

# Digital and Entrepreneurship Academy Program Calendar for 2023

Alliance of Guangzhou International  
Sister-City Universities

The Alliance of Guangzhou International Sister-City Universities (GISU) is pleased to offer twelve two-hour online non-credit professional development programs in 2023 through its Digital and Entrepreneurship Academy. These Academy programs are offered free of charge for the students and faculty of Alliance members and affiliate members, industry representatives, area officials and alumni each member invites.

## Program Registration:

To register for these programs, please contact the designated GISU member representative for your university who will provide the necessary ZOOM meeting ID and password required for participation.

The number of registrants might be limited for some programs and the Secretariat Office of the Alliance reserves the right to make changes as needed for the programs offered through the Digital and Entrepreneurship Academy. Additional programs are planned to be added as our remaining joint research and publication project presentations are confirmed. Views expressed in these Academy programs are those of the presenters and they do not purport to reflect the opinions or views of the Alliance or its members.

Supported by the People's Government of the Guangzhou Municipality, the mission of the Alliance of Guangzhou International Sister-City Universities is to attract and leverage the academic resources of its members in close collaboration for the sustainable development of our cities. GISU's current 20 members and affiliate members represent 5 continents, 16 countries, 17 sister and friendly cities, a combined population of almost 38 million, over half a million students and 47,000 faculty and staff.



# Digital and Entrepreneurship Academy Program Calendar for 2023



## March

- **New Generation Machine Learning and Applications**  
March 9 from 3:00 pm to 5:00 pm (Beijing Time)
- **Entrepreneurial Orientation and Organizational Flexibility in a Pandemic Crisis**  
March 14 from 3:00 pm to 5:00 pm (Beijing Time)

## April

- **Investments in Industry 4.0 Technologies and Supply Chain Finance: Approaches, Framework and Strategies**  
April 11 from 3:00 pm to 5:00 pm (Beijing Time)
- **Transformational Leadership in the Digital Economy**  
April 12 from 3:00 pm to 5:00 pm (Beijing Time)
- **Improving Energy Efficiency in the Utility Sector of the Economy on an Innovative Basis in the Context of Industry 4.0 and the Green Economy**  
April 18 from 3:00 pm to 5:00 pm (Beijing Time)
- **Quantum Computing for Sustainable Development**  
April 25 from 3:00 pm to 5:00 pm (Beijing Time)

## July

- **Exploring Tourism Innovation, Resilience and Regenerative Frameworks: Challenges and Possibilities**  
July 11 from 3:00 pm to 5:00 pm (Beijing Time)

## October

- **Innovative Entrepreneurship to Ensure Sustainable Development**  
October 4 from 3:00 pm to 5:00 pm (Beijing Time)
- **Life Cycle Management of Industry 4.0 Products Based on Circular Economy**  
October 10 from 3:00 pm to 5:00 pm (Beijing Time)
- **Driver's Behavior Cognition**  
October 17 from 3:00 pm to 5:00 pm (Beijing Time)

## November

- **Eco-Friendly Mobility**  
November 7 from 3:00 pm to 5:00 pm (Beijing Time)
- **The Digital Economy During the Post-War Recovery: Analytics, Modeling, Strategizing**  
November 8 from 3:00 pm to 5:00 pm (Beijing Time)

**March 9**

3:00 pm to 5:00 pm  
(Beijing Time)

## New Generation Machine Learning and Applications

*Professor Moncef Gabbouj from Tampere University*

Operational Neural Networks (ONNs) are new generation network models targeting to address two major drawbacks of conventional Convolutional Neural Networks (CNNs): the homogenous network configuration and the “linear” neuron model that can only perform linear transformations over previous layer outputs. ONNs can perform any linear or non-linear transformation with a proper combination of “nodal” and “pool” operators. This is a great leap towards expanding the neuron’s learning capacity in CNNs, which thus far required the use of a single nodal operator for all synaptic connections for each neuron. This restriction has recently been lifted by introducing a superior neuron called the “generative neuron” where each nodal operator can be customized during the training in order to maximize learning. As a result, the network is able to self-organize the nodal operators of its neurons’ connections. Self-Organized ONNs (Self-ONNs) equipped with superior generative neurons can achieve diversity even with a compact configuration. This program shall explore several signal processing applications of neural network models equipped with the superior neuron.



Moncef Gabbouj

**Moncef Gabbouj, Ph.D., Professor, received his BS degree in 1985 from Oklahoma State University, and his MS and PhD degrees from Purdue University, in 1986 and 1989, respectively, all in electrical engineering. Dr. Gabbouj is a Professor of Information Technology at the Department of Computing Sciences, Tampere University, Tampere, Finland. He was Academy of Finland Professor during 2011-2015. His research interests include Big Data analytics, multimedia content-based analysis, indexing and retrieval, artificial intelligence, machine learning, pattern recognition, nonlinear signal and image processing and analysis, voice conversion, and video processing and coding. Dr. Gabbouj is a Fellow of the IEEE and member of the Academia Europaea and the Finnish Academy of Science and Letters. He is the past Chairman of the IEEE CAS TC on DSP and committee member of the IEEE Fourier Award for Signal Processing. He served as associate editor and guest editor of many IEEE, and international journals and Distinguished Lecturer for the IEEE CASS. Dr. Gabbouj served as General Co-Chair of IEEE ISCAS 2019, ICIP 2020, ICIP 2024 and ICME 2021. Dr. Gabbouj is Finland Site Director of the USA NSF IUCRC funded Center for Visual and Decision Informatics (CVDI) and led the Artificial Intelligence Research Task Force of Finland’s Ministry of Economic Affairs and Employment funded Research Alliance on Autonomous Systems (RAAS).**

**March 14**

3:00 pm to 5:00 pm  
(Beijing Time)

## Entrepreneurial Orientation and Organizational Flexibility in a Pandemic Crisis

*Professor Maryna Pichugina, Program Leader, and Professor Lina Artemenko from the National Technical University of Ukraine “Igor Sikorsky Kyiv Polytechnic Institute”.*

The dramatic changes in the conditions for the functioning of enterprises during the Covid-19 pandemic revealed many cognitive gaps which are currently being



intensively explored by researchers in the field of management sciences. The diagnosed cognitive gap is manifested in the lack of analyses of the use of the concept of entrepreneurial orientation and organizational flexibility to overcome threats, but also to take advantage of opportunities related to new market conditions in the time of the Covid-19 pandemic, with particular reference to small and medium-sized enterprises. An additional component of the abovementioned gap is the lack of comparisons for countries with different socio-economic conditions, on the one hand, a certain systematization of knowledge on the functioning of the discussed constructs in the practice of small and medium-sized enterprises, and on the other hand, indicate the directions for further research in this area. This program attracts attention to this topic to stimulate further research in this area and to cover the next issues during the lecture: The Specificity of the Activity of the SME Sector, Entrepreneurial Orientation of Small and Medium-sized Enterprises, Organizational Flexibility in the Activities of Enterprises and Case Study in the Sector of Small and Medium-sized.



Maryna Pichugina



Lina Artemenko

**Maryna Pichugina**, Associate Professor of the Department of Management of Enterprises, National Technical University of Ukraine "Igor Sikorsky Kyiv Polytechnic Institute". Head of research projects: Improvement of organizational and economic mechanisms for the development of foreign economic activity of enterprises; Approaches to the formation of components of strategic development of enterprises in a competitive environment. ERASMUS+ GRANT and JEAN MONNET FUND: «European business models: transformation, harmonization and implementation in Ukraine» (№ 587138-EPP-1-2017-1-UA-EPPJMO-MODULE). Editorial Board Member of the "International Journal of Applied Science and Research". 2021: Expert of the National Agency for Quality Assurance in Higher Education. 2020: Participant of the joint Latvian-Ukrainian project "Gender aspects of digital readiness and human capital development in the regions" Rezekne Academy of Technology, Latvia. 2020: Coach of the winning student team of the International Business Simulation Competition for students from the Wroclaw Business University (Poland) with the support of Revas Business Simulations Games Company[divider]. Subjects within the teaching career: Basics of Foreign Trade Activities, HR Management, Strategic Management, Innovation Management, International Management, Cross-culture Management, Fundamentals of Modern Organizations, Management, Organizational Behavior. Bachelor and Master degree thesis supervisor. Assistance in organizing and holding the scientific and practical conference "Modern approaches to enterprise management". Responsible for foreign students and International Relations of the Department

**April 11**

3:00 pm to 5:00 pm  
(Beijing Time)

## Investments in Industry 4.0 Technologies and Supply Chain Finance: Approaches, Framework and Strategies

*Professor Vikas Kumar from the University of West England, Professor Linh Duong from the University of West England and Professor Huijian Li from Guangzhou University*

This program aims to provide attendees insight into the potential of digital technologies, often referred to as Industry 4.0 technologies, in shaping our future. The program will start the session with an overview of Industry 4.0 technologies and how it is shaping the supply chains. Next, the program will focus on exploring the impact of these digital technologies on addressing the supply chain finance approaches, frameworks, and strategies. The program will then explore its impact on the tourism and manufacturing sector. Digital technologies

have changed not only the supply chain and investment but also the development of the service industry (such as tourism) and manufacturing. The program will present the findings of our research, where we have explored how modern digital technologies are changing the future of tourism. Particularly we investigate the behavioural changes of the tourist towards smart destinations during the COVID-19 pandemic and what factors have affected such changes. Finally, we will close the program by exploring how digitalization empowers the green development of Chinese manufacturing in Industry 4.0.



Vikas Kumar

**Professor Vikas Kumar** is the Director of Research and Professor of Operations and Supply Chain Management at Bristol Business School, University of the West of England, UK. He has over a decade of teaching and research experience and is fellow of HEA. Prior to joining UWE in 2013, he was a Lecturer in Management at Dublin City University Business School (2009-2013). Since 2019, he is acting as a Director of Research. He serves on the editorial board of around ten international journals and has guest-edited several special issues in high impact journals. He is also a reviewer of more than 15 international journals including ABS 4/4\* and ABS 3\* journals.

Professor Kumar works very closely with industries and has generated research funding in the excess of £1 million from various research agencies such as Innovate UK, EPSRC, British Council, British Academy, Newton Fund, and Science Foundation of Ireland. He is currently (2021) involved in two projects funded by the Royal Academy of Engineering with Jordan and another project funded by the British Council/Newton Fund with Thailand. He has worked on several international collaborative projects with researchers from several UK universities and researchers from Brazil, Vietnam, Thailand, Indonesia, India, Mexico, Taiwan, Columbia, Peru, Costa Rica and Turkey.

Professor Kumar is actively involved in supervising UG and PG dissertations and doctoral students (PhDs). Prof Kumar's current research focus is on Sustainable Supply Chain Management and Supply Chain 4.0. His other research interests include Circular Economy, Short Food Supply Chains, Sustainability, Operations Strategy, Operational Excellence and Service Supply Chains. Area of expertise include Sustainable Supply Chain Management; Food Supply Chains; Industry 4.0; Digital Supply Chain Management; Structural Equation Modelling; Service Operations Management; Short Food Supply Chains; Operational Excellence.



Linh Duong

**Dr. Linh Duongis** is a Senior Lecturer in Operations Management at Bristol Business School, University of the West of England, UK. His current research interests focus on sustainable and resilient supply chain management with the link to digital transformation, innovation, and collaboration among supply chain partners. He focuses on vulnerable contexts such as the agri-food industry, tourism industry, or small and medium enterprises (SMEs). His papers relating to supply chain resiliency and sustainable innovation were published in the International Journal of Production Research (ABS: 3, JIF: 3.199), Journal of Macromarketing (ABS: 2, JIF: 1.952), and Trends in Food Science and Technology (JIF: 11.077).

He has previously worked at the University of Lincoln (UK), New Zealand Forest Research Institute (Scion) and Auckland University of Technology (NZ). Prior to this, he worked in the Supply Chain Management field since 2007 for dairy and pharmaceutical companies. He also joined projects on Distribution Management Systems, Inventory Management, and Production Management.

Dr Duong has taught a range of operations management and supply chain modules and has experience in module design and student supervision. He is on the Editorial Review Board for the International Journal of Applied Logistics and reviews for several journals including the International Journal of Production Economics. His areas of expertise include Sustainable supply chains, Operations Management and Resilient supply chains



Huijian Li

**Dr. Huijian Li**, a professor of economics at school of management in Guangzhou University. She holds a B.A. (2000) and a M.A. (2003) from South China Normal University, and a Ph.D from Sun Yat-sen University (2013). Her research specializes in the fields of industrial economics and international economics.

**April 12**

3:00 pm to 5:00 pm  
(Beijing Time)

## Transformational Leadership in the Digital Economy

*Dr. Alla Dunska from the National Technical University of Ukraine "Igor Sikorsky Kyiv Polytechnic Institute"*

This program will explore leadership in business; essence and relevance today; digitization and transformation of the modern business environment: from the VUCA world to the BANI world; features of transformational leadership; organizational change management: key points for a transformational leader; effective communication for business transformation; emotional intelligence of a transformational leader in a digital society; and ethical aspects of transformational leadership.



Alla Dunska

**Alla Dunska**, Dr. of Science in Economics, Professor of the Enterprise Management Department, Vice-Dean for Educational and Methodological Work of the Faculty of Management and Marketing, National Technical University of Ukraine "Igor Sikorsky Kyiv Polytechnic Institute". She is the author/co-author of more than 200 publications. She was a project manager: *Innovative principles of development of industrial enterprises in the framework of integration into the world economic space; Methodological support of sustainable economic growth of Ukraine based on modeling of macroeconomic indicators dynamics, Approaches to the formation of components of enterprises strategic development in a competitive environment, Management of the functioning of innovation-oriented engineering enterprises, Management of the innovative entrepreneurship development in a neo-industrial economy. Field of research: innovative and socio-economic mechanisms of enterprise development, formation of mechanisms for ensuring export-oriented development, transformational leadership in international business, management of international business development projects.*

**April 18**

3:00 pm to 5:00 pm  
(Beijing Time)

## Improving Energy Efficiency in the Utility Sector of the Economy on an Innovative Basis in the Context of Industry 4.0 and Green Economy

*Professor Serhii Voitko, Program Leader, Professor Natalia Skorobogatova, Professor Olena Korohodova, Professor Yaroslava Hlushchenko, Professor Anna Kukharuk and Professor Natalya Chernenko from the National Technical University of Ukraine "Igor Sikorsky Kyiv Polytechnic Institute"*

The role of the utility sector in the economy is discussed in this program with the share of energy in the utility sector of Ukraine analyzed and the influence of megatrends on the transformation processes of the energy sector determined. The problems of the formation and development of the utility sector of individual countries and the use of energy in the specified area are highlighted. Possibilities of ensuring the sustainable development of the utility sector with the mechanism of energy savings and the introduction of green technologies are considered, the impact of the characteristic features of each wave of Industry 1.0-4.0 on the development of the country's utility sector is assessed, and determinants of the expediency of implementing Industry 4.0 tools into the activities of utility sector

enterprises are diagnosed. The experience of advanced countries in implementing the concept of a smart city are analyzed and the methodology for evaluating the effectiveness of the implementation of the green economy concept based on the use of Industry 4.0 technologies in the utility sector is given. Short-term and long-term benefits from the modernization of utility systems based on the system of monitoring and optimization of resource consumption to ensure the appropriate level of quality of life of a person using the principles of Industry 4.0 are explained. This program reveals the content of the image component of enterprise activity based on the theory of economic harmonies. The formation of the image of the utility sector by the countries of the world, taking into account the level of its technology, is considered.



Serhii Voitko

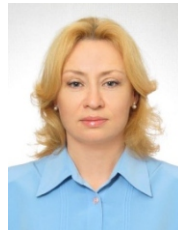
**Serhii V. Voitko**, Professor, Doctor of Economics. Chief of International Economics Department of National Technical University of Ukraine "Igor Sikorsky Kyiv Polytechnic Institute". Main research area and subareas: Sustainable Development, International Economics, Electronics, R&D, Industry 4.0 Manufacturing Management. Scientific Director of the Educational and Scientific Laboratory of World Economy, Regional Studies and Microeconomics at the World Data Center for Geoinformatics and Sustainable Development; member of the Scientific and Technical Council in the field of technical regulation at the Ministry of Economic Development and Trade of Ukraine; Chairman of the Commission on Commercialization of Intellectual Property Rights of Igor Sikorsky Kyiv Polytechnic Institute; member of the Academic Council of the Faculty of Management and Marketing and the Academic Council of Igor Sikorsky Kyiv Polytechnic Institute. Head of the research group of young scientists "Economics of high-tech enterprises". Head of the research group "Modeling the dynamics of economic processes".



Olena Korohodova



Natalia Skorobogatova



Yaroslava Hlushchenko



Anna Kukharuk



Natalya Chernenko

**April 25**

3:00 pm to 5:00 pm  
(Beijing Time)

## Quantum Computing for Sustainable Development

*Professor Francesco Petruccione from Stellenbosch University*

In recent years, quantum computing has emerged as a powerful technology that may help us achieve some of the goals of the fourth Industrial revolution. However, current quantum computers, such as Noisy Intermediate-Scale Quantum (NISQ) computers, still face significant noise and error correction challenges, which must be overcome to fully leverage their potential. In this presentation, basic ideas and concepts behind quantum computing will be introduced with an overview of the available quantum algorithms and their potential to address some of the challenges of the sustainable development goals. Discussion will also include the importance of developing a workforce with the necessary skills to advance quantum computing for sustainable development. Join us to learn how quantum computing can help us build a more sustainable future.





Francesco Petruccione

*Francesco Petruccione studied Physics at the University of Freiburg i. Br. and received his PhD in 1988 and the “Habilitation” degree (Dr. rer. nat. habil.) in 1994. In 2004 he was appointed Professor of Theoretical Physics at the University of KwaZulu-Natal (UKZN), in Durban (South Africa). In 2007 he was granted the South African Research Chair for Quantum Information Processing and Communication. At UKZN he has been Pro-Vice-Chancellor Big Data and Informatics. Currently, he is the interim Director of the National Institute for Theoretical and Computational Sciences and (since May 2022) a Professor of Quantum Computing at Stellenbosch University and a fractional Professor at UKZN.*

*Prof Petruccione is an elected member of the Academy of Sciences of South Africa, a Fellow of the Royal Society of South Africa, of the African Academy of Sciences and of the University of KwaZulu-Natal. He has published more than 250 papers in refereed scientific journals. He is the co-author of a monograph on “The Theory of Open Quantum Systems ” (more than 10000 citations according to Google Scholar), that was published in 2002, reprinted as paperback in 2007, and translated in Russian. In 2018 he published a monograph (with Maria Schuld) on “Supervised Learning with Quantum Computers” that was already translated into Japanese. The second extended edition was published in 2021 under the title “Machine Learning with Quantum Computers” . He is the editor of several proceedings volumes and of special editions of scientific journals. Prof Petruccione is a member of the Editorial Board of the journals “Open Systems and Information Dynamics”, “Scientific Reports”, and “Quantum Machine Intelligence”.*

**July 11**

3:00 pm to 5:00 pm  
(Beijing Time)

## Exploring Tourism Innovation, Resilience and Regenerative Frameworks: Challenges and Possibilities

*Dr. Karina Wardle, Program Leader, from Western Sydney University jointly with representatives from Western Sydney University, University of Quebec at Montreal, Guangzhou University, University of Coimbra, Durban University of Technology, National Technical University of Ukraine “Igor Sikorsky Kyiv Polytechnic Institute” and the University of Economics Ho Chi Minh City*

This webinar will present key learnings from a multi-country comparative analysis into innovative business strategies and operational practices by direct hospitality and tourism stakeholders in response to the COVID-19 pandemic and other contemporary crises. The session will highlight strategy and policy implications for Government and Destination Management Organizations, explore the practicalities and benefits of adopting an innovation mindset as well as delve into the challenges and possibilities for sustainable, respectful and resilient tourism recovery.



Karina Wardle

***Dr Karina Wardle** is the Academic Program Advisor for Hospitality and Sport Management, International Academic Lead for South-East Asia and a lecturer in Hospitality, Sport and Marketing at Western Sydney University. Karina is an active contributor to The Council for Australasian Tourism and Hospitality Education (CAUTHE) and the Australian Collaborative Education Network (ACEN), has extensive industry experience in hospitality and events management and maintains a vast industry network. Areas of research and teaching interests relate to tourism crisis recovery and innovation, hospitality and events management, work integrated learning, employability, industry partnerships and the share economy. Karina has received numerous research grants as lead researcher focusing on two main projects “Innovative Business Strategies in Response to COVID-19’s Impact on Tourism” and “Investigating the effectiveness of employability skill development embedded into business curriculum”.*



**October 4**

3:00 pm to 5:00 pm  
(Beijing Time)

## Innovative Entrepreneurship to Ensure Sustainable Development



Katerina Kopishynska

*Professor Kateryna Kopishynska, Program Leader, and Professor Mary Kravchenko from the National Technical University of Ukraine "Igor Sikorsky Kyiv Polytechnic Institute"*

This program will include the analysis of global trends in innovative development, determination of the key areas of operation of startups and their compliance with the goals of sustainable development, and features of the development of startups in Ukraine and other countries to ensure sustainable development.



Mary Kravchenko

*Kateryna Kopishynska, Ph.D., Associate Professor, Department of Management of Enterprises, National Technical University of Ukraine "Igor Sikorsky Kyiv Polytechnic Institute". Candidate of Sciences in Economics: The topic of her thesis is "Management of innovation systems of mechanical engineering enterprises". Prepared more than 90 scientific publications: among which are 3 monographs (with co-authors), 2 textbooks on startup management (with co-authors), and 5 Scopus publications (with co-authors). Research interests include: Innovative Development, Management of Startups, Sustainable Development, Digital Transformation. Courses: Management of Startup Projects, Development of Startup Projects, Risk Management, Business Management and Administration, Circular Economy.*

**October 10**

3:00 pm to 5:00 pm  
(Beijing Time)

## Life Cycle Management of Industry 4.0 Products Based on Circular Economy



Serhii Voitko

*Professor Serhii Voitko, Program Leader, Professor Olena Korohodova, Professor Anna Kukharuk, and Professor Natalia Skorobogatova from the National Technical University of Ukraine "Igor Sikorsky Kyiv Polytechnic Institute"*

This program will include the classification of means of technical support of the life cycle of goods; implementation of the feedback loop "production-operation-production" on the basis of Industry 4.0; and personalization of products and extension of the life cycle of goods in the conditions of the circular economy. The program is dedicated to the topic which highlights the circular economy philosophy and the role of sustainable product development in a circular economy is given. The theoretical aspects of product design and development 4.0 are explored and waste management process in a circular system is highlighted. The influence of TNCs in sustainable development is described and the program further explains the theoretical and applied aspects of the balanced development of enterprises based on the principles of economic harmonization. The provisions of conducting successful industrial and commercial activities on the basis of a resource-efficient economy in the conditions of world transformations and crisis



Olena Korohodova



Natalia Skorobogatova



Anna Kukharuk

phenomena are disclosed as well as the principles of the circular economy and their influence on the formation of the product life cycle. The methodology for evaluating the life cycle of a product is presented and applied aspects of assessing the life cycle of a product in a circular economy model are also described.

**Serhii V. Voitko**, Professor, Doctor of Economics. Chief of International Economics Department of National Technical University of Ukraine "Igor Sikorsky Kyiv Polytechnic Institute". Main research area and subareas: Sustainable Development, International Economics, Electronics, R&D, Industry 4.0 Manufacturing Management. Scientific Director of the Educational and Scientific Laboratory of World Economy, Regional Studies and Microeconomics at the World Data Center for Geoinformatics and Sustainable Development; member of the Scientific and Technical Council in the field of technical regulation at the Ministry of Economic Development and Trade of Ukraine; Chairman of the Commission on Commercialization of Intellectual Property Rights of Igor Sikorsky Kyiv Polytechnic Institute; member of the Academic Council of the Faculty of Management and Marketing and the Academic Council of Igor Sikorsky Kyiv Polytechnic Institute. Head of the research group of young scientists "Economics of high-tech enterprises". Head of the research group "Modeling the dynamics of economic processes".

**October 17**

3:00 pm to 5:00 pm  
(Beijing Time)

## Driver's Behavior Cognition



Iryna Husyeva

*Professor Iryna Husyeva, Program Leader, from the National Technical University "Igor Sikorsky Kyiv Polytechnic Institute", Professor Joao Patricio and Professor Sandra Jardim from the Polytechnic Institute of Tomar*

The main objective of this program is to describe an approach to early recognition of abnormal, inattentive or distracted driving in order to increase traffic safety based on mobile phone sensors. More specifically, discussion will focus on a software developing solution to collect data from mobile phone sensors, process it and make alerts to drivers in real time about potentially dangerous situations that help to prevent possible car accidents and correct bad driving habits. Collected data can also be used at a later stage through data science techniques to further profile drivers. Discussion will also include the possible application of a suggested approach for autonomous driving.



Sandra Jardim

**Professor Iryna Husyeva**, Associate Professor, PhD in Economics, Master of Computer Science, Associate Professor of the Department of Software Engineering in Energy Industry. Educational and Scientific Institute of Nuclear and Thermal Energy, National Technical University of Ukraine "Igor Sikorsky Kyiv Polytechnic Institute". Research topic: Driver's behavior cognition, Traffic management, Object localization, Indoor/Outdoor navigation, Traffic violation detection, Reconstruction of traffic accidents, Intelligent Transportation Systems, Intelligent management of integrated energy infrastructure, Energy Efficient Driving. Scientific and research projects: 2019-till now: Research of a system for assessing the level of internationalization of research institutions (jointly with Shandong Academy of Sciences, China); CRASH - Development of a high precision reconstruction system designed to be used in a professional simulation environment related to real crash events (jointly with Polytechnic Institute of Tomar, Polytechnic Institute of Leiria, Sketchpixel, Portugal); Driver's Behaviour Cognition Based on Mobile Phone Sensors (jointly with Polytechnic Institute of Tomar, Portugal); General Purpose Image Similarity Calculation for Heterogeneous Applications (jointly with Polytechnic Institute of Tomar, Portugal); Research and implementation of key technologies for monitoring the development of international cooperation and creation of decision support systems in the scientific and technical sphere (jointly with Shandong Academy of Sciences, China). Etc. in Informational and analytical system for the innovation development and sustainability management in the energy sector.



Joao Patricio

**November 7**

3:00 pm to 5:00 pm  
(Beijing Time)

## Eco-Friendly Mobility



Iryna Husyeva

*Professor Iryna Husyeva, Program Leader, from the National Technical University, “Igor Sikorsky Kyiv Polytechnic Institute”, Professor Joao Patricio and Professor Sandra Jardim from the Polytechnic Institute of Tomar*

The main objective of this program is to describe the approaches to energy-efficient mobility, collaborative driving, early recognition of inefficient driving in order to decrease the use of energy resources. Discussion will also focus on a software solution to make the driver’s behavior eco-friendly. Collected data can be used through data science techniques to form the energy-efficient driving patterns. Discussion will also include the possible application of a suggested approach to electric vehicles.



Sandra Jardim

*Iryna Husyeva, Associate Professor, PhD in Economics, Master of Computer Science, Associate Professor of the Department of Software Engineering in Energy Industry. Educational and Scientific Institute of Nuclear and Thermal Energy, National Technical University of Ukraine “Igor Sikorsky Kyiv Polytechnic Institute”. Research topic: Driver’s behavior cognition, Traffic management, Object localization, Indoor/Outdoor navigation, Traffic violation detection, Reconstruction of traffic accidents, Intelligent Transportation Systems, Intelligent management of integrated energy infrastructure, Energy Efficient Driving. Scientific and research projects: 2019-till now: Research of a system for assessing the level of internationalization of research institutions (jointly with Shandong Academy of Sciences, China); CRASH - Development of a high precision reconstruction system designed to be used in a professional simulation environment related to real crash events (jointly with Polytechnic Institute of Tomar, Polytechnic Institute of Leiria, Sketchpixel, Portugal); Driver’s Behaviour Cognition Based on Mobile Phone Sensors (jointly with Polytechnic Institute of Tomar, Portugal); General Purpose Image Similarity Calculation for Heterogeneous Applications (jointly with Polytechnic Institute of Tomar, Portugal); Research and implementation of key technologies for monitoring the development of international cooperation and creation of decision support systems in the scientific and technical sphere (jointly with Shandong Academy of Sciences, China). Etc. in Informational and analytical system for the innovation development and sustainability management in the energy sector.*

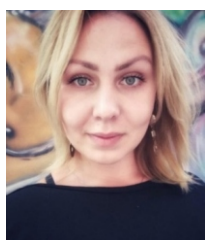


Joao Patricio

**November 8**

3:00 pm to 5:00 pm  
(Beijing Time)

## Digital Economy During the Post-War Recovery: Analytics, Modeling, Strategizing



Julia Yereshko

*Professor Julia Yereshko, Program Leader, Professor Kateryna Boiarynova, Associate Professors Iryna Lazarenko and Glib Mazhara, as well as Doctoral Researcher Viktoriia Melnychuk from the National Technical University of Ukraine “Igor Sikorsky Kyiv Polytechnic Institute”*

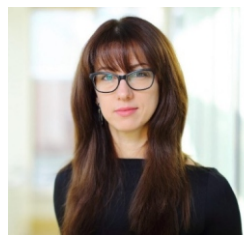
This program is devoted to the strategic aspects of digitization. Digitalization of economics plays an important role in terms of improving the competitiveness of Ukraine under the global conditions. Force majeure circumstances such as COVID-

19 and full-scale war gave a powerful impetus on the acceleration of the digital development of enterprises and governmental services. This course has already given effective results on the Ukrainian economy. Digitalization strategies should be continued, improved and implemented taking into consideration different facts and scenarios of development.

**Julia Yereshko**, Dr. of Science in Economics, Professor of the Department of Economic Cybernetics, National Technical University of Ukraine "Igor Sikorsky Kyiv Polytechnic Institute". Research Fellow - Technische Universitat Munchen, Institute for Advanced Study / Department of Economics and Policy. Assistant Project Manager within the UNDP Programme - UNDP Ukraine. Director on the Strategic Development of International Centre for Enterprise and Management Development, LLC. Associate Professor of the Department of Theoretic and Applied Economics of National Technical University of Ukraine "Igor Sikorsky Kyiv Polytechnic Institute" (2014). Subjects of research: Economics of innovation, intellectual economy, intellectual theory of value, sustainable development etc.



Kateryna Boiarynova



Iryna Lazarenko



Viktoriia Melnychuk



Glib Mazhara



## Alliance of Guangzhou International Sister-City Universities



To learn more about the Alliance of Guangzhou International Sister-City Universities, please visit our website at <http://gisu.gzhu.edu.cn> or contact Steve Farr, Director of International Projects for the Secretariat Office, at [steve.farr@gzhu.edu.cn](mailto:steve.farr@gzhu.edu.cn)