Microélectronique et instrumentation
MESRST : 03 / UR / 13-04

University of Monastir

Developing in University a Humanitarian Space Program

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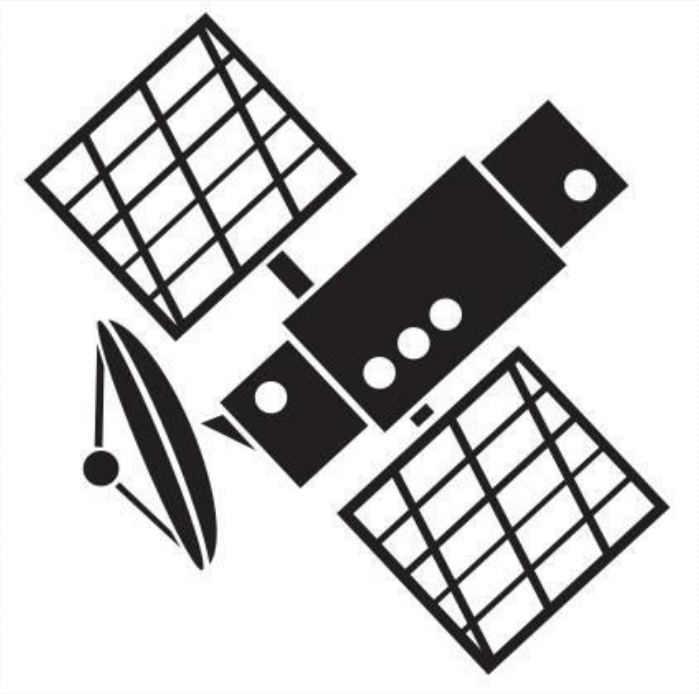
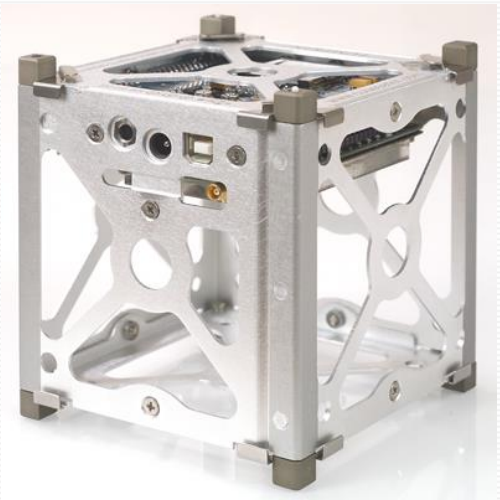
Introduction





Motivation and problem statement

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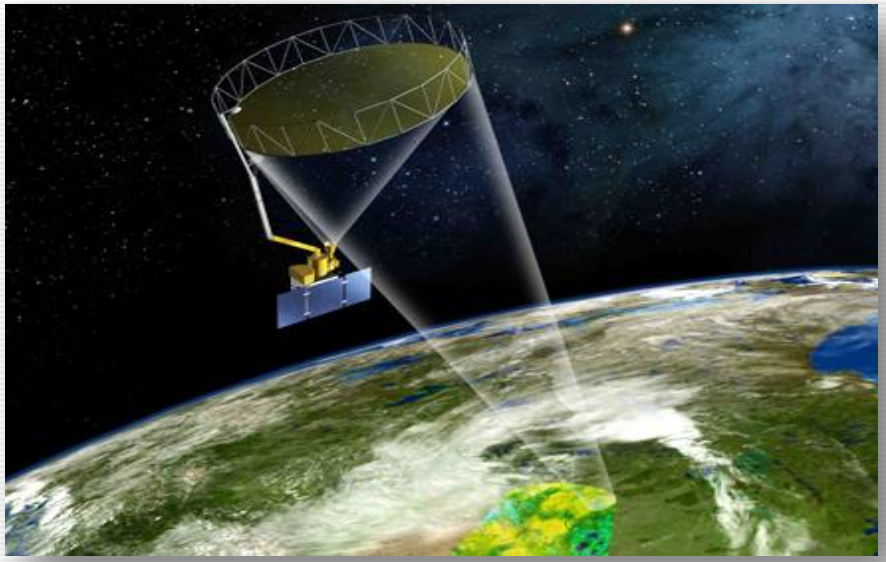
- Observation methods



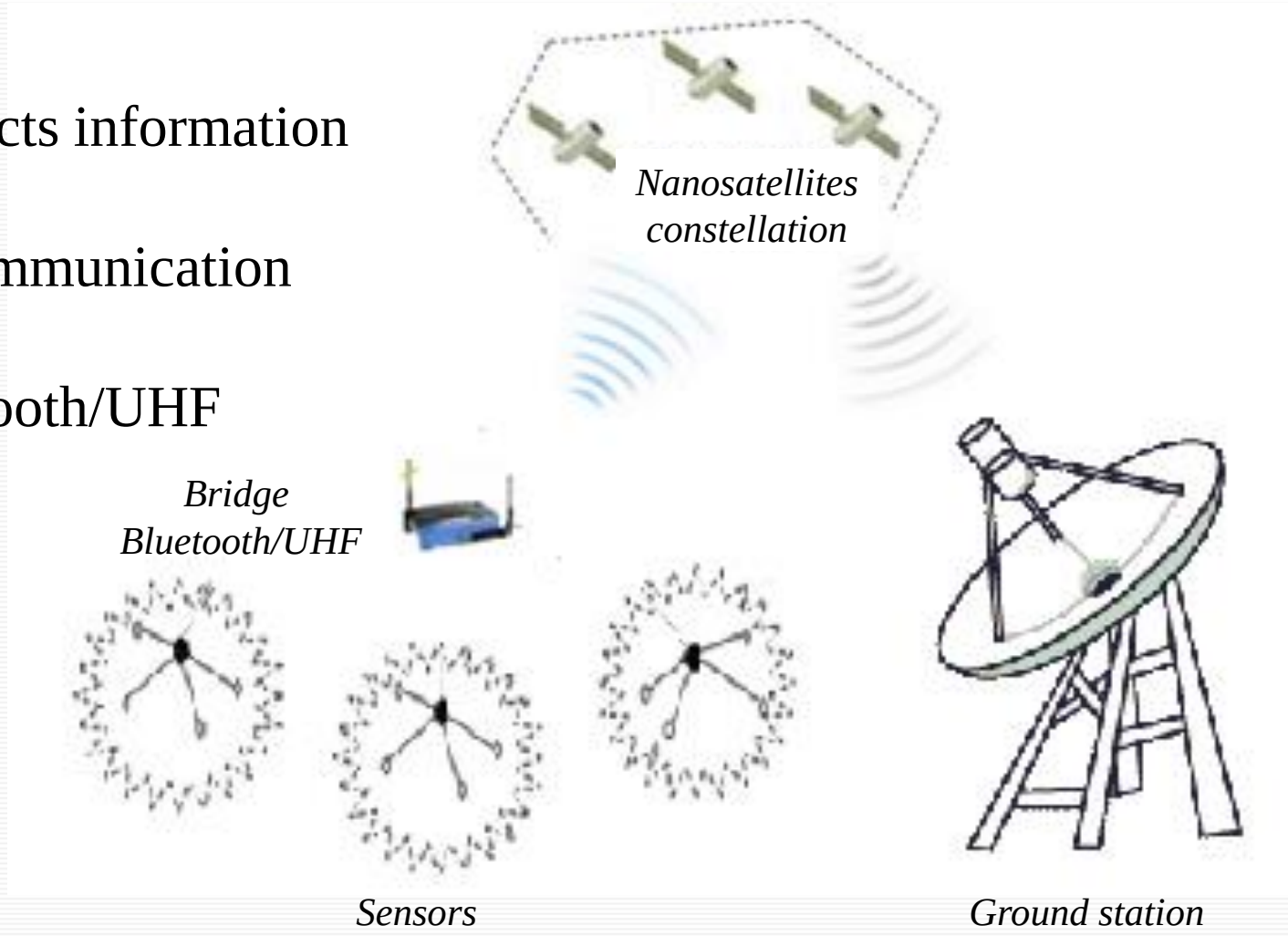
World Bank, USAID and NASA

- In-situ mesearement

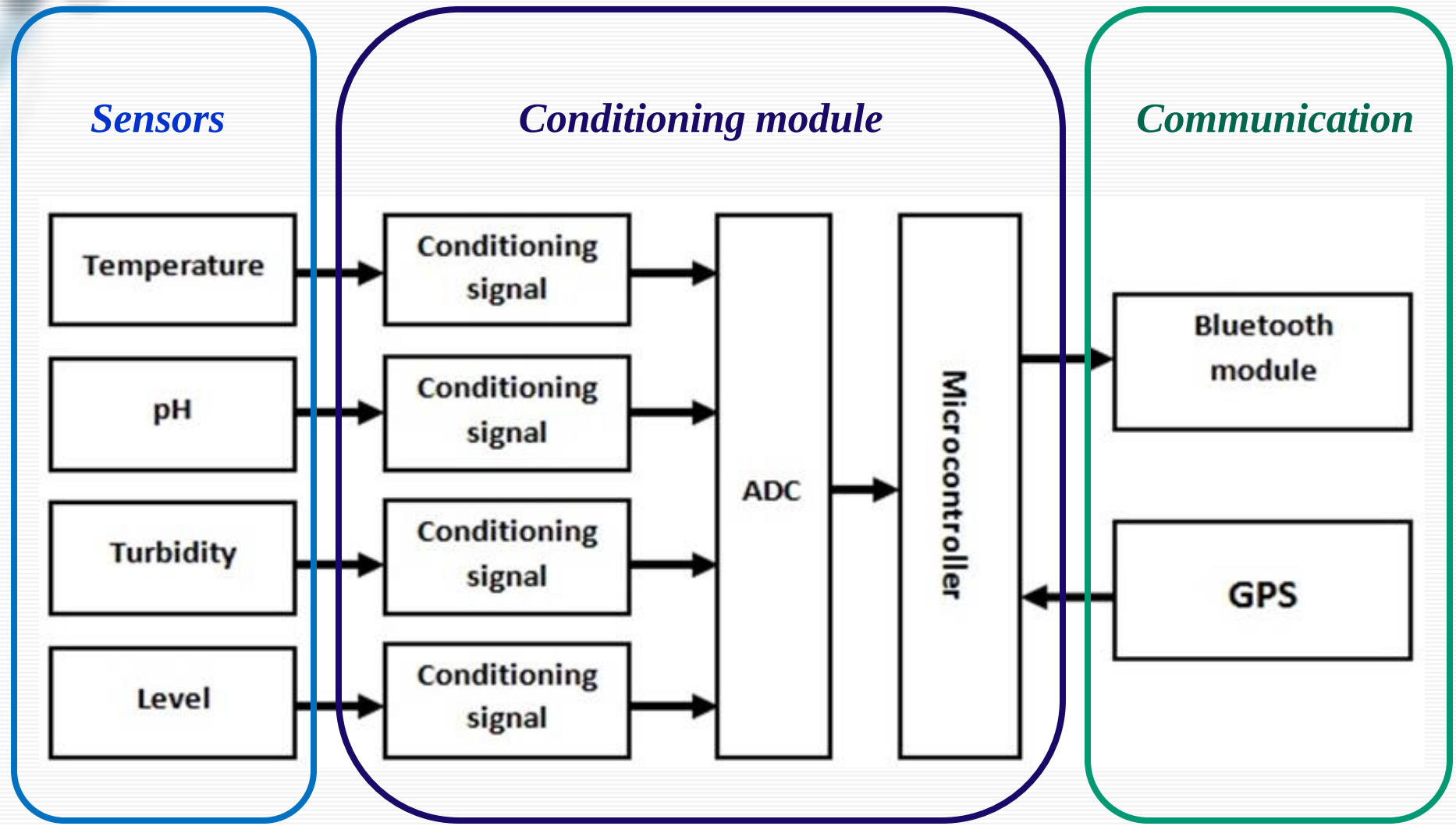
Satellite earth observation present always gaps

System architecture

1. Sensors collects information
2. Bluetooth communication
3. Bridge Bluetooth/UHF



In-situ system architecture



Mission implementation

- **µEi-Lab : Monastir University**

  - On line water system
  - Ground station

- **REGIM-Lab : Sfax University**

  - Satellite's data processing algorithms
  - Satellite bus design

- **VSEE-Lab : Sousse University**

  - Communication network Management

Conclusion

- Autonomous and in-situ water quality monitoring system including a low coast solution.

- Nanosatellite technology for water quality monitoring through the international space project HUMSAT.

Future work will be related to the field pathogen particle detection in water within Lab On Chip system.

Thank you
for your attention

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