Universidad
Politécnica
de Cartagena

EUROPEAN
UNIVERSITY OF
TECHNOLOGY
"Think human first"

European Culture & Technology + Lab

Seminar Series

‘Human First…
and Humans In The End’

Cartagena (Spain)

23rd June 2021

Dear all,

It is a great pleasure for me to virtually welcome in Cartagena the attendants from the eight universities that compose our alliance European University of Technology.

After Dublin and Sofia, ours is the third panel under the common title 'Thinking Human First'. These seminars are providing us meeting spaces where we can get to know each other better, in a sort of warming-up for the December first annual Conference hosted by TUDublin and organized by the European Culture and Technology Laboratory 'ECT Lab+'. This annual conference will display contributions focusing on the relation between Technology and the (Neg)Anthropocene, that has been described as a way of getting beyond the current predicament of imminent climate disaster with new forms of economy, research and technologies.

I must confess that I had not heard this concept before joining the ECTLab but, as I have had the chance to check with some colleagues at UPCT, even without naming it, we all shared a common feeling deep inside about the urgent need of a CHANGE in the way engineers, artists, economists, philosophers...approach the very next future. Coming from such different disciplines it is not unusual that, at first, feelings make a better glue than words around our EUT human-centered conception of technology.

And here we are, by the Mediterranean Sea waiting for La Noche de San Juan (St. John's Eve) and talking about change and new approaches to (sadly) old problems. Can you imagine a better scenario? Probably not. Indeed, no matter if you come from the pagan rite or the Judeo-Christian tradition, and whether you celebrate the summer solstice on the 21st or St Johns' birth the 24th, we all concur that this is a magic night in which light triumphs over darkness. It is all about a chance to strengthen the spirit, to overcome the doubts and fears, it is a fresh impetus to obtain a new energy, at the time that we burn in the bonfire all those things we want to leave behind in our lives. Fire for renewal and redemption?

Well, we are not going to light a bonfire to jump over today, but we hope that we can offer a complementary approach to what "Think Human First" means. In April our colleagues at TUDublin discussed the question of 'thinking' in the 21st Century, and in May we attended to the vision of TUSofia around the quality of new interpersonal relationships in the context of social media. Under the title "Human First... and humans in the end" we are going to contribute today with a few proposals of "acting" through a caring technology.

Practical details

Please find below the evening´ Schedule:

17:00-17:15 ECTLab Introduction. Noel Fitzpatrick – TU Dublin (English) and Local host introduction: José Luis Serrano - UPCT (Spanish).

17:15-17:30 Maria Carmen Martínez – Assistant Professor at the Department of Agronomical Engineering. "Light as a language tool for plant-human communication"

17:30-17:45 María Nazaret González - Biologist, PhD, Contract Researcher (Saavedra Fajardo program). "Nature based solutions can help us, but only if we help them:the case of the Mar Menor Coastal lagoon".

17:45-18:00 Ángel Molina - Professor at the Department of Electric Engineering. "Use of Technology to improve accesibility and inclusion in education: BeMyVega"

18:00-18:15 UPCT Bloopbusters – Enrique Castro y Juan Francisco Sánchez Assistant Professors at the Department of Applied

Physic "A methodology of teaching physics and technology concepts using movie scenes and related experiments"

18:15 Q/A in local host language and/or English.

18:25 Wrap up: José Luis Serrano –UPCT (Spanish)

18:30 Conclusion: Noel Fitzpatrick – TU Dublin (English)

PLEASE NOTE: Although we have saved some time at the end for questions and answers, speakers are commited to allow some debate during their assigned slots, so feel free to ask any questions to them.

Speakers: Brief CV and contact details

Maria Carmen Martínez – Assistant Professor at the Department of Agronomical Engineering. "Light as a language tool for plant-human communication"

Mª Carmen Martínez Ballesta has MsC in biochemistry in 1998 by the University of Murcia. In 2002 finish the PhD in biochemistry in the University of Murcia with the highest qualification Cum Laude.

From 2002 to 2004 she did a 2-year postdoctoral stay at the University of Leipzig (Germany) where she worked in the design of molecular probes as indicative markers of heavy metal stress in the algae from lakes.

From 2004 to 2019 she has been hired staff of CEBAS-CSIC as specialist in genomic and proteomic of aquaporins. Nowadays she is working at the Polytechnic University of Cartagena, studying post-translational modifications on aquaporins as mechanisms of direct regulation of APQs stability and function in the plasma membrane, applied to plant production and plant adaptation to stress.

More information from: mcarmen.ballesta@upct.es.

Fernández et al. Combined effect of salinity and LED lights on the yield and quality of purslane (Portulaca oleracea L.) microgreens. Horticulturae, in press.

María Nazaret González - "Nature based solutions can help us, but only if we help them:the case of the Mar Menor Coastal lagoon".

Biologist and PhD from the Technical University of Cartagena (UPCT). Soil scientist specialized in soil biogeochemistry and ecotoxicology and environmental management in polluted areas. Postdoctoral career in foreign institutions for more than six years, including a Marie Curie Individual Fellowship. Researcher at UPCT since June 2020 (Saavedra Fajardo Program).

More information from: nazaret.gonzalez@upct.es

Álvarez-Rogel et al. 2020. The case of Mar Menor eutrophication: State of the art and description of tested Nature-Based Solutions. Ecological Engineering 158, 106086. https://doi.org/10.1016/j.ecoleng.2020.106086.

Ángel Molina - Professor at the Department of Electric Engineering. "Use of Technology to improve accesibility and inclusion in education: BeMyVega"

Angel Molina-Garcia received the degree in electrical engineering from the Universidad Politécnica de Valencia, Valencia, Spain, in 1998, and the Ph.D. degree in electrical engineering from the Universidad Politécnica de Cartagena, Cartagena,Spain, in2003, He is Professor with the Department of Electrical Engineering. His research interests include wind power generation, PV power plants, energy efficiency, and renewable energy source integration into power systems.

More information about BeMyVega from Antonio (antonio.kaiser@upct.es) or Ángel (angel.molina@upct.es) and in the webpage: https://www.bemyvega.com/?lang=en

UPCT Bloopbusters

Enrique Castro y Juan Francisco Sánchez Assistant Professors at the Department of Applied Physic "A methodology of teaching physics and technology concepts using movie scenes and related experiments".

Enrique Castro is assistant professor of Applied Physics. He conducts research in Acoustic Emission and Damage Detection, among others. But concerning teaching, he is interested in promoting critical thinking between the students and in ways of teaching that bring together theory and reality. UPCT-Bloopbusters is one of these ways.

Juan Francisco Sánchez-Perez is a PhD from the Universidad Politécnica de Cartagena. He has worked in the area of Applied Physics at the Universidad Politécnica de Cartagena

since 2008, where he is currently an Associate Professor. In the field of university research, he has developed and modified physical-mathematical models of industrial fires and explosions, of oxidation problems or of soil characterization. He currently directs his research to the field of contaminants diffusion in reinforced concrete and heat transfer problems on asphalt.

Rodríguez et al. 2020. International Journal of Electrical Engineering & Education
0(0) 1–15. UPCT-Bloopbusters:
A methodology of teaching physics and technology concepts using movie scenes and related experiments.

Abstract for Panel 'Thinking Human First' June 23rd 5 CET hosted by UPCT Cartagena. "Human First... and humans in the end" is the motto of the cauldron in which we are going to mix a selection of technological developments concocted in Cartagena, which will be served up in a two-course menu for the summer solstice. First: Human First. Technology devoted to help people with visual and hearing impairment, specifically in a learning context. BeMyVega aims at a more inclusive education, and this intervention will move beyond technical details to discuss researchers'motivation and rewards, social impact and feedback from final users. Second: the curse for the environment that we may represent, seasoned with a caring technology as a second chance to redeem ourselves and remedy environmental damage. From the use of light as a language tool for plant-human communication in the fight against global warming, to the local recovery of our Mar Menor coastal saltwater lagoon, remarkable contributions by UPCT researchers through nature-based solutions will be displayed. As a dessert, the UPCT-Bloopbusters team will tell us about their experience teaching Physics for engineers, while making the most of their passion for the Seventh Art. Scientific mistakes in films and hands-on experiments are used to help our students with complex aspects of their courses, develop critical thinking and rise awareness of their responsibility towards global challenges for their future professional career.

FIRST WITCH: When shall we meet again?
In thunder, lightning, or in rain?
(Macbeth, Act I, Scene I)