



Pathway in Enterprise Systems Engineering (PENS)

# **Project Overview**

# **PENS Kick-Off Meeting**

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# Project Title

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- Title: “Pathway in Enterprise Systems Engineering” (PENS)
- The overall goal of the project is reforming and modernising computing education at undergraduate levels across 4 partner-countries universities, by introducing the Enterprise Systems Engineering to the curriculum .
- Erasmus+ KA2: Capacity Building in the field of Higher Education
- 3-year Project: 15 Oct 2017 – 14 Oct 2020 (3 years)

# Consortium

- Partner Countries

1. Birzeit University, Palestine (coordinator)
2. Al-Quds University, Palestine
3. Al-Andalus Software & Technology, Palestine
4. University of Sousse, Tunisia
5. University of Monastir, Tunisia
6. Proxym IT, Tunisia

## EU Countries

7. Middlesex University, UK
8. Universidad de Alcala, Spain
9. University of Cagliari, Italy



# Motivations

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- Enterprise Systems Engineering (ESE) is a multidisciplinary approach to apply engineering principles and tools to 'enterprises'
- enterprise is defined as a complex, socio-technical system comprised of people, processes, information, and technology which interact with each other and their environment to support a common outcome or mission.

# Motivations

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- ESE practically started in the early 90's as a technique for describing various aspects of an enterprise, especially for the purpose of analysis, design, optimisation and more importantly business process reengineering.
- Due to internal and external influences create a turbulent business environment, enterprises need to become more dynamic.
- Apply systems engineering life cycle framework for linking outcome-based engineering analysis and decision making with enterprise strategic objectives.

# Project Objectives

- To implement an innovative curriculum in Enterprise Systems Engineering, as an integrated pathway in the existing undergraduate IT program.
- To develop, validate and implement 8 courses and 4 case studies using student-centred adaptive eLearning contemporary education methodology.
- To promote entrepreneurship education by developing a course in digital entrepreneurship
- To improve the level of competencies and skills of staff in partner country universities by (i) training visits for staff to EU partners to develop Enterprise Systems Engineering in curriculum development and innovative learning (ii) providing research collaboration opportunities with EU staff through joint- supervision of students' projects.
- Additionally, to create opportunities of collaboration between academia and industry in the areas of Enterprise Systems.

# Project Outcomes

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- Training of faculty and tutors
- Develop teaching materials for 8 courses;  
Exchange of students and faculty for pilot run of the track
- Develop case studies for student training in Enterprise Modelling, Architecture and Business process and Business Intellegince
- Establish state of the art teaching environment, i.e. custom pedagogy and lab

# Work Packages

- WP1: Analysis of the existing curriculum in ESE
  - Define the track objectives, course selection and specification and define teaching methodology (SU)
  - LP: SU
- WP2: Curricula Development
  - design the curriculum
  - develop ESE pathway courses and learning material
  - Capacity building for PC staff
  - LP: UHA
- WP3: Industrial Partnership
  - Internship Model
  - Entrepreneurship education (LP: MUHEC )
  - Training case Study (LP: HUA)
  - LP: ASD
- WP4: Quality Control and monitoring
  - LP : MUHEC
- WP5: Program Implementation and Dissemination
  - Dissemination project results and outcomes
  - Track implementation including its accreditation and course delivery
  - LP: AQU
- WP6: Management of the project
  - LP: BZU



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**Thank you for your attention!**

