



Instituto Politécnico de Bragança

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Type of organisation:

SME School University Public Authority
Training No Profit NGO

Other (Specify)

Fields of action :

SMEs Youth Universities Public Authorities
Equal opportunities Schools Unemployed

Other (Specify)

Description of the organisation

The Polytechnic Institute of Bragança (IPB) is a higher education public institution with a defined mission in creating, transmitting and diffusing technical-scientific and professional knowledge through the articulation of study, teaching, applied research and experimental development. IPB belongs to the European Network for Universities of Applied Sciences (UASNET), which main objectives include the transferability of professional skills and the integration of applied research in their professional and technological education mission.

Founded in 1983, IPB is presently composed by five schools. Its activities embraces a wide area of knowledge and technology, namely, arts, communication and multimedia, business sciences and law, education and teachers training, agriculture sciences and natural resources, health, tourism, sports, technologies and engineering.

The IPB has an internationalization programme with widely recognized success, including the annual mobility of more than 900 incoming and outgoing students and 300 teaching and non-teaching staff members, as the result of the cooperation with several European HEIs and with universities from the Community of Portuguese-Speaking Countries and all over the World (www.ipb.pt/iro).

Taking into account its dimension (8000 students and 420 full time equivalent teachers), IPB is placed in the first line of the international mobility. Considering the latest governmental data, 26% of IPB graduates had an international mobility experience during their study programme, which remarkably places IPB above the objective established by the EU for 2020 (20%). IPB also distinguishes itself as partner in European projects, including 14 Strategic Partnerships, 9 former Comenius, Erasmus, Leonardo da Vinci, Tempus and Erasmus-Mundus, and 30 Intensive Programmes. The IPB is one of the few Portuguese HEIs awarded with both the ECTS and the DS Labels, thus assuring the quality and the transparency of the management and the fair academic and professional recognition of its qualifications (www.ipb.pt/ectsguide, www.ipb.pt/sd).

IPB is a certified institution awarded with ISO 2001:2008 standards certificate, our Planning and Quality Management Office implements mechanisms of quality control in order to improve quality of services and follow financial implementation of projects.

Experience of the organization in previous European projects

Polytechnic Institute of Bragança (IPB) has a large experience in participating in European projects (leading or be a partner member). Some programs that IPB had participate area Erasmus + Strategic partnership, Erasmus + KA 7 – ICM, Erasmus + KA 1, LLP-Comenius, Tempus, FP7, H2020.

Experience and Expertise of the organization in the project's subject area

Polytechnic Institute of Bragança (IPB) is member of the European Applied Sciences Network and the National Science and Technology System, through R&D testing units, namely, CIMO (Mountain Research Center), or CeDRI (Research Center in Digitization and Intelligent Robotics), UNIAG (Applied Research Unit in Management), CIEB (Basic Education Research Center). IPB has indicators of impact and excellence of its scientific production and applied research, namely in the U-Multirank, Scimago Institutions Rankings and Shanghai Ranking. IPB is a founding member of the Brigantia-EcoPark Science and Technology Park, a privileged space for incubating technology-based companies, and an associate member of the Collaborative and Social Laboratory.

CeDRI - Research Centre in Digitization and Intelligent Robotics

The Research Centre in Digitization and Intelligent Robotics (CeDRI) is an interdisciplinary research unit that brings together researchers from the areas of Electronics, Computer Science and Mathematics. CeDRI's research activities aim to develop scientific knowledge and applications in technological systems with a high impact on industry, promoting the competitiveness of the socio-economic system, with a special focus on regions of low population and economic density, characterized by SMEs that combine a small-scale industrial system and where their competitiveness is strongly affected due to access difficulties industrial innovation. CeDRI's mission is to contribute to the development, application and transfer of scientific knowledge related to robotics, intelligent systems and information and communication technologies, within the scope of the digitization and automation, strengthening the scientific and technological system.

Contributions that can be provided to the project

Considering the background knowledge and past experience IPB is able to support the programmed project activities and contribute to the main expected results all intellect output. IPB was also the scientific coordinator of the project MathE - Improve Math silks in higher Education.

Reasons of involvement in the project

iMath - An Intelligent System to Learn Mathematics project concentrates on the promotion of the acquisition of Math skills using ICT tools for students and lecturers and other target groups. The need to support online platforms with intelligent systems is mandatory to a inclusive society.

Contact Person's Experience and Expertise

Ana I. Pereira: Coordinator Professor at the Department of Mathematics, Polytechnic Institute of Bragança, and she is a member of the Research Centre in Digitalization and Intelligent Robotics (CeDRI) - Polytechnic Institute of Bragança - and Algorithm Research Centre – Minho University. She also is Direction Member of Braganza “Ciência Viva” Science Centre. She got her PhD at Minho University (2006) in ‘Numerical Optimization’ area. She is author or co-author of more than sixty journal papers, book chapters and conference proceedings. She participates in more than ten research projects in the areas of robotics, optimization and innovate tools in teaching. In particularly she was the IPB coordinator of the following projects: Strategic Partnerships “E-Learning from Nature” with objective to promote science among secondary students (2015-2017), “Games Laboratory”, financed by Agência Ciência Viva (2013-2015), “Braganza@Science”, financed by Agência Ciência Viva (2013-2016) and “Eureka – Mathematical Games” also financed by Agência Ciência Viva (2006-2008).

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Florbela Fernandes: Associated Professor at Instituto Politécnico de Bragança since 1998. She obtained her PhD in Mathematics by University of Minho. Her major research is on Optimization area and in the science communication in the Mathematics area. In this way, she was co-author of journal papers, book chapters and conference proceedings and member of financed research projects, such as: MathE – Improve Math silks in Higher Education, Eureka – Mathematical Games (www.eurekit.ipb.pt), Games Laboratory, and E-learning from nature, FIT4FoF, iSafety, between others.

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M. Fátima Pacheco: Associated Professor at the Department of Mathematics, Polytechnic Institute of Bragança. Member of the Center for Research & Development in Mathematics and Applications (CIDMA), hosted at the Department of Mathematics of the University of Aveiro. Currently waiting for the defense of her PhD thesis, in the area of Combinatorial Optimization and Graph Theory. Co-author of journal papers, book chapters and conference proceedings. Member of research projects in the area of innovative tools in teaching, such as Strategic Partnerships “MathE – Improve Math silks in Higher Education” with the goal of promoting new TEL-tools for higher education (2018-2021), “E-Learning from Nature” that promoted science among high-school students (2015-2017), “Games Laboratory”, financed by Agência Ciência Viva (2013-2015), “Braganza@Science”, financed by Agência Ciência Viva (2013-2016) and “Eureka – Mathematical Games” also financed by Agência Ciência Viva (2006-2008).

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