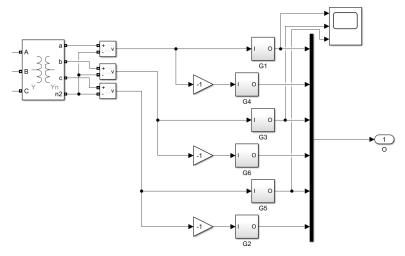
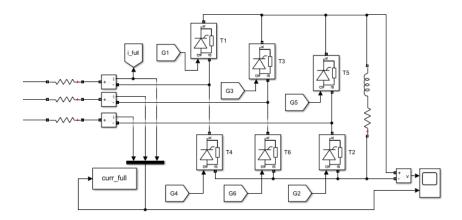
## MANSI UNIYAL 19EE10039

## **EXPERIMENT-5**

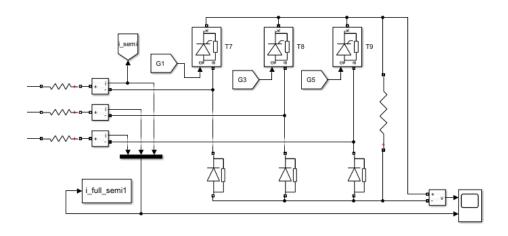
Part A: Triggering circuit



Part B: Full controlled Converter



Part C: Semi controlled Converter



## Part D:

| Parameter   | Full-controlled Converter | Semi-controlled Converter |
|---|---------------------------|---------------------------|
| AC side currents (RMS)                              | 4.08                      | 4.08                      |
| Fundamental component of the AC side currents (RMS) | 3.89                      | 3.86                      |
| THD (%) of the AC side currents                     | 31.13                     | 34.10                     |
| Input power factor                                  | 0.922                     | 0.913                     |
| Fundamental active power (W)                        | 2025.60                   | 2009.41                   |
| Fundamental reactive power (VAr)                    | 542.7                     | 538.4                     |