SUSTAINABLE DEVELOPMENT GOALS

Intelligent Irrigation System based on the IOT for monitoring irrigation of green areas in the District Municipality of Lurín

This project was developed by students of the Systems Engineering Program for Working Adults (EPE) in 2021, and consisted of providing an intelligent irrigation system for the Municipality of Lurín.

In this autonomous irrigation system, which is based on the Internet of Things (IoT), hardware and software elements were used to implement Wireless Sensor Networks (WSN) that allow obtaining information on climatic variables such as soil humidity, ambient temperature, rainfall, etc. Depending on these values, the necessary irrigation in parks and green areas of the district was carried out, thus reducing the use of drinking water during irrigation.

Document Digitalization Service

Since January 1, 2021, UPC's Knowledge Management Department has contributed to the document digitization service in the four campuses: Monterrico, Villa, San Isidro and San Miguel.

The new global environment resulting from the COVID-19 pandemic led to the acceleration of the digital transformation of companies as part of the mechanisms of adaptation to and survival in the face of this new normality in order to have the ability to break generational paradigms of thought and, at the same time, ensure that said growth has a social and sustainable approach.

This project was carried out in order to support students working on their thesis project in the preparation of their research work, and faculty members for academic purposes in accordance with the Copyright Law (Legislative Decree 822). In addition, a digitalization service was offered for book chapters and papers that are part of the printed collection of the library and are not available in electronic or digital version.

Access to Digital Bibliography from the “2021 Virtual Classroom”

From January 1, 2021, UPC’s Knowledge Management Department ensured access to the digital mandatory bibliography from the Virtual Classroom.

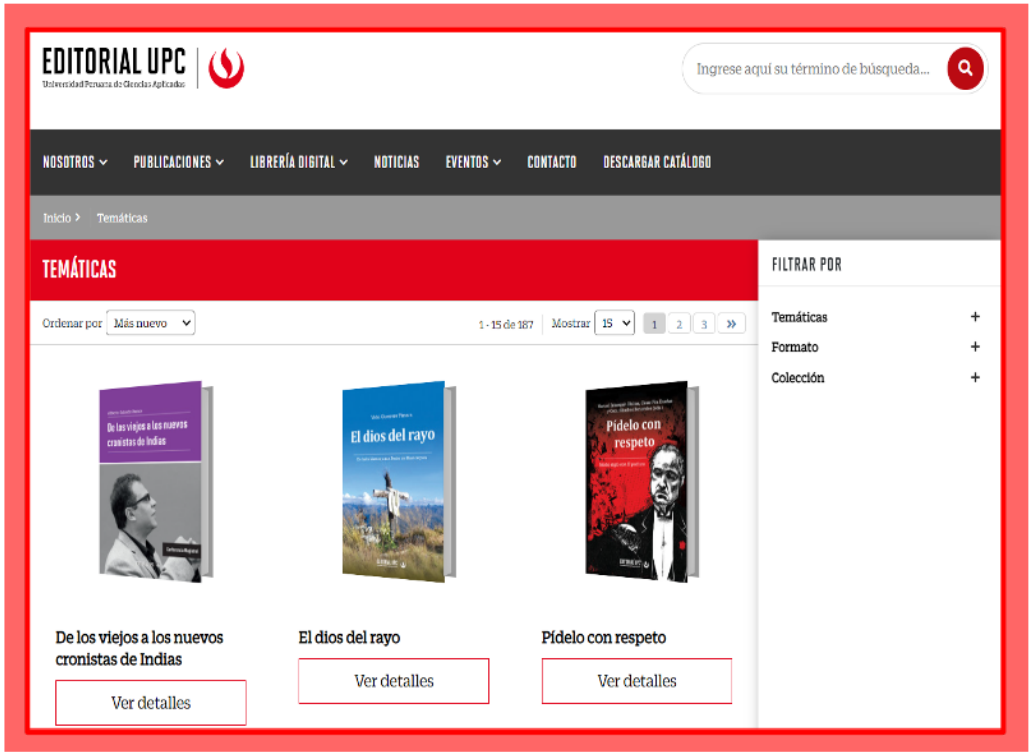
As for the titles listed in the e-Bibliography, books, journals, papers, newspapers, thesis projects, etc. can be accessed from the Virtual Classroom. All of these sources were organized in three sections: learning units, basic bibliography and complementary bibliography of the courses in coordination with the academic programs for the exclusive use of all the students of the university community.

One of the main objectives of the UPC Library System was to ensure access and availability of the bibliography or academic support material for each of the courses in the curriculum of the programs taught at the university.

“Print on Demand” Initiative

On December 1, 2021, UPC’s Knowledge Management Department launched an initiative to contribute to caring for the environment.

The books published by UPC were uploaded to the platform of a distributor (Bibliomanager) that is connected with bookstores and printers in Peru and other countries with the aim of optimizing the circulation of the books, printing only the copies that are in high demand. In this way, the unnecessary use of supplies such as paper, ink, etc. was avoided.

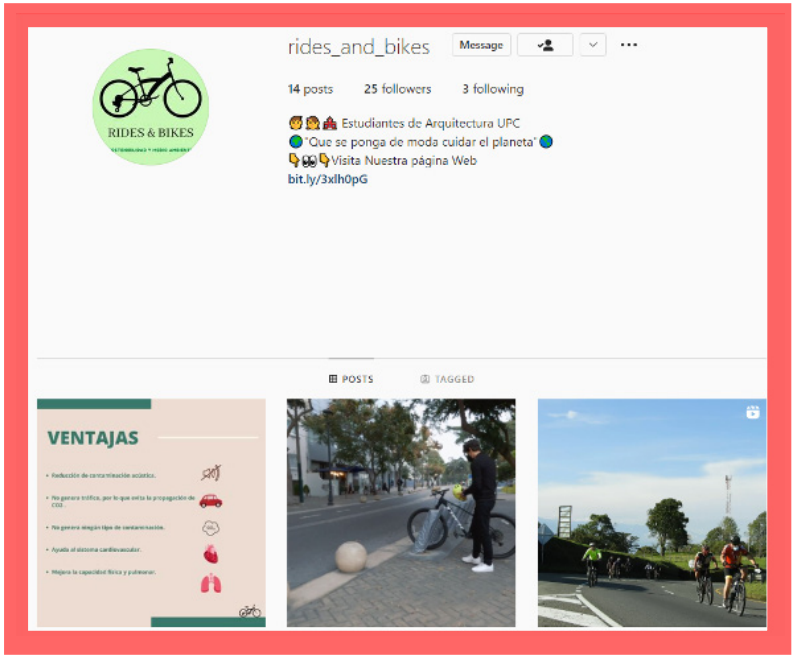


Environmental Awareness Campaign

Architecture students from the three UPC campuses carried out an environmental awareness campaign in December 2021.

A team of students, organized in groups of 6 students, designed campaigns such as the use of bicycles, the reduction of the carbon footprint, the implementation of orchards, etc.

with the aim of generating a series of campaigns on sustainable initiatives and disseminating them through social networks and other media.



Model of an Early Warning System for Rain in the District of Chosica

This project was proposed by students of UPC's Software Engineering Program in 2021, because the citizens in the stream of the District of Chosica were affected by heavy rainfall causing natural disasters.

This early warning system (SAT) is a technology that is part of the concept of the Internet of Things and seeks to pool resources for better efficiency in data processing that allows timely and early preparation of the community in the face of a possible natural disaster to reduce the impact of material damages or avoid loss of human lives.