UNIVERSITÉ DE FRIBOURG
UNIVERSITÄT FREIBURG

DEPARTEMENT D'INFORMATIQUE
DEPARTEMENT FÜR INFORMATIK

INFORMATICS COLLOQUIUM

Speaker:

Dr. Elena Nazarova, School of Computer Science, McGill University, Montréal

Caveats and rewards of introducing digital solutions for biomedical Core Facilities

Abstract:
Our capacity to rapidly and efficiently mobilize our research infrastructure to study infectious diseases is key for the emergency responses and the advancement of basic understanding of emerging or re-emerging pathogens (e.g. SARS-CoV-2). Our research is conducted in high-risk environments (HRE) with strict safety regulations - Containment Level 3 (CL3) laboratory.
The technology used in biomedical facilities did not evolve much in the last decades ensuring the robustness of the safety protocols already in place. However, the COVID-19 pandemic highlighted the limits of such a conservative approach making difficult to scale up experimental studies. We are developing a personal assistant that would help to breach the technological gap inside research infrastructures like CL3 laboratories. It will enable us to study the pervasiveness ubiquitous computing in HRE, and to generate the data for building AI tools (i.e., speech recognition software, recommendation systems) customized for biomedical environment.
Our project aims to rethink the planning, safety, and day-to-day operations in biomedical facilities with HRE. It requires very close collaboration and regular knowledge exchange between biomedical and computer science teams to ensure that the working conditions and the nature of the experiments in CL3 are aligned with the design of personal assistant software.

Bio:
Elena Nazarova is a Research Associate at the School of Computer Science of McGill University. She received her PhD degree in biology from McGill University and master degree in microbiology from Moscow State university.

Date and time: *Tuesday July 4th, 2023, 03:00 pm*
Location: *Pérolles 21, room C230, Bd de Pérolles 90, Fribourg*
Contact person: *Prof. Philippe Cudré-Mauroux*

The colloquium is free and open to the public.