The background is a gradient from red at the top to blue at the bottom, with a starry space pattern. On the left side, there are several concentric circles and a large circular scale with degree markings from 140 to 260. Some circles have arrows indicating a clockwise direction.

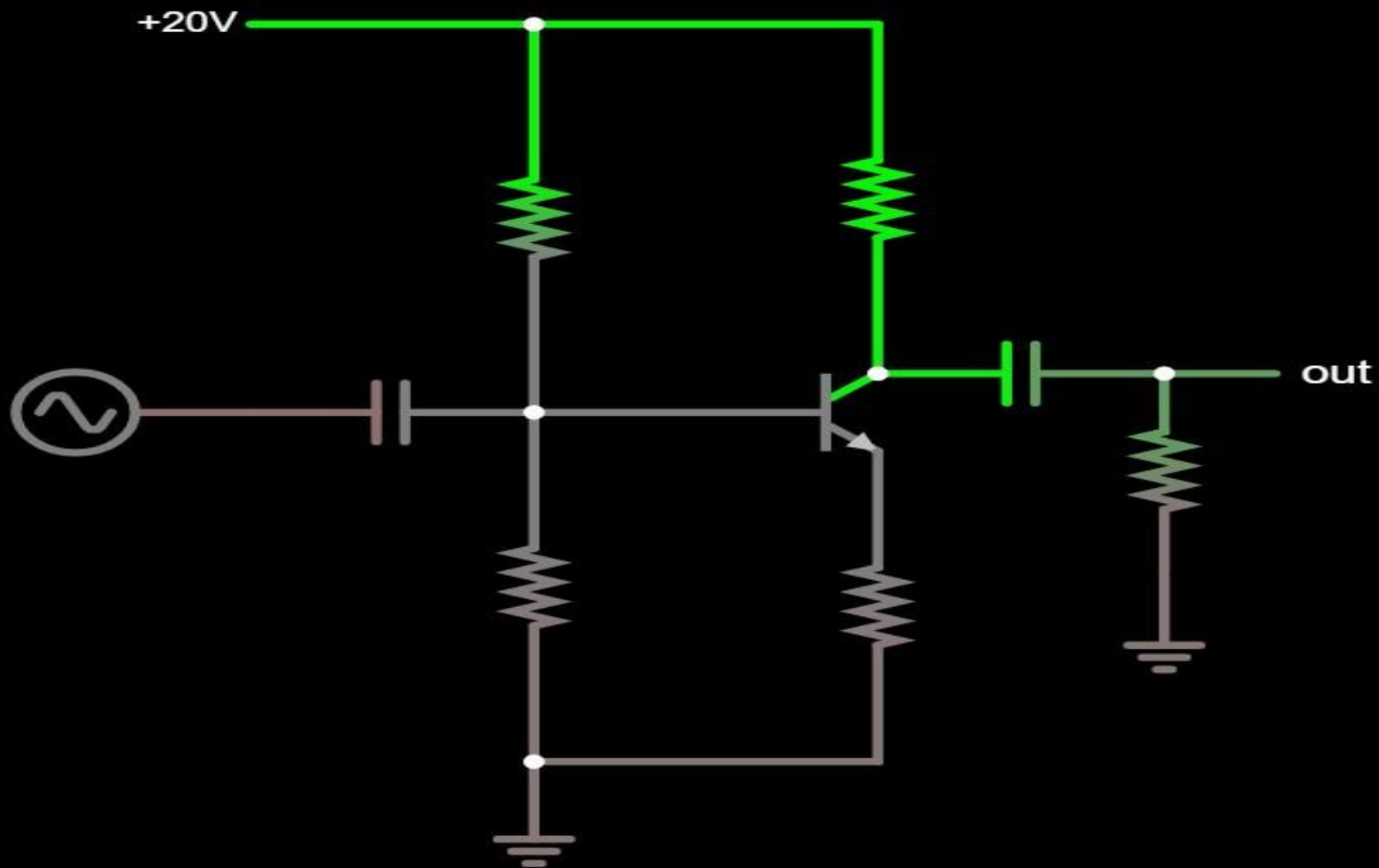
TRANZISTOR BIPOLAR CONEXIUNEA EMITOR COMUN

NUME:TAȘCĂ ANDREI-ANTONIO

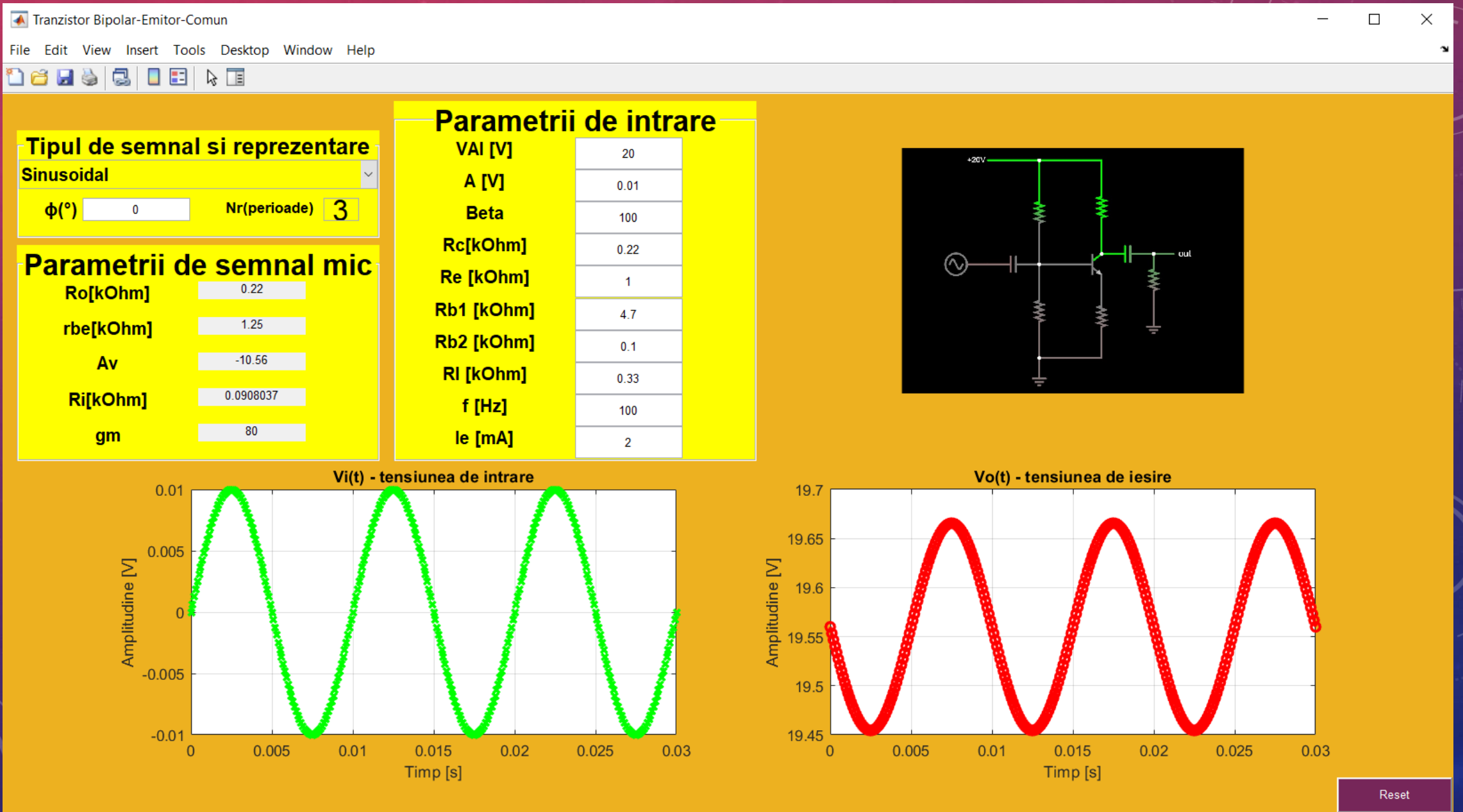
GRUPA:2123 – SEMIGRUPA 2

SERIA A

CIRCUITUL PE CARE L-AM FOLOSIT IN APLICATIE



PAGINA PRINCIPALA



Parametrii de intrare

VAI [V]	20
A [V]	0.01
Beta	100
Rc[kOhm]	0.22
Re [kOhm]	1
Rb1 [kOhm]	4.7
Rb2 [kOhm]	0.1
Rl [kOhm]	0.33
f [Hz]	100
Ie [mA]	2

Parametrii de semnal mic

Ro[kOhm]	0.22
rbe[kOhm]	1.25
Av	-10.56
Ri[kOhm]	0.0908037
gm	80

%-----butoanele pentru parametrii

```
Butoane_parametrii=uibuttongroup('Visible','on',...  
    'BackgroundColor','#FFFF00',...  
    'ForegroundColor','black',...  
    'Title','Parametrii de intrare',...  
    'FontSize',20,...  
    'FontWeight','bold',...  
    'TitlePosition','centertop',...  
    'Tag','radiobutton',...  
    'Position',[0.27 0.49 0.25 0.5]));
```

%-----valorile calculate a parametrilor de semnal mic

```
RadioGroup=uibuttongroup('Visible','on',...  
    'BackgroundColor','#FFFF00',...  
    'ForegroundColor','black',...  
    'Title','Parametrii de semnal mic',...  
    'FontWeight','bold',...  
    'FontSize',20,...  
    'TitlePosition','centertop',...  
    'Tag','radiobutton',...  
    'Position',[0.01 0.49 0.25 0.3]));
```

```

uicontrol('Style','popupmenu',...
'BackgroundColor','#FFFF00',...
'Units','normalized',...
'FontWeight','bold',...
'FontSize',12,...
'Position',[0 0.5 1 0.5],...
'value',valoare,...
'String','Sinusoidal|Triunghiular|Dreptunghiular|Dinte de fierestrau',...
'Callback','valoare=get(gco,''value'),close;TEC(A,VA1,beta,Rc,Re,Rb1,Rb2
'Parent',Tip_Semnal);

```

```

%-----buton pentru tipuri semnale
Tip_Semnal=uibuttongroup('Visible','on',...
'BackgroundColor','#FFFF00',...
'ForegroundColor','black',...
'Title','Tipul de semnal si reprezentare',...
'FontSize',15.5,...
'FontWeight','bold',...
'TitlePosition','centertop',...
'Tag','radiobutton',...
'Position',[0.01 0.8 0.25 0.15]);

```

Tipul de semnal si reprezentare

Sinusoidal

$\phi(^{\circ})$ Nr(perioade)

```

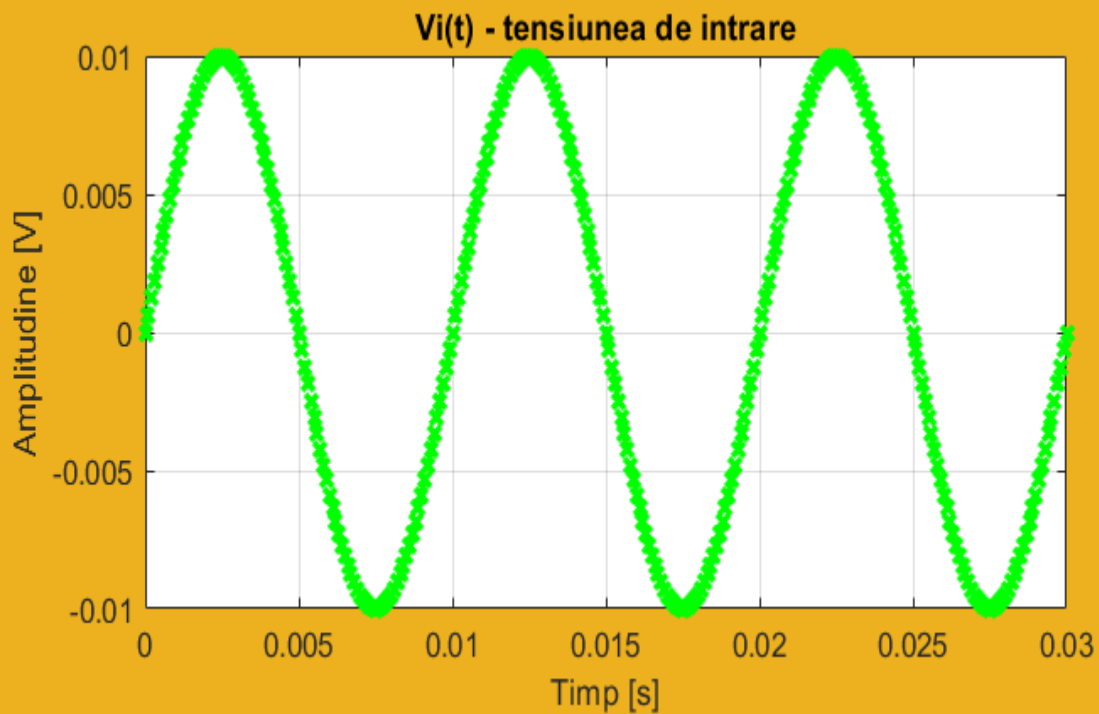
uicontrol('Style','text',...
'Units','normalized',...
'BackgroundColor','#FFFF00',...
'FontWeight','bold',...
'ForegroundColor','black',...
'HorizontalAlignment','center',...
'FontSize',12,...
'Position',[0.02 0.2 0.2 0.3],...
'String',' $\phi(^{\circ})$ ',...
'Parent',Tip_Semnal);

```

```

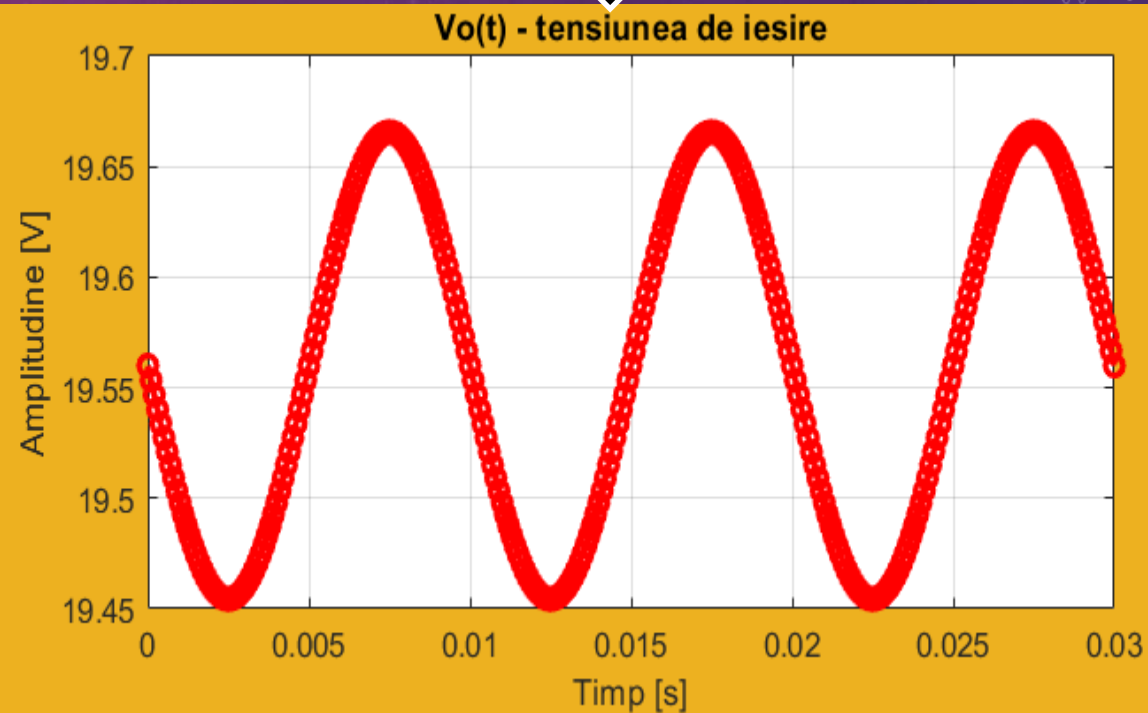
uicontrol('Style','text',... %-----buton pentru perioade
'Units','normalized',...
'Position',[0.5 0.2 0.4 0.3],...
'FontSize',10,...
'FontWeight','bold',...
'BackgroundColor','#FFFF00',...
'String','Nr(perioade)',...
'Callback','',...
'Parent',Tip_Semnal);

```

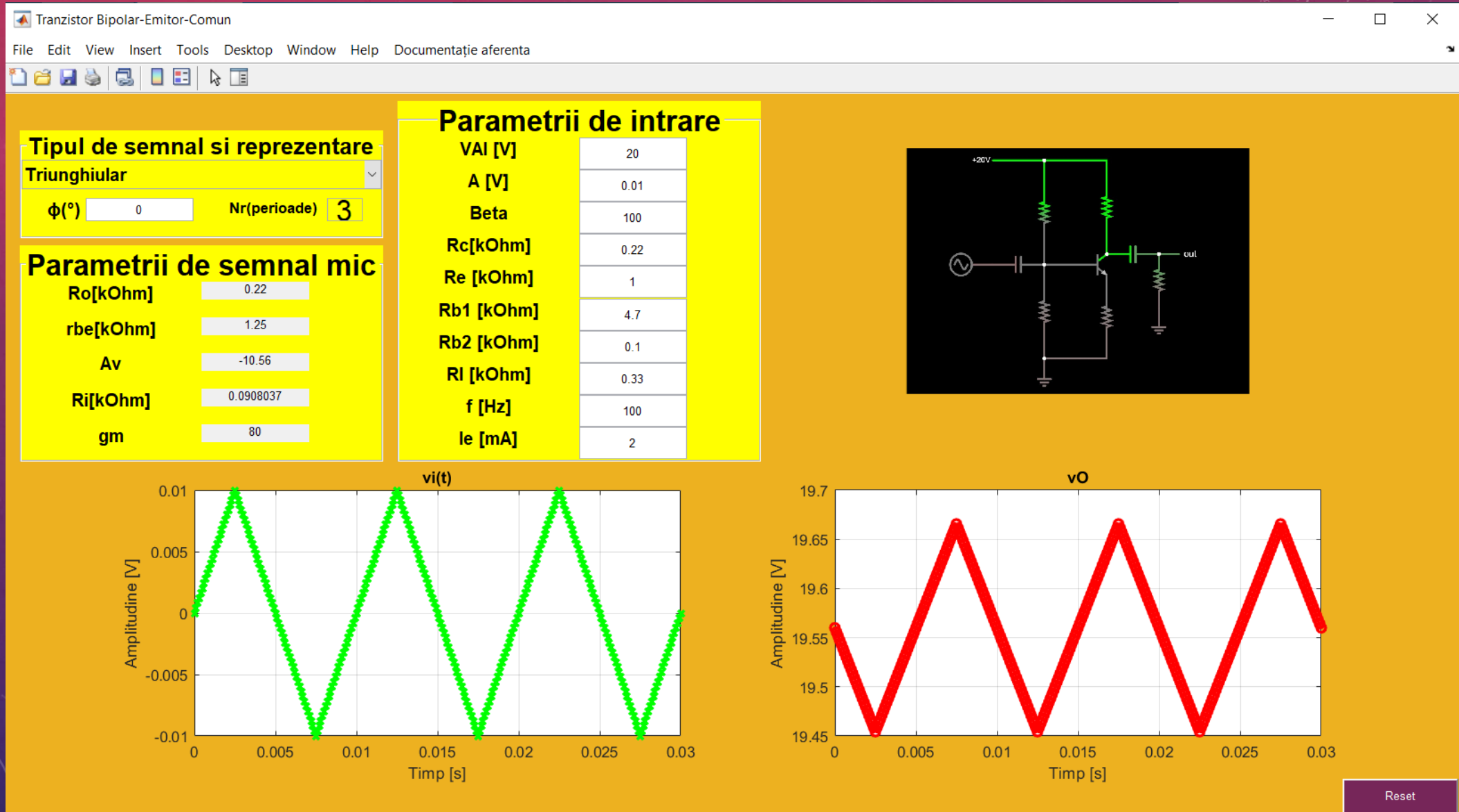



```
%-----semnalul de intrare
vi=A*sin(2*pi*f*t+def1*180/pi);
subplot(223);
plot(t,vi,'--Xg','Linewidth', 2);
title('Vi(t) - tensiunea de intrare');
grid on;
hold on;
xlabel('Timp [s]');
ylabel('Amplitudine [V]');
```

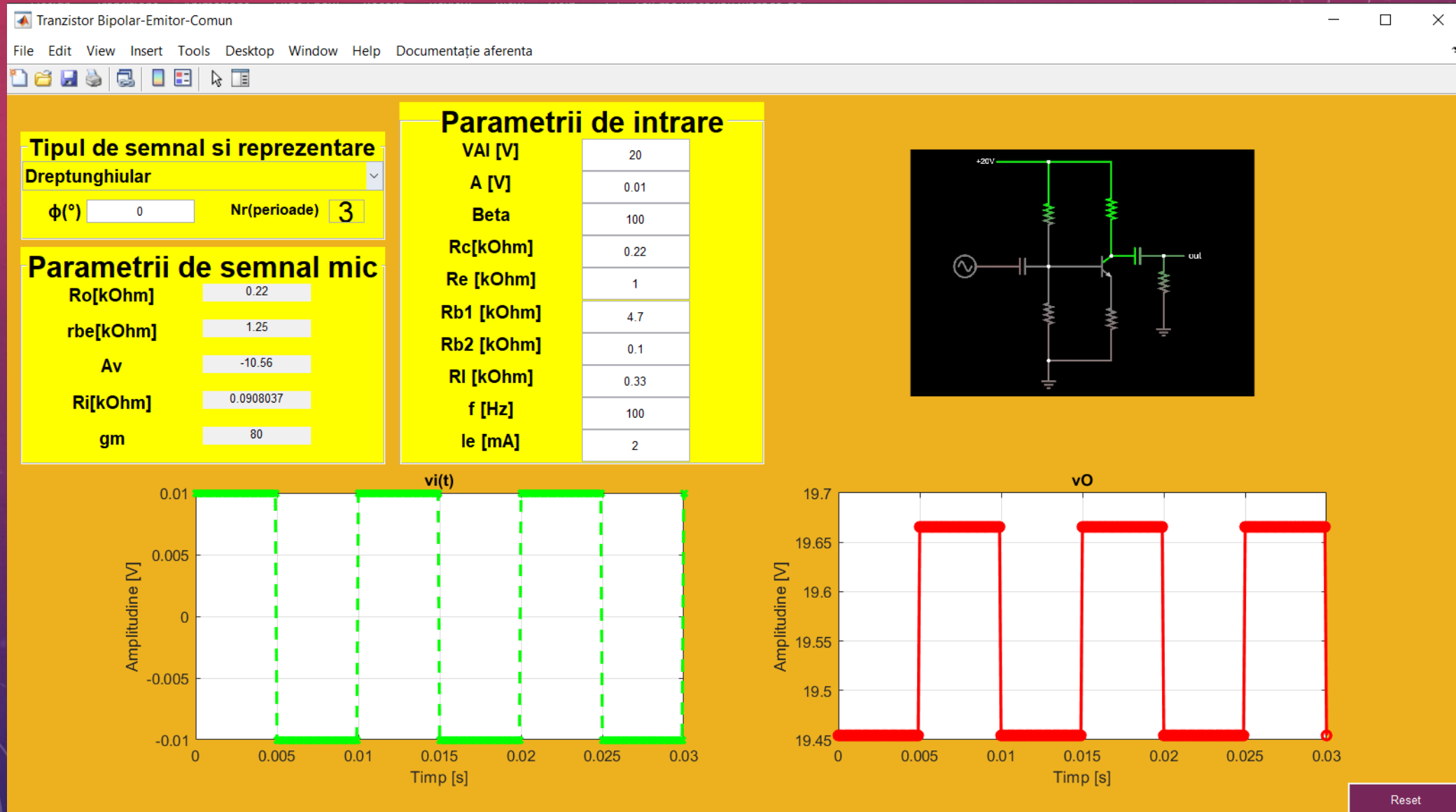
```
%-----semnalul de iesire
vO=VO+Av*A*sin(2*pi*f*t+def1*180/pi);
subplot(224);
plot(t,vO,'-or','Linewidth', 2);
title('Vo(t) - tensiunea de iesire');
grid on;
hold on;
xlabel('Timp [s]');
ylabel('Amplitudine [V]');
```



SEMNAL TRIUNGHIULAR



SEMNAL DREPTUNGHIULAR



SEMNAL DINTE DE FIERASTRAU

