

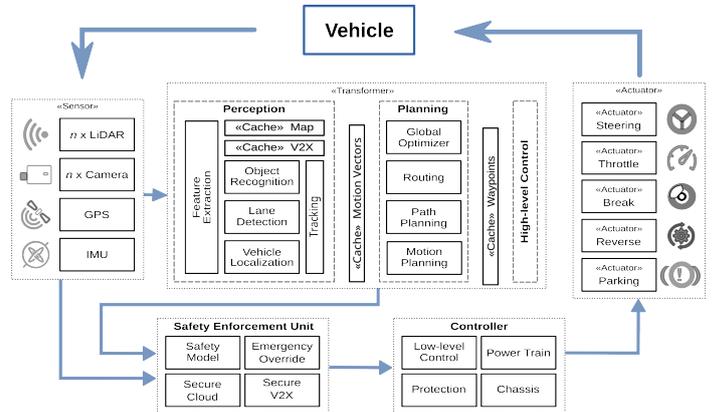
**We are hiring! Check the positions currently open [here](#) and [here](#)!**

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*.

**Check out our newest achievements in Autonomous Vehicles research with [SmartData on Wheels](#):**

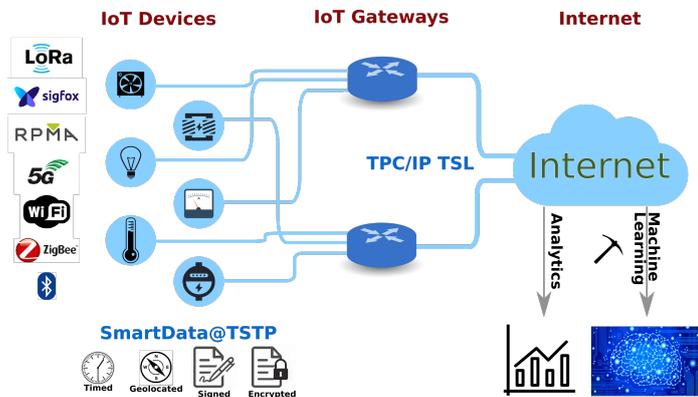
 LISHA is part of the recently created **EMBRAPII Institute for Mobility Technologies (MOVE)**.

LISHA is part of **EMBRAPII MOVE**. A new version of **OpenEPOS** has been released! Check the **new features**.  
**OpenEPOS 2.2 SmartData and IoT**



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

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



## 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. Giovanni Gracioli** will lead a team of experts at LISHA on the pursuit of an **Intelligent Data Acquisition and Analysis System for Automotive Controllers**. Check the [project page](#) for more.

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

**UFSC SecCPS LISHA**

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

**SecCPS** 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. Check the [project page](#) for more info.



## 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. Access [project page](#) for more info. Check the [open positions](#) and join us on this journey.

## 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.

## 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.