SIDISA 2021 TURIN

XI INTERNATIONAL SYMPOSIUM ON ENVIRONMENTAL ENGINEERING

June 29th / July 2nd

WAITING FOR SIDISA 2021... Free attendance for already registered participants to SIDISA 2021!

SIDISA 2021 ***WEBINARS***

Prof. MARCO **RAGAZZI**

27 April | h. 11.30

Full Professor in Environmental Engineering at Trento University, Italy. Rector's delegate for environmental sustainability.

WASTE THERMAL TREATMENTS AND CIRCULAR ECONOMY

According to the vision of the European Union, circular economy is focused on material recovery from waste. In this frame, the webinar will discuss the role that the options of thermal treatment can play to close the loop in waste management. After a theoretical approach, some case studies will be presented in this webinar as example of the contribution that the thermal treatment sector can give to circular economy, also in term of material recovery. A critical analysis of the costs of some circular economy initiatives will complete the webinar.

Prof. VENKATESH **GOVINDARAJAN**

4 May | h. 11.30

Associate Professor at Karlstads University, Sweden. Lecturer in Environmental and Energy Systems.

CIRCULAR BIOECONOMY

While "renewable" is the keyword in a bioeconomy and resource conservation is the motivation behind a circular economy, a circular bioeconomy is one in which waste streams from renewable bio-resources are looped back into the technosphere – open-loop or closed-loop recycling or conversion from matter to energy. This systematic review brings together 385 publications from 2015-2021, 50 countries and 150 journals, into a coherent account of the status quo of published research on circular bioeconomy. The circular bioeconomy can be visualised as a set of "many through many to many" relationships, enabling both economies of scale and scope in the longer run. This calls for extensive collaboration and cooperation among the numerous stakeholders in the fray. Several barriers will have to be overcome. Technology impact assessments and sustainability risk appraisals need to be carried out in order to ensure and convince stakeholders that they are on the right path. But as one knows and will appreciate, challenges lurk where there exist opportunities to be availed of, to replace the take-make-use-dispose paradigm of a linear economy to the grow-make-use-restore alternative.

Prof. DAMIA **BARCELÓ**

12 May | h. 11.30

Full Professor IDAEA-CSIC, Spain. Since 2008, Director of the Catalan Institute for Water Research (ICRA), Girona, Spain.

MACRO-AND MICRO-PLASTIC LITTER AND INCREASED COVID-19 BASED PLASTIC POLLUTION IN THE AQUATIC ENVIRONMENT: ANALYSIS, EFFECTS, REMEDIATION AND POLICY SOLUTIONS

This presentation will cover, in the first part, different aspects of Micro-Plastics (MPs) and Macro-Plastic litter pollution in coastal waters, waste waters, rivers, sediments and lakes. Case studies of MPs pollution in several coastal environments, sediments and catchments of China, Saudi Arabia, India, Mexico, Europe and Australia will be reported. The second part will be devoted to plastic litter and its increase use under COVID-19 outbreak. This is related to an excessive use and consumption of single-use plastics, including personal protective equipment, masks and gloves. This presentation aims to provide an integrative and insightful overview on the effects of COVID-19 on MPs pollution and its potential implications on the environment and human health. Lastly, remediation strategies and policy solutions to mitigate the global MPs problem will be addressed.

Prof. CARLO **COLLIVIGNARELLI**

18 May | h. 11.30

Prof. Maria Cristina Collivignarelli
Ing. Alessandro Abbà, Marco Carnevale Miino, Francesca Maria Caccamo

Professore Emerito in Ingegneria Sanitaria Ambientale (Università degli Studi di Brescia)

La gestione dei fanghi di depurazione: minimizzazione, recupero e pianificazione

Sarà inquadrata la problematica della produzione, minimizzazione e recupero di materia e di energia dai fanghi di depurazione e relative strategie di pianificazione. Saranno illustrati interventi di minimizzazione della produzione dei fanghi. In particolare sarà esaminato il trattamento biologico termofilo: peculiarità, campi di applicazione, esempi di monitoraggio. Il seminario si concluderà con esempi di pianificazione.

This webinar will be held in italian.

Prof. MICHELE **TORREGROSSA**

25 May | h. 11.30

Full Professor in Environmental Engineering at Palermo University, Italy.

ADVANCED TECHNOLOGIES AND TREATMENTS FOR THE UPGRADING OF EXISTING PLANTS AIMED AT RECOVERING URBAN WASTEWATER

Existing wastewater treatment plants (WWTPs) are very frequently configured to achieve the objectives set by current legislation for discharge into receiving water bodies. However, in the logic of applying the principles of the circular economy also to wastewater, in order to close the virtuous cycle of water resources, it is necessary to raise the quality of the treated water for the purpose of subsequent reuse in the agricultural, civil and industrial sectors and for environmental purposes. This involves the necessary integration of the WWTPs with additional treatments. In this regard, the use of innovative technologies such as the use of membranes for the removal of nutrients, suspended solids and microbial load are proposed as an optimal solution to achieve these objectives. The seminar will have as its objective, both the analysis of the state of the art, and the operational and management aspects of these advanced systems.