

## Designed Circuit in Simulink for switching frequency of 6 kHz :

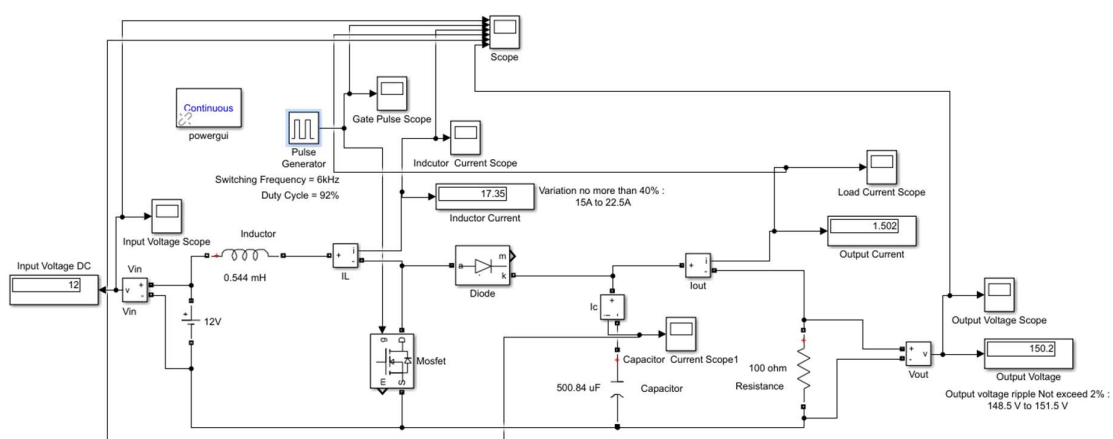
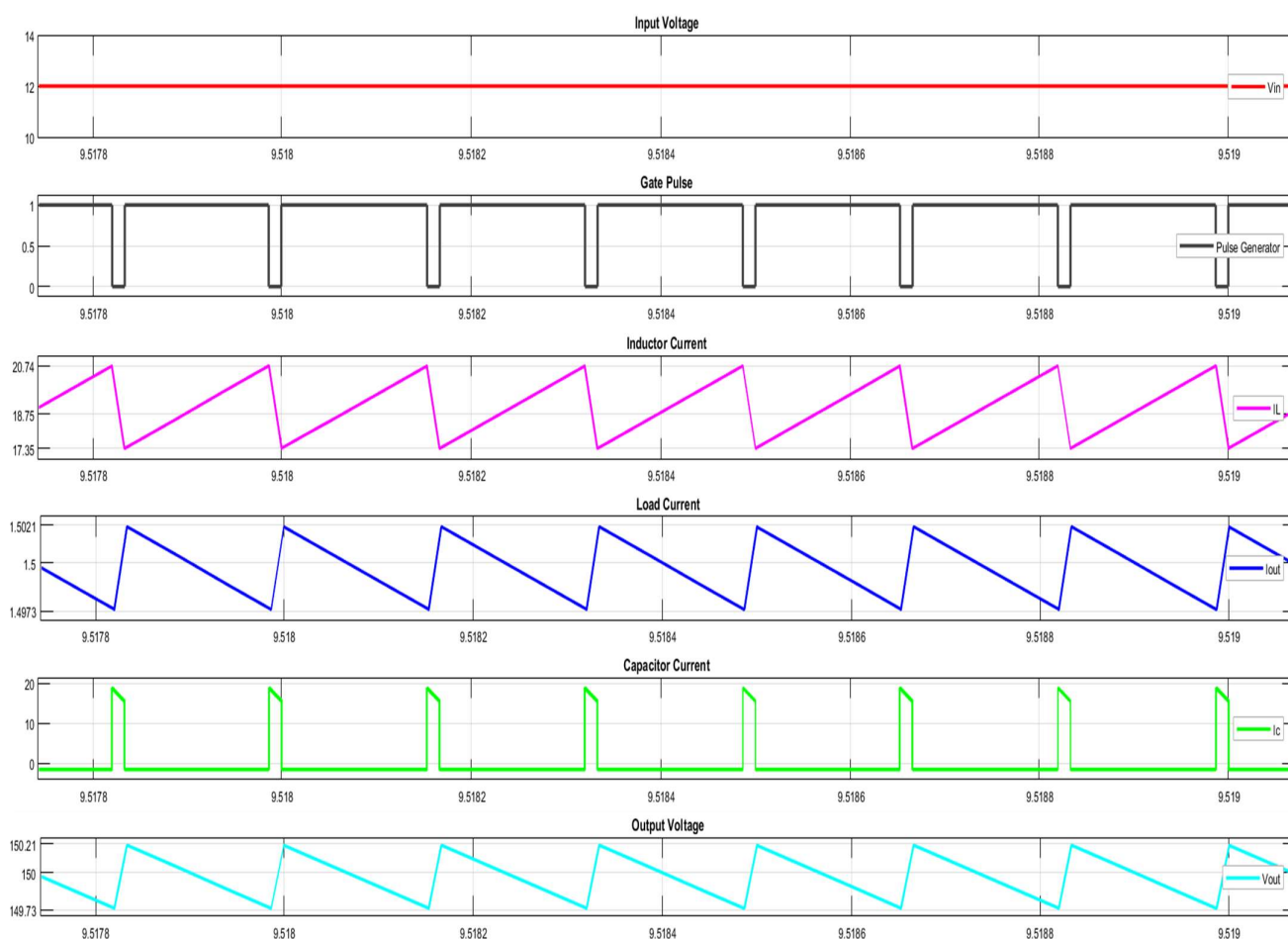


Fig-01 : Designed Circuit Diagram ( $F_s = 6\text{kHz}$ )

## Waveforms :



Trace Selection		
IL		
Signal Statistics		
	Value	Time
Max	2.074e+01	9.518
Min	1.735e+01	9.518
Peak to Peak	3.382e+00	
Mean	1.875e+01	
Median	1.824e+01	
RMS	1.880e+01	

Trace Selection		
Vout		
Signal Statistics		
	Value	Time
Max	1.502e+02	9.518
Min	1.497e+02	9.518
Peak to Peak	4.591e-01	
Mean	1.500e+02	
Median	1.501e+02	
RMS	1.500e+02	

Trace Selection		
Iout		
Signal Statistics		
	Value	Time
Max	1.502e+00	8.586
Min	1.497e+00	8.565
Peak to Peak	4.591e-03	
Mean	1.500e+00	
Median	1.501e+00	
RMS	1.500e+00	

## Designed Circuit in Simulink for switching frequency of 30 kHz :

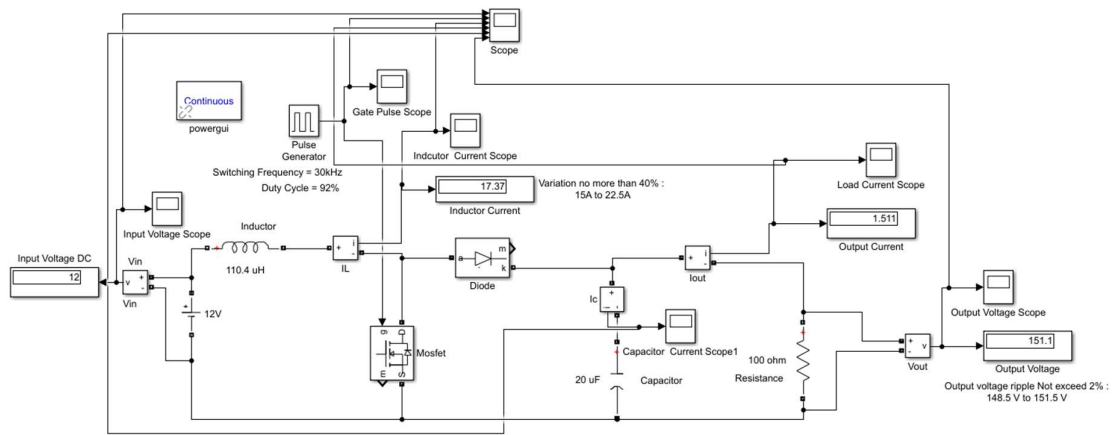
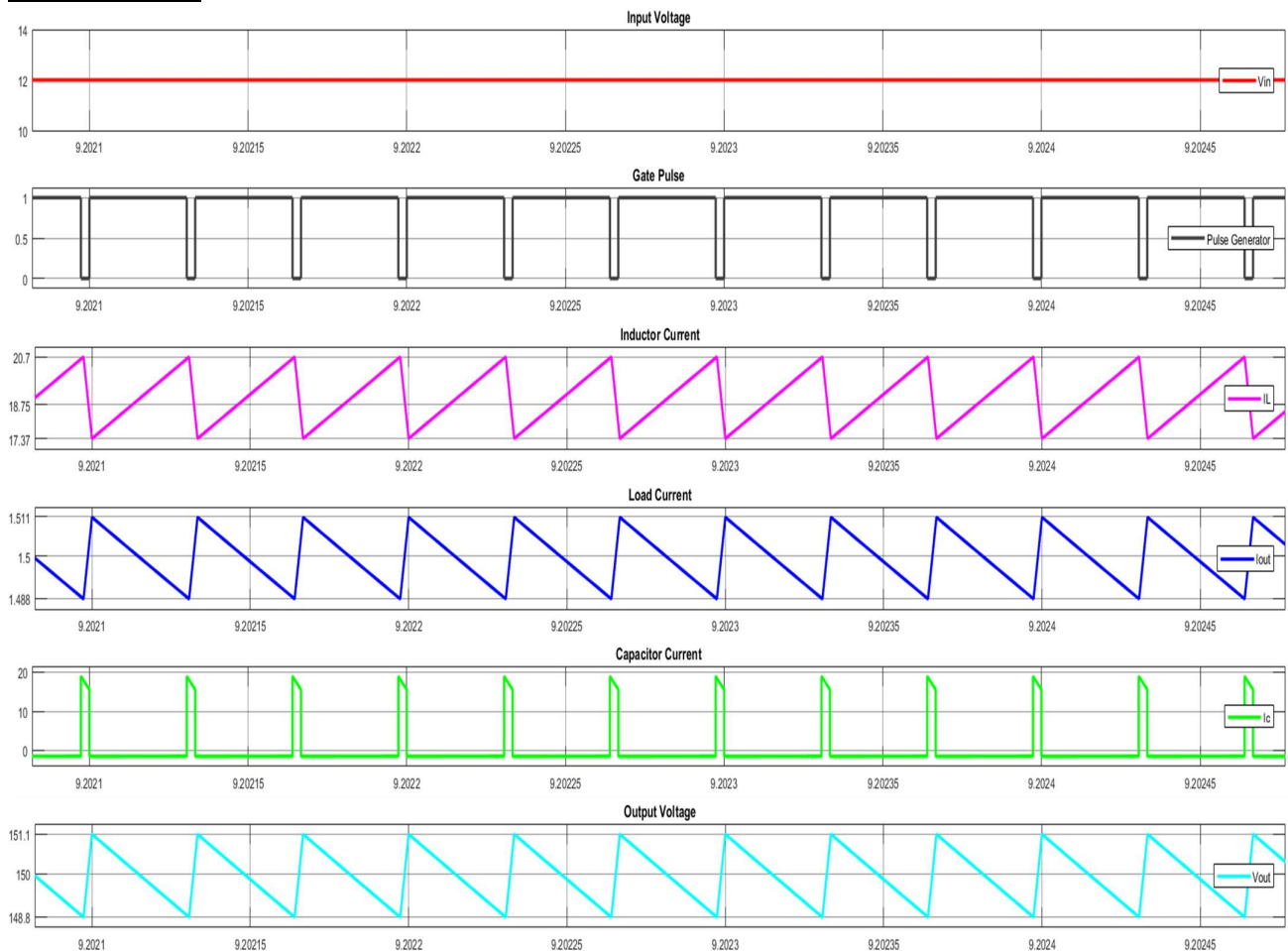


Fig-02 : Desgined Circuit Diagram ( $F_s = 30\text{kHz}$ )

## Waveforms :



Trace Selection		
IL		
Signal Statistics		
Max	2.070e+01	9.202
Min	1.737e+01	9.202
Peak to Peak	3.333e+00	
Mean	1.875e+01	
Median	1.795e+01	
RMS	1.880e+01	

Trace Selection		
Vout		
Signal Statistics		
Max	1.511e+02	9.202
Min	1.488e+02	9.202
Peak to Peak	2.299e+00	
Mean	1.500e+02	
Median	1.507e+02	
RMS	1.501e+02	

Trace Selection		
Iout		
Signal Statistics		
Max	1.511e+00	9.202
Min	1.488e+00	9.202
Peak to Peak	2.299e+00	
Mean	1.500e+00	
Median	1.507e+00	
RMS	1.501e+00	

## Designed Circuit in Simulink for switching frequency of 55 kHz :

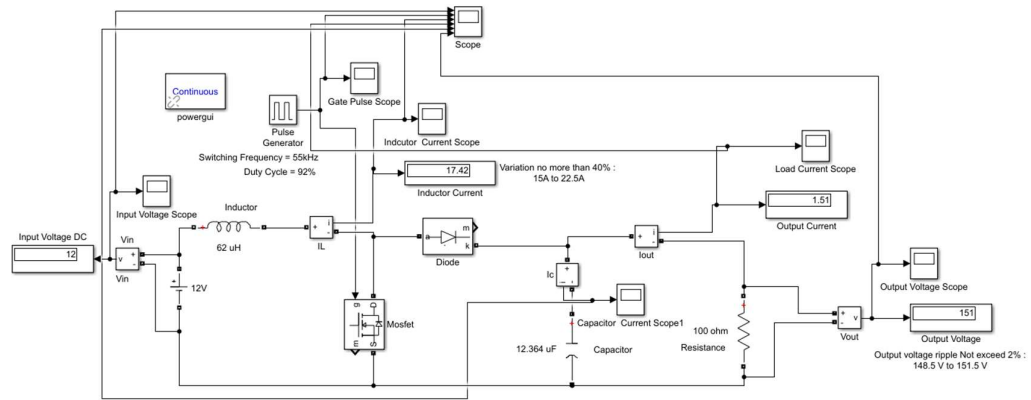
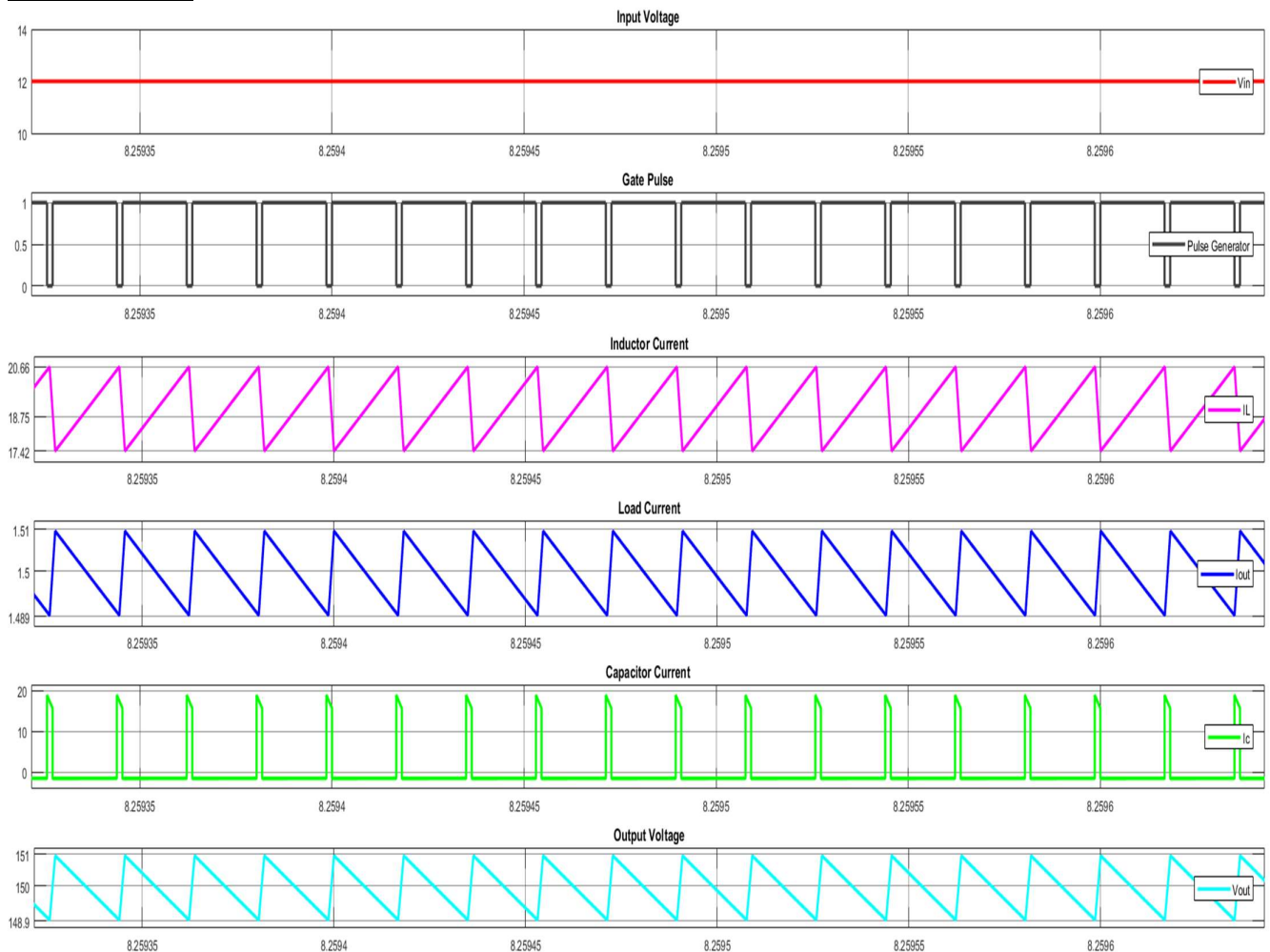


Fig-03 : Designed Circuit Diagram ( $F_s = 55\text{kHz}$ )

## Waveforms :



Trace Selection		
IL		
Signal Statistics		
Max	Value	Time
Min	1.742e+01	8.104
Peak to Peak	3.237e+00	
Mean	1.875e+01	
Median	1.798e+01	
RMS	1.880e+01	

Trace Selection		
Vout		
Signal Statistics		
Max	Value	Time
Min	1.489e+02	3.491
Peak to Peak	2.029e+00	
Mean	1.500e+02	
Median	1.503e+02	
RMS	1.500e+02	

Trace Selection		
Iout		
Signal Statistics		
Max	Value	Time
Min	1.489e+00	3.491
Peak to Peak	2.029e+00	
Mean	1.500e+00	
Median	1.503e+00	
RMS	1.500e+00	