The Computer Aided Instruction Software System is a complete software package that explains how to do a proper use of EDIBON’s unit. It has been designed to cover different technical areas such as: Electronics, Communications, Electricity, Energy, Mechatronics & Automation, Mechanics & Materials, Fluid Mechanics & Aerodynamics, Thermodynamics & Thermotechnics, Process Control, Chemical Engineering, Food & Water Technologies and Environment.

With no physical connection between unit and computer (PC), this complete software consists on an Instructor Software (INS/SOF) totally integrated with the Student Software (CAI/SOF). Both are interconnected so that the teacher knows at any moment what is the theoretical and practical knowledge of the students.

- **INS/SOF Classroom Management Software (Instructor Software).**

  Instructor can:
  - Organize Students by Classes and Groups.
  - Create easily new entries or delete them.
  - Create data bases with student information.
  - Analyze results and make statistical comparisons.
  - Generate and Print reports.
  - Detect student’s progress and difficulties.
  - ...and many other facilities.

  The Instructor Software, working in network configuration, allows controlling all the students in the classroom.

  "Class Administration", gives two options for the right management of a group of students, these are: ‘View Existing Classes’ and ‘Edit Class & Students’.

  Once instructor has introduced the classes, groups and students, instructor displays the information through the “View Existing Classes” button.

  “View Results” gives three choices: Results by Students, Results by Class and Results by Practice.

  If, for example, instructor chooses “Results by Student”, it will be given the whole list of students that have taken the exercises and/or exams. Here, it is given information about the mean result obtained by the student, the best and worst score, number of times he/she has done the practice or exam, as well as the date and time of realisation...

  With all this, instructor can generate a report and save it.
- **CAI/SOF: Computer Aided Instruction Software** (Student Software).

It explains how to use the unit, run the experiments and what to do at any moment.

- The options are presented by pull-down menus and pop-up windows.
- The Software contains:
  - **Theory**: gives the student the theoretical background for a total understanding of the studied subject.
  - **Exercises**: divided by thematic areas and chapters to check out that the theory has been understood.
  - **Guided Practices**: presents several practices to be done with the unit, showing how to perform the exercises and practices.
  - **Exams**: set of questions to test the obtained knowledge.

To send results to the instructor.

After student in a previous screen, "student login", registers, introducing a proper user name and the password, the system will present the options given for the units in the different EDIBON areas.

Options: View Theory, Exercises, Guided Practices, Exam, and Send Results.

In "View Theory", the theoretical context of the unit is presented.

In "Exercises" section, several options are listed. Each option corresponds to a practice that the student may undertake. Every option starts a series of questions and exercises that the student has to answer.

"Guided Practices" shows the necessary information for a total and correct development of the practices and experiences to be undertaken with the unit and a detailed explanation of the right procedure to do the practices.

The goal of these questions is to find out whether the student has truly acquired the pursued knowledge or not. A registry is created with the results. This information can be sent to the instructor for further inspection of the results.

As it was mentioned in "Exercises" and "Exam", when the student goes into these sections, it is created a registry with the student's responses, as well as the questions not answered. The system evaluates these answers. This file can be sent to the teacher.
Example of the Student Software

Basic Electronics

1) Selection of the module to study

2) Initial screen

3) Software Options Menu

4) Theory

5) Exercises

6) Guided Practices

7) Exams
Example of the Student Software

**Basic Communications**

1) Selection of the module to study

2) Initial screen

3) Software Options Menu

4) Theory

5) Exercises

6) Guided Practices

7) Exams
Example of the Student Software

Basic Electricity

1) Selection of the application to study

2) Initial screen

3) Software Options Menu

4) Theory

5) Exercises

6) Guided Practices

7) Exams
Example of the Student Software

Basic Mechanics

1) Selection of the module to study

2) Initial screen

3) Software Options Menu

4) Theory

5) Exercises

6) Guided Practices

7) Exams
Example of the Student Software

Basic Fluid Mechanics

1) Selection of the module to study

2) Initial screen

3) Software Options Menu

4) Theory

5) Exercises

6) Guided Practices

7) Exams
Example of the Student Software

Thermodynamics

1) Selection of the unit to study

2) Initial screen

3) Software Options Menu

4) Theory

5) Exercises

6) Guided Practices

7) Exams

*Specifications subject to change without previous notice, due to the convenience of improvements of the product.