General Description

This document provides an overview of the sections and offices in the CT-XIII building, a three-story facility that houses classrooms and specialized research areas dedicated to multiple engineering disciplines.

Human Centered System Laboratory (HCS)

The Human Centered System Laboratory (HCS) focuses on research in rehabilitation and human-assistance robotics. It is equipped with high-performance workstations, a dedicated device charging station, and a prototyping area that includes 3D printing capabilities for robotic components and materials for developing embedded electronic systems.

The laboratory also houses a battery bank used to charge the NIRA robot and the SmartWalker, two key projects under development.

The HCS is directed by Professor Anselmo Frizera Neto, and the research team includes:

Postdoctoral Researcher: Fabian Machado.

Master's Students: Matheus Penido, Elio Triana, Igor Batista, and Gabriel Rodrigues.

Undergraduate Students: Duda Mattos, Mariana Godoy, Sergio Junior, and Weslley das Neves.

Workspaces within the laboratory are organized as follows:

Desk 1: Elio Triana.

Desk 2: Matheus Penido.

Desk 3: Fabian Machado.

Desk 4: Weslley das Neves.

Desk 5: Mariana Godoy.

Desk 6: Gabriel Rodrigues.

Desk 7: Sergio Junior.

This structured layout promotes collaboration while providing each team member with a dedicated workspace for their research activities.

Main Corridor

The Main Corridor serves as the central connection point for various facilities and offices within the building. It features an emergency exit at the northern end and access to rooms numbered 1 through 7. Key infrastructure elements are strategically placed along the corridor, such as:

Electric and Network Panels: Located on the northern wall, containing circuit breakers and internet/telephone cables.

Trash Bins: Positioned to encourage cleanliness.

Water Dispensers: Two dispensers provide easy access to drinking water or bottle refilling.

Facilities accessible via the Main Corridor include:

Room 1: Secretariat for the computing area, staffed by Thiago Oliveira dos Santos.

Room 2: A classroom dedicated to computing and robotics students.

Room 3: Storage area for equipment belonging to the High-Performance Computing Laboratory (LCAD).

Room 4: Conference room.

Room 5: Main workspace for LCAD researchers.

Room 6: Human Centered System Laboratory (HCS).

Room 7: Meeting room for LCAD.

The Main corridor is further enhanced by a Wi-Fi access point located centrally, ensuring fast wireless internet for students and staff. Power outlets are distributed along the walls for general use. A fire alarm is installed near the main entrance for emergencies, while a maintenance room at the far end houses tools like hammers, screwdrivers, and other essentials.

The Registration Desk, located within the Main Corridor, serves as a central hub for managing visitor logs and event schedules. During academic conferences and meetings, Professor Thiago Oliveira dos Santos, the General Area Coordinator, is often found here. He is responsible for organizing action calendars and ensuring smooth coordination of activities, making the Registration Desk a key location for event management and information during such occasions.

High-Performance Computing Laboratory (LCAD)

The High-Performance Computing Laboratory (LCAD) is dedicated to advanced computational research, including deep learning, natural language processing, and

probabilistic robotics. The High-Performance Computing Laboratory (LCAD) flagship projects are:

Robot named IARA: An autonomous robot designed for real-world navigation.

Robot named Hercules: A robotic vehicle equipped with a manipulative robotic arm.

Robot named Argos: A quadrupedal robot resembling a small dog.

The main workspace, known as the High-Performance Computing Laboratory Main Room, is where students actively work on these projects. This space is equipped with high-performance workstations, equipment storage, and areas for programming and testing robotic systems. Students such as Guilherme Zanetti, Lucas Luppi, and Breno Angelo can typically be found in this room, collaborating on their research and assignments.

Alberto Ferreira, one of LCAD's leading researchers specializing in artificial general intelligence, is primarily based in the High-Performance Computing Laboratory Main Room but frequently uses the High-Performance Computing Laboratory Meeting Room for focused discussions, project reviews, and collaborative sessions.

These defined spaces within the LCAD ensure an organized environment that supports both individual and team-based research activities.

Cafeteria Area

The Cafeteria Area, located in the southwest section of the building, offers a comfortable environment for relaxation and social interaction. It features:

Washing Station: For cleaning meal kits and utensils.

Seating Area: Tables and chairs for shared use, suitable for meals, casual discussions, or informal work.

Refrigerator: For storing perishable items.

Despite lacking a coffee maker, the cafeteria provides an ideal spot for rest and collaboration among students, researchers, and visitors.

Hallway to Bathrooms

The Hallway to Bathrooms, situated in the southern section of the CT-XIII building, connects the Main Corridor to restroom facilities. It includes:

Accessible Bathrooms: Separate male and female restrooms equipped for individuals with disabilities.

Water Tank Room: Houses the supply system for the restrooms.

Clear signage ensures accessibility and convenience for all users.

Southwest Lobby

The Southwest Lobby serves as the primary entrance to the building. It includes:

An emergency kit for fire incidents.

The main alarm control panel, managing the building’s security system.

The electrical and connections control panel, overseeing general utilities.

This lobby is a central hub for safety and operational management.

In the Southwest Lobby near to main entrance, the Information Desk, managed by Nuno Boscaglia, serves as the first point of contact for students and visitors. It provides guidance, along with informational fliers and brochures to help navigate the building and its activities.

Southeast Lobby

The Southeast Lobby, complementary to the Southwest Lobby, provides:

Storage for cleaning equipment.

Stairs to the building's second floor.

An elevator for individuals with mobility challenges or maintenance personnel.

The Southeast Lobby connects seamlessly to the Main Corridor and Southwest Lobby, ensuring smooth movement throughout the building.