TFK programme, funded projects 2023

Project title: Finnish-Brazilian Joint Multidisciplinary Training Program for Technical Aspects and Social Impacts of Artificial Intelligence and (beyond) 5G networks	
Coordinator Lappeenrannan-Lahden teknillinen yliopisto LUT Pedro Juliano Nardelli, pedro.nardelli@lut.fi	The project aims at expanding academic ties between LUT and Brazilian institutions to the field of social sciences (recently established at LUT). The proposed activities will be built on the existing teaching and research collaboration between LUT and Brazilian higher education institutions in the field of technology (e.g., LUT currently 3doctoral students in double degree with Brazil, and another recently graduated) but offering a multidisciplinary perspective from the field "Science, Technology and Society". The main motivation is that a new associate professor has been recently hired as part of the faculty at the new Dept. Social Sciences at LUT, starting in 15.5.2023, who has been with Federal University of Ceará (UFC) working with the social impacts of digitization of finances, specifically cryptocurrencies, and of widespread applications of the so-called Artificial Intelligence (AI). This project ambitious goal is to provide the necessary multidisciplinary training of interlinked sociotechnical aspects of a society increasingly dependent upon AI-based cyber-physical systems. To reach this goal, we will combine the expertise from both countries in both fields to create an innovative joint educational program that consists in student exchanges, two intensive summer schools, development of a balanced curriculum between social sciences and engineering, as well as online courses and other materials that will help strengthen cooperation between countries. Supporting student and staff mobility will contribute not only to the exchange of learning experiences, but also to the improving cultural ties between Finland and Brazil, sharing good practices between partner universities.
Partners Federal University of Ceará, Brazil	The achievement of the project goals includes the following tasks: (a) building a doctoral double degree program in the field of social sciences between LUT and UFC; (b) preparing a foundational social sciences course about AI/5G and its social impacts for engineering students at LUT; (c) preparing a foundational engineering course about AI/5G-based cyber-physical systems for social sciences students at LUT and the Brazilian universities; (d) producing a multidisciplinary study plan for social scientists and engineers working in the AI field considering the intricacies of technological development and social impact to be delivered as 2-4 new intensive courses; (e) production of online material relevant to the training using podcasts and interviews. These activities will be supported by both long- and short-term visits between partners. Long-term mobility will correspond to the double degree, short-term mobility will be associated with summer schools. Staff mobility will help to control the project implementation and to solve current tasks. The global challenges related to a green-digital twin transition require a courageous, open and responsible multidisciplinary activities with the focus to the Sustainable Development Goals.