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**International Conference on:**

***“Perspectives in Industry Digitalization and Advanced Manufacturing in the Black Sea Region”***



**November 18th, 2020**

**Zaporizhzhya Polytechnic National University Zaporizhzhya, Ukraine**

in cooperation with

**National University «Yuri Kondratyuk Poltava Polytechnic» Poltava, Ukraine**

[**Lviv Polytechnic National University**](https://lpnu.ua/en/lp) **Lviv, Ukraine**

***Background***

*Industry is one of the pillars of the European economy – the manufacturing sector in the European Union accounts for 2 million enterprises, 33 million jobs and 60% of productivity growth. The ubiquitous use of sensors, the expansion of wireless communication and networks, the deployment of increasingly intelligent robots and machines – as well as increased computing power at lower cost and the development of 'big data' analytics – has the potential to transform the way goods are manufactured in Europe.*

*The European Parliament laid down a financial envelope for the Digital Europe Programme for the period 2021-2027 and introduced a special definition for European Digital Innovation Hubs for the purpose of transparent distribution of funds. The European Digital Innovation Hub is a legal entity selected to provide or ensure access to technological expertise and experimentation facilities, to enable the digital transformation of industry, as well as facilitate access to finance.*

*As information communication technologies (ICT) facilitate the networked manufacturing systems, implying interoperable systems, information interchange, and decentralized control and decision-making, the need for coordinated efforts among industries and countries from the Black Sea region is more important than ever.*

***Purpose***

*The event aims to offer a framework for exchanging good practices and sharing models for developing cooperation between universities and socio-economic community as innovation clusters, networks and project consortia, where IT & C Solutions including artificial intelligence and other tools could contribute towards Industry Digitalization.*

***Participants***

*At the event, there will be invited decision makers, government representatives, members of parliament, representatives of local authorities, academics, students, experts in the field, ambassadors and representatives of diplomatic missions of EU and neighbouring countries and other international organizations, journalists.*

**Scientific Committee**

Prof. Sergey Subbotin, NU "Zaporizhzhia Polytechnic", Ukraine

Prof. Galina Shilo, NU "Zaporizhzhia Polytechnic", Ukraine

Prof. Galyna Tabunshchyk, NU "Zaporizhzhia Polytechnic", Ukraine

Dr. Anzhelika Parkhomenko, NU "Zaporizhzhia Polytechnic", Ukraine

Prof. Oleh Matviykiv, [Lviv Polytechnic National University](https://lpnu.ua/en/lp), Ukraine

Prof. Mykhaylo Lobur, [Lviv Polytechnic National University](https://lpnu.ua/en/lp), Ukraine

Prof Duriagina Zoya, Dortmund University of Applied Sciences and Arts, Germany

Prof. Carsten Wolff, Dortmund University of Applied Sciences and Arts, Germany

As. Prof. Joost Vennekens, Katholieke Universiteit Leuven, Belgium

Prof. Karsten Henke, Technical University of Ilmenay, Germany

Dr. Peter Arras, Katholieke Universiteit Leuven, Belgium

Prof. Doru Ursutiu, University of Transylvania at Brasov, Romania

Prof. Ioan Sacală, “Politehnica” University of Bucharest, Romania

**Organizing Committee**

Prof. Sergiy Byelikov, National University "Zaporizhzhia Polytechnic", Ukraine

Prof. Volodymyr Onyshchenko, National University «Yuri Kondratyuk Poltava Polytechnic», Ukraine

Prof. Yurii Bobalo, [Lviv Polytechnic National University](https://lpnu.ua/en/lp) Lviv, Ukraine

Prof. David Luengo, Madrid Polytechnic University, Spain

Prof. Dr. Peter Schulz, HAW Hamburg

Mykhaylo Bubnov, CEO of Schneider Electric, Ukraine

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Prof. Eden MAMUT, PhD, Eng., Secretary General

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**Program**

10:00 Opening Session

Prof. Sergey BELYKOV, Rector of NU "Zaporizhzhia Polytechnic"

*Presentation of the University History - Dedicated to the 120th Anniversary of the University*

Prof. Volodymyr ONYSHCHENKO, National University «Yuri Kondratyuk Poltava Polytechnic», Ukraine

Prof. Oleh MATVIYKIV, Lviv Polytechnic National University, Ukraine

Prof. Pericles MITKAS, BSUN President

Dr. Steffi FRIEDRICHS, AcumenIST, Belgium

*Presentation of the MOTOR SICH Company from Zaporizhzhia*

 **10:30 Plenary Session on *“Advanced Concepts on Industrial Digitalization”***

Moderator: Prof. Eden MAMUT

Keynote speeches:

10:30 Acad. Ion DUMITRACHE, “Politehnica” University of Bucharest, *Next Generation Enterprise in the Context of Cyber Physical Systems*

10:45 Bernhard EBERL, Alexandru CAZACU, PTC, *Academic Solutions for Teaching Industrial Digitalization and Advanced Manufacturing*

11:15 Horst ORSOLITS MSC, University of Applied Sciences Technikum Vienna, *Virtual Engineering Applied in a Digital Learning Factory*

11:30 Coffee break

 **11:45 Session on *“Educating for Digital Transformation”***

Moderator: Acad. Ion DUMITRACHE

11:45 Prof. Alin MOLDOVEANU, “Politehnica” University of Bucharest, *The Perception of the Reality beyond our Senses – Sound of Vision Project*

12:00 Ahmet Bugra YASAR, Zafer KARADAYI, Dr. Cumali YASAR, University of Canakkale, Turkey, *In-Service Training for Technical Services Using VR-Supported Applications*

12:15 Assoc. Prof. Dr. Doru BARDAC, Dr. Florin TEODORESCU “Politehnica” University of Bucharest, *Promoting Smart Manufacturing Technologie in the Car Manufacturing Industry*

12:30 Mykhaylo BUBNOV, Schneider Electric, Ukraine, *Digital Transformation in Ukraine and Cooperation with Universities*

12:45 Anton KROTYUK, TeraWatt Solutions GmbH, Germany, *Maintenance, Digitalization and Optimization*

13:00 Andrii PUZIK, INFOCOM LTD, Ukraine, *AI, Robots & Smart Solutions by INFOCOM LTD Developers*

13.15 Denys ROMANIUK, National Technical University of Ukraine “Igor Sikorsky Kyiv Polytechnic Institute” Dr. Galina SHILO, NU "Zaporizhzhia Polytechnic", Anastasiia LEBEDIEVA-DYCHKO, ALD engineering company, Ukraine, *Convenient Positioning System for Construction Sites*

13.30 Bohdan BORIAK, Candidate of Engineering Sciences; Assoc. Prof. Dr. Oleksandr SHEFER, Assoc. Prof. Vasil HALAI, Candidate of Engineering Sciences, National University «Yuri Kondratyuk Poltava Polytechnic», *Digital Signals Adaptive Filtration and Forecast Methods*

13.40 Prof. Dumitru NEDELCU, “Gheorghe Asachi” Technical University of Iasi, Romania, *Smart 3D Printing*

13.50 Tural VELIZADE, Western Caspian University, Azerbaijan, *Importance of Caspian Countries for Energy Security in Europe*

 14:00 Final conclusions and closure