

Research Seminar

Monday, December 13, 2021

2:30 pm to 4:30 pm in the mini-auditorium
(Room 111A) of the IFB Campus Brasília

Organized by Fábio Henrique M. Oliveira within the scope of CAPES-COFECUB project
(Process number: 88881.370894/2019-01)

Registration link: <https://forms.gle/t8nZz7EhbW9Q7Bpr7>

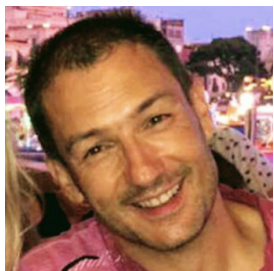


**Adriano de
Oliveira Andrade**

Title of the presentation: The postgraduate Program in Biomedical Engineering at UFU

Summary of the presentation: In this presentation I will provide an overview of the research lines and infrastructure of the Postgraduate Program in Biomedical Engineering of the Federal University of Uberlândia. (<http://www.ppgeb.feelt.ufu.br>).

Mini CV: Coordinator of the Postgraduate Program in Biomedical Engineering - UFU, Coordinator of the Center for Innovation and Technological Assessment in Health NIATS - UFU, Researcher of the National Council for Scientific and Technological Development (CNPq).



Yann Morère

Title of the presentation: Analysis of the Man-Machine system in driving an electric wheelchair

Summary of the presentation: This presentation will describe my research activities in the field of Human Engineering focused on people with severe disabilities. First we studied a navigation assistance by path recognition within the framework of the VAHM (Véhicule Autonome pour Handicapés Moteur) project using a real intelligent wheelchair project. Given the difficulties encountered with real devices, one solution is to use virtual reality. We started the development of the VIEW (Virtual Electric Wheelchair) project, an electric wheelchair simulator for people with disabilities. It allows to analyze finely the actions of the user in interaction with the wheelchair during the driving in order to obtain a good evaluation of its capacities. We analysed of the driver-vehicle system using models from classical automation. In parallel, we also studied the processing of data from physiological signals to be able to recognise anxiety levels from heterogeneous data.

Mini CV: Yann Morère holds a PhD and a habilitation to direct research in computer engineering, automation and signal processing. He has been a lecturer and researcher at the University of Lorraine since 2001. His field of research concerns human automatic control, assistive technologies and rehabilitation technologies. He teaches at the bachelor and master level in the fields of Energy, Electronics and Automation: automation, signal processing, industrial computing.

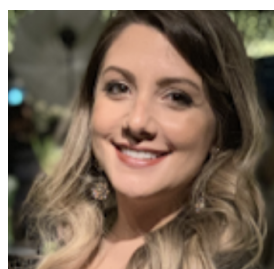


Pierre Pino

Title of the presentation: Hackathon on campus: an innovative collaborative method for students

Summary of the presentation: The purpose of this presentation: "Hackathon on campus: an innovative collaborative method for students" exposes a pedagogical approach that allows students from several teaching specialties to pool their knowledge and skills to solve, in a given time, a specific problem in order to propose an adapted solution. For this, to be efficient, the duration of a hackathon is between 24 and 72 hours. It is the continuous collaborative work, day and night, which brings a new working atmosphere: working in a time limit with the obligation to find a solution and in some cases to build a prototype, to have to make a pitch, puts the brains of the participants in boiling point so that the collective intelligence arrives at a result. Hackathon on campus: a catalyst for innovation focused on the need.

Mini CV: Pierre PINO holds a PhD in computer engineering, automation and signal processing. He is a teacher-researcher at the University of Lorraine since 1996. His research field concerns Human/Machine interaction in the context of assistive technologies and rehabilitation technologies. He teaches at the bachelor and master level in the fields of human/machine interaction, industrial computing and interface ergonomics. He is currently the head of the Mechanical and Production Engineering Department at the University Institute of Technology located in Metz.



**Rháira Helena
Caetano e
Souza**

Title of the presentation: Innovations in Assistive Technology and Attention Allocation Approaches

Summary of the presentation: In this seminar I will briefly present the current research carried out in the Assistive Technology Lab (NTA) from the Federal University of Uberlândia (UFU), as a panorama of the research in assistive technology (AT) field. I will present also my own recent published work about attention allocation studies and how to incorporate this topic in AT field, topic of my current PhD Thesis.

Mini CV: Rháira is graduated in Biomedical Engineering at the Federal University of Uberlândia (UFU, Brazil), with partial completion of the undergraduate program at Tampere University of Technology (Finland). Specialist in Clinical Engineering and Master in Biomechanical Engineering. Ongoing PhD in Science, in Biomedical Engineering area, at Federal University of Uberlândia. Currently, she is lecturer at Federal Institute of Brasília (IFB, Brasília), coordinating extensions projects in clinical engineering area.

Acknowledgements

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