

# ***TECO Mobility grant***

## **Designing a rapid water quality testing device**

**Beneficiary of the grant- Dr Tahmina Ajmal**

**Home Institution/Company (EU)- University of Bedfordshire**

**Host Institution/Company (INDIA)- FFEM, Bangalore**

**Period of the stay in India- 25° October to 23° November**



### ***TECO Project***

*Technological ECO-innovations for the quality control  
and the decontamination of polluted waters and soils*

*Tel: +39 06 9067 2540*

*E-mail: [teco.challenge@gmail.com](mailto:teco.challenge@gmail.com)*

*Website: [www.tecoproject.eu](http://www.tecoproject.eu)*

# Objective of the project

Improve the performance of FFEM bacterial contamination sensor

- By reducing time to results
- Improved efficiency
- Conduct usability studies
- Consider improvements in the system



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# Activities carried out during the period of the grant

- Developed design of an improved system based on machine learning and neural network to improve its performance – concept paper in progress
- Suggested improvements in the design of the FFEM system to incorporate a field incubator
- Conducted usability of FFEM system with school children
- Suggested fluorescence based reagent Resorufin for improved performance in terms of faster response
- Visited CSIR – NEERI, Nagpur for FFEM device certification
- Selected site for field testing of FFEM devices



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# Main outcomes

- Applied knowledge from previous project AQUATEST and Nanofluor to improve the performance of FFEM prototype
- Considered design of an improved system based on machine learning and neural network to improve its performance
- Considered improvements in the design of the FFEM system to incorporate a field incubator
- Conducted usability of FFEM system with school children and selected sites for its field trials
- Suggested fluorescence based reagent Resorufin for improved performance in terms of faster response



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