



Online Workshop: Application of numerical tools in industries and labour market

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T3.3. First workshop to labour market on numerical methods, 20 December 2023 online.

10:30	<p>UCY. Presentation of the PYTHAGORAS project and the role of numerical simulations and entrepreneurship for industry and academia in the project. <i>Dr. Charalambos Anastassiou,</i> <i>University of Cyprus (UCY)</i></p>
10:35	<p>UCY. Understanding Desorption & Ionization Mechanisms of Plasma Ionization Sources in Ambient Ionization Mass Spectrometry Analysis</p> <p>Plasma-based ambient ionization techniques have emerged as promising ionization methods for direct analysis of untreated samples outside of the vacuum environment of a mass spectrometer. However, the gas-phase ion chemistry occurring during plasma ambient ionization is complex and not fully understood. In this presentation, we will discuss our computational simulations exploring the ionization and desorption mechanisms in plasma ambient ionization mass spectrometry. This computational work helps elucidate the fundamental ionization chemistry and also guides the development of new plasma ambient ionization sources.</p> <p><i>Mr. Odhisea Gazeli,</i> <i>University of Cyprus (UCY)</i></p>
11:00	<p>SFAX: A robot control for sorting faucet accessories: Science with and for the industry</p> <p><i>Dr Bassem Bouaziz,</i> <i>MIRACL Laboratory / Digital research Center Of the University of Sfax,</i> <i>Sfax, Tunisia.</i></p>
11:25	<p>ASU: Sustainable Agriculture in Egypt: Integrating Technology and Education to Enhance Productivity and Empower our Economy</p> <p>Egypt faces significant challenges in agriculture, from increasing productivity to providing economic feeds and agricultural reclamation for new lands. The "Sustainable Agriculture in Egypt" project offers an innovative solution using artificial intelligence (AI) technologies.</p> <p><i>Prof. Abdel Fattah Elgendy</i> <i>Ain Shams University, Egypt (ASU)</i></p>
11:50	<p>UMA: Unlocking the Potential of Aerial Networking with Reinforcement Learning</p> <p>Explore the fusion of cutting-edge technologies in aerial networking enhanced by reinforcement learning. In this talk, we will uncover the power of reinforcement learning in optimizing connectivity and efficiency in dynamic aerial environments. Starting with fundamentals, we will delve into real-world examples, including Aerial Assisted Vehicular Networks and reinforcement learning-based routing in Flying Ad Hoc Networks.</p>

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	<p><i>Ms. Najoua Chayah</i> <i>University of Manouba, Tunisia</i></p>
12:15	<p>AASTMT: How Sustainable Development Goals (SDG) will transform STEM (science technology engineering and mathematics) education and practice</p> <p>We enter challenging times for our world and ambitious goals are set from the UN. Those SDGs are posed to transform our lives and our education will need to respond to these new challenges. The talk will explore the challenges and opportunities for STEM education and industry.</p> <p><i>Prof. Yasser Gaber Dessouky</i> <i>Arab Academy for Science, Technology and Maritime Transport, Egypt</i></p>
12:40	<p>UNIROMA1: Development and application of numerical methods for wind and marine energy conversion systems</p> <p>Numerical methods are a key element in the design and analysis of new energy conversion systems. This talk will present an overview of research activities and engineering challenges where advanced numerical techniques are used to support the design, optimization, and operation of power systems and energy converters in the fields of wind energy and marine energy engineering.</p> <p><i>Prof Alessio Castorrini</i> <i>Universita Degli Studi Di Roma La Sapienza, Rome Italy</i></p>
13:05	<p>Open discussion and Q&A. Coordinated by the University of Cyprus. Closing of the workshop.</p> <p>Let's discuss opportunities for collaboration.</p> <p><i>Dr. Charalambos Anastassiou,</i> <i>University of Cyprus (UCY), Cyprus</i></p>



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