

The eTraining Package for the TIME (Trainer for Interactive Multipurpose Electronics) electronics laboratory allows to combine the potentialities of the computer, as a tool for guiding to the use of the information and to the execution of the experiments, with this system for practical/theoretical training.

To which training needs the TIME system with its eTraining Package perfectly respond?

The subjects in electronics are numerous and complex and often the need is that of facing them in short, but intensive courses.

The answer to this need is in the use of a new tool, that can take advantage from the performances of hypertextuality, multimediality and easy of use which are typical of the World Wide Web technology.

The student can operate in an environment that he knows, attractive and stimulating in every phase: study, consultation, execution of the exercises, processing of the results.

The performance of the experiments related to the study subject is important to better understand the concepts and to acquire the necessary experience with the electronic systems. The eTraining Package of the TIME system adds a new and important feature to this system: a complete guidance, by the computer, during the performance of the practical experiments and the check of the learning level.

The program shows to the student the circuits to be realized, the measurements to be performed, the quantities to be calculated. At the end, the program asks questions relevant to the study subject and checks whether the answers are correct.

The fault finding on the electronic circuits is of fundamental importance to train technicians and engineers particularly dedicated to the maintenance sector.

The eTraining Package performs very well this function, because it is able to: automatically insert the fault in the circuit on which the student is working, guide the student to the search for the fault, check the correct solution.

The subjects that are investigated in this laboratory are the following:

- **Electric circuits**
- **Electric networks**
- **Electric power and energy**
- **Electric field**
- **Magnetic field**
- **Electromagnetism**
- **AC circuits**
- **Electric power in alternating current**
- **Single-phase transformer**
- **Direct current motor and generator**
- **Electronic devices**
- **Diode applications**
- **Transistors**
- **Amplification**
- **Types of amplifiers**
- **Operational amplifier**
- **Power amplifiers**
- **Logic circuits**
- **Sequential logic**

- **Memories**
- **Conversion**
- **Multivibrators**
- **Programmable systems**
- **Regulation and control**
- **Power electronics**
- **32 bit microprocessor**
- **FET**
- **Sensors and trasducers**

The use of this eTraining Package within one of the eTraining Environments, where there is a teacher, allows the realization of integrated training systems in which the whole educational activity is managed and controlled by the teacher, directly from his work station.

As an alternative to the use of the traditional instrumentation it is possible to provide a virtual instrumentations software for the simulation of: oscilloscope, function generator, etc.



Required PC configuration:

- Operating system: Windows 95/98/Me/NT-4/2000
- Parallel Port for the connection to the Base Unit DL 3155AL2
- CD-ROM driver

