

Delta Lab

Is a research laboratory located at the Electromechanical Engineering Faculty at Tecnológico de Costa Rica, Cartago Campus. It's objective is to provide a space where researchers from Tecnológico de Costa Rica can work on their projects within a multidisciplinary environment.

Fields currently being worked on include IoT, Industry 4.0, Automation, Additive Manufacturing, Plasma and Material Sciences.

Active projects:

Three-phase compressor monitoring and cloud uploading firmware with ESP32 (Erick Quirós Gómez)

Falta la descripción [More information](#)

LoRa based control and logging IoT system for acueduct ASADA-Sámara (Sergio Solórzano Alfaro)

This project presents the implementation of Internet of Things (IoT) technologies as a key tool in the compilation of water data that will be input for the management of water resources for the main aqueduct of ASADA. The intercommunication of Arad Octave hydro metering devices, liquid level sensors on main tank and the electrical control for pump station was proposed, through the use of a LoRaWAN network and the MQTT communication protocol for remote operation and data publication on the IoT Adafruit IO platform.

[More information](#)

ESP32 based embedded logger and cloud uploader for wind turbine efficiency data for LIENE (Nestor Martinez Soto)

Development of a low-cost system for wind turbine efficiency data gathering and logging. It shall allow the Wind Energy Research Lab (LIENE) log and visualize operation data, which increases it's capabilities for future projects. [More information](#)

Modification of a CubePro Trio to implement a Duet Wifi 2 and Dyzedesign extruders (Jairo Rodríguez Blanco & Jeroen van Hoof Gómez)

Falta la descripción [More information](#)

Modular support structure for superconductor coils | Phase II (Carlos Otárola Zúñiga)

Falta la descripción [More information](#)

Acetona Maite

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Members

Faculty



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| M Eng. Carlos Otárola Zúñiga | PhD. Eng. Juan José Rojas Hernández |
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Assistants

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