

TFK programme, funded projects 2024

<p>Project title: Information, communications and data processing technologies for response management in case of natural disasters</p>	
<p>Coordinator</p> <p>Aalto-korkeakoulusäätiö sr</p> <p>Riku Jäntti, riku.jantti@aalto.fi</p>	<p>The northeastern regions of India have unique geographical location and climatic conditions. These places are prone to various natural disasters like earthquakes, landslides, erosion, and floods. These disasters pose significant threats to lives, property, and infrastructure. In addition, the limited infrastructure onsite in terms of roads, bridges, and communication networks, exacerbates the impact of these events by hindering timely response and rescue efforts. Addressing these issues require proactive measures and technological interventions that combine information acquisition, wireless connectivity, and data processing technologies in one single smart system for coordination of the damage-mitigation responses before, during, and after the occurrence of the catastrophic event.</p> <p>The activities of ICT4AID project are divided into three phases, namely: 1) Development of existing courses lectured in the partner Higher Educational Institutions (HEIs), focusing on the identification of the new challenges that the management of natural disasters introduce into the disciplines of information acquisition (e.g., earth observation satellites and drone-based monitoring), wireless connectivity of sensors (e.g., mobile/radio technologies for IoT communications), and information processing for big data analytics (e.g., AI/ML-based algorithms); 2) Creation of new teaching modules for the lecturing of three intensive seasonal schools (two in India and one in Finland), in the form of a multi-disciplinary intensive elective course with 40 hours of contact teaching, which will offer credits to students in Finland and certificates to students in India. As outcome of this phase, students will acquire the technical knowledge and skills that are needed for developing digital solutions for the management of critical situations originated by natural disasters; 3) Planning of a Massive Open Online Course (MOOC), based on the teaching modules developed for the three seasonal schools, in which the dissemination of teaching content will go beyond the audience of students and teachers of the participating HEIs. This MOOC will remain as tangible result even after the project period is over.</p> <p>ICT4AID will promote collaboration between Aalto University (Finland) and three Indian Institutes of Technology based in the cities of Indore, Guwahati, and Varanasi (India). Finland has one of the most renowned education systems in the world and is home of leading companies in telecommunications and ICT. In contrast, India is demographically young, with the third largest number of HEI enrollments in the World with</p>
<p>Partners</p> <p>IIT-Indore, IIT-Guwahati, IIT-Varanasi</p>	

	<p>a focus on the development of skillful manpower in ICT and high-tech areas. ICT4AID will also have non-academic collaborators that will give a pragmatic view to the activities of the project. The members of the consortium have complementary expertise and know-how for the implementation and exploitation of management systems for natural disasters in real-world settings.</p>
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