DAAD

HOCHSCHULE **RHEIN-WAAL**
Rhine-Waal University of Applied Sciences

LatiNet

Environmental Conference 2023

Monday, 06.02.2023

Environmental Science

10:00 **Welcome**
Representatives of the Faculty and of the Green FabLab, Team "LatiNet"

10:30 **Cooperation ULL/HSRW:**
Detection of sea grass beds with drones/AI
Sylvia Oliva (ULL/Tenerife), Clein Sarmiento, Magdalena Moßbrucker

11:00 **Automated lightning prediction and notification using Machine Learning**
Marjahan Akter, Jan Ely, Ute Hansen

11:30 **RESWARM: sustainable water management in view of climate change**
Kai Tiedemann

12:00 **OpenHygrisC Data Processing for Education (OpenHyPE)**
Rolf Becker, Sina Navid

LUNCH

14:00 **Visit to the Environmental Analytics Lab, Fuel Cell Test Station, IoT-Lab**

15:00 **Visit to the FabLab Kamp-Lintfort**

16:00 **Participation in the „OpenLab"/FabLab**

Tuesday, 07.02.2023

Data Science Applications and Didactics

09:30 **Drone/UAV Applications for the environment**
Winfried Rijssenbeek (Drone4Agro/Netherlands)

10:00 **State-of-the-Art research at the Institute of Engineering Sciences, O'Higgins University**
Rodrigo Verschae (UOH/Chile)

10:30 **Collaboration HAN/HSRW:**
Master's programs in Data Science
IECS: Clein Sarmiento, Andreas Kofer
MADS: Maya Sappelli (HAN/Netherlands)

11:00 **"Learning nuggets": an approach to collaborative teaching**
Maya Sappelli

11:30 **The Crunchy Cloud project**
Jan Sonntag, Azam Zubairi, Clein Sarmiento

12:00 **Blockchain Mining in terms of hashing algorithm efficiency**
Carlos Martínez (UNICAES/El Salvador)

Visit to Zechenpark and KALISTO

14:00 **Workshop:**
Jupyter notebooks as a teaching tool for the learning nuggets
Maya Sappelli, Clein Sarmiento

EduNet

HAN_UNIVERSITY OF APPLIED SCIENCES

Wednesday, 08.02.2023

Agroforestry and Agriculture

09:30 **Research at Fábrica Digital O'Higgins: "digital beehives" and "root phenotyping".**
Daniel Casagrande (UOH/Chile)

10:00 **Big data application to monitor forest state and global deforestation**
Dietrich Darr

10:30 **Big data application in sustainable foodsystems**
Kathrin Meinhold

11:00 **Measuring the German market potential for baru chestnut products**
Maria Gomes-Vale

11:30 **Sustainability in the palm oil value chain**
Idsert Jelsma

12:00 **Lit. review: Environmental service of agroforestry systems**
Md. Sofiullah

LUNCH

14:00 **Smart contract blockchain model applied to agribusiness**
Carlos Martínez

14:30 **Big data application in the commercialization of baobab fruits**
William Dumenu

Field trip to Xanten with guided tour of Xanten Cathedral

Thursday, 09.02.2023

Environmental Monitoring

09:30 **AndesFlux: Ecohydrological impacts of climate change in the Western Amazon**
Eric Cosio (PUCP/Peru)

10:00 **AndesFlux continued; usage of LoRaWAN and sensors**
Jan Sonntag

10:40 **Tenerife: An amazing environmental lab**
Antonio Eff-Darwich (ULL/Tenerife)

11:00 **Predictive model for the availability of phosphate in soils**
Carlos Martínez

11:30 **Real-time web application for ground water management**
Sina Navid, Philipp Höhn (LINEG)

12:00 **Electrochemical analysis of energy storage devices**
Irmgard Buder

LUNCH

14:00 **Workshop:**
Understanding Eddy Covariance and LoRaWAN Systems
Jan Sonntag, Eric Cosio, Rolf Becker

Friday, 10.02.2023

Environmental Education and Citizen Science

10:00 **Nitratscouts: new environmental educational materials**
Daniela Lud, Magdalena Moßbrucker

10:30 **School FabLab - the network**
Martin Kreymann, Marc Kohlen

11:00 **zdi – Future through Innovation.NRW**
N.N.

11:30 **It's group work: Citizen Science and Community Capitals**
Klaus Hegemann

12:00 **Multi-objective optimization: a mathematical tool for environmental care**
Giusseppe Bervis (ULSA/Nicaragua)

LUNCH

14:00 **Workshop:**
My classroom on Mars
Antonio Eff-Darwich (ULL/Tenerife)

Monday, 13.02.2023

STEM Education and Social Ecological Transformation

10:00 **EnvironMINT**
Kathrin Smolarcyk

10:30 **Let's PIAly! - AI in schools to promote the Sustainable Development Goals**
Harley Lara, Rolf Becker, Clein Sarmiento, Andreas Kofer, Magdalena Moßbrucker, Waltraud Kofer, Patrick Kofer

11:00 **The ESC: a cross-border think tank for transition research**
Kai Tiedemann

11:30 **Engagement for the sustainability of rural life**
Birgit Mosler (RheWaTech)

LUNCH

14:00 **Workshop:**
Nitratscouts
Daniela Lud, Magdalena Moßbrucker

16:00 **Workshop:**
Let's PIAly!, SNAP, AI at School
Harley Lara, Rolf Becker

Tuesday, 14.02.2023

Kleve Campus, Bionic's Hall

10:00 **Concept FabLab.blue and digital fabrication**
William Megill

11:00 **Environmental Technology Lab for water quality an microbiology**
Matthias Kleinke, Mark Kevin Zinn

12:00 **Tropical Greenhouse – experiments and development concepts**
Franz Kuhnigk, Mark Kevin Zinn

LUNCH at Kleve Mensa
with brainstorming about cooperation possibilities

14:00 **Workshop:**
From experiments to projections. Systems analysis of environmental change
Sylvia Moenickes

Wednesday, 15.02.2023

Field trip to the Gasometer Oberhausen

Conference Location: GREEN FABLAB KAMP-LINTFORT

Address: Green FabLab I Friedrichstraße 2A
47475 Kamp-Lintfort