



UNIVERSIDAD DE LEON

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Type of organisation:

SME School University Public Authority
 Training No Profit NGO

Fields of action :

SMEs Youth Universities Public Authorities
 Equal opportunities Schools Unemployed

Description of the organisation

The Universidad de León (ULE) is an active public HEI showing great interest towards international education since its foundation in 1979. Its two campuses are located in the cities of León and Ponferrada, in northwest quadrant of the Iberian Peninsula. ULE serves a population of 12.000 students with 38 undergraduate degrees, 30 graduate degrees and 14 doctoral programs offered by 26 Departments in 13 Faculties and 125 research groups. It is assisted with 9 institutes and 2 technological Centres. 820 teaching staff members, 80% of them with a Doctoral degree. 535 administrative staff. It has a yearly budget of 88 million Euro. With a strong and centralized international office since 1989, it gathers a high potential to organize and manage important transnational projects. The recent investment of opening an International Project's Office has already yielded high results account taken of its active participation at projects of varied funding sources (LLP, Tempus, Erasmus Plus, Horizon, Justice, Interreg, among others).

ULE is proud of its international acquaintances as it is a founding member of the Santander Group and the Compostela Group of Universities where it plays a leading role. ULE enrolled in international exchange programs since 1987 and today sends yearly 440 students to EU destinations and 120 to non-EU institutions and receives an average of 500 foreign students.

ULE will have the collaboration of its Office for International Projects (www.unileon.es/opi) with extensive experience in the application, execution and justification of major educational transnational projects, for this project. In addition, ULE will play an active role in the necessary reporting and dissemination tasks.

Experience of the organization in previous European projects

ERASMUS + program

- 2020-2023: Building up an inclusive and democratic Europe through a dialogical co-creation of intercultural solutions to the rise of neo-fascism and xenophobia. This Jean Monnet project is aimed to address their causes, to promote debates and to exchange ideas in the context of Higher Education European Union and the European Civil Society. In order to enhance democracy in the EU, this project is driven to offer answers which deepen the justice and solidarity model underpinning the European Charter of Fundamental Rights. Website: <https://inlue.unileon.es/>
- 2019-2021: New data privacy regulation in the European Union - Impact on Eu citizens and organizations. This project intends to raise awareness of GDPR among young people through information and dissemination activities concerning this regulation. Given our experience, we aim to make this collective think about its consequences on their future jobs or initiatives and its legal implications on using foreign technologies that collect and manage their personal information. Website: <http://eupriv8.eu/>
- 2018-2021: Integrating STEAM and Computational Thinking development by using robotics and physical devices. The project will provide frameworks and tools to facilitate learning actions that develop those competences but also that allows assessing their acquisition. Website: <http://robosteamproject.eu/>
- 2017-2020: Capacity Building for Renewable Energy Planning in Cuban Higher Education Institutions (CRECE). The CRECE project supports Cuba in the provision of regionally relevant multidisciplinary education in sustainable energy engineering and renewable energy development. This is done in order to ensure that Cuban higher education institutions (HEIs) are better equipped and able to provide high-quality experts for the ever-growing societal and energy sector development needs. Website: <https://erasmus-crece.fi>
- 2017-2020: Developing teacher competences for a comprehensive VET system in Albania. The project aims to develop reforms to the teaching profession at the non-tertiary education level for in-service training for teachers by designing, implementing and monitoring a comprehensive lifelong learning (LLL) Teacher Training System in which Albanian universities will be the main providers by the creation of LLL Centres guaranteeing the sustainability of the project. Website: <https://teavet.org/>
- 2017-2019: Evaluating and Upscaling Telecollaborative teacher education (EVALUATE). This project aims to gauge the impact of telecollaborative learning on student-teachers involved in Initial Teacher Education in various European countries and regions. Website: <http://www.evaluateproject.eu>
- 2017-2019: Banking Platform to provide Basic Knowledge on Key Issues about EU Financial System (EUBANK). This innovation action is a three-stage project. The first stage develops a descriptor and a calculator for financial products. The second stage is a consultancy service on financial products, designed as an interactive tool to complement the previous stage by resolving specific doubts that EU citizens may have about financial products. The third stage of the project is a bank branch simulator. It is aimed at university students, specifically students enrolled in subjects with specific banking content in their curriculum. Website: <http://financialculture.eu>
- 2014-2017: The European facing the new integration challenges (EUFICH). This project will equip students and young professionals with knowledge of European Union in subjects relevant for their academic and professional lives and deal with EU subjects more in-depth with relevant topics about EU. The project has been designed in order to incorporate not only an economic view also normative and professional. Website: <http://grupos.unileon.es/jeanmonnetule>
- 2013-2016: Moderniser la formation sur les Energies Renouvelables (ER) au Maghreb: transfert de l'expérience UE

«MOMATE ». The overall objective of the project is therefore to support the various solar and wind energy projects, ensuring that Maghreb universities can offer quality training courses compatible with European standards and responding to the socio-economic needs of the new knowledge society, reinforcing and modernizing the teaching of renewable energies. More specifically, the project aims to improve, in collaboration with our European partners, a training program, Bac+2 level (DUT) in RE engineering, as well as the development and emergence of technopoles specialized in renewable energies. Website: <http://momateproject.uae.ac.ma/project-updates>

- 2011-2014: Integrating Telecollaborative Networks into University Foreign Language Education (INTENT). The project aims to raise greater awareness among students, educators and decision makers of telecollaboration as a tool for virtual mobility in FL education at the Higher Education (university) level and also on achieving more effective integration of telecollaboration in Higher Education Institutions. Website: <http://www.intent-project.eu/>
- 2010-2012: Consumer Behaviour Erasmus Academic Network (COBEREN). The reasons for this network are: 1. The development of a measure (as a reference in the discipline) to analyze culture, given the critics the measures applied have received. 2. Moreover this measure will be applied in 31 countries, generating a pool of updated data on culture which is priceless for the academic and business worlds. 3. Furthermore this cultural description will be analyzed with reference to the different consumer behaviors showed in each country, a complete framework essential to update teaching material, improve research and to take and implement economic and social decisions in the business and civic world. Website: <http://coberen.eu/>

European Framework Program Projects

- 2014-2017: Legumes for the Agriculture of Tomorrow (LEGATO). The project has been conceived to promote the culture of grain legumes in Europe by identifying priority issues currently limiting grain legume cultivation and devising solutions in term of novel varietal development, culture practices, and food uses. Website: <http://www.legato-fp7.eu/>
- 2012-2015: Rules, Expectations & Security through Privacy-Enhanced Convenient Technologies (RESPECT). This project aims to review the actual effectiveness of surveillance systems and procedures used in Europe in preventing / reducing crime; as well as identify and examine the social and economic costs of implementing these technologies, determine the legal basis adopted for these surveillance systems and procedures, and explore European citizen's awareness/acceptance of such surveillance systems and procedure. Website: <http://respectproject.eu/>
- 2011-2014: Scalable Measures for Automated Recognition Technologies (SMART). This project addresses the questions of automated decision taking with respect to the "smart surveillance" technologies in a society where privacy and data protection are fundamental rights. The risks and opportunities inherent to the use of smart surveillance will be evaluated and a number of technical, procedural and legal options for safeguards will be developed. Website: <http://www.smartsurveillance.eu/>
- 2010-2013: Consumer Sentiment regarding privacy on User Generated Content Services in the digital economy (CONSENT). This project seeks to analyze how consumers perceive the processing and treatment of their personal data and privacy in social networks. Website: <http://www.consent.law.muni.cz>
- 2010-2013: Sustainable Solutions for Small Ruminants (3SR). The project brings together a strong and unique international consortium of 14 partners that will mine genomic information of sheep and goats to deliver a step-change in our understanding of the genetic basis of traits underlying sustainable production and health. Website: <http://www.3srbreeding.eu/Home.aspx>
- 2008-2011: High resolution mapping of a QTL region influencing fat percentage in Spanish Churra dairy sheep (SHEEPMILKGENES). This project will increase the density of genetic markers at a QTL region influencing milk fat percentage in a commercial population of Churra sheep, a Spanish indigenous breed highly specialized in milk production. Due to the similar efforts required for the analysis of other regions, the study of another QTL influencing milk protein percentage could be included, during the project progress, as an additional target QTL of this research. Website: <http://soricaria.unileon.es/SheepMilkGenes/>

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

The Universidad de León (ULE) offers among its programs a Degree in Computer Engineering, with the Euro-Inf Quality Label issued by the European Quality Assurance Network for Informatics Education (EQANIE), and a Master in Computer Engineering. In both programs, several subjects related to the use of new virtual reality technologies, 3D Modelling, 3D Animations and the generation of 3D virtual worlds are offered.

Also, ULE has the Unit of Manufacture and Printing 3D (UFI3D). This unit arises to give scientific-technical services both to the university community and to the public and private social environment.

One of the most significant aspects of the unit is its advanced equipment, most of which comes from aid obtained for the acquisition of scientific-technical equipment co-financed with ERDF funds, thus allowing the provision, maintenance and updating of scientific and technical infrastructures so that they are accessible to all agents in the system and facilitate quality scientific-technical research, as well as the development of highly competitive R&D business activities. This equipment allows the elaboration of modeling tasks, rapid manufacturing and prototyping, inspection and reverse engineering to a great diversity of application fields such as design, manufacturing, to the artistic world or medical and bioengineering applications, topographic, GIS or architectural applications.

Contributions that can be provided to the project

The VRSciT project aims to explore new approaches in educational tourism, such as 3D modeling together with 360° immersive VR environments to build innovative virtual educational scenes and take advantage of the new communication technologies to improve participant's learning process of social-cultural (e.g. history, arts, architecture) and natural resources (e.g. geology, biology, physics, chemistry) of the different regions approached.

As the University of Leon is an institution dedicated to higher education, the contributions of this institution are focused on the educational and technical approaches of the project, since the ULE has a degree in education, a degree in computer science and a degree in tourism.

Reasons of involvement in the project

The objectives of this project are compatible with those of the ULE, as they will make it possible to digitize, model in 3D and virtualize some objects from the collections of some of the university's faculties to use them as educational resources through virtual reality and augmented reality applications.

In addition, the expected results will favor the strengthening of the professional teaching profile and innovation in teaching. We also expect that it will contribute to attracting students to the use of immersive environments and resolve the lack of content and materials related to classes that can use vr such as history, geography, biology, chemistry, science, socio-cultural knowledge and educational tourism.

Contact Person's Experience and Expertise

Francisco J. Rodríguez Sedano is Associate Professor in Universidad de León. During his years as a university professor (since 1997) he has been the teacher responsible for several subjects related to the areas of the project, such as Multimedia, Scientific Visualization, Computer Animation and Virtual Reality. All of these subjects are part of the curriculum of the Degree in Computer Engineering in the School of Engineering of the Universidad de León (ULE).

He has also directed several End of Degree Projects, End of Degree Works and End of Master Works related to virtual reality, within the academic program of the ULE.

Since 2014 and within the robotics research group of the ULE, he has specialized in the development of virtual environments for the simulation of robots and haptic devices.

Miguel Ángel Conde González holds a PhD in Computer Science (2012, University of Salamanca). From 2002 to 2004 he was working in educational environment teaching in several courses related to computers. In 2004 he decided to begin working on software development environments and he worked for GPM, a web development and multimedia company. In 2005 he began working for Clay Formación Internacional R&D department where he was involved in different eLearning projects. From 2010 to 2012 he was researching at the University of Salamanca and also working there as a teacher. During 2013 he worked in the Informatics and Communications Service of the University of León and as assistant lecturer in that university. Now he works as an assistant professor at the University of León. He is a member of the Robotics research group of the University of León and GRIAL research group of the University of Salamanca. His PhD thesis is focused on the merging of informal, non-formal and formal environments. He has published more than 100 papers about different topics such as eLearning, Service Oriented Architectures, Learning Analytics, Mobile Learning, Human-Computer Interaction, Educational Robotics, etc.

Claudia Álvarez Aparicio got her Computer Science Degree in 2017 and her Cybersecurity research Master in 2019. Now she is currently working on her Ph.D. thesis in computer science at the University of León, with a fellowship provided by the regional Government of Castilla y León (Spain). From 2017 to 2018, and from 2019 to July 2020, she has been a Research Associate with the Research Institute of Applied Science to Cyber-Security and the Robotics Group at the Universidad de León. Her research interests include computer security and social robotics.

Adrián Campazas Vega got his Computer Science Degree in 2015 and his Cybersecurity research Master in 2019. He is currently pursuing the Ph.D. in computer science at the University of León, Spain. From 2015 to 2019 he has worked in different companies as an application developer and cybersecurity auditor. In 2020, he became part of a cybersecurity research project for the University of Leon. In addition, during the academic years 2019-2020 and 2020-2021 he has been an associate professor in the area of computer architecture at the University of Leon.

Ignacio S. Crespo Martínez got his Computer Science Degree in 2017 and his Cybersecurity research Master in 2019. He is currently pursuing the Ph.D. in computer science at the University of León, Spain. From 2018 to 2020 he has worked as a cybersecurity auditor. In 2020, he became part of a cybersecurity research project for the University of Leon.

Miguel Ángel González Santamarta got his Computer Science Degree in 2020. He has been collaborating with the Robotics Group at the Universidad de León since 2018. Now, he is currently pursuing a Computer Science Master at the University of León, Spain. His research interests include social robotics, space robotics, cognitive robotics and artificial intelligence.

Gonzalo Esteban Costales received the Bachelor's degree in computer science engineering and the M.Sc. degree in cybernetics from Universidad de León, Spain, in 2009 and 2011, respectively. He got his Ph.D. in computer science at Universidad de León in 2020. From 2011 to 2017 he was a Research Assistant with the Robotics Group of the Universidad de León. From 2017 to 2018, he has been a Research Associate with the Research Institute of Applied Science to Cyber-Security at the Universidad de León. Since 2019, he is a Research Associate in the Robotics Group of the Universidad de León, Spain. His research interests include software engineering, haptic simulators, virtual reality and computer security.

Virginia Riego del Castillo got the Computer Science degree from the University of León (Spain) in 2018. Since 2015, she has been collaborating at the University of León (Spain) in the Department of Mechanical, Computer Science and Aerospace Engineering. Now she is currently working on her Ph.D. thesis in computer science at the University of León, with a fellowship provided by the University of León. Her research interests are centered on high performance computing and digital image processing and analysis applied to industrial processes.