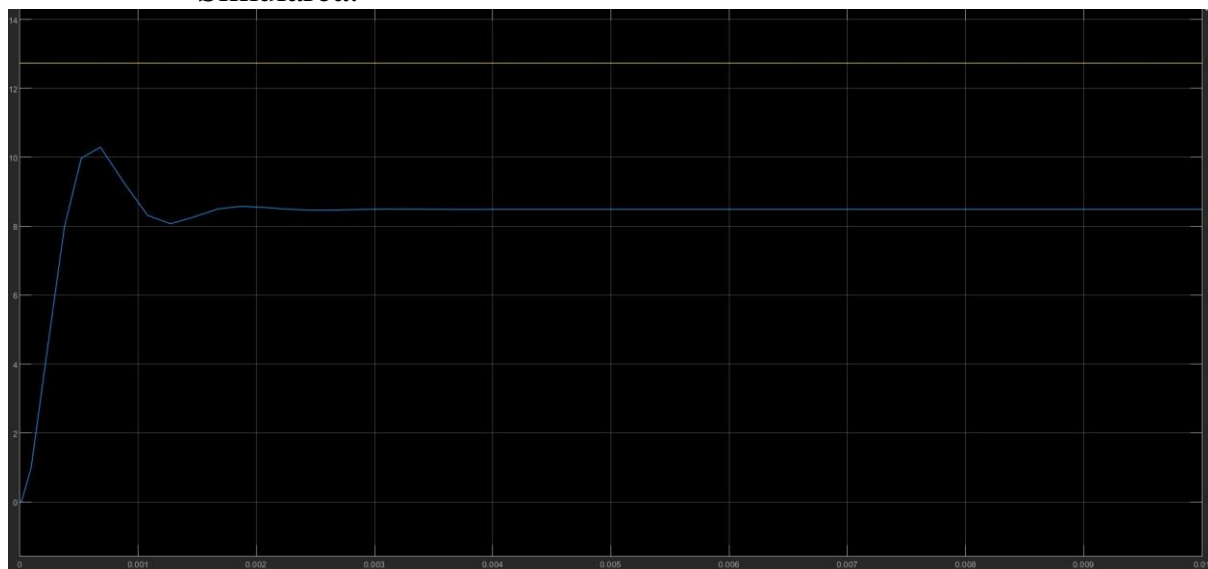
2. Procesul în care s-au introdus regulatoarele:

Schema Simulink:



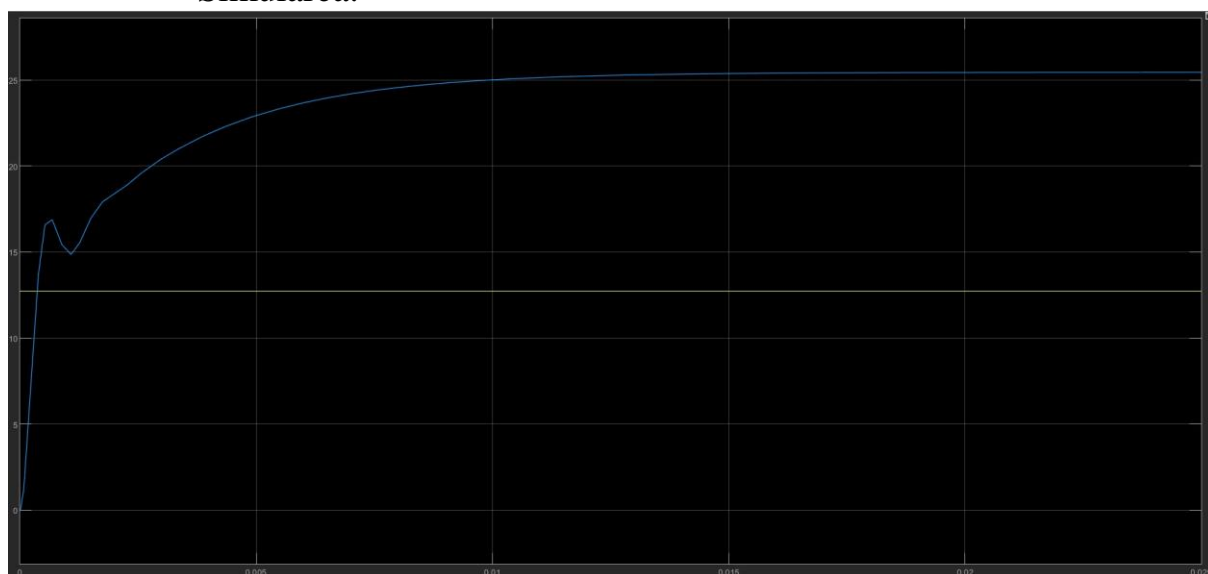
a. Regulatorul P:

Simularea:



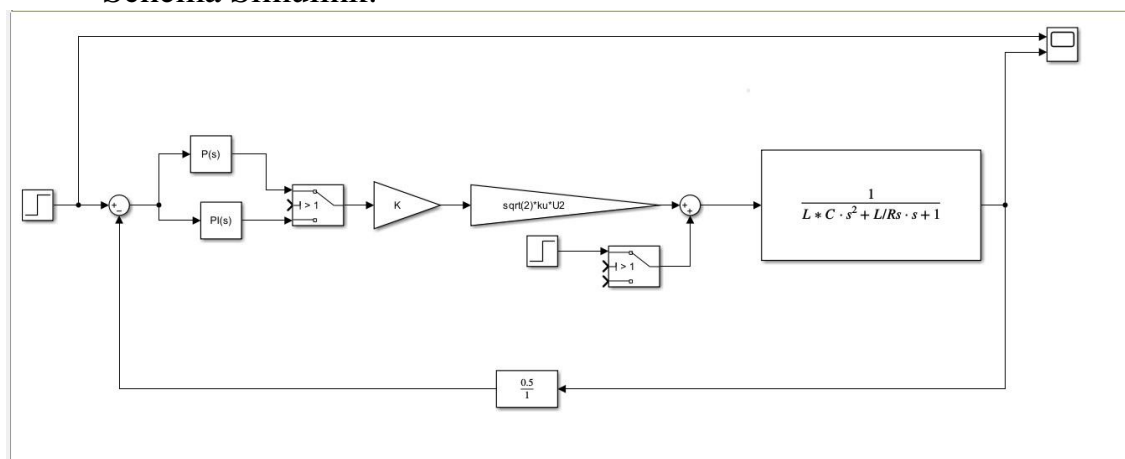
b. Regulatorul PI:

Simularea:



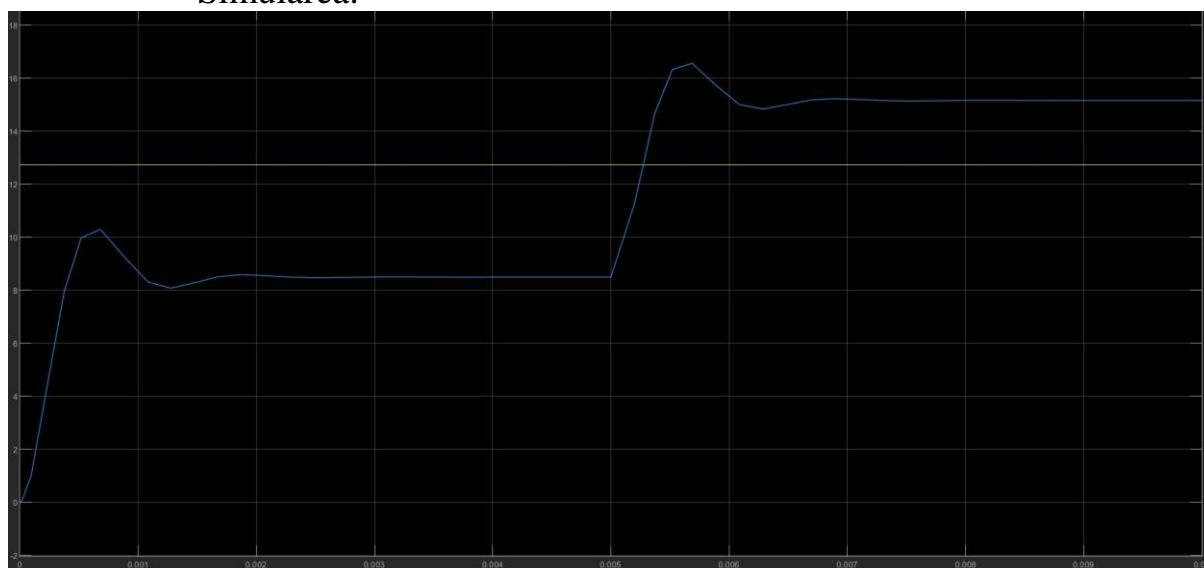
3. Procesul în care s-au introdus perturbații:

Schema Simulink:



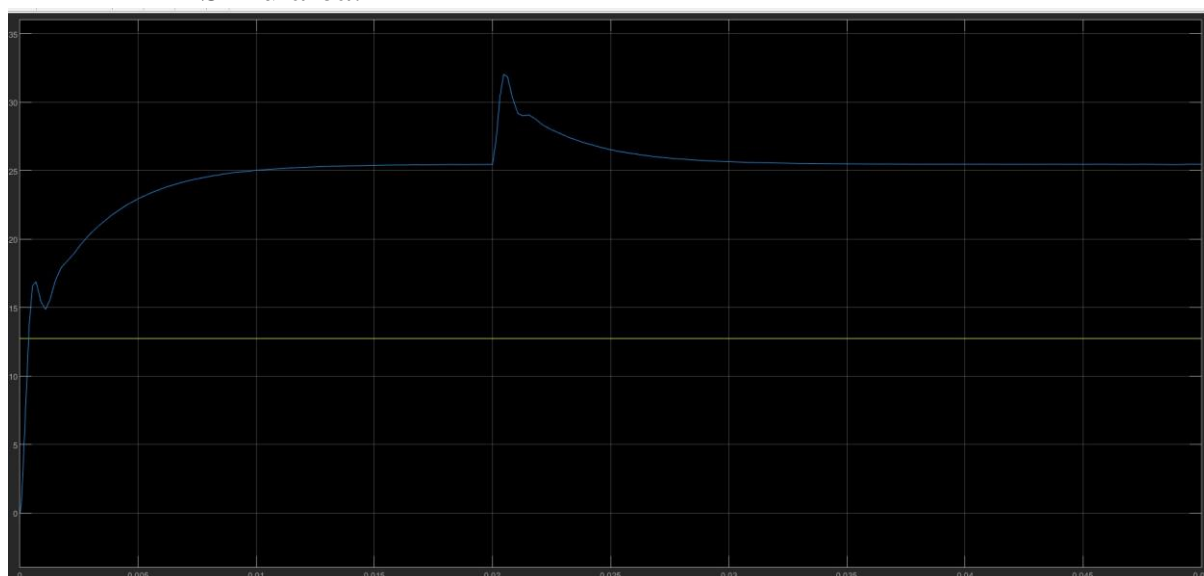
a. Regulatorul P:

Simularea:



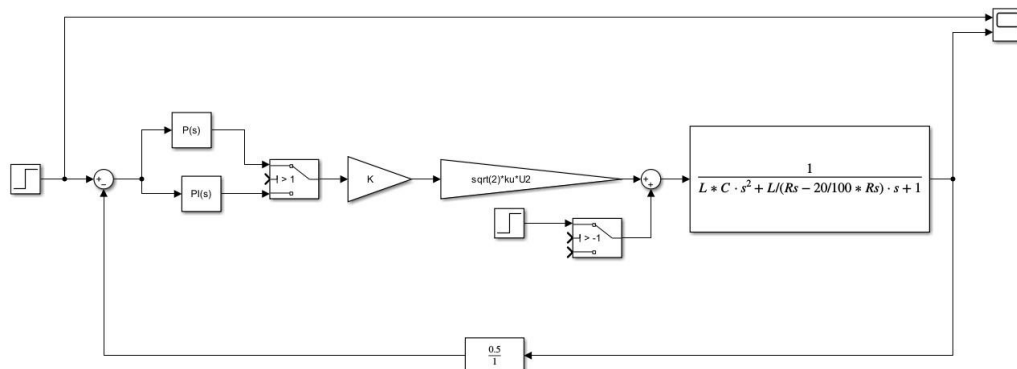
b. Regulatorul PI:

Simularea:

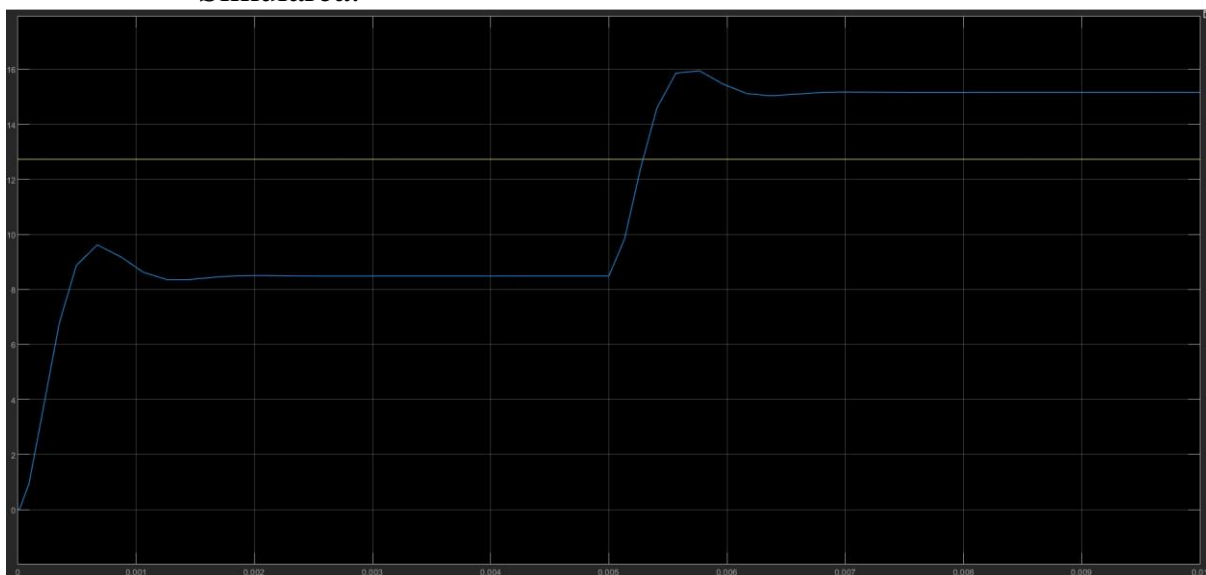


4. Procesul în care s-au introdus perturbații și a fost variată valoarea rezistenței de sarcină (R_s):

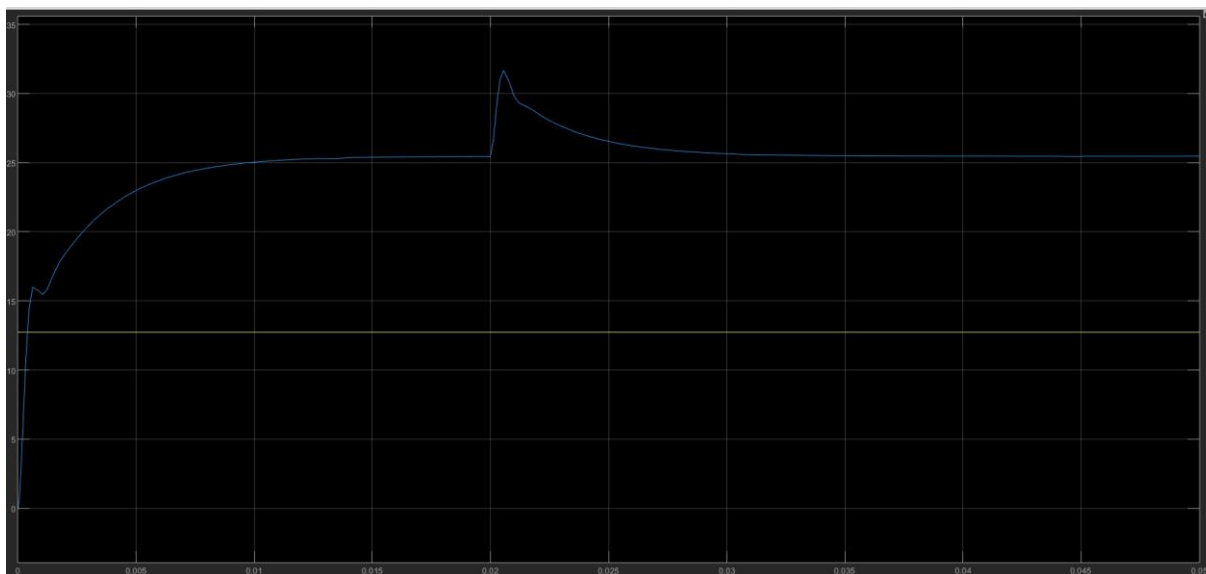
Schema Simulink:



a. Regulatorul P:
Simularea:

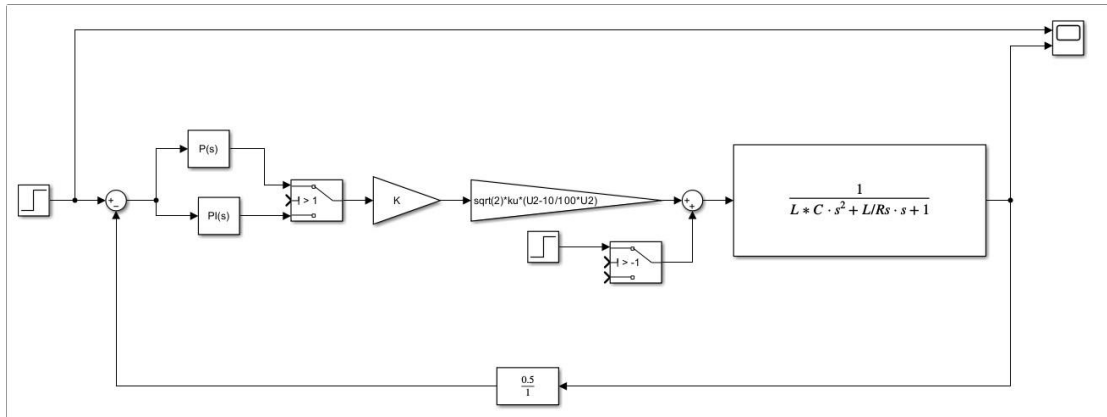


b. Regulatorul PI:
Simularea:

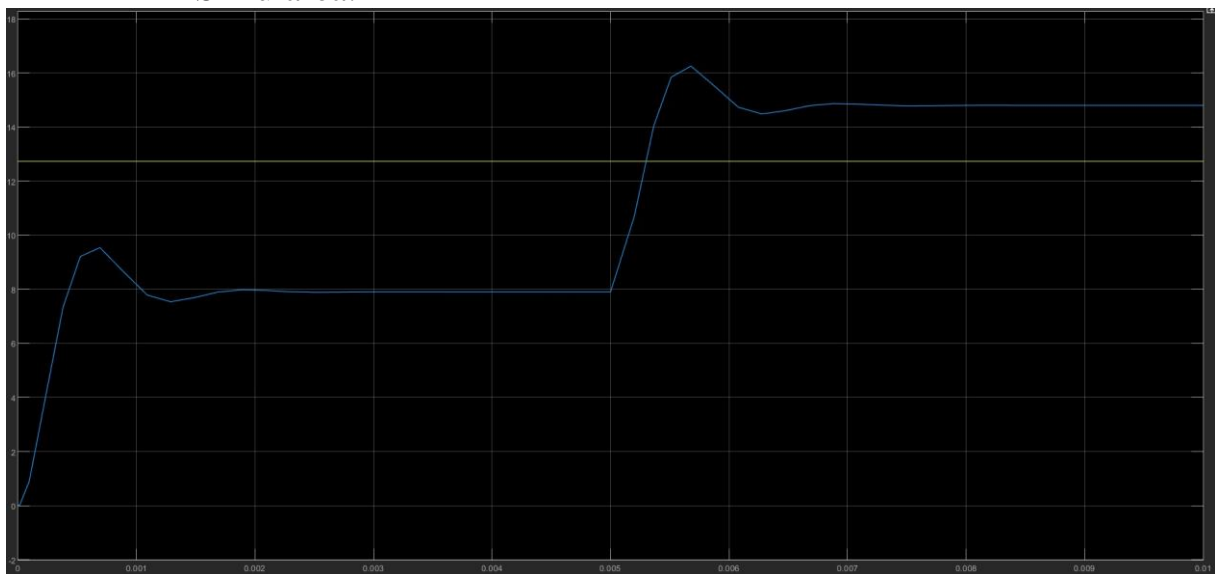


5. Procesul în care s-au introdus perturbații și a fost variată valoarea tensiunii de la rețea (U2):

Schema Simulink:



a. Regulatorul P:
Simularea:



b. Regulatorul PI:
Simularea:

