



# Prof. Dr.-Ing. Raphael Guerra

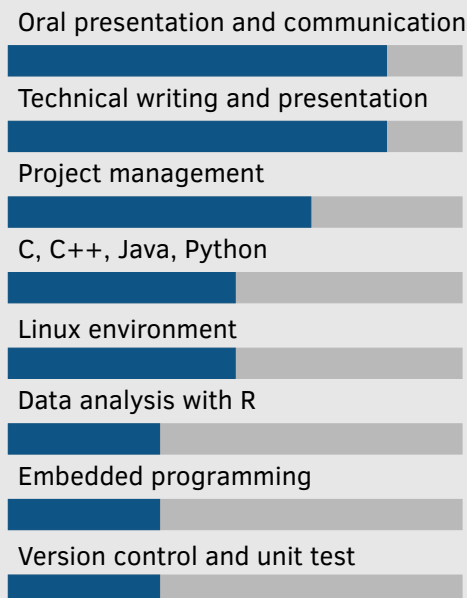
Assoc. Professor (Tenure)

- Born on 19 May 1983, Brazil
- Maricá, Rio de Janeiro, Brazil
- +55 21 9 7169 4633
- [linkedin.com/in/raphaelguerra/](https://www.linkedin.com/in/raphaelguerra/)  
[www.ic.uff.br/~rguerra](http://www.ic.uff.br/~rguerra)
- [rguerra@ic.uff.br](mailto:rguerra@ic.uff.br)
- Needs visa to work abroad

## About me

Prof. Dr.-Ing. Raphael Guerra is currently a Tenured Associate Professor at the Institute of Computing at Universidade Federal Fluminense, Niterói/RJ, Brazil. His active research areas and topics of interest include resource management, real-time scheduling and distributed embedded systems for IoT and unmanned vehicles. Teaching focuses mainly on computer architecture, operating systems, computer networks, structured and object-oriented programming, data structures and distributed embedded systems (IoT).

## Skills



## Education

- 2007-2011 Ph.D. Summa Cum Laude *Technische Universität Kaiserslautern, Germany*  
Major: Electrical and Computer Engineering  
Field: Embedded Real-Time Systems
- 2005-2006 Master's Degree *Universidade Federal Fluminense, Brazil*  
Major: Computer Science  
Field: Parallel and Distributed Systems
- 2001-2004 Bachelor's Degree *Universidade Federal Fluminense, Brazil*  
Major: Computer Science

## Work Experience

- 2012-today Professor *Universidade Federal Fluminense, Brazil*
  - Research proposal, coordination, management and review;
  - Scientific conference organization (100+ attendees);
  - Course administration and curriculum chart planning;
  - Work on unmanned vehicles, environment monitoring with wireless sensor networks, and embedded programming education.
- 2007-2012 Research Assistant *Technische Universität Kaiserslautern, Germany*
  - Project management with academic and industrial EU partners;
  - Development of simulation tools in Java and C for real-time task scheduling using mixed-integer linear programming and other optimization techniques. Statistical performance analysis with R.
- 2003-2006 Research Assistant *Universidade Federal Fluminense, Brazil*
  - Development of an event-driven simulator in C to model the power consumption management of heterogeneous web server clusters.

## Project Management Experience

- Coordinator Routed Autonomous Flights — Resource Management in Real-Time Embedded Systems — OSIRIS  
Write the proposal and define goals; design system architecture; build and lead small work groups; keep track of tasks' progress and deadlines; budget administration; technical reports.
- Collaborator Atobá Project (military UAV) — Adaptivity and Control of Resources in Embedded Systems (ACTORS) — Framework for Real-Time Embedded Systems based on Contracts (FRESCOR) — Drone Applications for Niterói City (DroNit) — Autonomous Sailboat (F-Boat)  
Track requirements, map tasks to requirements, and track and prioritize tasks; design system architecture; talk to clients, understand requirements and propose solutions; define tasks and lead subgroups; solve industrial problems.

## Awards

- 2012 Best Exercise Class TU Kaiserslautern
- 2012 Outstanding Research Achievement TU Kaiserslautern
- 2011 Doctorate Degree with Highest Honors TU Kaiserslautern
- 2008 Best Paper Award Euromicro Conference on Real-Time Systems
- 2005 Outstanding Undergraduate Scholar Universidade Federal Fluminense

## Soft Skills

Excellent analytical thinking ★ Self-propelled ★ Dependability ★ Productivity ★ Problem-solving mindset ★ Work experience in dynamic and multi-cultural international environments ★ High flexibility and adaptation to new environments

## Languages

- Portuguese — Native English — Fluent
- German — Advanced Spanish — Advanced

## Hobbies

Sports, traveling, and languages.