25-26th Nov 21 Arcachon, France

Hôtel Le Nautic

PROGRAM

10th franco-spanish Workshop IBERNAM-CMC2

25th November, 8h15-8h50: Welcome -coffee

8h50-9h15 : Introduction (C. Pijolat-CMC2, E. Llobet-IBERNAM, L. Hirsch-Dir. IMS, H. Debéda-IMS)

1rst session : Gas sensors / Air quality (Chairs : J-P. Viricelle, I. Ayerdi)

9h15-9h40 : (Invited talk) Jean-Christophe Mifsud, Société RUBIX, Toulouse, France
Environmental micro sensors. Markets and applications perspectives

9h40-10h00 : **Jesus Lozano**, Badajoz, Spain
Air quality detection with a low-cost sensor device on a bicycle

10h00-10h20: Clément Occelli, Marseille, France
Hydrogen Sensor for Anaerobic Environment

10h20-10h40 : Achraf EL Mohajir, Besançon, France
Tuning SnO2 thin films nanostructure associating glancing angle deposition and sputtering pressure for BTEX detection

10h40-11h00 : Coffee break /Posters

2nd session : Resonant sensors / Electronics (Chairs : C. Dejous, J-L. Sanchez de Rojas)

11h00-11h25 (Invited Talk): **Cédric Ayéla**, IMS Bordeaux & Senseway, Pessac, France
Sense4 Optomechanical chemical sensors : from the lab to industry

11h25-11h45: Álvaro Peña, Las Rozas, Spain
Optimization of microwires for magnetoelastic resonance based sensors

11h45-12h05 : Ismel Dominguez Rodriguez, Pamplona, Spain
Multiparameter sensors based on lossy-mode resonances generated with nanocoated planar waveguides

12h05-12h25 : Meddy Vanotti, Besançon, France
Influence of functionalizing ZnTACN MOF crystal size on the selectivity of SAW based CO2 sensors

12h25-12h45: Jesus Lozano, Badajoz, Spain
LoRaWAN Platform for Air Quality Monitoring in a wireless sensor network

12h45 -14h30: Lunch break

14h30-18h30: SENSOFT Training School " *Energy harvesting and additive manufacturing" (Chairs: E. LLobet, H. Debéda)*

14:30-15h00: Andoni Beriain, UNA, Spain
Energy limited Wireless Sensor Nodes: circuit level challenges and future perspectives.

15:00-15h30: Ana Pires, INANOENERGY, Portugal
Thermal Energy Harvesting.

15h30-16h00: Hélène Debéda, IMS Bordeaux, France
Energy Harvesting from vibrations: Microcantilevers, piezoelectric materials and additive fabrication

16h00 -16h30: Coffee break/ Posters

16:30-17h00: Augusta Silva, CITEVE, Portugal
Inks formulation for textile applications.

17:00-17h30: (invited talk) José Luis Sanchez de Rojas, Spain
3D printed sensors and actuators.

17h30-18h00: Joana Pimenta, CENTI, Portugal
Conductive inks for printed sensors and printing technologies

18h00-18h30: Joao Ventura , INANOENERGY, Portugal
Triboeectric nanogenerators: principles and applications

End of 1rst day

19h30 Diner (Restaurant « Chez Pierre », 1-bd Veyrier Montagnères, Arcachon)

26th November, 8h30-9h00 : Welcome - coffee

3rd session : Sensing Materials (Chair : M. Pilar Pina, L. Presmanes)

9h00-9h25: (Invited talk) Thierry Toupance, ISM, Bordeaux, France
Organic-inorganic hybrid materials and nanostructured oxides for gas sensing

9h25-9h45 : Maria Pilar Pina, Zaragoza, Spain
Core-shell nanostructures based on mesoporous silica and gold nanoparticles: a suitable platform for SERS sensing of chemical threats

9h45-10h05 : Juan Casanova-Chafer, Tarragona , Spain
Graphene Loaded with Lead-Free Perovskites

10h05-10h25 : Sabah Zahaf, Toulouse, France
Semiconducting gas sensor based on copper ferrite CuFe2O4 sensitive layer for the acetone detection

10h25-10h50: **(PRIX CMC2 2020) Abhishek Kumar**, Dijon , France
Molecular semiconductors based organic heterojunction devices for redox gases detection

10h50-11h20: Coffee break /Posters

4th session: Biosensors / Liquid sensors (Chairs: J. Launay , M-L. Rodríguez-Méndez)

11h20-11h40: Jesus Lozano, Badajoz, Spain
Detection of 2,4,6-trichloroanisole in granulated cork by means of Electronic Nose devices

11h40-12h00: Philippe Namour, Villeurbanne, France
Low cost sensor for environmental and hydrological monitoring through tree electro-physiological signals

12h00-12h20 : Oumayma Lourhzal, Orléans, France
Electrochemical sensors based on Carbon for the detection of micropollutants

12h20-12h40: Camille Bene, Toulouse, France
Development and integration of electrochemical microbiosensors in a Lab-On-Disc type platform for in situ monitoring of surface water quality

12h40-13h00 : Clara Pérez, Valladolid, Spain
Development of a bioelectronic tongue with gold nanoparticles and enzymes dedicated to milk analysis

13h00: Workshop Closure

13h15: Lunch

POSTER session:

P1. **Philippe Namour,** Villeurbanne, France
Design and assessment of innovative low-cost, and open-source sensors for monitoring stormwater turbidity in urban water

P2**. Maria Luz Rodriguez-Mendez**, Valladolid, Spain
Improving a bioET capabilities based on silver nanomaterials as electron mediators. The influence of the nanostructure in the analysis of milk.

P3**. Yang Yang**, Bordeaux, France
Modeling and design of solidly mounted resonator (SMR) by using Finite Element Method

P4**. Maia Margarida**, Porto, Portugal
Flexible Radial Thermoelectric Devices for Wireless Energy Transfer Technologies via Screen-Printing

P5**. Bernard Bobby Ngoune**, Bordeaux, France
Humidity sensing using printed RF sensors

P6**. Eduard Llobet** , Tarragona, Spain
Gas sensing properties of CVD grown metal loaded tungsten disulfide

P7**. Asawari Choudhari**, Bordeaux, France
Love wave sensor characterization in turbid liquid environment.

P8. **Jesus Lozano**, Badajoz, Spain
Electronic system for outdoor air quality monitoring

P9. **Jesus Lozano**, Badajoz, Spain
Use of electronic nose technology in law enforcement. Detection of false banknotes

P10. **Cristobal Carrillo**, Zaragoza, Spain
MOF-808 for the adsorption and hydrolisis of chemical warfare agents in gas phase

P11. **Christelle Ghazaly**, Gif-sur-Yvette, France
Development and characterization of electronic noses for the rapid detection of COVID-19 in exhaled Breath

P12. **Isabel Ayerdi**, San Sebastian, Spain
Direct Laser Interference Patterning (DLIP) of ZnO sensing layers for low temperature NO2 detection

P13**. Benjamin Paret**, Toulouse, France
Thin layers of annealed Gallium doped Zinc oxide (ZnO:Ga) thin films for NO2 sensing films for NO2 sensing