

# Prof. Antônio Augusto Fröhlich



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## Profession

- Full professor at the [Computer Science Department \(INE\)](#) of the [Federal University of Santa Catarina \(UFSC\)](#)
- Head of the [Software/Hardware Integration Lab \(LISHA\)](#) at UFSC
- Curriculum vitae: [ORCID](#), [Lattes](#), [LinkedIn](#), [Research Gate](#), [DBLP](#)

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## Teaching Activities

### Programs

- [Undergraduate in Computer Science](#)
- [Graduate in Computer Science](#)
- [Graduate in Automation and Systems Engineering](#)

### Lectures

- [Autonomous Embedded Systems I and II](#)
- [Industrial and Vehicular Networks](#)
- [\[\[Cyber-Physical Systems\]](#)
- [Embedded Systems Laboratory](#)
- [Dedicated Operating Systems](#)
- [Software/Hardware Integration](#)

### Former Lectures

- [Software Component Engineering](#)
- [Object-Oriented Programming](#)
- [System Programming](#)
- [Operating Systems](#)
- [Computational Biology \(parallel programming\)](#)

### Supervision

- [Information for applicants](#)
- [Current students](#)
- [Former students](#)

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## Research Activities

### Research Topics

- [IoT](#)
- [Embedded Systems](#)
- [Operating Systems](#)

[Publications&author=Fröhlich\[full list\]\)](#)

## Projects

- [AutoDL — Secure and Privacy-Aware Data Lake for Vehicle Data Storage and Processing](#) (2024-2027): Rota 2030
- [Auto5G — Intelligent Vehicle Telemetry and Supervision System](#) (2023-2026): Rota 2030
- [IASE — Intelligent Acquisition and Analysis System for ECUs](#) (2021-2025): Rota 2030
- [SDAV — SmartData for Autonomous Systems](#)
- [OBNZip — Intelligent Seismic Data Compressor for OBNs](#) (2022-2026): Petrobrás/ANP

## Former Research Projects

- [SmartData IoT Platform](#) (2017- )
- [EPOS: Embedded Parallel Operating System](#) (1997 - )
- [Smart Solar Building](#) (2009 - 2013)
- [Hidrologic Sensor Network](#) (2009 - 2015)
- [RH-TVD: Special Graduate Program for Digital TV](#) (2009 - 2012): CAPES
  - ICs, Hardware and Firmware for DTV
  - DSP and Embedded Systems
- [Rede ALTATV: an Open, Free, Scalable Set-top Box Architecture for DTV and IPTV](#) (2009 - 2010): CTIC
- [eSDR: Embedded Software-defined Radio](#) (2009 - 2010): Dígitro
- [Rede H.264 SBTVD](#) (2008 - 2010): FINEP
- [H.264 Encoder: Design and Implementation of a H.264 Encoder for the ISDTV](#) (2008 - 2010): FINEP/CiaNET
- [IPTV STB: Design and Implementation of a Set-top Box for IPTV](#) (2008 - 2009): FAPESC
- [UnderNET: Underground Energy Distribution Network Monitoring System](#) (2007 - 2008): ANEEL/CELESC
- [SAM: Layered Scalable Video Codec](#)(2006 - 2008): FINEP
- [PMM: Modular Multimedia Platform](#) (2006 - 2008): FINEP
- [PDSCE: Embedded System Development Platform](#) (2005 - 2007): FINEP
- [SBTVD: Brazilian Digital Television System](#)
  - [MIDIASUL: Transport Layer](#) (2005 - 2006): FINEP
  - [CODECSUL: Scalable Codec](#) (2005 - 2006): FINEP
- [I2TV: Interactive TV for Internet2](#) (2002 - 2004): CNPq
- [SNOW: Scalable Network of Workstations](#) (2001 - 2004): CNPq / BMBF
- [ParaBioInfo: Parallel Applications in Bioinformatics](#)(2003 - 2004): CNPq
- [AutoFlash: Software Update in Automobiles](#) (2002 - 2003): FAU
- [Centro Integrado Multidisciplinar de Pesquisas em Bioinformática de Santa Catarina](#) (2002 - 2003): CNPq
- [DESS: Software Development Process for Real-time Embedded Software Systems](#) (1999 - 2001): ITEA/BMBF
- [Application-Oriented System Design](#) (1997 - 2001): UFSC /CAPES/GMD-FIRST
- [Aboelha: a Nano-kernel to Support Dynamic Parallel Objects](#) (1993 - 1996)
- [Pyxis: a Distributed File System](#) (1992-1994): CNPq
- [3D Visualization of Magnetic Markers in Noninvasive Gastrointestinal Transit Monitoring](#) (1992): PTB / DAAD

Publications ([bibtex](#), [[http://www.lisha.ufsc.br/pub/index.php?title=Prof. Fröhlich's](http://www.lisha.ufsc.br/pub/index.php?title=Prof.Fröhlich's) ---

## Contact

UFSC/CTC/LISHA ([map](#))

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## Personal Page

- <http://www.lisha.ufsc.br/~guto/personal/>