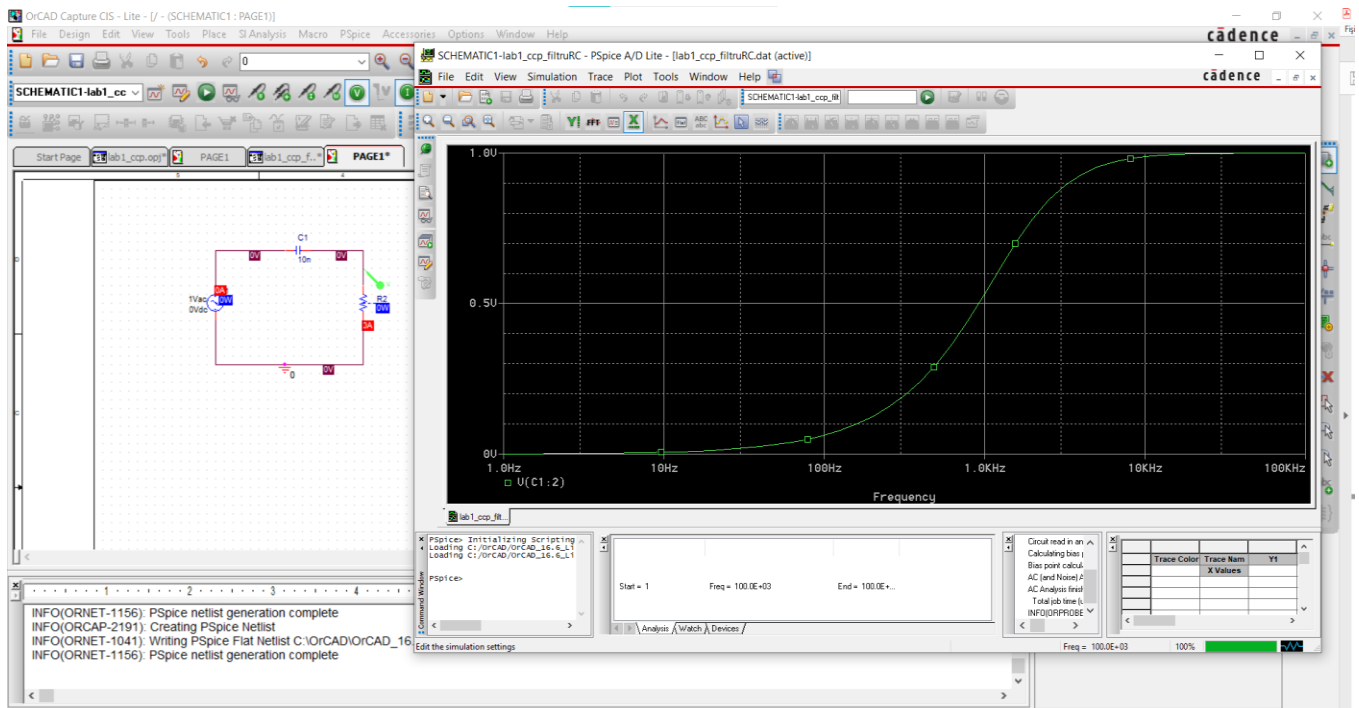## *Laborator 1 – CCP*

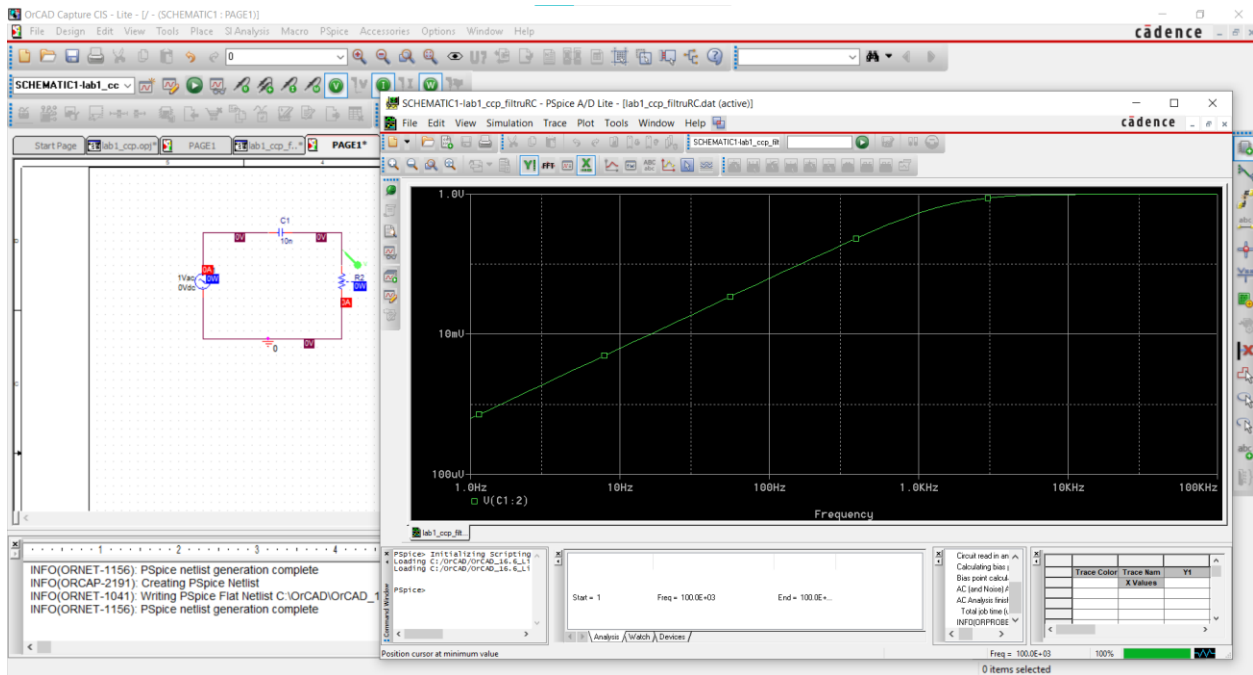**3.2 Analiza răspunsului în frecvență al unui circuit RC utilizând PSpice**

$$f_t = \frac{1}{2\pi \cdot R \cdot C} = \frac{1}{2\pi * 10^4 * 10 * 10^{-6}} = 1.591 \text{ Hz}$$

Raspunsul in frecventa a filtrului RC:
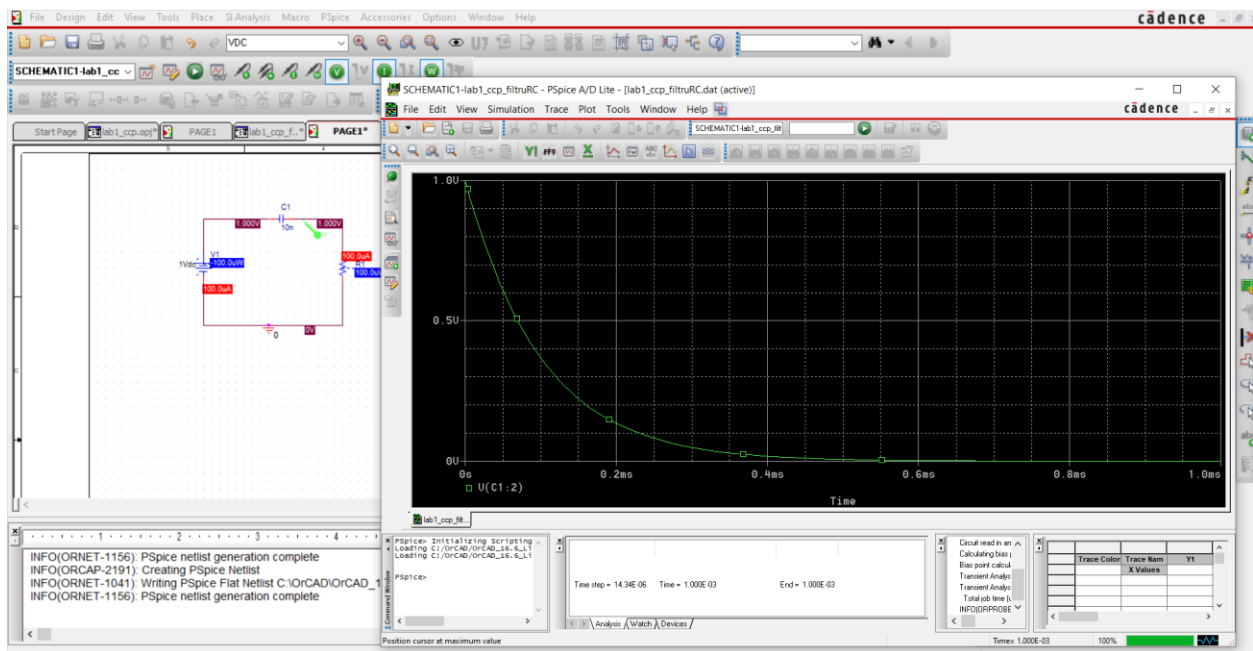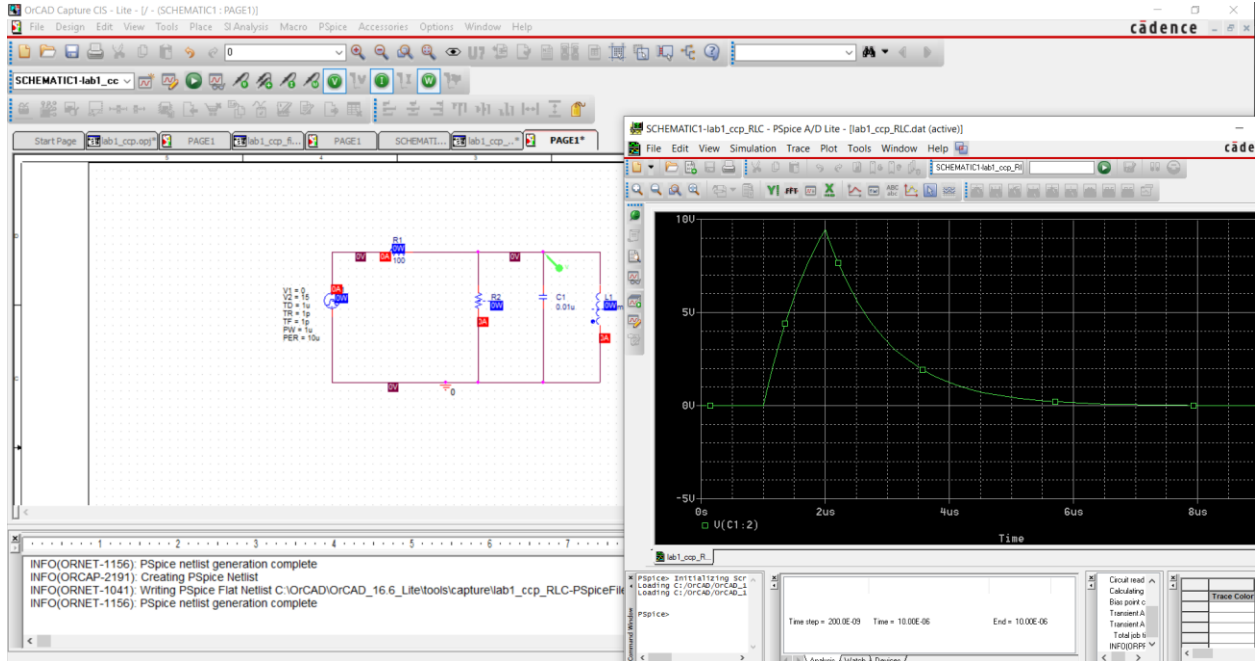
Semnalul la iesirea filtrului:

3.3. Răspunsul în regim tranzitoriu al filtrului RC
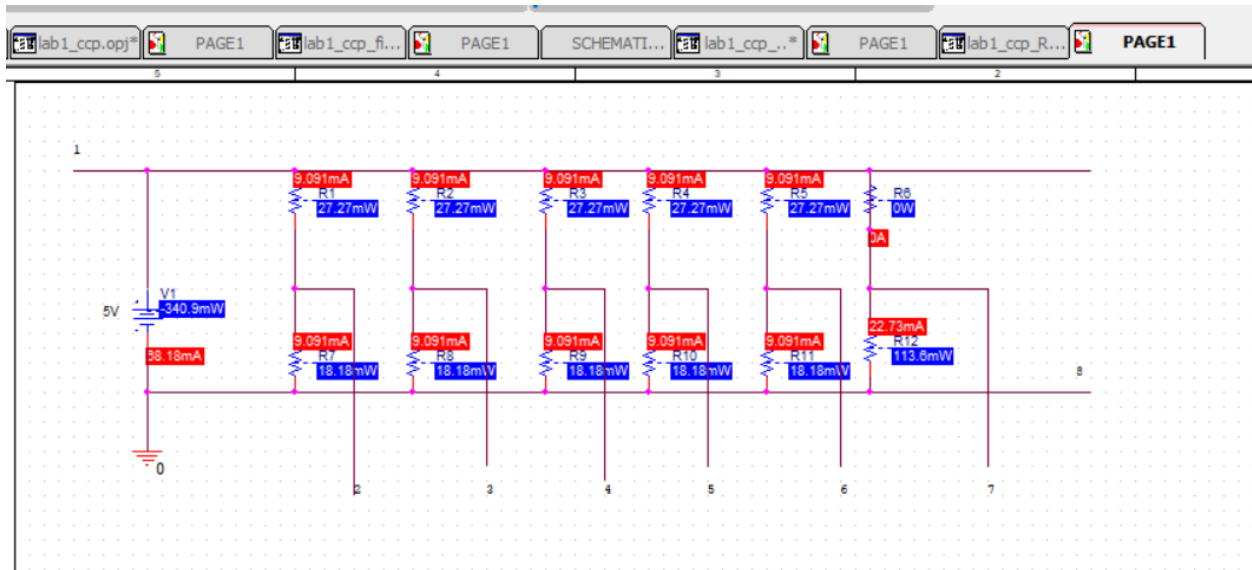
Semnalul la iesirea filtrului RC:

3.3. Circuit RLC simplu

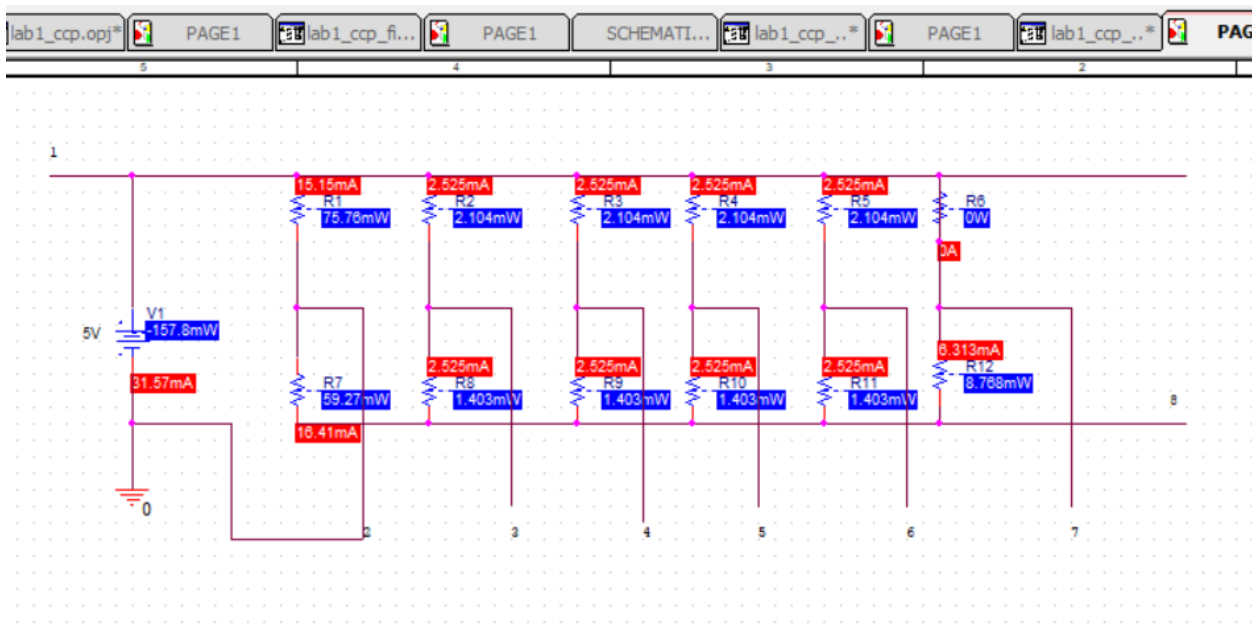Forma semnalului la iesirea circuitului:

3.4 Reteaua rezistiva

Retea rezistiva alimentata intre pinii 1-8 :

$R_{echiv} = \frac{U}{I}$ = 5000V/58.18A = 85,94 Ω

	P_{R1}	P_{R2}	P_{R3}	P_{R4}	P_{R5}	P_{R6}	P_{R7}	P_{R8}	P_{R9}	P_{R10}	P_{R11}	P_{R12}
P(mW)	27.27	27.27	27.27	27.27	27.27	0	18.18	18.18	18.18	18.18	18.18	113.6

Retea rezistiva alimentata intre pinii 1-2 :

$R_{echiv} = \dfrac{U}{I}$ = 5000V/31.57A = 158,38 Ω

	P_{R1}	P_{R2}	P_{R3}	P_{R4}	P_{R5}	P_{R6}	P_{R7}	P_{R8}	P_{R9}	P_{R10}	P_{R11}	P_{R12}
P(mW)	75.76	2.104	2.104	2.104	2.104	0	59.27	1.403	1.403	1.403	1.403	8.768

Retea rezistiva alimentata intre pinii 2-3 :

$R_{echiv} = \dfrac{U}{I}$ = 5000V/18.94A = 264 Ω

	P_{R1}	P_{R2}	P_{R3}	P_{R4}	P_{R5}	P_{R6}	P_{R7}	P_{R8}	P_{R9}	P_{R10}	P_{R11}	P_{R12}
P(mW)	18.94	18.94	0	0	0	0	28.41	28.41	0	0	0	0

Retea rezistiva alimentata intre pinii 2-4 :

$R_{echiv} = \dfrac{U}{I}$ = 5000V/18.94A = 264 Ω

	P_{R1}	P_{R2}	P_{R3}	P_{R4}	P_{R5}	P_{R6}	P_{R7}	P_{R8}	P_{R9}	P_{R10}	P_{R11}	P_{R12}
P(mW)	18.94	0	18.94	0	0	0	28.41	0	28.41	0	0	0

Retea rezistiva alimentata intre pinii 2-8 :
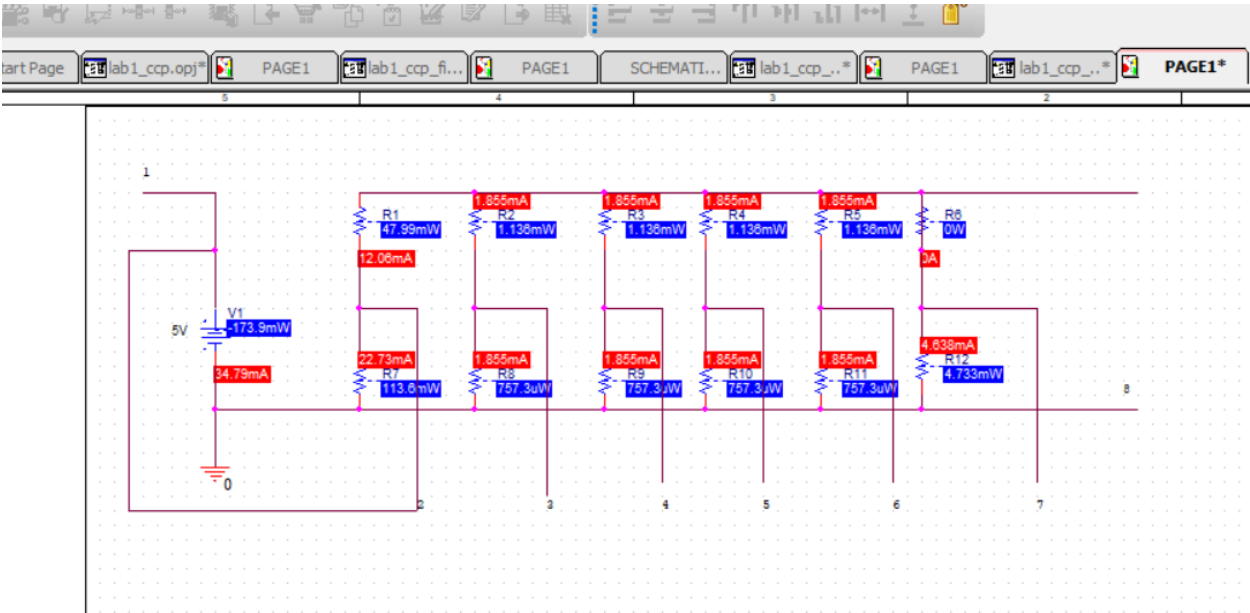
$R_{echiv} = \dfrac{U}{I}$ = 5000V/34.79 = 143.72 Ω

Tabel 2.

	P_{R1}	P_{R2}	P_{R3}	P_{R4}	P_{R5}	P_{R6}	P_{R7}	P_{R8}	P_{R9}	P_{R10}	P_{R11}	P_{R12}
P(mW)	47.99	1.136	1.136	1.136	1.136	0	113.6	0.7573	0.7573	0.7573	0.7573	4.733

Tabel 1.

Pini de masura	1-8	1-2	2-3	2-4	2-8
$R_{determinat}$	85,94 Ω	158,38 Ω	264 Ω	264 Ω	143.72 Ω