

SpeechPizza

Thursday, 4 May 2023

12:00 - 13:00, D011

lcis.grenoble-inp.fr

Geraldo Alexandre Maia Filho geraldo-alexandre.maia-filho@etu.esisar.grenoble-inp.fr

(intern within ORSYS team, supervised by R. Siragusa)

Title: Conception et mesure d'antennes dans la bande 100-120 GHz pour des applications de rétro-modulation

Abstract: Le début du projet a porté sur l'étude de l'état de l'art des antennes 120 GHz et la sélection de structures d'antennes réalisables. Une fois l'étude au niveau simulation effectués, l'antenne sera mesurée au laboratoire IMEP-LAHC.

Maryam Esmailian maryam.esmaeilian@etu.esisar.grenoble-inp.fr

(intern within CTSYS team, supervised by V. Beroulle)

Title: Countermeasures against power-off laser fault attacks

Abstract: This study evaluates the robustness of digital circuits and delay-based digital detectors against a new type of FIA called Power-Off Attack (POA). POA occurs when the power to the chip is turned off, and the detectors are not active.

Ahmed Alkaf ahmed.al-kaf@etu.univ-grenoble-alpes.fr

(intern within CTSYS team, supervised by I. Alshaer and V. Beroulle)

Title: Fault injection attacks on RISC-V with Chipwhisperer

Abstract: Physical attacks can be done by (for example) applying an electromagnetic wave or glitching the microcontroller's clock. In this presentation, we talk about the clock's glitch attacks on a RISC-V processor using the Chipwhisperer board and, if possible, we will compare the RISC-V faulty behavior with ARM's.

Lois Rajaonson lois.rajaonson@etu.esisar.grenoble-inp.fr

(intern within CO4SYS team, supervised by S. Gay and I. Prodan)

Title: Navigation in an unknown environment

Abstract: Simultaneous Localization and Mapping (SLAM) is a research problem in which an agent attempts to simultaneously build a map of an unknown environment and localize itself within it. We wish to expand the scope of the algorithms to allow autonomous navigation, by generating B-splines trajectories that comply with the dynamic constraints of the robot.

Cong Khanh Dinh cong-khanh.dinh@etu.esisar.grenoble-inp.fr

(intern within CO4SYS team, supervised by I. Prodan)

Title: Distributed MPC for motion planning of multiple drones

Abstract: We address the motion planning problem for multiple drones and on-the-fly trajectories update. The proposed approach is based on a synchronous distributed MPC (Model Predictive Control), where the agents share their previously predicted state sequence with their neighbours before simultaneously solving the next optimization problem.

The science behind pizza!

