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 **EMBRAPII MOVE**

LISHA is part of the recently created EMBRAPPI 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!

**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 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.