DE LORENZO



Didactic Laboratories for **Power Engineering**

KEY NUMBERS

12 Products
86 Practical experiences
90 h Theoretical lessons
43 h Practical lessons

30 STUDENTS

WHO IS FOR

- Electrical engineering
- Power Electronics and Electrical Engineering
- Mechatronics engineering
- Energy and power systems manager
- Industrial maintenance Technician
- Mechatronics Technician in Efficient Electrical Installations
- Electrical Technician
- Mechatronics Technician

Didactic solutions for the future of Power Engineering

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LABORATORY [DL POWENGLAB]

POWER ENGINEERING

Power energy is a fundamental element for industrial and social development, but its production, often tied to non-renewable fossil fuels, faces growing challenges due to the increasing global demand. Efficient management of limited energy resources is essential, especially in a context where electrical systems are becoming more complex and require advanced technologies to integrate renewable sources into future grids. **The courses offered by De Lorenzo, through the use of cutting-edge educational benches, provide a unique opportunity to learn electrical energy engineering. These tools cover all the main stages of the sector: from energy generation to its utilization, as well as transmission, distribution, and system protection. Thanks to the modularity of the benches, which reproduce scaled-down sections of a complete electrical system using industrial-grade equipment, students can experience unparalleled flexibility adaptable to various applications.**

The integrated SCADA platform enables real-time monitoring and control, with software that allows the creation and customization of educational experiments, promoting interactive and targeted learning. The proposed educational pathway starts with the basics of electrical engineering and progresses to advanced network simulations, offering a comprehensive understanding of modern electrical grids.

Thanks to a practical and realistic approach, students develop analytical skills and problem-solving abilities, preparing them to tackle the complexities of today's power supply systems. De Lorenzo's courses provide not only theoretical knowledge but also concrete practical experiences, shaping professionals ready for the future of energy.

POWER GENERATION

DISTRIBUTION

PROTECTION AND MANAGEMENT



LABORATORY [DL POWENGLAB]

POWER ENGINEERING

POWER ENGINEERING PROFESSOR STATION



DL GTUTOT-P

POWER GENERATION



DL GTU101-S

DISTRIBUTION



DL GTU103.1-S

PROTECTION AND MANAGEMENT



DL GTU103.2-S



DL GTU104-S

LABORATORY [DL POWENGLAB]

POWER ENGINEERING

30 STUDENTS

STATION	CODES	EX.	DESCRIPTION	Q.TY	COMPUTER REQUIRED
POWER ENGINEERING PROFESSOR STATION	-	-	PROFESSOR DESK	1	
	-	-	PROFESSOR CHAIR	1	
	-	-	PROFESSOR COMPUTER	1	
	-	-	PRINTER	1	
	-	-	INTERACTIVE WHITEBOARD	1	✓
	DL GTUTOT-S	-	GTU LABORATORY - TRANSMISSION AND DISTRIBUTION OF ELECTRICITY	1	
	DL GTUTOT-P		TOTAL GTU LABORATORY - PROTECTIONS	1	
POWER GENERATION	DL GTU101-S	10	GENERATION: ALTERNATOR AND PARALLEL OPERATION	1	
	DL GTU101-P	10	GENERATION: PROTECTION	1	
DISTRIBUTION	DL GTU102.2-S	13	TRANSMISSION LINES	1	
	DL GTU102.2-P	5	TRANSMISSION LINES PROTECTION	1	
	DL 2108T22	7	DISTANCE PROTECTION	1	
	DL GTU102.3-S	3	BUS BAR	1	
PROTECTION	DL GTU103.1-S	8	CURRENT AND VOLTAGE TRANSFORMERS	1	
	DL GTU103.2-S	7	PROTECTION RELAYS	1	
	DL GTU103A-S	6	GENERATION PROTECTION	1	
	-	5	HV LINE PROTECTION	1	
	DL GTU103C-S	4	TRANSFORMER PROTECTION	1	
MANAGEMENT FURNITURE	DL GTU104-S	8	ENERGY MANAGEMENT	1	
	-	-	STUDENT STOOL	30	

The laboratory proposal can be adjusted to fit clients needs.

MISSION

Educational Innovation for a Sustainable Future

Our mission is to provide cutting-edge educational solutions that equip new generations of technicians and engineers in the renewable energy sector. In a world facing increasingly urgent environmental challenges, De Lorenzo is committed to creating innovative educational laboratories that allow students to gain both practical and theoretical skills in sustainable energy.

By integrating **technology**, **pedagogy**, and **hands-on experience**, our goal is to support the development of cleaner, more efficient energy solutions, contributing to the training of professionals capable of leading the transition toward a sustainable future.

Our VALUES

- PEOPLE
- INNOVATION
- AGE
- TEAMWORK
- QUALITY
- HONESTY AND INTEGRITY
- FLEXIBILITY
- INVOLVEMENTS



LABORATORIES

Shaping the Future, Fueling Innovation

De Lorenzo is a comprehensive provider of **educational services**. Its offerings include laboratories designed to facilitate the transfer of technical knowledge and essential soft skills, such as:

PROBLEM SOLVING **CRITICAL THINKING** **TEAMWORK**

For each discipline, De Lorenzo provides fully **equipped laboratories** with high-quality tools and materials, essential for achieving educational goals.

Tailored Solutions
for Effective Learning

Our setup provides a turnkey, **flexible, and fully customizable solution** to meet any educational need. Whether for small classes or large groups, our labs **can be scaled with the right number of products to ensure an optimal and engaging learning experience.**



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STEPS
for a succesful project



01

Proposal
of the necessary equipment to furnish the laboratory*.

02

Listening
to the client's needs. Definition of the teaching objectives, and analysing the socioeconomic context of the region.

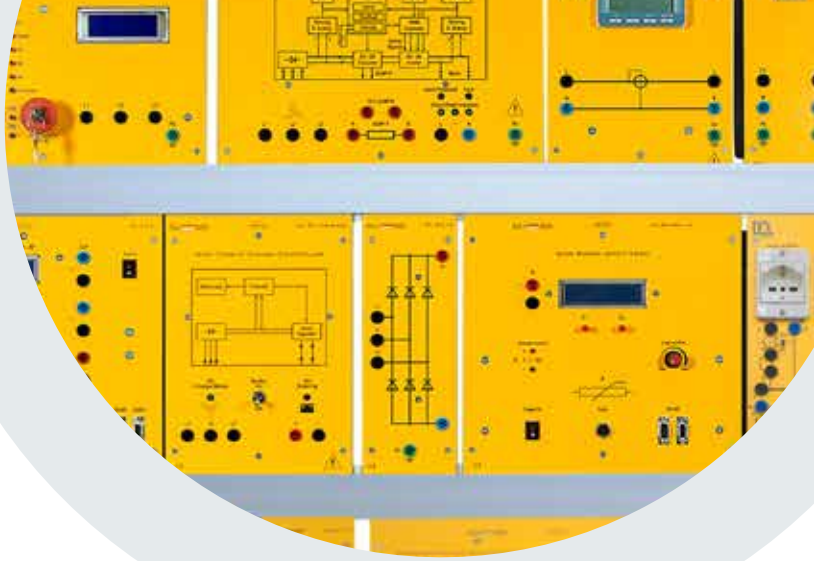
03

Analysis
of the available teaching spaces, pre-existing resources and technical expertise.

04

Definition
of the relevant laboratories to reach the desired teaching objectives.



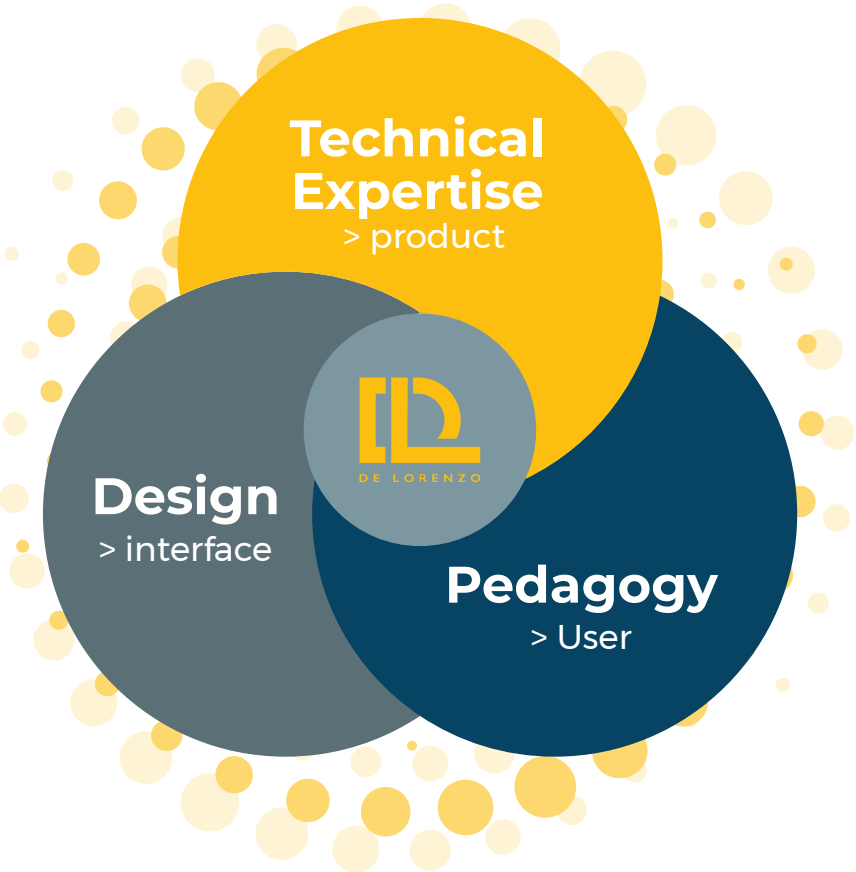


OUR PRODUCTS

Technology that teaches, innovation that inspires

Creating **turnkey educational labs** that boost student engagement and simplify teaching is an integral part of De Lorenzo's DNA. We are committed to the continuous improvement of our products to facilitate both learning and teaching, and to implementing cutting-edge techniques for effective knowledge transfer.

De Lorenzo's products embody a synthesis of **TECHNICAL, PEDAGOGICAL, and DESIGN** expertise. To effectively facilitate knowledge transfer, it is essential to consider all of these aspects. **In the design of educational labs, the elements of interaction between users and product (Design) and between users and subject matter (Pedagogy) are just as crucial as technical knowledge.**





1

TECHNICAL EXPERTISE

Engineering Precision, Boundless Learning

Our products are crafted by passionate technicians and engineers who work to make every essential technology accessible for education in today's society.

De Lorenzo products embody both the **substance of the subjects they teach** and **the tools to teach them**. Technology that demonstrates and teaches itself.

The designers at De Lorenzo understand the challenges faced by students and educators, striving to remove barriers in learning and teaching. This commitment ensures that our products make complex subjects easier to access and understand.



2 DESIGN

Functionality that inspires, aesthetics that engage

The products that compose the De Lorenzo laboratories are educational. Therefore, the interaction between the user and the product is central. For this reason, De Lorenzo products are created in Italy, designed to facilitate the user experience and enhanced by **didactic manuals and software that simplify teachers' work and encourage student learning.**

Colours, international symbology, a clear interface and the ergonomics of the components are just some of the features considered during the design process.

CHARACTERISTICS

- **INSTINCTIVELY COMPREHENSIBLE** Synoptic tables, images and international coding make it easy to find your way around
- **EASY TO USE** Self-explaining
- **FUNCTIONAL** Intuitive: designed to simplify learning
- **RESISTANT** Manufactured in Italy, with high quality raw materials
- **MODULAR** Replaceable, interchangeable, easily repairable
- **COHERENT** Appearance, mode of use, maintenance
- **WITH RELEVANT AESTHETICS** Well-finished aesthetics facilitates attention maintenance
- **SAFE** Product and line safety is guaranteed



3 PEDAGOGY

Maximising the potential of every learner

De Lorenzo develops teaching equipment that integrates fundamental pedagogical principles such as **simulation of real challenges, repetition, imitation and playfulness**. The laboratories support teachers in creating captivating lessons, keeping students' attention high.

The laboratories facilitate the application of these principles, but do not replace the teachers' skills. For this reason, De Lorenzo **trains teachers through its Academy**, enabling them to exploit the products' potential to the fullest, even **creating new experiments** in addition to those in the manuals. In fact, De Lorenzo's products are open and allow the exercises to be extended.

FUNDAMENTAL PEDAGOGICAL PRINCIPLES	
Experience-based learning	✓
Integration of theory and practice	✓
Immediate feedback	✓
Didactic support	✓
Continuous evaluation	✓
Autonomous learning	✓
Collaboration and teamwork	✓
Integration and accessibility	✓
Reflectiveness and critical thinking	✓





4 ACADEMY

From design to autonomy: your educational partner

An environment dedicated to the choice, design and use of teaching laboratories, where theory meets practice, offering students a complete educational experience.

A team of professionals who solve the problems of consultants and teachers daily will provide you with a 360° view of the potential of the products to create high-level teaching, making you autonomous in their exploitation.

A team that has gained experience and skills over the years in national and international design, production, and consultancy will explain to you how to choose laboratories, optimise resources, and didactically use the product for the transfer of technical knowledge.

KEY NUMBERS

- 106 hours of training per year
- 16 courses per year
- 5 Trainers in HQ
- 12 Trainers on-site
- 70 countries of origin of trainees
- Courses available in 5 languages

WHO IT IS ADDRESSED TO

- Professors
- Educational consultants
- Resellers
- HR development managers
- Ministers

Experience the
Future of Education.
Let's Talk About
Your Project!

DE LORENZO

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