



HIGHER SCHOOL OF COMMUNICATIONS OF TUNIS

**PISTE PROJECT 2018**

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# **Wireless Sensor-Based IoT Application for Monitoring and Controlling Agro-environmental parameters**

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## 2 Project organization

### 2.1 Team presentation

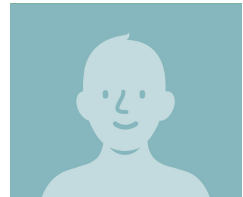
We are ten students in the 2nd year of the engineering cycle at the higher school of communication of Tunis SUP'COM in the specialty Telecommunication Systems **Systel**. We were split into five groups with five sub-projects.

#### Sub-project 1

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**Aymen HAMROUNI**



**Houcine GOUADRIA**

- Measure agro-environmental parameters from IoT nodes and send data to the gateway.
- WSN implementation with multi-hop relaying using Rime protocol stack.
- C programming with Contiki OS.

## Sub-project 2

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**Dhiaeddine ALIOUI**

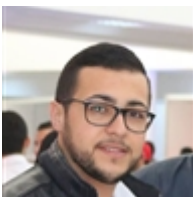


**Yasmine BEJAR**

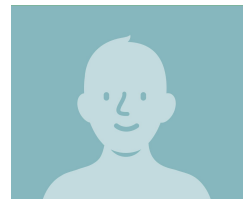
- Measure agro-environmental parameters from IoT nodes and send data to the gateway.
- WSN implementation with multi-hop relaying using uIP protocol stack.
- C programming with Contiki OS.

## Sub-project 3

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**Ghassen ALLOUCHE**

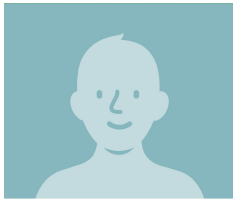


**Abdedeyem ZELFANI**

- Serialize data received from IoT nodes and post to MySQL database.
- Application development with Node-Red.
- Python programming, MySQL.

## Sub-project 4

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**Bechir NAHALI**



**Firas GUIZA**

- Apply the fuzzy logic algorithm on agro-environmental parameters to determine the flow rate and duration.
- Update the database.
- Matlab, R, Python.

## Sub-project 5

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**Zoubeir IBIDHI**



**Emna SEDDIK**

- Web site development.
- Virtual machine deployment and management : Amazon EC2 instance.
- PHP, CSS, JavaScript, HTML.