

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*.

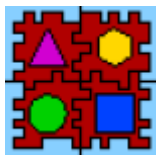


LISHA is part of **EMBRAP II MOVE**

LISHA is part of the recently created **EMBRAP II Institute for Mobility Technologies (MOVE)**.

**SBESC 2021** and **LADC 2021**

LISHA hosted **SBESC 2021** and **LADC 2021**, the reference conferences of Computer Engineering and Dependability in Latin America.



**OpenEPOS 2.2**

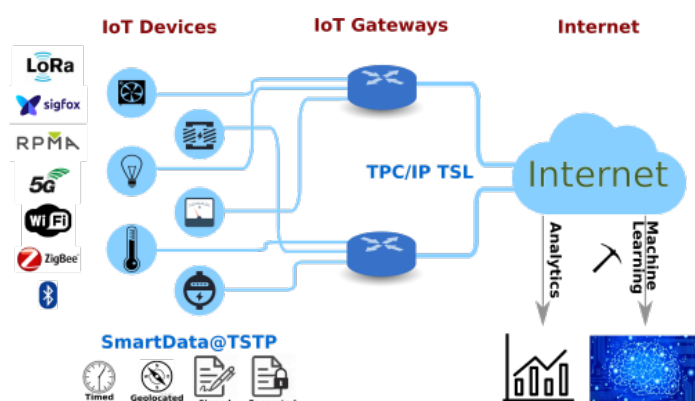
A new version of OpenEPOS has been released! Check the [new features](#).

**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!



<H  
R>



LISHA is part of **SecCPS**

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

**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.



## 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 and AQTech for Smart Energy

LISHA and [AQTech](#) are working together to make hydroelectric power generators more intelligent. [Prof. Fröhlich](#) will lead a multidisciplinary team to develop advanced tools for predictive maintenance of large hydroelectric generators. [Read more ...](#)

## MCTIC's IA<sup>2</sup> Program

LISHA is now part of [MCTIC's IA<sup>2</sup> 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.