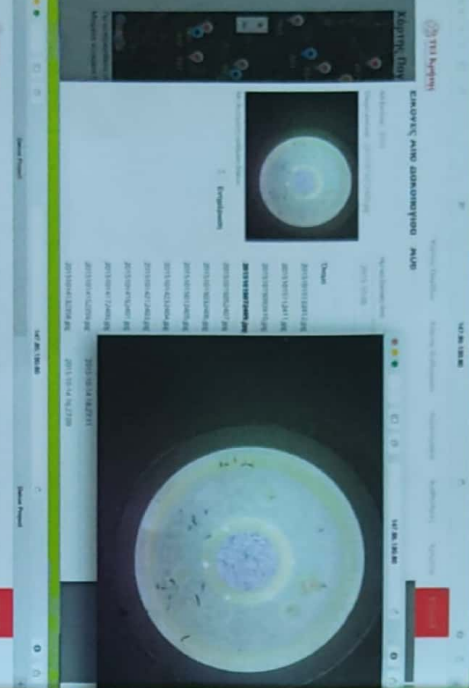
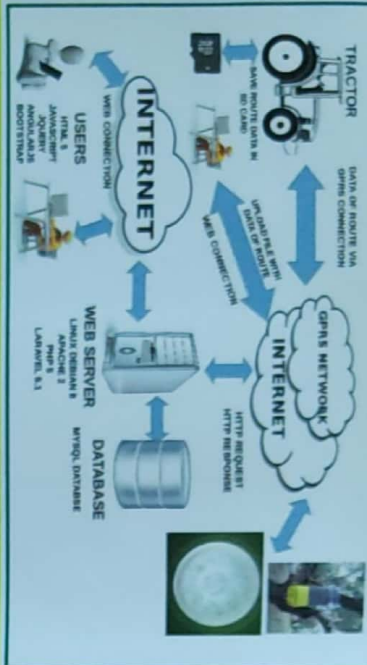


## Remote Monitoring – Decision Making: MONITOR



## Expected Results

- ✓ Effective protection against *Bactrocera oleae*
- ✓ Qualitative and quantitative Improvements of the produced olive-oil
- ✓ Increased environmental protection
- ✓ Improved health and safety at work



Laboratory Address:

**TEI of Crete**

Department of Electronic Engineering  
and Automation  
Romanou 3, Chalepa  
Chania, P.C. 731 33

Project information:

<http://edakos.chania.teicrete.gr>



In collaboration with the Laboratory of Entomology of the Institute for Olive Tree and Subtropical Plants of "DIMITRA" Greek Agricultural Organization, Chania, Crete, Greece, P.C. 731 00

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This project was implemented within the context of the Operational Program "Education and Lifelong Learning" action Archimedes III, Project 25, entitled: "Development of an Integrated System for the Optimization of Bait Sprays Against *Bactrocera Oleae* by Using Modern Automation Techniques" and is co-financed by the European Union (European Social Fund) and Greek national funds (National Strategic Reference Framework 2007 - 2013).



European Union  
European Social Fund

OPERATIONAL PROGRAMME  
**EDUCATION AND LIFELONG LEARNING**  
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MINISTRY OF EDUCATION & RELIGIOUS AFFAIRS  
MANAGING AUTHORITY  
Co-financed by Greece and the European Union



**TEI of Crete**

Department of Electronic Engineering  
and Automation  
Laboratory of Circuit Technology  
and Automation



## Precision Agriculture using ICT'S

Project information:  
<http://edakos.chania.teicrete.gr>



The Laboratory of Circuit Technology and Automation of the Electronic Engineering Department of TEI of Crete, may serve research and educational purposes in the fields of:

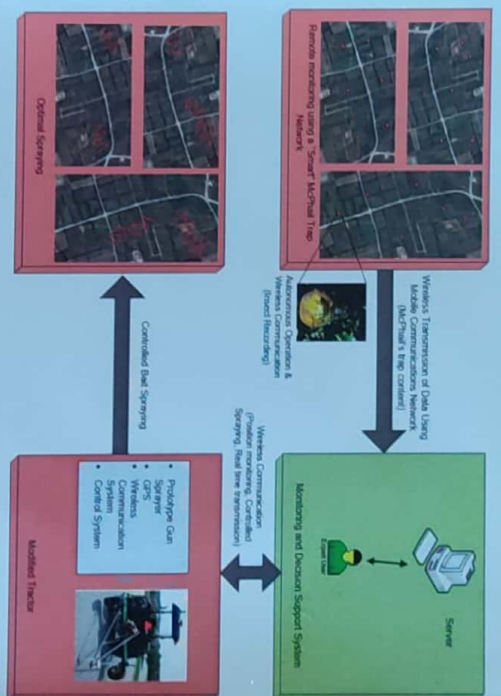
- ✓ Printed circuits
- ✓ Digital and organic electronics
- ✓ Automatic control systems
- ✓ Industrial automations
- ✓ Embedded systems
- ✓ Intelligent control systems
- ✓ Computer architecture
- ✓ Robotics
- ✓ Structural identification
- ✓ Stochastic fault detection and isolation
- ✓ Novel educational methodologies

The Laboratory is focused on developing specialized solutions for agricultural, industrial and structural applications. It is also capable for educating students and any interested stake holders.



## The Problem

- Weekly-based insect population monitoring is:
  - ▶ Costly
  - ▶ Information is not proactive
- The accuracy of bait sprays is limited:
  - ▶ Unknown sprayed quantity
  - ▶ Spraying of a larger - than required - tree area
  - ▶ Chemical burden of the wider ecosystem
  - ▶ Issues related to health & safety of work-force



## The Proposed Solution

- Development of a "smart" McPhail e-trap
- Development of an optimized spraying mechanism
- Continuous spraying recording (spatial/quantitative)
- Development of a web-based application for real-time representation, monitoring and decision making

### Real-time information from the field: SENSE

### Bait-sprays applied in an optimal manner: ACT

