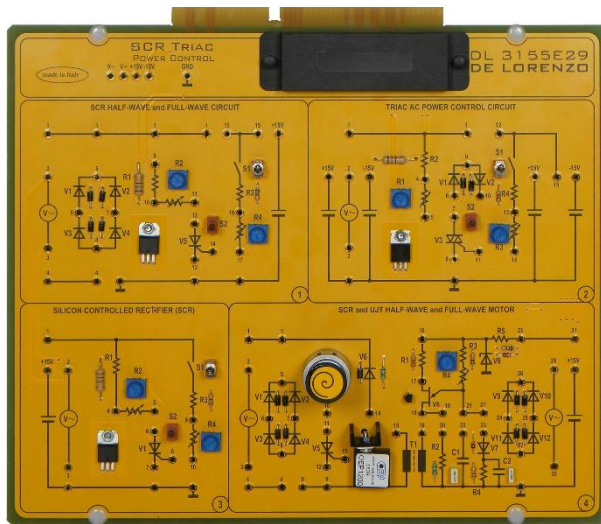# SCR TRIAC POWER CONTROL

DL 3155E29

The design and construction of electronic circuits to solve practical problems is an essential technique in the fields of electronic engineering and computer engineering.

With this board the students can study the operation of the power components such as SCR and TRIAC and check how do they apply in power control circuits and in phase control circuits (half-wave and full wave).

THEORETICAL TOPICS

- Thyristor component familiarization
- Thyristor circuit fundamentals
- Test a Silicon Controlled Rectifier
- SCR DC operation
- Gate trigger voltage and holding current
- SCR half-wave rectifier
- SCR control of a half-wave rectifier
- SCR control of a full-wave rectifier
- UJT characteristics
- UJT half-wave and full-wave phase control
- Bidirectional conduction
- The four triggering modes
- Half-wave and full-wave phase control

CIRCUIT BLOCKS

- Silicon Controlled Rectifier (SCR)
- Triac AC power control circuit
- SCR half-wave and full-wave circuit
- SCR and UJT half-wave and full-wave Motor

Complete with theoretical and practical manual.

Dimensions of the board: 297x260mm

CAI SOFTWARE:
Each board of the TIME system can be supplied complete with a Student Navigator software that allows students to perform their learning activities through a Personal Computer, without the need for any other documentation.
Ordering code: please add SW after the code of the board (i.e. DL 3155E29SW)

Required:
POWER SUPPLY NOT INCLUDED
Base frame with power supply (completed with connecting cables):
➢ **DL 3155AL3** - Base frame with power supply and interface to pc and virtual instrumentation
➢ **DL 3155AL2** - Base frame with power supply and interface to pc

Basic power supply (connecting cables not included):
➢ **DL 2555ALG -** DC power supply ±5 ±15 Vdc, 1A
➢ **DL 2555ALS -** AC power supply 24 Vac, 2A
➢ **TL 3155AL2 -** Connecting cables
Choosing this power supply, for the execution of the experiments, it is normally required the use of an oscilloscope and two multimeters.