




JAC

JOBSACADEMY

FONDAZIONE



About us

JAC
JOBS ACADEMY
FONDAZIONE

Jobs Academy is an ITS, Higher Technical Institute, a vocational alternative to university courses.

JAC trains highly skilled technicians in strategic **technological areas**, thanks to a partnership with **over 2500 companies**, who work alongside JAC every day developing and transferring skills in our courses.

The mission at Jobs Academy is to **foster and accompany the growth of each individual**, putting their personality and attitudes at the centre of every educational-organizational choice.

“OUR WORK ENDS WHEN YOURS BEGINS” (Founder, Daniele Nembrini)

Software Area

Web Development ▼

Cloud Development ▼

AI-Integrated Web Development ▼

IT systems management ▼

Cyber Security ▼

Business Software Consultancy ▼

Technical Area

Mechatronics and Integrated Systems 4.0 ▼

Design experience & Digital communication ▼

Design and Materials Technology ▼

Design and 3D Modelling ▼

Mechatronics and Industrial Automation 4.0 ▼

Design Area

Digital Painting and Comics

Business Area

Finance, Banking and Insurance ✓

Economics and Management Control ✓

HR Management ✓

Green Area

Building And Energy District Management ✓

Sustainable construction ✓

Energy and innovation ✓

Marketing Area

International Marketing Management

Customer Management

Marketing for Art and Cultural Heritage

Store Management

International Tourism & Digital marketing strategies

Digital Marketing & social media

Marketing & Sales

PLC applications in Mechatronics Start-ups

**A new way to inspire ITS students to get into green start-up's universe
with the most requested hard-skill in mechatronics field**

Project Goals

- Design and develop a concept of a PLC-based project
- Include innovative ideas and use-cases
- Use new, smart and sustainable technological components to automate the process
- Safety logics to run the process as smoothly as possible
- Try to contribute to environmental sustainability, ensuring a positive impact on the planet
- Learn how to do SWOT analysis and Market Researches
- Provide a 4.0 and IoT interconnection and infrastructure

Micro-Course

The micro-course was taught by a Teacher that works specifically with 4.0 technologies to improve:

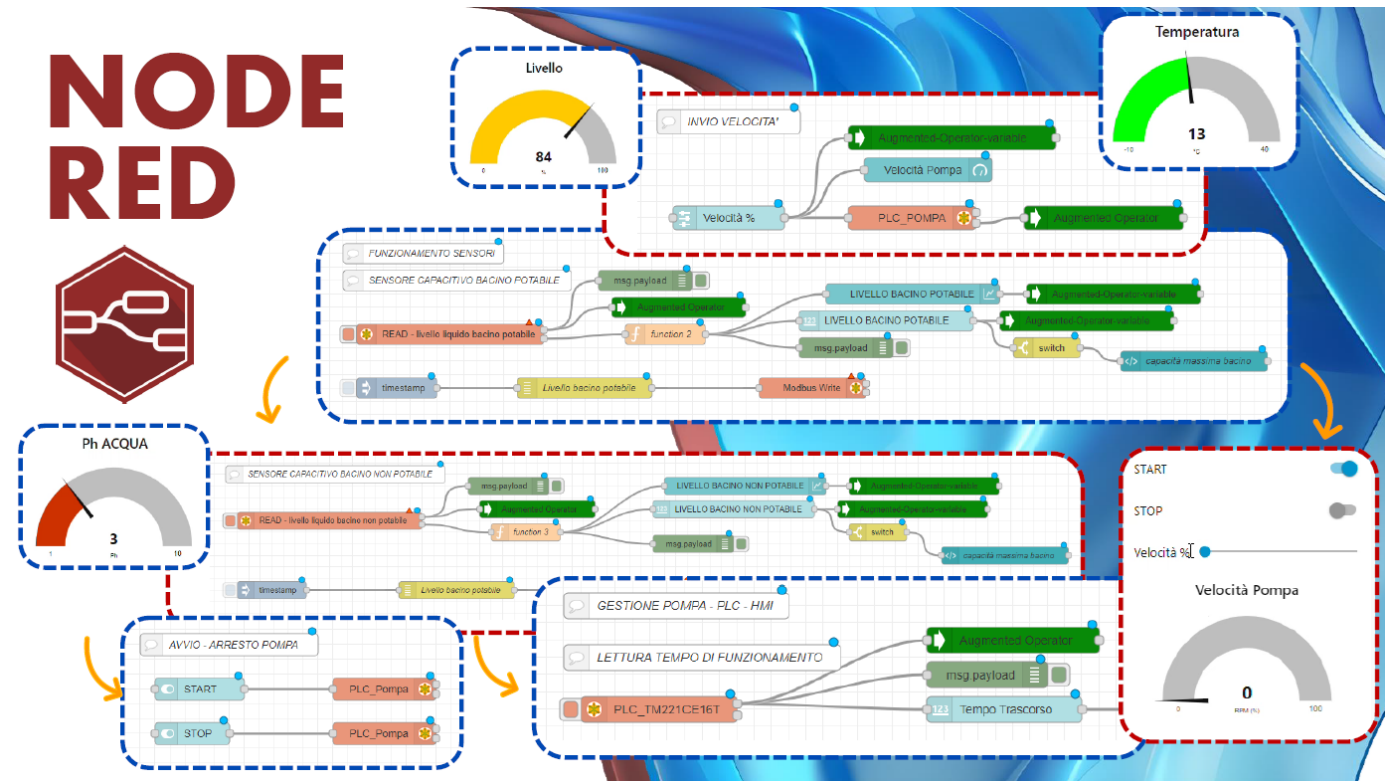
- Knowledge of new-technology sensors
- Integration with 4.0 and IoT technologies
- Creating infrastructures to connect new and old machinery



Challenges

Students had to face many challenges, including (but not limited to):

- Choosing an idea that would be economically sustainable
- Study what the demand of the product would be
- Study potential application in different fields
- Search for Key Competitors and define how to differentiate
- Implement 4.0 and IoT technologies



Project Ideas and Required Skills

Each project's aim was to develop a **start-up** idea that would be created using technologies and component provided by Schneider Electric.

To create those projects, students had to apply a wide range of hard and soft skills acquired during 2 years of ITS educations.

Some of them are:

- 3D Modelling with SolidWorks or CREO
- Presentation design
- Market Research
- Team Work and communication



Hard Skills Developed through Micro-Courses

This has been an opportunity for the students to apply what they have learnt during the micro-course.

Especially:

- Advanced PLC programming with specific structures
- IoT implementations, as well as 4.0 technologies
- Safety logics
- New Sensors and component usage and integration

The image shows a screenshot of a PLC ladder logic program. At the top, a green box highlights 'LD Rung0' and 'Corpo rung'. A callout box points to the logic with the text 'Assegnazione dei PARAMETRI DI ANALISI dell'acqua'. Below this, a list of parameters is shown: 1 - QUALITA', 2 - CONTROLLO LIVELLI, 3 - CONTROLLO TEMPERATURA, and 4 - LOGICA. The main ladder logic consists of three rungs: 'CONTROLLO LIVELLO BACINO', 'CONTROLLO LIVELLO AP', and 'CONTROLLO LIVELLO ANP'. A callout box points to the first rung with the text 'Integrazione dei dati rilevati dai SENSORI CAPACITIVI per il livello dell'acqua nei 3 serbatoi'. The Schneider logo is visible in the bottom right corner of the screenshot.

DEFINIZIONE PARAMETRO ANALISI Commento

LD Rung0
Corpo rung

Assegnazione dei **PARAMETRI DI ANALISI** dell'acqua

- > 1 - QUALITA'
- > 2 - CONTROLLO LIVELLI
- > 3 - CONTROLLO TEMPERATURA
- > 4 - LOGICA

La nostra AUTOMAZIONE

CONTROLLO LIVELLO BACINO Commento

LD Rung0
Corpo rung

CONTROLLO LIVELLO AP Commento

LD Rung1
Corpo rung

CONTROLLO LIVELLO ANP Commento

LD Rung2
Corpo rung

Integrazione dei dati rilevati dai **SENSORI CAPACITIVI** per il livello dell'acqua nei 3 serbatoi

Schneider

Thank you for your attention!



VETPROFIT



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