
colasse
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on JUNIA's Lille campus

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The needs of the ADIMAKER university programme

The Catholic University of Lille hosts on its campus an engineering school called JUNIA. This academy for transitions works on the biggest current challenges: feeding the planet, establishing the digital and industrial transformation, accelerating the transitions in energy and the urban environment, supporting technologies for health and well-being. It consists of a group of schools in general, electronic, digital, agricultural and agrifood engineering.

JUNIA offers an ADIMAKER preparatory class, an innovative 2-year course accessible after the Baccalaureate. This allows you to acquire the fundamentals you need to start your engineering studies. Students who have just got their baccalaureate can thus prepare for it by focusing their efforts on practical achievements within the framework of the biology program. This involves, among other things, growing plants out of the ground under varying levels of nutrients and light.

The ADIMAKER programme had no horticultural cultivation tools, which take up little space while being modular and easy to move.

Three turnkey facilities to strengthen students' know-how

Colasse quickly responded to JUNIA's call. Three VEGELED cultivation wagonsTM were fitted out by Colasse and installed in university buildings. Two are multi-spectral and the third one uses white light. They have been operational since February 2020 and are relatively autonomous, thanks to a Green House Keeper monitoring system, which allows experiments to be started under various growing conditions without having to ensure sustained face-to-face monitoring of the students.

These cultivation wagons can specifically be used as a basis for research projects in the field of "smart farming", which consists of optimising the profitability of farms while reducing the drudgery of certain activities while also reducing the environmental footprint.

LED offering combining modularity and eco-friendliness

Colasse first prepared a study to determine the type and number of LED lights needed to optimise the illumination conditions of the growing wagons, while complying with JUNIA's specific criteria. Colasse then supplied and installed, with the help of GHK, the proposed lighting device.

The major criteria taken into account were ease of use, autonomy, intelligent management of light, modularity of the wagons and their ability to change over time, based on the students' observations. Currently, the wagons are controlled in a basic way, setting the light level and the «fertigation», to play with the plants' nutrient requirements. Other more advanced options, such as modulation of the light spectrum, are available for later improvements.

The challenge: Colasse meets the needs of academic training

From now on, JUNIA students will benefit from three experimental urban agriculture installations, fitted with an optimised lighting system:
- their presence is not continuously required to ensure proper monitoring of their tests, thanks to the modularity of the wagons and their smart management. This advantage was widely appreciated during the pandemic. This way, the restrictions on access to the premises did not prevent the experiments from being performed;
- a varied palette of experiences has been made possible. Three different experiments can thus be performed using Colasse's custom-made equipment, three groups of students working in parallel.

Benjamin Legrand, Project Manager in Urban Agriculture at JUNIA, says: “Thanks to these wagons equipped with LED lighting, our students can familiarise themselves with the developmental conditions of soilless crops, using an innovative tool. Our ambition is to inculcate in them the fibre of agronomy and to give them the desire to grow their learning even more. By providing us with the equipment needed to achieve this, we can confidently state that Colasse is emerging as a real partner of our future-oriented academic training.»

JUNIA

- school of transitions, which aims to contribute to major challenges: feeding the planet, establishing the digital and industrial transformation, accelerating the transitions in energy and the urban environment, supporting the technologies

- more than 40 scientific areas in the engineering of health and well-being.

- more than 4,000 students

- has 3 campuses in France (Bordeaux, Châteauroux, Lille) and 1 in Morocco (Rabat)

- for more information: https://www.junia.com/

colasse

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