Centre de linguistique appliquée
UNIVERSITÉ DE FRANCHE-COMTÉ

Presenting Research Papers in English at a Colloquium

A Simulation at the CLA (Centre for Applied Linguistics)

Université de Franche-Comté

Lecture Hall Quemada

Tuesday 27th March and Tuesday 3rd April 2018

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Tuesday 27th March – Programme

Each presentation will be followed by questions from the audience

2.15 pm *Doors open*
2.30 pm *Welcome and introduction*

2.35 – 3.00 pm Corentin Nicod, PhD student in Ecology, Chrono-Environnement Laboratory – UMR 6249 CNRS
Assessing the Conservation Status of Permanent Grasslands Using Diagnostic Species
Permanent grasslands are one of the pillars of dairy production systems for Protected Designations of Origin (PDO) cheese industries. Their important biodiversity is one of the key components of the "terroir", the basis of the specificity of PDO products. However, changes in grassland management that have occurred in the last decades, aiming at maximizing productivity, have led to a dramatic decrease in plant diversity and especially in species richness. In this context of biodiversity loss, the aim of our study is to propose a list of diagnostic species to assess the conservation status of permanent grasslands on site. Therefore, in order to validate the use of this list, we studied the relationships between grassland management, grassland biodiversity and the presence of diagnostic species.

3.00 – 3.25 pm José ZAPATA, PhD student in Soil Phytoremediation, Chrono-Environnement Laboratory UMR 6249, UFC.
Waste Recovery: The Enhancement of Industrial Soil Conditions.
The transformation industry is responsible for turning raw materials into useful products that give off by-products at the same time. Such is the case of red gypsum, the by-product of the titanium dioxide production industry. Red gypsum is a rich, very fine textured alkaline substrate that, unless treated carefully, could be a threat to the surrounding environment and become a public health problem. For instance, the red gypsum deposit called The Ochsenfeld Site in Alsace is located next to villages and plant nurseries that are exposed to the polluted dust produced on site: Pioneer plant species are scarce and grow at a very low rate. Thus, this study focuses on using the right combination of soil amendments (chemical and biological) that will assure a better development of native plant species and allow the stabilisation of the substrate, hence reducing the risk of health threats in the surroundings.

3.30 pm *Break: Complimentary Refreshments*

3.45 – 4.10 pm Houari BETTAHAR, PhD student in Micro-Robotics and Control, FEMTO-ST, AS2M Department, UBFC
Photo-Robotic Positioning for Integrated Photonics
High positioning accuracy is a crucial requirement to successfully perform complex tasks such as micro-manipulation and micro-assembly. This especially enables us to provide high performances or to propose new functionalities/products, notably for integrated optical devices. The objective is to align two optical structures in a multi-DOF (Degree of Freedom) way with very high accuracy. The originality of the approach relies on robotic positioning associated with the use of interfered reflected light irradiance as a feedback signal rather than transmitted power. The Fabry–Perot interference principle is especially used to provide a fast and highly accurate measurement. An opto-mechanical model that relates the optical component poses with the interfered reflected light is proposed. Experimental results are investigated based on a robotic multi-DOF platform, used to relatively align an optical component to an optical fiber.

4.10 – 4.35 pm Anne-Laure CHARLES, PhD student in History, Centre Lucien Febvre, UBFC.
"Besançon: a city in Eastern France throughout the Second World War"
June 1940: the first German units invaded Besançon. For more than four years, the city was ruled by the local German authorities, reflecting different aspects of the national-socialist ideology and linked with the collaboration measures of the Vichy regime. Was the city prepared to live in a state of war? What about the relationships between the German administration or troops and the local authorities and the population? How did the municipality deal with the prisoners of the German army after the liberation of the city? Based on French and German archives, this study analyses the different aspects of a city, on the border of Switzerland and the Reich, occupied by foreign troops throughout the Second World War.

4.35 pm *Closing Exchanges and Remarks*

Tuesday 3rd April – Programme

Each presentation will be followed by questions from the audience

2.15 pm *Doors open*

2.30 pm *Welcome and introduction*

2.35 – 3.00 pm Amine Benouhiba, PhD student in Robotics, FEMTO-ST, AS2M Department and Applied Mechanics Department, UBFC

Active Structures with Multiple Degrees of Freedom Actuated by Electro-Active Polymers

A Helmholtz resonator is a passive acoustic device that permits noise reduction at a given frequency. The latter is directly related to the volume of the resonator and to the size of the neck that couples the resonator to the acoustic domain. In other words, controlling the volume of the cavity allows a real time tunability of the device, which means noise control at any desired frequency. To that end, we propose an Origami-based tunable Helmholtz resonator. The design is inspired from the well-known origami base, Waterbomb. Such foldable structures offer a wide range of volume shifting which corresponds to a frequency shifting in the application of interest.

3.00 – 3.25 pm Alpha Diallo, PhD student in Energy Harvesting, FEMTO-ST, MN2S Department, UBFC

The Design and Micro-Manufacturing of a Micro-Energy Generator

Micro-energy generators are in increasing demand for applications in mobile electronics, environmental sensors, and embedded systems. The design and development of a high-efficiency micro-generator is based on a Stirling thermodynamic cycle, which is among the most efficient in terms of energy conversion. The challenge is to produce a prototype of very small dimensions, using clean room specific materials to optimize the performance of the device. This work could lead to a portable micromachine to generate energy from any natural source of heat (such as sunlight or wood fire) in environments that do not provide power. This prototype would be proposed to various industries such as automotive, aeronautics, microelectronics and telecommunications. Such a device could also be useful in isolated environments, away from cities or power plants.

3.25 – 3.50 pm Sylvie LIDOLF, PhD student in Educational Sciences, School of Education (ESPE), Besançon, ELLIADD Laboratory (EA 4661), UBFC

The "Teacher's Toy»: Experiences of Using an Innovative Platform for Teaching in Higher Education

Since September 2016, the School of Education of UBFC has been offering an innovative platform for teaching called the "Lab Class" with a combination of ergonomic equipment, high-tech devices and a support team. This environment permits the retrieval of videos and digital data from the class activities. Using focus groups, this study aims to analyze students' experiences using this platform during their classes. In this qualitative study, we used Lin and Parker's (2007) approach to identify the characteristics of the environment, which condition an optimal level of user experience.

3.50 pm *Break : Complimentary Refreshments*

4.00 – 4.25 pm Olivier HO, PhD student in Statistics, Department of Mathematics and Statistics, LmB, UBFC

Statistical Models for Multivariate Regular Variation and the Hüssler-Reiss Pareto Model.

The proposed method is inspired from an extension of the Breiman Lemma to build regularly varying multivariate models, some of them are linked to classical max-stable models such as the t-extremal or Hüssler-Reiss models. We are also interested in the Pareto model associated with the Hüssler-Reiss max-stable model since the former possesses exponential family properties that seem to be overlooked in literature. We will use this exponential family property to obtain results on the asymptotics of the maximum likelihood estimator.

4.25 – 4.50 pm Grace Zhikmwa KWAJA, PhD student in Information and Communication Science ELLIADD-EA 466, UFC

Programming and Aesthetics in the Era of Digitization: A Study of Children's Educational Television Production in Nigeria

As the Nigerian broadcasting industry undergoes digitization, programming and aesthetics are key variables, especially in terms of the production of children's educational programmes. The fixed dates for digital switchover have been postponed several times due to myriads of challenges which include inadequate content development and distribution by the industry. Meanwhile, its regulatory body has placed emphasis on standards and the need for broadcasting stations to produce adequate content. This also includes the production of educational programmes for children with high aesthetic quality and standards. We are therefore concerned with the concept of quality in regards to its requirements and what 'high aesthetic quality' really means in the Nigerian context, especially in terms of children's educational broadcasting.

4.50 pm Closing Exchanges and Remarks

For further information, please contact:

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