INTERDISCIPLINARY RESEARCH -JADARA UNIVERSITY REPORT 2021-2025

#	SPECIALTY-DISCIPLINE	RESEARCH TITLE
1.	HEALTHCARE+ CYBER SECURITY	AN EFFICIENT CYBER SECURITY AND DATA SCIENCE FOR ANALYZING BIG MEDICAL DATA
2.	MEDICINAL CHEMISTRY+ PHARMACY	CHEMICAL COMPOSITION OF THE ESSENTIAL OILS OF THE FLOWERS ASPHODELUS AESTIVUS BROT. GROWN WILD IN JORDAN
3.	MEDICINE+ NURSING+ PHARMACY	THE RISK OF COVID-19 INFECTION AMONG NURSES WORKING WITH COVID-19 PATIENTS
4.	PHARMACY+ MEDICAL LABORATORY SCIENCE	INFLUENCE OF COFFEE CONSUMPTION ON SERUM LIPID PROFILE PARAMETERS: CAN COFFEE CONSUMPTION LEAD TO HEALTH CONSEQUENCES IN HUMANS?
5.	LINGUISTICS + POLITICAL SCIENCE	THE ART OF RHETORIC: PERSUASIVE STRATEGIES IN BIDEN'S INAUGURATION SPEECH: A CRITICAL DISCOURSE ANALYSIS
6.	ADMINISTRATIVE AND FINANCIAL SCIENCE+ COMPUTER SCIENCE	THE EFFECT OF RELIABLE DATA TRANSFER AND EFFICIENT COMPUTER NETWORK FEATURES IN JORDANIAN BANKS ACCOUNTING INFORMATION SYSTEMS PERFORMANCE BASED ON HARDWARE AND SOFTWARE, DATABASE AND NUMBER OF HOSTS
7.	MATHEMATICS+ COMPUTER SCIENCE	MATHEMATICAL MODEL OF THE SPREAD OF COVID-19 USING ANY LOGIC SYSTEM
8.	PHARMACY+ MEDICAL LABORATORY SCIENCES	THE COUNTER-EFFECT OF GLYCYRRHIZA GLABRA AGAINST GASTROINTESTINAL TRACT TOXICITY OF INDOMETHACIN ON RATS
9.	PHARMACY+ IOCHEMISTRY AND MOLECULAR BIOLOGY+ PHYSICAL THERAPY	DRUG MISUSE AND SELF-MEDICATION AMONG PHARMACY STUDENTS IN JORDAN
10.	LAW+ PUBLIC ADMINISTRATION+ ECONOMIC	DEVELOPMENT OF E-COMMERCE WITHIN THE FRAMEWORK OF COMPLIANCE WITH FINANCIAL LAW

11.	MARKETING+ INFORMATION TECHNOLOGY & MANAGEMENT	APPLIED ARTIFICIAL INTELLIGENCE: ACCEPTANCE-INTENTION-PURCHASE AND SATISFACTION ON SMARTWATCH USAGE IN A GHANAIAN CONTEXT
12.	INDUSTRIAL ENGINEERING+ EDUCATIONAL TECHNOLOGY	THE FALSE POSITIVES AND FALSE NEGATIVES OF GENERATIVE AI DETECTION TOOLS IN EDUCATION AND ACADEMIC RESEARCH: THE CASE OF CHATGPT
13.	PHARMACY+ MEDICAL LABORATORY SCIENCES+ALLIED HEALTH SCIENCES	PREVALENCE OF DEPRESSION AMONG JORDANIAN UNIVERSITY STUDENTS DURING COVID-19 PANDEMIC
14.	PHYSICS+CHEMISTRY	TAILORING VARIATIONS IN THE MICROSTRUCTURES, LINEAR/NONLINEAR OPTICAL, AND MECHANICAL PROPERTIES OF DYSPROSIUM-OXIDE-REINFORCED BORATE GLASSES
15.	FINANCE+COMPUTER SCIENCE	ARTIFICIAL INTELLIGENCE APPLICATIONS AND THEIR IMPACT ON THE QUALITATIVE CHARACTERISTICS OF DATA: EVIDENCE FROM COMMERCIAL BANKS
16.	ELECTRICAL ENGINEERING+ COMPUTER SCIENCE	EXPLORING AN IOT-BASED SMART CHARGING ALGORITHM FOR ELECTRIC VEHICLES CONSIDERING MULTIPROCESSING
17.	BIOLOGICAL SCIENCES+ MEDICAL LABORATORY SCIENCES	PHYSIOLOGICAL EFFECTS OF FIG LEAF EXTRACT AND ORLISTAT ON OBESITY, KIDNEY AND LIVER OF RATS
18.	EDUCATIONAL SCIENCES + COMPUTER SCIENCE	NEW EFFICIENT INDICATORS FOR PLACING QUALIFICATIONS IN THE JORDANIAN NATIONAL QUALIFICATIONS FRAMEWORK
19.	PHARMACY+ INFORMATION SYSTEM	PHARMACY EDUCATION AND CONDUCTING OSCE EXAM DURING COVID-19: AN OVERVIEW
20.	CHEMISTRY+ PHARMACY	THE ANTICANCER AND EGFR-TK/CDK-9 DUAL INHIBITORY POTENTIALS OF NEW SYNTHETIC PYRANOPYRAZOLE AND PYRAZOLONE DERIVATIVES: X-RAY CRYSTALLOGRAPHY, IN VITRO, AND IN SILICO MECHANISTIC INVESTIGATIONS

Jadara Geomatics Report

Earth Observation Tools for the Promotion of Digital Economy Program

ERODITE PROJECT 2021-2025

Commitment to Multidisciplinary Research

Jadara University provides state-of-the-art physical facilities and laboratories for interdisciplinary research teams as part of the ERODITE project. These facilities are designed to support advanced research and collaboration across various disciplines. A surveying and Geomatics laboratory has been established, where researchers from the Faculty of Engineering and the Faculty of Information Technology utilize equipment and software procured with support from the European Union through the Erasmus Plus funded ERODITE project. This report also indicates that a consortium of universities is participating in the ERODITE project, with members of the project's research teams hailing from various disciplines, including civil engineering, Geomatics engineering, and the Algerian Space Center. These universities, with their diverse specializations, are working to develop curricula that serve higher education, as well as to publish joint research.

ERODITE

This Joint project aims to modernise existing curricula in Partners Countries of Region 3 (East-Mediterannean) by learning and teaching tools to include geospatial and Earth Observation content in multi-discipline courses and in interdisciplinary way.

EO is not a curriculum subject, but has the potential for bringing other subjects to become relevant and engaging them in terms of digital economy.

Consortium

EU members:
NTUA (Greece), UNIWA (Greece), AUTH (Greece), AKD (Turkey)

Non EU members:
JUST (Jordan), JADARA (Jordan), BAU (Jordan), CTS (Algeria), UABT (Algeria), UKMO (Algeria)

The project has five specific objectives:

1. **Develop a framework EO/geospatial toolkit** to assist and train students/ teachers/stakeholders in the development of courses.

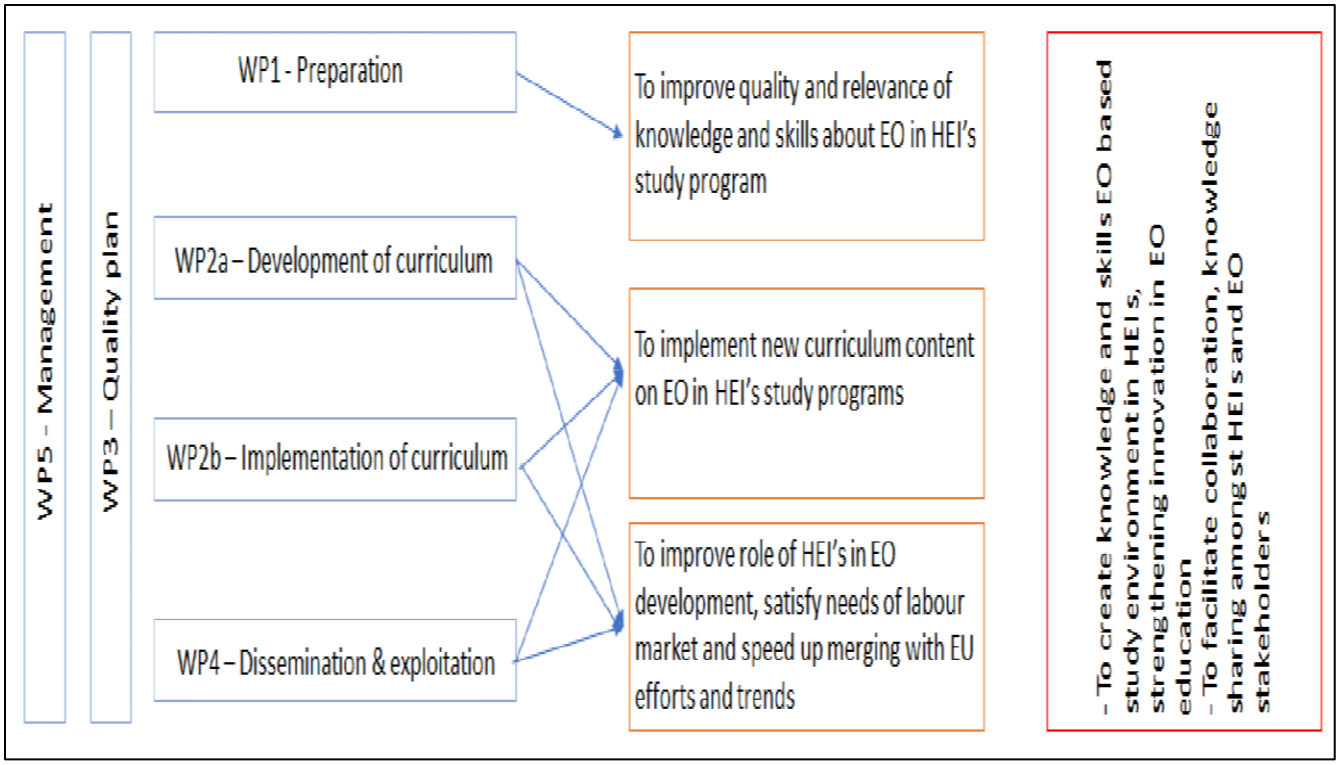
2. Create a a number of **updated and new developed courses** (under- and post-graduate) in the partner HEIs.

3. **Create an "EO Laboratory"** in each Partner HEI comprising state-of-the-art equipment and software relevant to EO.

4. Create **participant multipliers** during this project in their local educational and professional communities.

5. **Promote the gender equity** with promoting geospatial skills

Work Packages (WPs)



WP2 (leader JUST/JADARA)

2.1 – Development of curriculum framework

This Task refers to the actual development of all teaching and learning material and EO content of the new or updated courses that the partner HEIs

2.2 – Good Practices and guidelines for impact equalization

Identification of the modifications necessary to orient the curricula with respect to specific target groups, such as females in order to promote gender inclusive engineering education.

2.3 – Equipment purchase/installation

establishment of the EO Laboratories in Partner Country HEIs

2.4 – Training of teachers/trainers

involves the training on the EO toolkit, staff will also get acquainted with teaching methods and approaches

2.5 – Guidelines for implementation according to local features

developing localized curricula which aim is to "translate" the project curriculum into the local curricula.

WP2 (leader JUST) cont'd

2.6 – Implementation of local case studies

Six Local Case Studies will take place in each of the partner HEI

2.7 – Implementation of large scale pilot

One large scale event will take place at AUTH which will involve Academic, Administrative and Technical Staff from all Partner Country HEIs as well as students to get "on-the-spot" training and to enhance their knowledge on the EO topics, to get introduced to contemporary teaching methods and approaches, etc. and to attend a practical and field campaign related to EO topics.

2.8 – Evaluation of implementation

The Curriculum Quality Committee (CQC) will provide feedback for the quality of the developed courses

2.9 Revision of project curriculum

The last version of the Curriculum will be approved by the Committee before accreditation

WP4 (leader BAU)

4.1 – Development of a Communication/Dissemination Plan

Detailed Plan describing why, what, how, when and to whom the dissemination activities will take place

4.2 – Dissemination events

A series of Dissemination Events is foreseen to be implemented in Partner Countries to popularise the Project

4.3: Exploitation and Sustainability

Plan ensuring the exploitation and facilitating the sustainability of Project results

Geomatics Day Activities 2022

His Excellency the Former President of Jadara University, Prof. Dr. Mohammed Obaidat, patronized the activities of Geomatics Day on Sunday, 4th December 2022 at Jadara University. This event falls within the ERODITE project supported by the Erasmus Plus program funded by the European Union. The event was attended by His Kindness Dr. Shukri Al-Marashdeh, Chairman of the Board of Directors of Jadara University, a director of Jordanian Engineers, Eng. Ahmad Samara Al-Zoubi, Director of the Erasmus Plus Office in Jordan, Prof. Dr. Ahmad Abu Al-Haija, Former Vice President of the University and now the President, Prof. Dr. Habis Al-Hatamleh, deans of faculties, representatives of participating universities, and students of engineering faculties from Jadara, Jordan University of Science and Technology, Al-Balqa Applied University, and groups of students from Yarmouk University, Al-Israa University, and other Jordanian universities. His Excellency Obaidat welcomed the participants and guests, elucidating the significant role of Erasmus Plus in supporting education and scientific research, fostering creative initiatives and important scientific research, and the importance of collaborative projects that connect the office with Jordanian universities and other universities worldwide. The Jordanian universities participating in this event under the ERODITE Project are: Jadara University, Jordan University of Science and Technology, and Al-Balqa Applied University. These three universities received approximately 100,000 JD for equipment for three Geomatics laboratories. Prof. Obaidat commended the role of the Jordanian Engineers Association and the partnership between the faculties of engineering in Jordanian universities in enhancing the quality of engineering graduates. He also expressed gratitude to the supporting companies and those involved in preparing the laboratories and equipping them with the necessary devices. He acknowledged the leadership of His Majesty King Abdullah II Ibn Al-Hussein and his trustworthy Crown Prince.

Speech by the Head of the Jordanian Engineers Association

In his address, the head of the Jordanian Engineers Association, Engineer Ahmad Samara Al-Zoubi, expressed his pleasure at being present in this esteemed institution. He emphasized the importance of the partnership between the association and universities in terms of training, development, scientific research, strategies, consultations, conferences, and joint workshops. He added that there is a need to strive to compete with advanced countries in all engineering fields. The Jordanian engineer is highly sought after by many countries, and there is a need to move from theoretical to practical application and acquire the necessary skills to achieve excellence. Al-Zoubi praised the ERODITE project for its role in advancing education in the field of geographical information monitoring and making it accessible to researchers and interested parties. He also spoke about the activities and events of the Jordanian Engineers Association.

Remarks by the Director of Erasmus + Office in Jordan

The Director of the Erasmus Plus office in Jordan, Prof. Dr. Ahmad Abu Al-Haija, stated that the Erasmus Plus program is supported by the European Union in the fields of education, training, and youth. He noted that international research projects have been completed through this program in education and training both within and outside Europe. He highlighted that Erasmus Plus aims to foster international cooperation in all fields of education, training, and youth, and to promote and adopt pioneering ideas. He urged universities to make efforts to benefit from the proposed projects.

Presentations on ERODITE Project

His Excellency Prof. Dr. Mohammed Obaidat and Dr. Nawras Shatanawi from Al-Balqa Applied University delivered two presentations, providing a comprehensive explanation of the ERODITE project, the surveying devices used, and future aspirations for Geomatics Engineering. The Geomatics Day was accompanied by several companies presenting advanced surveying equipment and training the participating staff and students on the equipment. These companies included a consulting company for graphic information systems, a consulting company for surveying technology and services, Trimble surveying Equipment Company, and Sigma surveying Equipment Company. At the conclusion of Geomatics Day, the academic and administrative staff of the Faculty of Engineering, along with the students, witnessed His Excellency Prof. Obaidat distributing certificates and honorary shields to the participants and supporting companies.

Partners

Links of the Program

- **Website:** http://erodite.jadara.edu.jo/
- **Course list:** http://erodite.jadara.edu.jo/course/index.php?categoryid=2

Equipment

#.	Item	Price (JOD)	Price (EUR)
	Jadara University		
1-	Stonex s900a gnss receive	5,500	7,333
2-	Leica TS03 Total Station 3"	24,787	33,050
3-	Geomatic Zenith 16 RTK GNSS receiver		
4-	Leica Builder 109 Digital Theodolite		
5-	Leica Sprinter 100 Digital level		
6-	Ten items of Leica Disto D2 Laser Distance Meter,		
7-	Arc Map GIS Large 100 seats for one year replace by 50 seats for two years, Site License		
8-	PCI Geomatica for 5 users.		
9-	STONEX X300 3D Laser Scanner	8,550	11,400
Total Jadara:		**38,837**	**51,783**
	Al-Balqa' Applied University (BAU)		
1-	RTK GNSS Receiver	4,500	6,000
2-	UAV - Drone for Aerial Survey	12,000	16,000
3-	photogrammetric software (Pix4D) (including MS camera)	1,000	1,333
4-	Work station	10,000	13,333
Total BAU:		**27,500**	**36,667**
	Jordan University of Science and Technology (JUST)		
1-	ZDL700 Standard Digital Level Package,	5,000	6,667
2-	Total Station N6+ 2"		
3-	ZiomaxZipp 02, Theodolite.		
4-	Labview for teaching av1	19,050	25,414
5-	Pocket Sterioscopes	950	12,667
6-	STONEX S700A GNSS Receiver SEGMA TB8	5,120	
7-	Laser Distance Meter.		6,828
8-	NA720 automatic level-360deg and 400gon-wit"	1,576	
9-	CLR102, TELESCOPIC STAFF5M,		
10-	CTP103- Aluminium tripod with shoulder strap an"		
11-	LEICA DISTO D2 (LV1)		2,101
Total JUST:		**31,707**	**42,276**
Total for the Three Universities:		**98,044**	**130,727**

Gallery


Co-funded by the Erasmus+ Programme of the European Union


GEOMATICS LAB
erodite
المهندس
أحمد ابو الهيجاء
المهندس
احمد سمارة الزعبي


جامعة جدارا


جامعة جدارا


Jadara Univ
جامعة جدارا


جامعة جدارا


Mission:
Services:


STONEX


R 780
SP85


Jadara Univers
Irbed Jordan
جامعة جدارا
ترحب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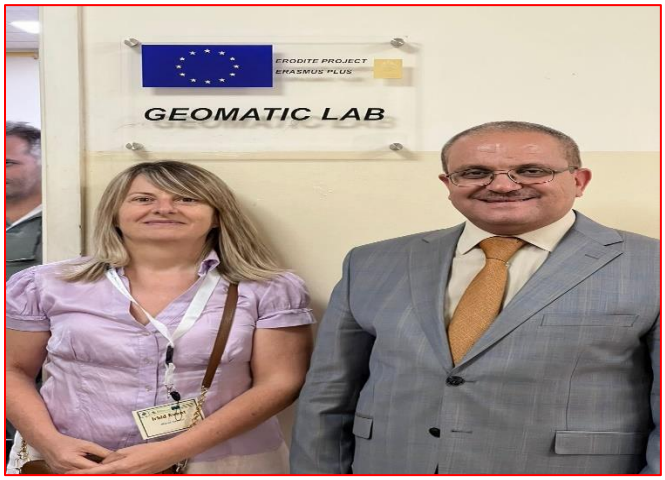

ERODITE PROJECT
ERASMUS +PLUS
GEOMATIC LAB

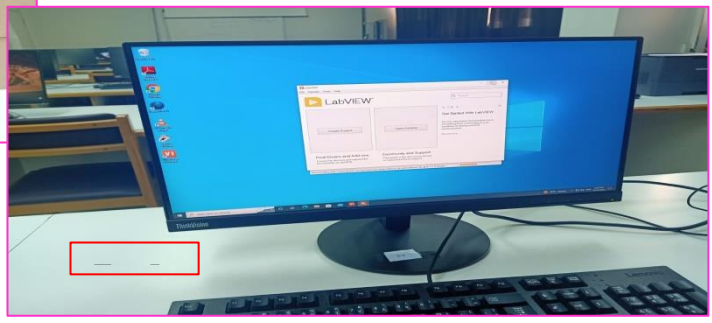
Digital Level

Stonex X300
3D Laser Scanner

High end

Digit

Pocket



Laser