STRATEGY OF THE OF ESIAM –USJ AND RESULTS ACHIEVED

LINKAGES BETWEEN ACADEMICS AND INDUSTRY

Curriculum, research, expertise

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Context-based Technologies to Enhance the Efficiency and Resilience of Agri-food Systems in Lebanon
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A QUICK OVERVIEW

Université Saint-Joseph de Beyrouth
ESIAM - ESIA
Who are we?

A private university founded in 1875, member of 9 international associations

✓ 13 faculties, 14 institutes and 5 higher schools
✓ 4 university chairs and 1 professional center of mediation
✓ 12 000 students, 2000 lecturers and 500 administrative staff
✓ 19 research centers, 31 laboratories, 3 research units, 1 observatory and 1 tissue bank
✓ More than 350 international agreements
✓ 5 campuses in Beirut, 3 regional campuses, 1 center in Dubaï and 1 office in Paris
✓ Technology poles (PTS, Berytech...)
ESIA-M

Who are we?

History and mission

✓ Founded in 1979 in the Faculty of Engineering of USJ
✓ Mission to contribute to the development of food value chain sector in Lebanon and the region through education, research and technology transfer
CURRICULUM

Innovation and entrepreneurship
Professional integration
INNOVATION AND ENTREPRENEURSHIP COURSES

3rd year curriculum

5 steps innovation project:

1. From Idea to startup
2. Market hovering studies
3. Technical feasibility studies
4. Economic feasibility studies
5. Project pitch: prototype, business plan...

Student team

Company
PROFESSIONAL INTEGRATION

5th year curriculum of ESIA

6 months training within the enterprise

List of courses to be chosen by STUDENT and COMPANY:

- Integration reporting
- Industrial processes
- Supply chain management
- Quality management
- Industrial residues management
- Management and marketing strategy
- Unitary operation
- Energy management
- Automatisation and GRAFCET
- Packaging
- Statistical management of processes
Optimization of Arak distillation process considering distillates yield and quality.

Optimization of post-harvest techniques for cherries for export.

Increase of line efficiency on 4.75-liter oil production line while maintaining the product quality and respecting food safety standards.

Detection of adulterants in goat products through a simple non-costly method: FtNIR spectroscopy.

Positioning of a Lebanese chocolate in comparison to international labels using FtNIR spectroscopy.

Optimization of Arak distillation process considering distillates yield and quality.
COMMUNITY SERVICE

Lab analysis
Expertise
LAB ANALYSIS

Food analysis
- Honey, olive oil, wine, bread...
- Chemical and authentication parameters

Soil and water analysis
- Physio-chemical soil analysis
- Physio-chemical water analysis
- Soil and plant hydric state

Fruit and vegetables analysis
- Organoleptic measures (sweetness, color, firmness...)
- Post-harvest measures (gas equilibrium)
EXPERTISE

Consultancy

• Ongoing national and international projects

Professional trainings

• To producers, engineers, scientists...
• Ongoing national and international projects

Conferences and seminars

• To producers, engineers, scientists...
THANK YOU

ESIA-M - USJ

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