

**Sixth International Conference with Youth Scientific Session**

**ECOLOGICAL ENGINEERING AND ENVIRONMENT PROTECTION (EEEP' 2019)**

**P R E L I M I N A R Y   P R O G R A M**

**05.06.2019 – Wednesday**

**8<sup>00</sup> – 9<sup>00</sup> REGISTRATION**

**9<sup>00</sup> – 9<sup>30</sup> OPENING**

**WELCOME ADDRESSES**

**9<sup>30</sup> – 12<sup>00</sup> PLENARY SESSION 1**

**Chairs: Alexander Alexandrov, Ivan Simeonov**

**9<sup>30</sup> – 10<sup>00</sup> - Hristo Najdenski (Bulgaria).** Biodegradation of potential hygienic cellulose wastes generated during long-term space missions.

**10<sup>00</sup> - 10<sup>30</sup> - Hendrik De Ruyck, Lieve Herman, Tina Van den Meersche (Belgium).** Presence and fate of antibiotic residues, antibiotic resistance genes and zoonotic bacteria in swine manure and soil.

**10<sup>30</sup> – 11<sup>00</sup> - Vyacheslav Ilyin (Russia).** Concept of waste treatment and space crew microbial safety in lunar program implementation.

**11<sup>00</sup> – 11<sup>30</sup> - Jérôme Harmand (France).** Contribution to the modeling of microbial ecosystems: a review and some news approaches.

**11<sup>30</sup> – 12<sup>00</sup> - Oleksandr Tashyrev (Ukraine).** Thermodynamic base for development of universal environmental phyto-bacterial biotechnologies.

**12<sup>00</sup> – 13<sup>00</sup> POSTER SESSION 1**

**13<sup>00</sup> – 14<sup>00</sup> LUNCH**

**14<sup>00</sup> – 17<sup>30</sup> ORAL PRESENTATIONS**

**14<sup>00</sup> – 15<sup>15</sup> Session 1: MAN AND BIOSPHERE**

**Chairs: Liudmila Kabaivanova, Hendrik De Ruyck**

**14<sup>00</sup>-14<sup>15</sup> – Alexander Alexandrov, Zdravko Bakalov.** Natural disasters in Bulgarian forests.

**14<sup>15</sup> – 14<sup>30</sup> - Neli Siveva, Kalin Krumov, Joro Krumov, Silvia Venkova, Hristofor Skandaliev.** Green rocket motors for civil purpose.

**14<sup>30</sup> – 14<sup>45</sup> - Vesselin Akivanov.** The challenges of the fourth industrial revolution.

**14<sup>45</sup> – 15<sup>00</sup> - Irina Schneider, Ivaylo Yotinov, Nora Dinova, E. Daskalova, Nikolay Savov, Yana Topalova.** Assessment of denitrification and nitrification processes during landfill leachate treatment.

**15<sup>00</sup> – 15<sup>15</sup> - Hristo Tsakov, Alexander Alexandrov, Olympia Roeva, Dafina Zoteva.** Forest fires in Bulgaria for the period 2009-2018.

**15<sup>15</sup> – 16<sup>00</sup> - COFFEE BREAK**

**16<sup>00</sup> – 17<sup>30</sup> Session 2: BIOAUTOMATICS AND BIOINFORMATICS**

**Chairs: Ivan Simeonov, Sette Diop**

**16<sup>00</sup> – 16<sup>30</sup> - Sette Diop (France).** Modeling and estimation of anaerobic digestion reviewed.

**(key lecture)**

**16<sup>30</sup> – 16<sup>45</sup> - Samia Semcheddine, Hanane Bouchareb (Algeria).** Robust control and state estimation of a three-stage anaerobic digestion process.

**16<sup>45</sup> – 17<sup>00</sup> - Milen Borisov, Dencho Denchev, Ivan Simeonov.** Mathematical modelling of two-stage

anaerobic digestion with hydrogen and methane production using ADM1.

**17<sup>00</sup> – 17<sup>15</sup> - S. Diop (France), I. Boussada, S. Tliba.** On-by-passing bioreactor biomass specific growth rate modeling.

**17<sup>15</sup> – 17<sup>30</sup> - Jean-Yves Trosset (France), Sami Tliba, Ali El Ati, Hela Friha, Estelle Mogensen, Jawer Kahouli, Robin Lacombe, Ouerdia Arkoun, Sette Diop, Rodrigo Ledesma-Amaro, Islam Boussaada.** Influence of micro-environment on yeast population dynamics.

**17<sup>30</sup> – Discussion on topics and publication activity of the Journal EEEP related to the international references requirements (invited participants).**

**20<sup>00</sup> WELCOME PARTY**

## **06.06.2019 Thursday**

### **9<sup>30</sup> – 12<sup>00</sup> PLENARY SESSION 2**

**Chairs: Hristo Najdenski, Vyacheslav Ilyin**

**9<sup>30</sup> – 10<sup>00</sup> – Christophe Lasseur & MELiSSA Partners (ESA).** Functional Ecology for Mars missions.

**10<sup>00</sup> - 10<sup>30</sup> - Vladimir Elisashvili, Eva Kachlishvili, Mikheil Asatiani, Aza Kobakhidze (Georgia).** Wood-rotting basidiomycetes and their enzymes for bioremediation.

**10<sup>30</sup> – 11<sup>00</sup> –Valentin Nenov (Bulgaria).** Perspectives in P. recovery from waste.

**11<sup>00</sup> – 11<sup>30</sup> – Nicholas Kathijotes (Cyprus).** A blue economy approach towards clean and sustainable seas.

**11<sup>30</sup> – 12<sup>00</sup> - Yana Topalova (Bulgaria),** Irina Schneider, Yovana Todorova, Mihaela Belouhova, Ivaylo Yotinov, Nora Dinova, Elmira Daskalova. Bioinnovations in clean technologies – key for the circle economy water cycles.

### **12<sup>00</sup> – 13<sup>00</sup> POSTER SESSION 2**

### **13<sup>00</sup> – 14<sup>00</sup> LUNCH**

### **14<sup>00</sup> – 18<sup>45</sup> ORAL PRESENTATIONS**

### **14<sup>00</sup> – 15<sup>15</sup> Session 3: SPACE TECHNOLOGY AND ENVIRONMENT MONITORING**

**Chairs: Plamen Angelov, Nicolas Katijotes**

**14<sup>00</sup> – 15<sup>15</sup> - Boyko Rangelov, Fathimath Shadyia and WP7 team.** The educational platform of CABARET project (FP7).

**14<sup>15</sup> – 14<sup>30</sup> - Ива Иванова, Теменужка Спасова, Наталия Станкова.** Оценка и мониторинг на моментното състояние на Дуранкулашкото езеро на базата на спътникови данни от Sentinel 2.

**14<sup>30</sup> – 14<sup>45</sup> - Теменужка Спасова, Ива Иванова, Румен Недков.** Сезонна оценка на мокра снежна покривка на база аерокосмически данни на територията на о-в Ливингстън, Нови Шетлъндски острови в Антарктика и Свалбард в Арктика.

**14<sup>45</sup> – 15<sup>00</sup> - Andrey Stoyanov, Nikolay Georgiev.** Assessment of the situation of forest vegetation in the Natural park „Blue stones“ territory by the methods of remote sensing.

**15<sup>00</sup> – 15<sup>15</sup> - Kameliya Radeva, Nikolay Georgiev.** Remote sensing as a contemporary method for ecological monitoring on different types of ecosystems.

### **15<sup>15</sup> – 15<sup>45</sup> - COFFEE BREAK**

### **15<sup>45</sup> – 17<sup>00</sup> Session 4: RENEWABLE ENERGY AND BIOFUELS**

**Chairs: Svetla Marinova, Jerome Harmand**

**15<sup>45</sup> – 16<sup>15</sup> – A. B. Blagoev.** Are the hybride nuclear reactors the answer for the 21st century energy needs? (key lecture)

**16<sup>15</sup> – 16<sup>30</sup> – Lyudmila Kabaivanova, Venelin Hubenov, Elena Chorukova, Snezhanka Mihaylova, Juliana Ivanova, Ivan Simeonov.** Biomethane production as a result of anaerobic digestion followed by algae cultivation in the obtained digestate.

**16<sup>30</sup> – 16<sup>45</sup> – C. Daccò, M. Temporiti, S. Tosi (Italy).** Selection of fungal strains useful for the purification of the lignin fraction from residues of bioethanol production.

**16<sup>45</sup> – 17<sup>00</sup> - Venelin Hubenov, Jeny Miteva-Staleva, Dencho Denchev.** Anaerobic fungi and their biofuels production potential.

**17<sup>00</sup> – 17<sup>30</sup> COFFEE BREAK**

**17<sup>30</sup> – 18<sup>45</sup> Session 5: ENVIRONMENTAL BIOTECHNOLOGY**

**Chairs: Yana Topalova, Olexander Tashirev**

**17<sup>30</sup> – 17<sup>45</sup> - Пламен Цветков, Светлана Браткова.** Полупасивно третиране на минни отпадъчни води в анаеробни условия.

**17<sup>45</sup> – 18<sup>00</sup> - Boyko Tsyntsarski, Bilyana Petrova, Ivanka Stoycheva, Miglena Vassileva, Georgi Georgiev, Antoana Bahova, Temenuzhka Budinova, Petko Denev, Nartzislav Petrov.** Cadmium removal from water by nanocarbon from biomass.

**18<sup>00</sup> – 18<sup>15</sup> - Yovana Todorova, Ivaylo Yotinov, Yana Topalova, Plamena Marinova, Evgenia Benova, Ivan Tsonev, Mariana Atanasova, Todor Bogdanov.** Inhibition of bacterial biofilm formation by microwave plasma torch.

**18<sup>15</sup> – 18<sup>30</sup> - Yana Topalova, Elmira Daskalova, Nelie Zheleva, Mihaela Beluhova, Pavlina Dolashka.** Effect of impact of peptide fraction /mt-20/ isolated from muscus of cornu aspersum on escherichia coli with participation of nanodiamonds.

**18<sup>30</sup> – 18<sup>45</sup> – Ivan Simeonov, Snezhana Mihailova, Danka Galabova, Vesselin Akivanov.** Anaerobic digestion of lignocellulosic waste in a pilot bioreactor.

**19<sup>30</sup> GALA DINNER**

**07.06.2019 Friday**

**9<sup>00</sup> – 11<sup>30</sup> Session 6: MICROBIAL FUEL CELLS**

**Chairs: Valentin Nenov, Denis Korshunov**

**9<sup>00</sup> – 9<sup>15</sup> - Gergana Peeva, Hyusein Yemendzhiev, Bogdan Bonev, Valentin Nenov.** Solid waste separation by microfiltration.

**9<sup>15</sup> – 9<sup>30</sup> - Hyusein Yemendzhiev, Valentin Nenov.** A critical review on the status of the bio-electrochemical technologies.

**9<sup>30</sup> – 9<sup>45</sup> - Yana Mersinkova, Hyusein Yemendzhiev.** Power performance of microbial fuel cell.

**9<sup>45</sup> – 10<sup>00</sup> - Maya Stancheva, Venelin Hubenov, Hyusein Yemendzhiev.** Energy and phosphorus recovering from livestock manure by anaerobic digestion.

**10<sup>00</sup> – 10<sup>20</sup> - Хюсеин Йеменджиев.** Представяне на ЕНОВА Н2О ООД - производител на решения за мониторинг и пречистване на води.

**10<sup>20</sup> – 11<sup>00</sup> COFFEE BREAK**

**11<sup>00</sup> – 11<sup>30</sup> Yana Topalova.** The best young researches contributions.

**11<sup>30</sup> – 12<sup>30</sup> – GENERAL DISCUSSION AND CLOSING OF THE CONFERENCE**

**Moderator: Hristo Najdenski**

**12<sup>30</sup> – 13<sup>30</sup> – LUNCH**

**14<sup>00</sup> – 19<sup>00</sup> – EXCURSION to NESSEBAR (the Old Town)**