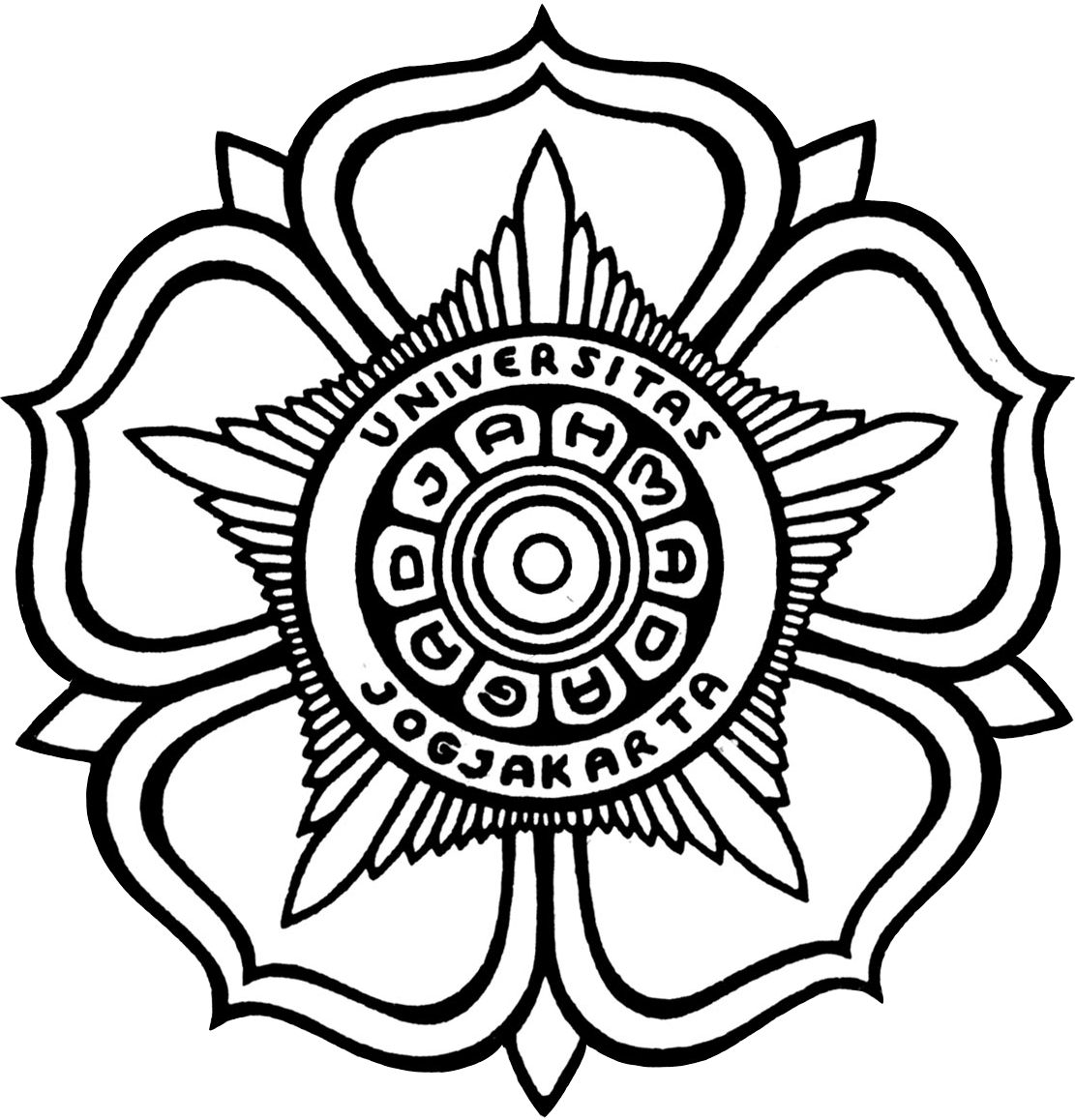
**UAS ELEKTRONIKA DAYA**



**Disusun oleh:**

Bernardus Vico Shava A (22/505923/TK/54403)

**PROGRAM STUDI S1 TEKNIK ELEKTRO**

**DEPARTEMEN TEKNIK ELEKTRO DAN TEKNOLOGI INFORMASI**

**FAKULTAS TEKNIK UNIVERSITAS GADJAH MADA**

**YOGYAKARTA**

**2025**

**TASK 1**

**Open Loop[**

1. Buck Converter Spec:

Input Voltage (Vin) : 24 V

Output Voltage (Vout) : 12 V

fSW : 100 kHz

Output Power(Pout) : 60 Watt

ΔiL : 10%

Δvo : 2%

1. Induktor(L) dan Kapasitor(C):

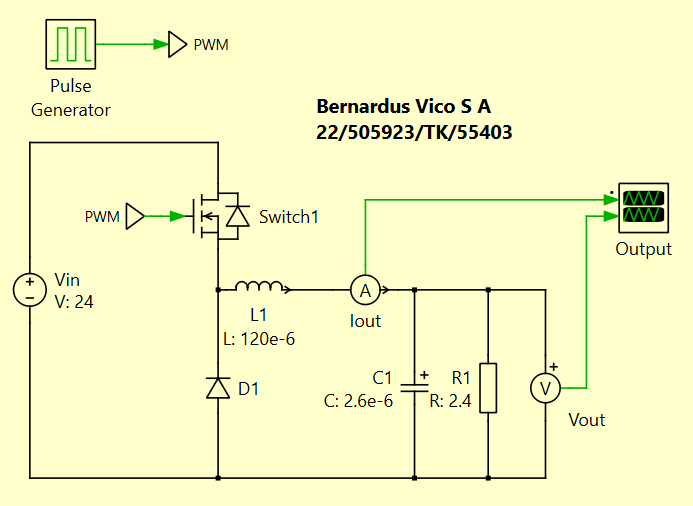
* *Duty Cycle (D)*:
* Periode (Ts):
* Induktor (L):

⇒

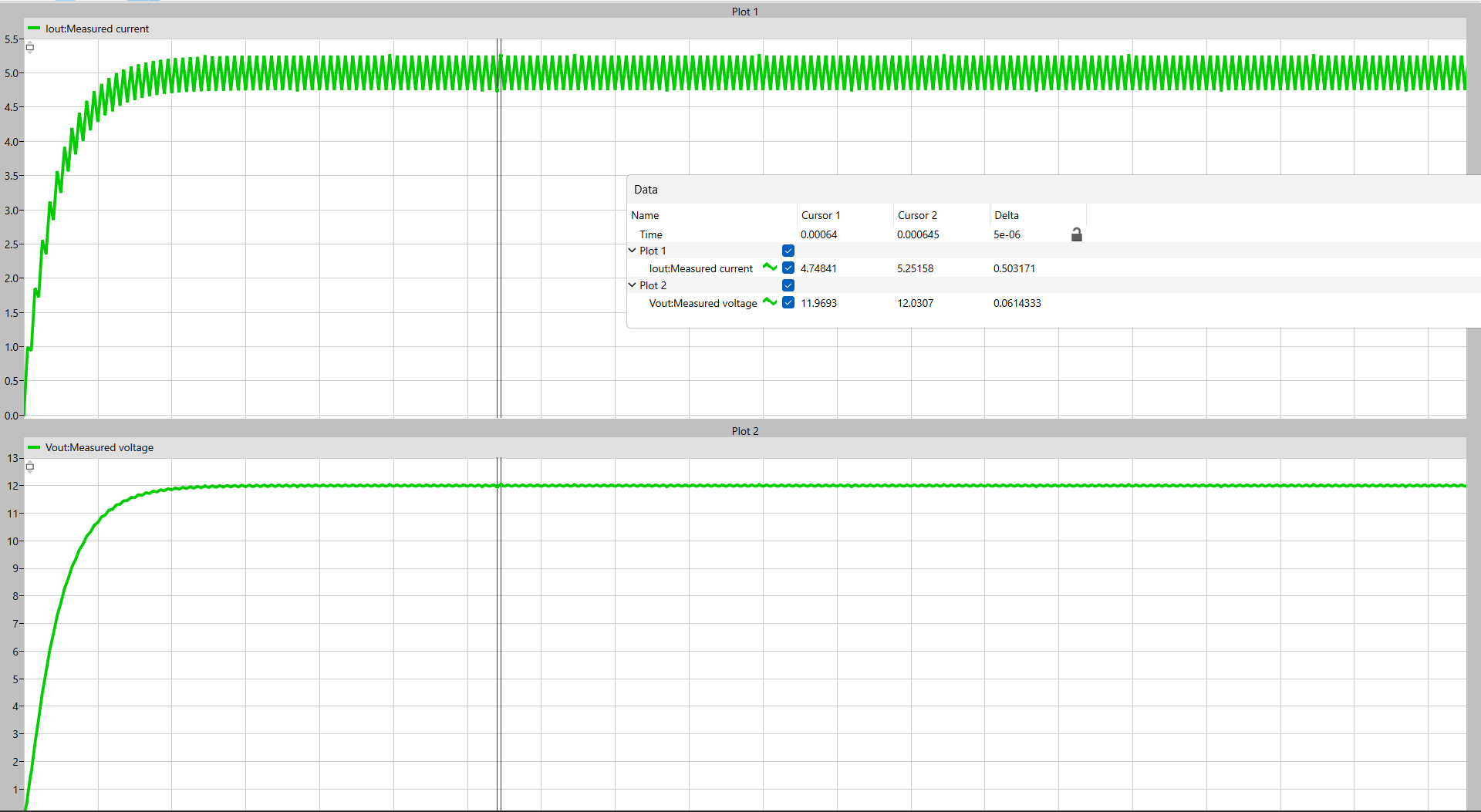
* Kapasitor(C):­­

1. Open-loop Buck Converter

Rangkaian:



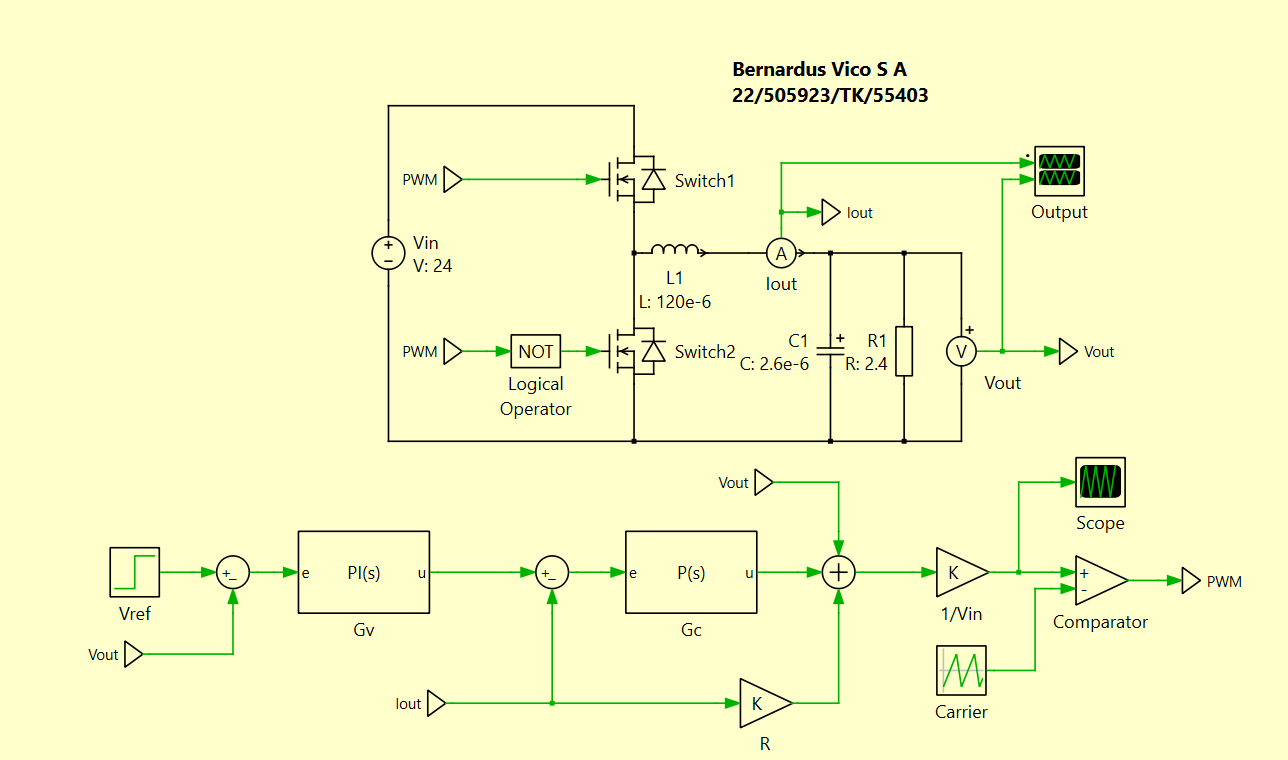
Hasil:



1. Close-Loop Buck Converter

Perhitungan Gain:

Rangkaian:



Hasil:

**TASK 2**