The **Software/Hardware Integration Lab (LISHA)** was founded in 1985 to promote research in the frontiers between hardware and software. Since then, it has dedicated considerable efforts to research in areas such as *computer architecture*, *operating systems*, *computer networks* and the related *applications*. Currently, the laboratory focuses on innovative techniques and tools to support the development of *embedded systems*.

LISHA is part of the recently created EMBRAPII Institute for Mobility Technologies (MOVE).

LISHA is part of EMBRAPII MOVE

SBESC 2021 and LADC 2021

LISHA hosted SBESC 2021 and LADC 2021, the reference conferences of Computer Engineering and Dependability in Latin America.
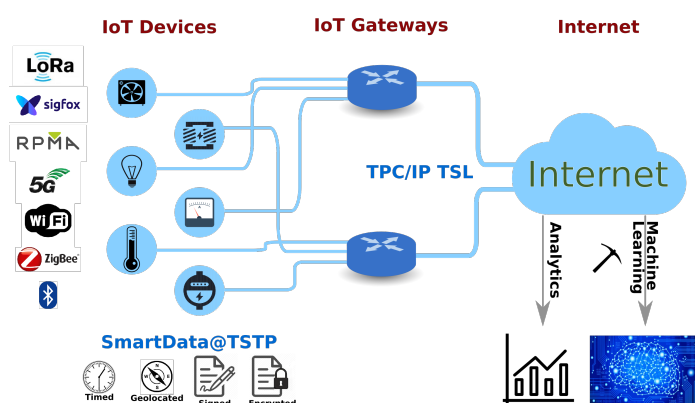
A new version of OpenEPOS has been released! Check the new features.

Open EPOS 2.2 IoT Platform

LISHA's IoT Platform now supports dozens of research projects. For further information about how to join it, please check this link.

SmartData

A new version of LISHA's IoT Platform based on SmartData and the Trustfull Space-Time Protocol(TSTP) is now available!

SmartX

LISHA's CPS Management Platform is now fully integrated with the IoT Platform, adding features such as defect tracking, logging, geolocation, and service ticketing.

LISHA is a founding member of UFSC's Research Center for Cyber-physical Systems Security (SecCPS).

LISHA is part of SecCPS LISHA, mobway, Bosch, Renault, and Stellantis for Automotive Big Data

LISHA, mobway, Bosch, Renault, and Stellantis are working together in the area of secure Automotive Big Data infrastructures to aggregate and process large volumes of data from various sources related to connected vehicles and supporting application scenarios involving Artificial Intelligence and data analysis tools.

LISHA, Intelbras, and Yak for Vehicles@5G

LISHA, Intelbras, and Yak are working together on the utilization of low-level 5G protocols for vehicular telemetry and supervision within the paradigm of the Internet of Things (IoT). Access the project page for more info.

OBNZip

LISHA and LVA are working together to make Ocean Bottom Nodes more intelligent. We will build a multidisciplinary team to develop advanced compression algorithms and machine learning models to handle submarine seismic signals. Check the open positions and join us on this journey.

Rota 2030 with Renault

LISHA and Renault are joining forces to develop innovative solutions for the automotive industry in the realm of Program Rota 2030. Prof. Giovani Gracioli will lead a team of experts at LISHA on the pursuit of an Intelligent Data Acquisition and Analysis System for Automotive Controllers.

MCTIC's IA² Program

LISHA is now part of MCTIC's IA² Program. Prof. Gustavo Medeiros de Araújo will be working together with accelerators HARDS and DARWIN and SOFTEX to support startups while innovating with AI solutions to real problems.