**Draft Program (Subject to Change)**

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|  | **Tuesday 27th June- TECHNICAL SESSIONS- PALAU DE CONGRESSOS (*CONFERENCE CENTRE*)** | | |
| 8:00 | Registration open (*Hall 1)* | | |
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|  | **Room 1: “Sala Cambra”** | **Room 2 “Sala Petita”** | **Room 3: “Sala Assaig”** |
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|  | **T1. N& P recovery l I (8:45-10:30)**  *Chairs: Mathieu Sperandio (INSA-Toulouse)*  *& Juan Baeza (Univ. Autonoma of Barcelona)* | **T5. Removal of recalcitrant and emerging pollutants I (8:45-10:30)**  *Chairs: Manuela Antonelli (Univ.Politec. Milano) & Sonia Suarez (USC)* | **T8. Digitalization (8:45-10:30)**  *Chairs: Rafael Gimenez (CETAQUA) & Paula Carrera (Univ. Ghent)* |
| 8:45-9:00 | * 1. Towards a sustainable biorefinery: integrated treatment of the liquid fraction of digestate from the organic fraction of municipal solid waste scale up from laboratory to pilot-scale. Queralt Farras, Eurecat | 5.1. Improvement in the pharmaceutical removal from hospital wastewater in a full-scale hybrid PAC-MBR. Paola Verlicchi, Univ. Ferrara | 8.1. Fault-tolerant Control in WRRFs: A Practical Approach Using Case-Based Reasoning for Fault Identification. Sanaz Mohebali. modelEAU - Université Laval |
| 9:00-9:15 | 1.2.TBD | 5.2. Long-term performance of an anaerobic membrane bioreactor amended with graphene oxide treating municipal wastewater. Oriol Casabella, ICRA | 8.2. The use of a low-cost monitoring dataset for sewer model calibration. Paul Schütz. Kompetenzzentrum Wasser Berlin |
| 9:15-9:30 | 1.3. Recovery of ammonia and phosphate resources from wastewater using gas-permeable membranes. Matias Vanotti, USDA | 5.3. Removal of emerging contaminants from greywater using green wall system. Hafiz Muhammad Abd-ur-Rehman, Univ. New South Wales | 8.3. Real-time monitoring of adsorption processes in wastewater by innovative spectroscopic sensors: a pilot-scale study. Cecilia Bruni. Univ. Politecnica delle Marche |
| 9:30-9:45 | 1.4. Ammonia Removal and Recovery From Municipal Wastewater, Ana Soares, Cranfield Univ. | 5.4. Presence of Organic Micropollutants and Antibiotic Resistance Genes in an Anaerobic-MBR integrated system (SIAM) treating  urban sewage. Matias Rivadulla, Univ. Santiago de Compostela | 8.4. Water reuse on the move: decision support for reclaimed water network design solutions. Joaquim Comas. ICRA |
| 9:45-10:00 | 1.5. NPHarvest efficient nutrient recovery technology for making clean and safe fertilizers. Ana Mikola, Aalto Univ. | 5.5. Bioreactors for immobilized fungus: Application to long-term continuous pesticides removal by Trametes versicolor. Montserrat Sarra, Univ. Autonoma de Barcelona | 8.5. Development of a data-mining algorithm for energy cost reduction in a water distribution system. David Abert. LEQUIA, UdG. |
| 10:00-10:05 | 1.6. Applying electrodialysis technology for the concentration of nutrients from an anaerobic membrane reactor effluent: operational problems. Patricia Ruiz Barriga. Univ. Valencia | 5.6. Effect of HRT and dissolved oxygen on the fate of pharmaceutical compounds and antibiotic resistance genes in a high-rate activated sludge reactor. Lorena Gonzalez, Univ. Vigo | 8.6. Design and Deployment of sewage Monitoring Stations to Mine Information from neighbourhoods. Jordi Raich. s::can Iberia |
| 10:05-10:10 | 1.7. Combined water and nutrient recovery from treated wastewater effluents: a case study from Northern Italy. Matia Mainardis, Univ. Pavia | 5.7. Combining Thermophilic Aerobic Reactor (TAR) with Mesophilic Anaerobic digestion (MAD) to improve sludge reduction and pharmaceuticals degradation, Yolaine Bessiere, INSA-Toulouse | 8.7. Intelligent control of wastewater treatment plants by agent reinforcement learning. Oscar Emilio Aponte Rengifo, University of Salamanca |
| 10:10-10:15 | 1.8. Effect of suspended solids content on ammonium recovery from pig slurry liquid fraction by liquid-liquid membrane contactors. Rubén Rodríguez-Alegre, LEITAT | 5.8. The Study of a Hybrid System - Moving Bed Biofilm Reactor and Nanofiltration for the Elimination of Micropollutants in Wastewater. Muhammad Mukhlis Eshamuddin, Univ. Toulouse | 8.8. Sustainable technologies and real-time monitoring for treating industrial wastewater: the case study of Solvay chemical plant at Rosignano Marittimo. Marco Parlapiano, Polytechnic University of Ancona |
| 10:15-10:30 | Questions/discussion | Questions/discussion | Questions/discussion |
| 10:30-11:00 | Coffee break in poster area | | |

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|  | **T2. N& P recovery II (11:00-13:15)**  *Chairs: Ana Soares (Cranfield Univ.) & Francesco Fatone (Univ. Polytechnic Marche)* | **T6. Removal of recalcitrant and emerging pollutants II (11:00-13:15)**  *Chairs: Paola Verlichi (Univ. Ferrara) & Jelena Radjenovic (ICRA)* | **T9. Modelling (11:00-13:15)**  Chairs: Joaquim Comas (ICRA) & Ruben Garcia (Grupo Gimeno) |
| 11:00-11:15 | 2.1. Optimization of ammonia recovery from urine and digestate using transmembrane chemical absorption. mathieu Sperandio. INSA-TOULOUSE | 6.1. Electrochemical degradation of per- and polyfluoroalkyl substances in real waste streams using boron- and borophene-doped graphene sponge electrode. Nick Duinslaeger. ICRA | 9.1. A novel methodology for modelling SUDS using SWMM and Giswater: Case study on Montjuic Girona/Spain. Nicole Arnaud, UdG |
| 11:15-11:30 | 2.2. Recovery of K-rich struvite after biological nitrogen removal. Emma Company Masó, LEQUIA-UdG | 6.2. Assessment of PFAS pathways for environmental contamination during landfill leachate treatment. Nicola Lancioni. Marche Polytechnic University | 9.2. Elucidating the field of application of 0D and 1D biofilm models integrated with the hydrodynamics of aerobic granular sludge reactors. Arianna Catenacci, Univ. Politecnico de Milano |
| 11:30-11:45 | 2.3. Phosphorous recovery from waste aerobic granular sludge. Tommaso Lotti. Univ. of Florence | 6.3. PFAS in textile wastewater: an integrated approach to reduce the environmental risk for their mixture. Beatrice Cantoni. Politecnico di Milano | 9.3. Successful strategies for improving energy self-sufficiency at Grüneck wastewater treatment plant in Germany by improved aeration and food waste co-digestion, Konrad Koch, Tech.Univ.Munich |
| 11:45-12:00 | 2.4. Recovering vivianite from manure: opportunities and bottlenecks. Sophie Banke. TU Delft | 6.4. Integration of electrochemical processes in a landfill leachate treatment system for removal of the recalcitrant organic load. Nabil Mostefaqui. Université Gustave Eiffel. | 9.4. Mass-balance-based approach in planning a measurement campaign for energy factory Tilburg. David Ysebaert. U.Gent |
| 12:00-12:15 | 2.5. Nutrient recovery from source separated human urine as vivianite. Chibambila Simbeye. Univ. of Cape Town | 6.5. Effective micropollutant depuration by a novel sustainable approach: coupling solar photo-Fenton with regenerated activated carbon. Paula Núñez-Tafalla. Univ. of Luxembourg | 9.5. Development of a hydraulic and biological model for trickling filters. Model-based assessment of the 6.6operational strategy. Kepa Olaciregui Arizmendi, Ceit-BRTA |
| 12:15-12:30 | 2.6. A Comprehensive Assessment of The Opportunities of Integrating a SSSF Into EBPR Systems in view of P Recovery. Mengqi Cheng. Univ. Autonoma of Barcelona. | 6.6. Boosting active sites of municipal sludge-based biochar for Fenton-like degradation toward phenolic contaminants from water. Battuya Byambaa. Water Cycle Research Center | 9.6. Model-based assessment of alternative modes of operation in a full-scale industrial wastewater treatment system. Xavier Flores-Alsina, DTU |
| 12:30-12:45 | 2.7. Nutrient recovery from hydrolysed urine by Na-chabazite adsorption integrated with ammonia stripping and (K-)struvite precipitation. Haotian Wu. Univ. Laval | 6.7. Adsorption on activated carbon for PFAS removal: should we act at the source or before the discharge into the environment? Manuela Antonelli. Politecnico di Milano | 9.7. Modelling the Metabolism and Population Dynamics of Fermentation-Enhanced EBPR Processes. Rhys Thomson, The Univ. of Queensland |
| 12:45-12:50 | 2.8. Development and experimental comparison of a precipitation model for struvite using a low-grade magnesium oxide (industrial by-product) as an alternative magnesium source. Kepa Olaciregui Arizmendi. Ceit-BRTA | 6.8. Electrochemical removal of antibiotics and multidrug-resistance bacteria using graphene sponge electrodes. Natalia Ormeño. ICRA | 9.8. Mathematical modeling of the long-term dynamics of a sulfate-reducing UASB bioreactor from methanogenic to sulfidogenic conditions. Eric Valdés, Univ. Autonoma de Barcelona |
| 12:50-12:55 | 2.9. BIOFERES: Advanced Recovery of Nutrients from sewage sludge to obtain value-added products for Agriculture: bio-stimulants and liquid fertilizers. Raquel Tamarit Coronado. FACSA | 6.9. Emerging contaminants in sludge treatment reed beds: degradation or accumulation? Alba Martinez i Quer. Aarhus University | 9.9. Influence of substrate characterization on trace metal dosing to improve biogas yield during anaerobic digestion: a dynamic model-based study. Susan George, Instituto de la Grasa CSIC |
| 12:55-13:00 | 2.10. Continuous bioelectrochemical nitrogen recovery from high N-loaded wastewaters. Zainab Ul. Univ. Autonoma de Barcelona | 6.10. Developing innovative eco-efficient process for Contaminants of Emerging Concern removal in wastewater reuse applications. Beatrice Cantoni. University of Western Ontario | 9.10. CFD modelling as an emerging digital tool for the design and optimization of WWTPs: Learnings from two case studies. Hossein Norouzi Firouz, InsPyro |
| 13:00-13:15 | Questions/discussion | Questions/discussion | Questions/discussion |
| 13:15-14:15 | Lunch | | |
|  | **Room 1: “Sala Cambra”** | **Room 2 “Sala Petita”** | **Room 3: “Sala Assaig”** |
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|  | **T3. Water Reuse (14:15-16:00)**  *Chairs: Jordi Raich (S::can Iberia) & Matia Mainardis (University of Udine)* | **T7. Algal systems for WW treatment and RR (14:15-16:00)**  Chairs: Ramon Barat (Univ. Polytecnic Valencia) & Rosario Rodero (Univ. Valladolid) | **T10. Membranes (14:15-16:00)**  *Chairs: Watsa Khongnakorn (Prince of Songkla Univ.) & Vicky Ruano (Univ. Valencia)* |
| 14:15-14:30 | 3.1. Wall2Water, the NAWAMED pilot of living wall for greywater treatment and reuse in Mediterranean countries. Anacleto Rizzo. IRIDRA Srl | 7.1. Microalgae Biorefinery for Sustainable Recovery of Bioproducts and Bioenergy from Wastewater. Evelyn Ruales Dávila. Univ.Politècnica de Catalunya | 10.1. Produced water treatment by membrane aerated biofilm reactors at elevated oxygen partial pressures. Borja Valverde. DTU |
| 14:30-14:45 | 3.2. Feasibility assessment of reclaimed wastewater reuse in agriculture: how we do it. Luca Penserini. Politecnico di Milano | 7.2. Pilot Scale Wastewater Remediation Using Algae Bacterial Aggregated Flocs (ABAF). Andrew Ward. The Univ. of Queensland | 10.2. Biological Processes Modelling for Integrated MBR Systems: A Review of the State-of-the-Art. Giorgio Mannina. Palermo University. |
| 14:45-15:00 | 3.3. Fertilizer drawn forward osmosis for greywater treatment and subsequent reuse in hydroponics. Esther Mendoza. ICRA | 7.3. Anaerobic and microalgae-based treatments: potential for virus inactivation during secondary treatment of municipal wastewater. Andres Torres-Franco. Univ. of Valladolid | 10.3. Modelling the impacts of operational conditions on the performance of a full-scale membrane aerated biofilm reactor. Xavier Flores-Alsina, DTU. |
| 15:00-15:15 | 3.4. LIFE AMIA. An innovative combination of wastewater technologies to promote water reuse and sustainable treatment. RUBEN GARCIA TIRADO. Grupo Gimeno | 7.4. The Effect of Light Cycling in the Formation of Algae-Bacteria Aggregated Flocs. Holly Stolberg. The Univ. of Queensland. | 10.4. (short presentation, 14:37-14:41)) Granular Anaerobic Membrane Bioreactor for low-energy domestic wastewater treatment. Lucie Sanchez. Univ. de Montpellier |
| 15:15-15:30 | 3.5. Towards water self-sufficiency: pilot operation of an off-grid water cycle based on rainwater harvesting and low-tech, biological greywater treatment in an inhabited demonstration house in Switzerland. Devi Bühler. Univ. Gent. | 7.5. Comparison of High Rate Algal Pond mesocosm performance using filamentous algae or microalgae. Rupert Craggs. Nat. Inst. Water and Atmospheric Research NZ. | 10.5. (short presentation, 14:42-14:46)Low temperature anaerobic membrane bioreactor (AnMBR) demonstrator plant: effects of influent characterisation and site operation. Matthew Palmer, Severn Trent |
| 15:30-15:35 | 3.6. Tertiary wastewater treatment and natural pigment recovery by cyanobacteria: fate of organic microcontaminants. Marta Bellver Catalá. Univ. Politecnica de Catalunya. | 7.6. Wastewater grown microalgae as biofertilizer: Contaminants of Emerging Concern, heavy metals and pathogens assessment. Ana Álvarez González. Univ. Politècnica de Catalunya. | 10.6. (short presentation, 14:47-14:51)New framework for standardized notation in membrane filtration modelling for resource recovery from municipal wastewater. Valeria Sandoval. Univ. de València |
| 15:35-15:40 | 3.7. Plant growth potential of hotel greywater reuse in hydroponic system. Josephine Vosse. ICRA | 7.7. Effect of veterinary antibiotics and heavy metals in the composition and valorization of a consortium of microalgae and bacteria. Elena M. Rojo. Univ, of Valladolid | 10.7. (short presentation, 14:52-14:56) Recycled membranes for treating urban wastewater using gravity-driven force. Bianca Zappulla. LEQUIA-UdG |
| 15:40-15:45 | 3.8. Integration of forward osmosis into a granular anaerobic membrane bioreactor for low energy and high quality water reuse and energy production: potential and challenges. Gaetan blandin. LEQUIA-UdG | 7.8. Valorisation of microalgae grown in food waste digestate as biofertilizer. Ana Álvarez González. Univ. Politècnica de Catalunya. | Questions/discussion (14:57-15:10) |
| 15:45-16:00 | Questions/discussion | Questions/discussion | IWA SG MBR MODELLING (15:11-15:30) |
| 16:00-16:30 | Coffee break in poster area | | |

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|  | **T4. WW treament for Water reclamation (16:30-18:15)**  *Chairs: Wolfgang Gernjak (ICRA) & Javier Marugan (URJC)* | **Workshop I. Sewer Epidemiology (16:30-18:15)**  *Chairs: Laura Guerrero Latorre (ICRA) & Jorge Rodriguez (Khalifa University)* | **Workshop II. Urban Hydrosocial Cycle: Why should engineers care? (16:30-18:15)**  *Chairs: Alexandra Popartan (LEQUIA-UdG) & Josep Pueyo (ICRA)* |
| 16:30-16:45 | 4.1. Comparing Efficiency in Solar Water Treatment: Photovoltaic-LED vs. Compound Parabolic Collector Photoreactors. MARIA DOLORES MOLINA RAMIREZ. Univ. Rey Juan Carlos | Zooming in to the neighbourhood level: a year-long wastewater-based epidemiology SARS-CoV-2 monitoring campaign. Ian Zammit. ICRA  Development of a method to detect recent human adenovirus F41 variants in wastewater: Is it linked to the new acute hepatitis? Zeynep Cetecioglu, KTH  SARS-CoV-2 surveillance in the wastewater of Stockholm and Malmö: the Swedish perspective. Mariel Perez-Zabaleta, KTH  Surveillance of SARS-CoV-2 in sewage from buildings housing residents with different vulnerability levels. Anna Pico, ICRA  Questions/ Discussion | Assessment of flood vulnerability through a multidimensional index. Ana Noemi Gomez Vaca. Univ. Girona  Eco-cultural technologies for rural and Maori community on-site wastewater treatment in New Zealand, Rupert Craggs, Nat. Inst. Water and Atmospheric Research NZ  Socio-economic criteria for preventing and controlling phosphorus pollution from municipal wastewater effluents. Edgar Martin Hernandez. Univ. Laval  A hydrosocial approach to domestic water users satisfaction through Agent-Based Modelling. Pol Vidal Lamolla. LEQUIA-UdG  Roadmap and strategic routes to mitigate micropollutant occurrence in surface water bodies through WWTP upgrade. Morgan Abily. ICRA  Questions/discussion |
| 16:45-17:00 | 4.2. Peroxymonosulfate/Solar process for the simultaneous disinfection and decontamination of urban wastewater at pilot plant scale. Ilaria Berruti. CIEMAT-PSA |
| 17:00-17:15 | 4.3. Chlorine-free inactivation of E. coli in water with manganese oxide-doped graphene-based electrodes. Anna Segués. ICRA |
| 17:15-17:30 | 4.4. LIFE RECYCLO: Recycling wastewater from small and medium sized laundries with advanced oxidation process. Baptiste Mathon. Treewater |
| 17:30-17:45 | 4.5. Innovative Dual Membrane System for Integrated Water-energy Recovery from Municipal Wastewater. Conghui He. Tsinghua Univ. |
| 17:45-17:50 | 4.6. Application of UV-B and UV-C light-emitting diodes (LEDs) for the removal of diclofenac in drinking water. Cristina Pablos Carro. Univ. Rey Juan Carlos |
| 17:50-17:55 | 4.7. Natural based solutions combined with solar processes at pilot scale for urban wastewater reclamation. Alba Hernández Zanoletty. PSA-CIEMAT |
| 17:55-18:00 | 4.8. Assessment of the Integration of a Vermifilter and a Zooplankton-Based Reactor for the Removal of Microcontaminants to Produce Reusable Water. Manuela Hidalgo. Univ. Girona |
| 18:00-18:15 | Questions/discussion |
| 18:15-18:45 | Poster session | | |