

## WATER RESOURCE **MANAGEMENT USING** INTERNET OF THINGS, **REMOTE SENSING AND** CITIZEN SCIENCE

As part of the new eMasters in Water Resources Engineering (eMWRE), a series of webinars will be held to show the value and application of Internet of Things (IoT), Remote Sensing (RS) and Citizen Science (CS) in the field of water resources engineering/management. Each webinar will also include time to engage with the expert panel during a Q&A session. The webinar series is free to attend and open to the public, however registration is required. Current and prospective students, researchers, and practitioners in the MENA region are encouraged to join. For more information and registration, go to emwre.eu/webinar.

eMWRE, an Erasmus+ Project, will implement an online Master program using innovative technology and advanced tools to provide more sustainable solutions to the water scarcity problems in the MENA region. More information on the program can be found at emwre.eu. emwre.eu.

February 18, 2021 17:00 EET/16:00 CET Introduction to IoT and RS

February 23, 2021 17:00 EET/16:00 CET Flooding (IoT, RS, CS)

February 25, 2021 17:00 EET/16:00 CET Water quality (RS)

March 2, 2021 17:00 EET/16:00 CET Agriculture (IoT, RS)

March 4, 2021 17:00 EET/16:00 CET Urban (IoT, RS, CS)

March 9, 2021 17:00 EET/16:00 CET Data Management (IoT, RS)

March 11, 2021 17:00 EET/16:00 CET Water quality (IoT)

March 16, 2021 17:00 EET/16:00 CET Ecosystems (IoT, RS)

































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#### INTRODUCTION

February 18, 2021 17:00 EET/16:00 CET Hosted by Vrije Universiteit Brussel

#### **EXPERT PANEL**



**Prof. Kris Steenhaut**, Professor, Vrije Universiteit Brussel, Belgium

"Introduction to Internet of Things"



Dr. Charlotte Wirion, Guest Professor, Vrije Universiteit Brussel, Belgium

"Introduction to Remote Sensing"

#### **FLOODS**

February 23, 2021 17:00 EET/16:00 CET Hosted by IHE Delft, Fluves, and Jordan University

#### **EXPERT PANEL**



Prof. Leonardo Alfonso, Associate Professor in Hydroinformatics at IHE-Delft.

"Crowdsourcing for Flood Risk Management"



**Thomas Van Hoestenbergh** Bio engineer, Fluves, Belgium



**Styn Van Hoey** Bio engineer, Fluves, Belgium

"IoT sensors for Flood control"



Dr. Radwan Al-Weshah Dean University of Jordan, Jordan

"Using remote sensing for flood monitoring"

































## WATER RESOURCE MANAGEMENT USING INTERNET OF THINGS, REMOTE SENSING AND **CITIZEN SCIENCE**

WATER QUALITY February 25, 2021 17:00 EET/16:00 CET Hosted by Vito

#### **EXPERT PANEL**



Dr. Ils Reusen, Project manager, Vito, Belgium

"Monitoring water quality from space"



Liesbeth De Keukelaere, Bio-Science Engineer, Vito, Belgium

"Monitoring water quality from drones and fixed cameras"

**AGRICULTURE** March 2, 2021 17:00 EET/16:00 CET Hosted by Vrije Universiteit Brussel, and Vito

#### **EXPERT PANEL**



Douglas Nyolei, PhD student, Vrije Universiteit Brussel, Belgium

"Opportunities in IoT for improved monitoring and modelling of Agricultural systems"



**Sven Gilliams** Team Leader, Vito, Belgium

"Agricultural Monitoring, and FAO's database on water productivity WAPOR"































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**URBAN** March 4, 2021 17:00 EET/16:00 CET Hosted by TU Delft, and VUB

#### **EXPERT PANEL**



Prof. Remko Uijlenhoet, Professor of Hydrology, TU Delft, The Netherlands

Opportunistic urban rainfall monitoring and forecasting "



Dr. Boud Verbeiren. Guest Professor, Vrije Universiteit Brussel, Belgium

"FloodCitiSense: Citizens actively contributing to urban rainfall and flood monitoring "



Dr. Charlotte Wirion, Guest Professor, Vrije Universiteit Brussel, Belgium

"Remote Sensing to quantify urban water fluxes"

#### DATA MANAGEMENT March 9, 2021

17:00 EET/16:00 CET Hosted by IHE Delft, and Vito

#### **FXPFRT PANFI**



Dr. Hans van der Kwast, Senior Lecturer, IHE Delft, The **Netherlands** 

"Sharing Open Data through Spatial Data Infrastructures"



**Jurgen Everaerts** Business Developer, Vito, Belgium

"Terrascope: big data plaform for remote sensing"









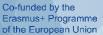




























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WATER QUALITY March 11, 2021 17:00 EET/16:00 CET Hosted by Vito, and VUB

#### **EXPERT PANEL**



**Prof. Piet Seuntjens**, Program Manager, Vito, Belgium

"Internet of Water Flanders: a full stack approach to monitor water quality parameters"



Prof. Abdellah TOUHAFI, Professor, Vrije Universiteit Brussel, Belgium

"SMART-Water: IoT for lake water quality monitoring"

ECOSYSTEMS
March 16, 2021
17:00 EET/16:00 CET
Hosted by Ghent University, Warsaw University

#### **EXPERT PANEL**



**Prof. Peter Goethals**, Professor, Ghent University, Belgium

"Innovative technologies for monitoring species distributions and behavior."



**Prof. Jarosław Chormański**Professor, Warsaw University of Life Sciences, Poland

" Monitoring system for riparian wetland with use of eddy-covariance and remote sensing"



























