

Type of the Paper: Review paper

Received: 11.1.2022. Published: 14.1.2022.

DOI: https://doi.org/10.18485/edtech.2022.2.1.4

UDC: 004:005.745(498)"2021"

# Talking about big data-driven smart urban economy at the 6th edition of icesba international conference on sciences and business administration

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Abstract: In this paper, we would like to make a brief presentation of the international academic event – the ICESBA 2021 conference, entitled Big Data-Driven Smart Urban Economy. The sixth ICESBA conference took place in Bucharest, on 26 and 27 November 2021. Due to COVID-19 pandemic situation, the transmission was live and online, with the support of Google Meet platform and live streaming on YouTube. The event was an important success, being among the few conferences of this magnitude in Europe. There was such a significant presence of an impressive number of co-partner universities and research institutes, as well as university professors as keynote speakers from universities all around the world. It was also marked by a significant presence of works and co-authors eager to share the results of their own work during two full days of presentations and lively debates.

**Key terms:** big data, smart management, artificial intelligence, acoustic information systems, Internet of Things System

#### 1. Introduction

The ICESBA 2021 International Conference – Big Data-driven Smart Urban Economy, organised by the Bucharest Faculty of Economic Sciences, Spiru Haret University, was held online on November 26–27 2021, with the participation of numerous professors and researchers from the country and abroad. In recent years, the ICESBA International Conference developed continuously, but this year's conference has enjoyed unprecedented success, with a large number of participants and keynote speakers.

ICESBA 2021 Conference, the 6th International Conference on Economic Sciences and Business Administration, entitled BIG DATA-DRIVEN SMART URBAN ECONOMY was organised by Spiru Haret University from Bucharest, Romania, through the medium of the Central Research Institute, on the initiative of the Faculty of Economic Sciences in Bucharest. The international conference was co-hosted by two recognised professors of Spiru Haret University: associate prof. George bazarhD, from the Faculty of Economic Sciences, Bucharest, Romania, member of The American Association for Economic Research, New York City, USA, and associate prof. Elena Gurgu, PhD, from the Faculty of Economic Sciences, Bucharest, Romania, Deputy Editor-in-Chief of the international indexed journal Annals of Spiru Haret University. Economic Series.

In the opening of the International Conference ICESBA 2021, speaking on behalf of the management of the Faculty of Economic Sciences Bucharest, professor Luminita Ionescu, PhD delivered welcome messages to the guests from abroad and thanks to the teachers involved in organising the event. Next, associate professor George of which is a stically welcomed all the participants, congratulated the co-organisers of the conference, universities from the United States and Europe, respectively, after which he explained how the conference works. Associate professor Elena Gurgu also addressed a few words of welcome to the Romanian and foreign participants, presenting some of the international guests from prestigious universities in Europe, Africa and Asia.

# 2. A short presentation of organisers

And now, allow us to tell you a few words about the organisers.

The Spiru Haret University is a private university in Bucharest, Romania, founded in 1991 by the president of Tomorrow's Romania Foundation, Aurelian Gh. Bondrea, as part of the teaching activities of this foundation. The university has been organised according to the model used by Harvard University, USA. The university bears the name of a scientist and reformer of the Romanian education, Spiru Haret, who lived before World War I. On 14 February 14 2000, the university was accredited by the National Council of Academic Evaluation and Accreditation of Higher Education Institutions. By 2009, it had 30 faculties with 49 specialisations and 64 master's degree curricula, being, according to the newspaper Financiarul, the largest university in Romania. In 2009, the enrolment was reported at 311,928 students. Regarding the number of its students, it is the secondlargest private university in the world, after Islamic Azad University (with 1.3 million students). Pope John Paul II and former Romanian president Ion Iliescu have received honorary doctorates from the university. In 2016, the UK National Academic Recognition Information Centre listed Spiru Haret University as a recognised higher education institution.

The Central Research Institute of Spiru Haret University is the research structure at the University level, providing the scientific and methodological coordination of the University research centres. The Central Research Institute aims to:

- consolidate the multidisciplinary academic research (inter- and intradisciplinary);
- provide the conditions required by the University to participate in national and international research networks and
- provide specific services to various beneficiaries;



- » help the University publications be cited, by their inclusion into international databases;
- » provide constant financing sources;
- » increase performance and scientific outcome of the teaching and research personnel at the University, at the national and international levels;
- » educate the undergraduate students and master and PhD candidates for best performance and scientific competitiveness;
- » engage real-word research problems through public/private partnerships.

#### 2.1. Co-organisers of the ICESBA 2021 International event

The event was organised in partnership with reputable educational institutions and research institutes from all around the world, such as American Association for Economic Research from New York City, USA; Azerbaijan Tourism and Management University from Baku, Azerbaijan; Instituto TESEO from Salerno, Italy; National Institute of Economic Research from Chisinau, Republic of Moldova; Vasil Levski National Military University from Veliko Tarnovo, Republic of Bulgaria; Silesian University in Opava, Czech Republic; University Business Academy in Novi Sad, Republic of Serbia; Faculty of Contemporary Arts from Belgrade, Republic of Serbia; High School of Vocational Studies from Belgrade, Republic of Serbia; Information Technology ITS-Belgrade, Republic of Serbia; University of Johannesburg, South Africa; University of Zilina (UNIZA), Slovak Republic; USH ProBusiness from Bucharest, Romania; Vishwa Viswani Institute of Systems and Management from Hyderabad, India and Vishwa Viswani School of Business from Hyderabad, India.

But among the most influential co-partners are by far the institutions coming from Belgrade, Serbia, whom the organisers thanked for their trust, but also for supporting the ongoing international event to the best of their ability. The merits were awarded in a very special way to professor Milena Ilić, a fierce supporter of the research interests of the institutions of which she is a part as a teacher.

And now allow us to tell you a few words about the co-organisers.

The American Association for Economic Research from New York City, USA, carries out research on cognitive technology-driven automation; its president is Michael A. Peters, Emeritus Professor, University of Illinois. Top-ranking universities where the authors are located include Harvard University, University of Oxford, Yale University, Princeton University, Massachusetts Institute of Technology, University of Cambridge, Stanford University, and Boston University.

Azerbaijan Tourism and Management University (abbr. ATMU) trains people in tourism in Baku, Azerbaijan. The institution was established under the Ministry of Culture and Tourism of the Republic of Azerbaijan. The professional goals of the university include improvement of the tourism industry, training personnel to meet the needs for qualified personnel in the field of travel, leisure and hospitality. In 2014, the institute became the university of tourism and management (Azerbaijan Tourism and Management University). Azerbaijan Tourism and Management University cooperates with many local and international organisations. Within the framework of cooperation, several research and development projects and teacher/student exchanges have been implemented.

The Istituto Teseo Alta Formazione e Ricerca Foundation from Salerno, Italy was founded in February 2019, first as a scientific association with its headquarters in San Donato Val di Comino (Fr), Italy; in July 2020, it became a foundation with its headquarters in San Cipriano Picentino (Sa), where it currently has its operational and legal headquarters. The Foundation operates in the field of higher education and research, in particular in the field of language mediation studies and training, language studies, psychological sciences applied to neurolinguistics, and economic studies.

The National Institute for Economic Research from Chişinău, Republic of Moldova, is a public institution (think-tank) engaged in scientific economic research. Its main beneficiaries are Ministry of Economy, Ministry of Agriculture and Food Industry, Ministry of Labour and Social Protection, Academy of Sciences and others. Its main activities concern scientific research in economy, finance, statistics, demography, reforming of social sphere, and integration of the Republic of Moldova into world economic circuit. Former experience covers a wide variety of applied research on the evolution of economic and social processes in Moldova, ensuring a stable economic growth and high living standards. The Institute's most important research directions are: economic and financial models, mechanisms for sustainable growth; business and investment environment; agricultural policies and informational base for rural development in the context of food safety; improvement of statistical information system according to EU standards; demographic and social development policies.

The Vasil Levski National Military University from Veliko Tarnovo, Republic of Bulgaria conducts training for: cadets and students in three areas of higher education: Social, Economic and Legal Sciences, Technical Sciences, and Security and Defence, detailed in seven professional fields, fifteen civilian and one military specialty and twenty one military specialisations corresponding to the branches and special forces. Also, the University conducts training for PhD students in fifteen accredited scientific specialties, as well as contingents of the Bulgarian Army for participation in missions abroad.

The Silesian University in Opava, the Czech Republic, has a high research output according to the QS World University Rankings, and includes three faculties: philosophy and science, public policies, and mathematics. All of the faculties offer courses at undergraduate, postgraduate and doctorate levels.

The University Business Academy in Novi Sad (UBANS), Republic of Serbia is a higher scientific-educational institution, an autonomous and private university. Established in 2000, UBANS was the first privately owned university accredited in the Autonomous Province of Vojvodina, by both the national and international Quality Assurance Authority. The University holds the Certificate of State Accreditation of the Commission for Accreditation and Quality Assurance (CAQA) from the Ministry for Education, Science and Technological Development of the Republic of Serbia, which is a member of an INQAAHE (International Network for Quality Assurance Agencies in Higher Education) and has a candidate member status with ENQA (European Association for Quality Assurance in Higher Education).

Faculty of Contemporary Arts from Belgrade, Republic of Serbia is part of University Business Academy in Novi Sad, Serbia, an accredited faculty of performing and applied arts offering a wide range of essential skills for any 21st-century artist. It was founded in 1997 as the first private faculty of arts in those parts of Serbia. It has formed many successful and renowned artists, known not only in the region, but also in the world's preeminent art centres. The study programme was designed in accordance with modern trends in artistic practice that impose no limits between artistic media, ways of expression, and the artist's sensibility. The study programme includes Bachelor, Master and PhD studies.

Information technology School ITS – Belgrade from the Republic of Serbia is the first accredited private higher education



institution in the information technology sphere in Serbia. It offers exquisite conditions for studying, state-of-the-art equipment, expert personnel, practical implementation of acquired knowledge, the most sought-after professions of today, internationally recognised certificates, and work in the selected field during the studies themselves. The study programme includes Bachelor and Master vocational studies.

The University of Johannesburg (UJ) is a public university located in Johannesburg, South Africa. The University of Johannesburg came into existence on 1 January 2005 as the result of a merger between the Rand Afrikaans University (RAU), the Technikon Witwatersrand (TWR), and the Soweto and East Rand campuses of Vista University. The newly emerged institution is one of the largest comprehensive contact universities in South Africa among the 26 public universities that make up the higher education system. UJ has a student population of over 50,000, more than 3,000 of whom are international students from 80 countries. UJ is one of the top ranked Universities in South Africa, and it is also highly ranked in the QS World University Rankings and other global rankings.

The University of Zilina from Slovakia has a very high research output according to the QS World University Rankings. Over the last 57 years, more than 52,000 students have graduated from the university; 1662 of them have been awarded a PhD degree.

USH Pro Business from Bucharest, Romania is a specialised centre for activities dedicated to the entrepreneurial environment of "Spiru Haret" University, designed to support companies and provide solutions to support competitiveness. The centre offers specialised services and assistance for the entrepreneurial environment through projects and programmes developed based on a prior consultation with companies and associations from the business environment. The USH Pro Business Centre adds value to existing services on the market today, through understanding the needs of partners and connecting them with academia. Offering high quality services to the Romanian business environment, with a dynamic and innovative attitude, USH Pro Business welcomes complete services covering a wide range of activities, research and innovation oriented towards market solutions, professional and vocational training up to support services, to support the competitiveness of companies and clusters, organisation of business events, etc. USH Pro Business ensures a careful and detailed observation of changes and trends in the business environment, so that their partners benefit from well-documented professional assistance.

Vishwa Vishwani Institutions of Systems & Management, which includes Vishwa Vishwani School of Business, from Hyderabad, India, is the third largest Business School Group in South India, having more than two decades of strong contribution in management education and research. The Group has three institutions offering postgraduate and undergraduate programmes in business management and information technology.

The ICESBA 2021 Conference had three media partners, namely: Romania of Tomorrow Foundation Publishing House from Bucharest, Romania, USH Academic Weekly Newspaper – National Opinion Academic Newspaper from Bucharest, Romania, and USH Radio Station – Radio7, also from Bucharest, Romania.

The publication partner of the ICESBA 2021 International Conference was the international indexed journal named Annals of Spiru Haret University. Economic Series – ASHUES. The Annals of Spiru Haret University. Economic Series (ASHUES) is an international peer-reviewed journal, whose Editor-in-Chief is the rector of Spiru Haret University from Bucharest, Romania, Dr Aurelian A. Bondrea (http://anale-economie.spiruharet.ro/editor.html). The journal has been publishing high-quality academic articles in economics since the year 2000. The peer-review is very fast and highly rigorous, and authors are carried along adequately in all the publication processes. Annals of Spiru Haret University. Economic Series (ASHUES) is indexed in international databases and libraries, such as: RePEC, ERIHPLUS, SSRN, ROAD, BASE, INDEX COPERNICUS INTERNATIONAL, DOAJ, ECONBIZ, INFOBASE INDEX,CROSS REF DOI, OAJI, WORLDCAT, OPEN AIRE, RESEARCH BIB, CEEOL, J-GATE, JOURNAL TOCs, PKP, OPEN ARCHIVES, GOOGLE SCHOLAR, ILLINOIS LIBRARY, ELECTRONIC JOURNALS LIBRARY, EUROPUB, STANFORD UNIVERSITY LIBRARIES, CORNELL UNIVERSITY LIBRARY AND OPEN LIBRARY (http://anale-economie.spiruharet.ro/indexing.html).

### 2.2. A brief note about carrying out the conference proceedings for the two days

The international conference ICESBA 2021 was held online via Google Meet, with videostreaming live presentation, on 26 and 27 November 2021. A large number of scientific papers (56 papers) in the field of technical-technological and socialhumanistic sciences were presented, with authors, professors, scientific researchers and young scientists from all over the world (14 countries), who presented their research papers through four conference panels, which were held through remote access with ICT, for compliance with epidemiological measures and recommendations:

- "Smart Management in the Knowledge-Based Urban Economy" (Panel 1);
- "Big Data-Driven Smart Marketing" (Panel 2);
- "Algorithmic Data-Driven Accounting Information Systems" (Panel 3);
- "Artificial Intelligence Data-Driven Internet of Things Systems" (Panel 4).

Within the presentation in plenary session of keynote speakers' papers, 25 prominent academic and scientific researchers took part. Within the second day of the conference, in which articles were exhibited through all four planned panels, a total of around 80 authors took part.

The plenary session of the conference, which was addressed only by keynote speakers, took place throughout all day of 26 November 2021, being a real scientific marathon that started at 9:00 AM, EET, with a short verification of the online platform operation, and ended with the closing ceremony speech of the hosts at 7:00 PM. At the plenary session, 25 guests from 14 countries took turns speaking, delivering approximately 10-minute speeches with 5-minute question and answer sessions. The debate of the scientific works was dynamic and pleasant, in a relaxed scientific atmosphere. The recording of the entire plenary session, as well as the panel registrations, can be seen by accessing the link – http://icesba.eu/virtual.html, which is attached on the conference website, icesba.eu. [1]

Now allow us to tell you a few words about the keynotes of ICESBA 2021 International Conference.

Melina Allegro is Vice-President, Director of International, External and Orientation Relations and member of the Board of Directors of the Fondazione Istituto Teseo Alta Formazione e Ricerca from Salerno, Italy. She acquired a diploma in Educational Sciences and obtained the 2nd level Executive Master "Governance, Management and Development of Human Resources in the Public Administration". She is also a permanent teacher at MIUR – Italian Ministry of Education, University and Research, Rome, Italy, qualified to teach human sciences in secondary school, trainer in the field of experimental pedagogy and training processes,



technology of education and learning. She is a former member of the commissioner of the ordinary primary school competition commission in 2016.

Nelli Amarfii-Railean has a PhD in Economics, and teaches as an associate professor at the Department of Economic Studies, Faculty of Real, Economic and Environmental Sciences, Alecu Russo Balti State University, Republic of Moldova.

Stefano Amodio is a doctor in philosophy, president, director of education and professor of psychology of work at Teseo University, in San Cipriano Piacentino, Italy.

Adam Balcerzak teaches at the University of Warmia and Mazury in Olsztyn, Poland. He has more than 500 citations in WoS and Scopus. He is the Editor-in-Chief of the journal Oeconomia Copernicana, Web of Science, IF 4.274, AIS 0.305. Quartile in Category Economics: Q1.

Dragan Ilić got his PhD degree at the Faculty of Economics and Engineering Management in 2011. His academic career started at Educons University in 2006. Since 2011, he has been working as a lecturer at the Faculty of Economics and Engineering Management. Until June 2013, he was the Marketing Director of the University Business Academy in Novi Sad, and in the period from 2013 to 2015, Dr Ilić was appointed as Vice-Dean for Science and International Cooperation at the Faculty of Economics and Engineering Management. Since 2015 he has been the Coordinator for International Cooperation at the University Business Academy in Novi Sad, Serbia. Prof. Ilić is a regular consultant and analyst of the Serbian national TV station The Radio Television of Serbia, and the Radio Television of Vojvodina in areas of agribusiness, entrepreneurship, national economy and international business. Since the academic year 2013/2014, he has been an associate member of several universities where he has delivered several guest lectures: Faculty of Logistics (Celje, Slovenia), Budapest Metropolitan University (Budapest, Hungary), Széchenyi István University, Kautz Gyula, Faculty of Economics (Gyor, Hungary), EPHEC University College (Brussels, Belgium), Sakarya University (Ankara, Turkey), and Stuttgart Media University (Stuttgart, Germany) in the fields of marketing, logistics, agribusiness, entrepreneurship, and management. He is also a member of the academic network Businet which gathers more than a hundred higher education institutions from all over the world. He has published over 40 scientific and research papers and has participated in over 50 international conferences and meetings.

Milena Ilić is a doctor of Economic Sciences, and teaches as an Assistant Professor at the Faculty of Contemporary Arts in Belgrade, and Information Technology School – ITS, Belgrade, Serbia. Milena is an author of ten textbooks and editor of three scientific monographs of international importance. In addition, she has published over 120 original scientific papers in international and national scientific journals, monographs and proceedings of international and national importance. She has conducted scientific research in the realms of Educational Technology, HRM, Economics, Circular Economy, Entrepreneurship and more.

Victoria lordachi has a PhD in economics and is a coordinator researcher at the Department of Financial and Monetary research of the National Institute for Economic Research (NIER) of the Ministry of Education and Research of Moldova, from Chişinău. The domains of her scientific interest include: circular economy, cluster associations, illegal financial flows, international financial flows, financial markets. She is a member of the teams of several research projects, a national expert for the evaluation of educational programmes, and a member of scientific committees at international scientific conferences.

Baktybek Isakov teaches at Kyrgyz-Turkish MANAS University in Bishkek, Kyrgyzstan. He is the author of several monographs and many articles in peer-reviewed journals. He took part in a variety of international projects and is a co-founder of Online University in Bishkek, Kyrgyzstan.

Tomas Kliestik is full professor and the head of the Department of Economics of the Faculty of Operation and Economics of Transport and Communications, University of Zilina. He has more than 1,500 citations in WoS and Scopus. He is the coordinator of an international conference with a good history in WoS.

Maria Kovacova teaches at the Faculty of Operation and Economics of Transport and Communications, University of Zilina. She has more than 700 citations in WoS and Scopus. She is the associate coordinator of an international conference with a good history in WoS.

Valentin Kuleto is the founder and president of the leading multinational company LINKgroup, which has been successfully engaged in education management and professional education and certification in the field of information technology and modern business for 25 years, through as many as 15 educational institutions and over 50 educational services. He is an associate professor at the Faculty of Contemporary Arts in Belgrade and at the Information Technology School – ITS, Belgrade, Serbia. Dr Kuleto is the author of five books and many scientific and professional papers published in journals, national and international conferences proceedings, and scientific monographs of international importance on Modern Education, Educational Technology and Information Technology.

Costin Lianu, PhD is an associate professor at the Faculty of Economic Sciences from Bucharest, Vice-rector at Spiru Haret University, and General Director of USH ProBusiness Center, Bucharest, Romania.

Daniel Meyer is a professor at the College of Business and Economics and Director of the School of Public Management, Governance and Public Policy at the University of Johannesburg, South Africa. Daniel is a specialist in regional and local economic development analysis and policy development. He has developed various innovative measurement tools, indexes and scales to analyse regional economies. He has authored more than 100 internationally peer-reviewed research papers since 2015 and presented over 60 international conference papers, including a number of keynote addresses. His research is multidisciplinary through the combination of development economics, business, public management and governance. He has established a large international network of research partners across the globe with a strong focus on the Visegrad group of countries. He has also successfully completed and delivered more than 40 regional development strategies for local governments and provincial governments. He is also involved in various community development projects in the communities where he lives. During his academic career he has received a number of awards, which include: most inspiring lecturer in 2012; Vice-Chancellor's award for community engagement via the Vaal LED warrior initiative in 2016; media person of the year in 2016; and most productive senior researcher on the NWU, Vaal campus in 2016, 2017 and 2018; most productive senior researcher in the NWU Faculty of Economic and Management Sciences in 2019; and runner-up most productive senior researcher in 2020 at NWU. His motto in life is "give more than you take".

Natanya Meyer is an associate professor at the Department of Business Management of the College of Business and Economics, University of Johannesburg, Gauteng, South Africa. She is part of the DHET-NRF SARChI Entrepreneurship Education Chair. Her research focusses on entrepreneurial and economic-related topics. She is an editor, editorial board and scientific



committee member, as well as a reviewer for several national and international journals.

Edwin Mirfazli is a researcher at Academics Computer Laboratorium Économics and Business Faculty University of Lampung. He has more than 100 citations in WoS and Scopus and has experience in Business, Social Accounting, CSR and Sustainability Research. Also, he has published articles at Emerald Scopus Journal. He is the deputy director for foreign affairs and corporation at Graduate School University of Bandar Lampung, Indonesia, and Visiting Professor for Keynote Speaker at International Workshop University of Bologna, Rimini Campus, Italy.

Rodica Perciun is a PhD habilitate, professor and the head of the Department of Financial and Monetary research, National Institute for Economic Research (NIER) of the Ministry of Education and Research of Moldova, from Chişinău. She is the director of many national institutional projects, member of some editorial boards, national and international expert for independent project evaluation, and member of many scientific committees in international scientific conferences.

Elitsa Petrova is an associate professor in the field of Social, Economic and Legal Sciences, Doctor in Economics and Management and Doctor of Science in Security and Defense at the Vasil Levsky National Military University from Veliko Tarnovo, Bulgaria. She is one of the Erasmus Coordinators and LEAR for Horizon for the university. She conducted lectures at many foreign universities and academies in Romania, Slovakia, Czech Republic, Poland and Hungary.

Viorica Popa has a PhD in economics; she is a coordinator researcher at the Department of Financial and Monetary research, National Institute for Economic Research (NIER) of the Ministry of Education and Research of Moldova, from Chişinău. The domains of her scientific interest are: banking and non-banking sector, implementation of strategic management within organisations, insurance and public finance, circular economy, analysis of hazardous waste in the Republic of Moldova. She has been a member of the teams of several research projects, participating in various national and international conferences in the country and abroad, with presentations in her field of expertise. She is a member of an international conference with a good history in WoS.

Sabyasachi Rath is a professor and dean of Vishwa Vishwani Group of Institutions, Hyderabad, India. He has over 50 publications in national and international Journals including SCOPUS and other referred journals. He has presented 100 research papers in various conferences and co-authored and edited conference journals, books and white papers. He is also the Chief Editor of the journal called Marketing Guru Business Media.

Roman Šperka teaches at the Silesian University in Opava, the Czech Republic. He has more than 150 citations in WoS and Scopus. He is the coordinator of an international conference with a good history in WoS.

Marta-Christina Suciu is a professor at the Bucharest University of Economic Studies, PhD supervisor and member of the Doctoral School of Economics 1, Faculty of Theoretical and Applied Economics, Department of Economics and Economic Policy. She is also an Associate Member of the Interdisciplinary Research Group of the Romanian Academy, as well as a Corresponding Member of the Romanian Academy of Scientists, Committee 9.

Wilfred Isioma Ukpere is currently a professor at the Department of Industrial Psychology and People Management at the University of Johannesburg (UJ). He contributes with a strong theoretical approach in his research with most of his output centred on critiquing the impact of capitalism in the post-cold-war era, notably in the context of emerging economies. His referees consider him to be an established researcher in the field of people management and development, notably within the domain of globalisation and its impact on human resources management. He has authored three books, two book chapters, 37 conference presentations/proceedings and about 230 journal articles in ISI/WoS/CA (Thomson Reuters), IBSS (Proquest), Scopus (SCimago), and SA DoHET (South African Department of Higher Education and Training) accredited Journals. He was the first National Research Foundation (NRF) rated researcher at the Faculty of Business at Cape Peninsula University of Technology (CPUT), and has received numerous research-related awards in recognition of his research contributions from CPUT, UJ, the NRF and Iona College in the USA. His Google Scholar citation is 2,369, while his Google Scholar H-index is: 25. He recently received a life Achievement Award from Macquis Who's Who in the World based in the USA in recognition of contributions to his field.

Katarina Valaskova teaches at the Faculty of Operation and Economics of Transport and Communications, University of Zilina. She has more than 1,000 citations in WoS and Scopus. She is the associate coordinator of an international conference with a good history in WoS.

Agil Valivev is a lecturer at Azerbaijan Tourism and Management University. He is also a lecturer at different European universities from Sweden, Finland, Norway, Denmark, Austria, etc. He has more than 80 publications in different international journals. He is a member of an expert group in the Science and Technological Commission of UNCTAD – United Nations Conference on Trade and Development.

And these were all the keynote speakers from ICESBA 2021 Conference, who presented their papers at the conference and made significant contributions throughout the day of presentations and heated debates on interesting and current topics.

Assoc Costin Lianu, vice-rector of Spiru Haret University, read the message of the organising institution's management, greeted all participants, and then, in the plenary of the Conference, supported the paper: The Role of Digital Innovation Hubs in Digital Transformation of Europe, Focusing on Al.

Professor Valentin Kuleto, from ITS Information Technology School, Belgrade, Serbia, presented a paper on Implementation of Extended Reality in Higher Education, Examining Students' Awareness.

Professor Maria Kovacova, from the University of Zilina, Slovak Republic, presented the paper Smart Factory Performance, Cognitive Automation, and Industrial Big Data Analytics in Sustainable Manufacturing Internet of Things.

Another keynote speaker, professor. Roman Sperka, from Silesian University in Opava, Czech Republic, spoke on Getting More from Real Business Data, which was of great interest to all conference participants.

Other keynote speakers were: Dragan Ilic, from University Business Academy in Novi Sad, Serbia, with How to Use Smart Data to Deliver Higher Marketing ROI?, Milena Ilić, from University Business Academy in Novi Sad, Faculty of Contemporary Arts Belgrade, Republic of Serbia, who presented the paper entitled: Competitiveness and Innovation: The Case Studies of Serbia and Romania, and from Azerbaijan Tourism and Management University, Baku, Azerbaijan, associate professor PhD Agil Valiyev who talked about AI on the Advanced Entrepreneurship in Small Business: Three Countries as Case Studies.

Viorica Popa, from the National Institute for Economic Research, Republic of Moldova, presented the topic Hazardous Waste Management through Smart Digitization, Victoria Iordachi, from the National Institute for Economic Research, Republic of Moldova, presented the topic Smart City Development by Sustainable Digital Transformation, and Tomas Kliestik, from the University of Zilina, Slovak Republic, presented the paper on Distinctive Determinants of Financial Indebtedness: Evidence from Slovak and Czech Enterprises.



Of particular interest was Professor Sabyasachi Rath, Dean of the Viswa Viswani Institute of Systems and Management, Hyderabad, India, who presented his paper entitled Dawn of Marketing 5.0: The Symbiosis of Agile, Augmented and Predictive Marketing.

The second part of the first day of the conference was reserved for the following speakers: Professor Stefano Amodio, from the Teseo Institute, Salerno, Italy – Organizational Expertise and Decision Making in Corporate and Complex Organizations, Melina Allegro, from the Italian Ministry of Education, University and Research, Rome, Italy – Conflict in Working Relationships: An Overview. The Crisis of Roles in Modernity: The Man–Woman Working Relationship, Katarina Valaskova from the University of Zilina, Slovak Republic – with her paper entitled Quo Vadis, Earnings Management? Analysis of Manipulation Determinants in Central European Environment, and Edwin Mirfazli, University of Lampung, Indonesia – presenting his paper named Corporate Social Responsibility (CSR) Disclosure Perform in Accounting Perspective.

Towards the end of the first day of the conference, interesting papers were presented by Daniel Meyer, from the University of Johannesburg, Gauteng, South Africa – An Assessment of the Interrelationships between Country Risk, Economic Growth and Good Governance: The Case of the Visegrád Four, Elitsa Petrova, from Vasil Levski National Military University, Veliko Tarnovo, Republic of Bulgaria – An Empirical Study in a Real Environment on the Problem of Students' and Cadets' Performance in the Educational Process, and Baktybek Isakov, from Kyrgyz – Turkish Manas University, Bishkek, Kyrgyz Republic – Structuring the Idea through Data, Hypothesis and Title Triangles.

The first day of the conference ended with a series of conclusions, final comments, remarks and congratulations from the organisers and chairs of the ICESBA 2021 International Conference.

On the second day, Nov. 27. 2021, the panel conference took place, being moderated by four distinguished USH professors, as follows:

- » PANEL 1, called Smart Management in the Knowledge-based Urban Economy Chair: Professor Daniela Pașnicu, PhD, Spiru Haret University, Faculty of Economic Sciences, Bucharest, Romania and also senior researcher at National Scientific Research Institute for Labor and Social Protection, Bucharest, Romania;
- » PANEL 2, called Big Data-driven Smart Marketing Chair: Professor Luminița Ionescu, PhD, Spiru Haret University, Director of Economic Sciences Department, Faculty of Economic Sciences, Bucharest, Romania
- » PANEL 3, called Data-driven Accounting Information Systems Chair: Associate Prof. Elena Gurgu, PhD, Spiru Haret University, Faculty of Economic Sciences, Bucharest, Romania and Deputy Chief-Editor of the Journal The Annals of Spiru Haret University. Economic Series
- » PANEL 4, called Artificial Intelligence Data–driven Internet of Things Systems Chair: Associate Prof. Mihai Andronie, PhD, Spiru Haret University, Faculty of Economic Sciences, Bucharest, Romania

At the panel sessions, around 84 guests from 14 countries took turns speaking, delivering approximately 10-minute speeches with 5-minute question and answer sessions. The debate of the scientific works was dynamic and pleasant, in a relaxed scientific atmosphere. The recording of the entire panel sessions from 26 and 27 November 2021 can be seen by accessing the link http://icesba.eu/virtual.html, which is also attached on the conference website, icesba.eu.

# 3. Relevant aspects from the abstracts of some presented papers at the ICESBA 2021 Conference

In the following paragraph, allow us to present to you only a few important aspects from some of the papers that were presented at the ICESBA 2021 International Conference.

In his scientific paper named THE RELIABILITY OF DATA-DRIVEN INTERNET OF THINGS SYSTEMS, Slavko POKORNI said that the goal of this paper is to show that reliability in the data-driven Internet of Things (IoT) must be taken into account. The reliability of data-driven IoT is a complex problem because such a system comprises hardware, software, human and data. The reliability of each of these elements is briefly analysed, and the equation for the reliability calculation of a data-driven IoT system is proposed. Artificial intelligence is also included. Reliability is connected with availability and maintainability, and this is also explained. This paper is written mainly using two references recently published by the author of this paper [2] [3].

In their paper, the authors Maria ANDRONIE, Luminita IONESCU and Irina DIJMARESCU discuss How Chatbots Will Impact Public Sector and Accounting. The digital transformation of accounting will affect the daily activity of companies and will profoundly impact the employment landscape. The scope of this research is to present the components of the high-level architecture for public service chatbots and the usage of chatbots in the public sector. The last part of the research analyses how chatbots will impact accounting and what effect the digitisation of work will have on jobs. Artificial intelligence is expanding and there are many benefits of using chatbots in the public sector for user interface, dialog management, interaction recording, and filtering and feedback from the customers. In the last decade, there has been a significant rise in interest for artificial intelligence, non-humanoid robots, chatbots, and encryption. Chatbot technology could speed up communication between advisers and clients/citizens, and more recently between accountancy and public authorities. Several European countries have implemented chatbots for providing public services in order to respond to the increasing demand of information from citizens towards public administration. The European Union encourages the use of open data portals for taxes and reporting purposes, but also for improving the quality of public services while increasing public sector efficiency. The chatbot network could improve the European public system in the near future and boost economic growth [4].

Rodica PERCIUN and Nelli AMARFII-RAILEAN made a research on INDUSTRY 4.0 VERSUS TRADITIONAL ECONOMY IN REPUBLIC OF MOLDOVA. They made an interesting case study about the signs of progress in the digitalisation of economic processes over the past decades that have led to the definition of the fourth industrial revolution called "Industry 4.0". In a context where countries of the world either implement the tools of Industry 4.0 in business or set out Industry 4.0 as a development strategy, the authors were concerned about the extent to which Republic Moldova economy is ready to implement new digital tools and informational challenges. The research aims to highlight the environment necessary for capitalising on the innovations of Industry 4.0 to ensure sustainable development. The article examines international experience in the field of economy digitalisation versus the Republic of Moldova's experience, contains the analysis of the legal framework, the diagnosis of the economic indicators regarding the ICT implementation in the Moldovan economy, and international good practices in the field of Industry 4.0. The research was conducted within the State Program 20.80009.0807.22 Developing the circular economy mechanism for the Republic of Moldova [5].



Sonja VUJOVIĆ, Tamara RAĐENOVIĆ and Tanja VUJOVIĆ wrote a very interesting paper about THE APPLICATION OF AUGMENTED REALITY IN PROMOTING HOTELS AND TOURIST ATTRACTIONS OF THE CITY OF NIŠ. In the era of digital transformation, especially during the coronavirus pandemic, there have been changes in the way the tourist offer is presented to potential customers. This has been especially facilitated by information technologies that enable bringing the tourist destinations and hotel facilities closer to consumers. The study aims to identify the opportunities and challenges offered by augmented reality in terms of creating personalised consumer experiences, tourism development, and greater visibility of the hotel and its facilities in the global market. The intention of the authors was to fill in the gaps in knowledge and raise the awareness of the value of augmented reality for tourism. Based on the research conducted in the City of Niš, it was concluded that the current application of augmented reality in the promotion of hotels and tourist attractions in the city is insufficient and recommendations were given on how to use the benefits of augmented reality in tourism promotion [6].

Elena GURGU, Raluca-Ileana ZŌRZOLIU, Luminita PISTOL, Ioana-Andreea GURGU, Camelia UNGUREANU and Gica NAE in their paper entitled THE RELATIONSHIP BETWEEN BIG DATA-DRIVEN TECHNOLOGIES AND PERFORMANCE MANAGEMENT STRATEGIES APPLIED TO COMPANIES IN THE HOSPITALITY, TOURISM & TRAVEL INDUSTRY discussed big data-driven technologies that the tourism industry has adopted along the way, especially in recent years, as well as the top trends based on artificial intelligence expected to radically transform travel in the future. The big data-driven technologies of the future in the tourism industry, which are essentially based on artificial intelligence – AI, augmented reality – AR, Machine Learning – ML, virtual reality – VR, and the Internet of Things – IoT are those that have dictated new trends in efficient management strategies at the level of companies operating on the tourist market. The authors tried to bring arguments, with figures and statistical data taken from international statistics, but also appealed to the opinions of several authors from around the world who wrote in the last years in their articles published in prestigious international journals on the impact of new information technologies on increasing the turnover in tourism, increasing the sales of tourist packages, diversifying the tourist offer to customers or easier ways to find the perfect destination, to make a reservation easier or to pay for a tourist service in much more advantageous and faster conditions. All this represents the role of companies' efforts and their strategic management, which is more efficient and adapted to the requirements of the constantly moving and evolving market, a tourist market that has largely moved to the online environment and is increasingly helped by software and robotisation transformations, such as virtual assistants, computer programs for image analysis, search engines, imaging recognition systems, robots, autonomous cars, drones or IoT. However, it can be seen that despite the promise made by AI, many travel companies do not yet realize the full potential offered by big data-driven technologies [7].

Svetlana NOVAKOVIC CAREVIC, Jasmina BAŠIC and Irina DIJMARESCU wrote an interesting research about AI-ASSISTED DIAGNOSTICS IN HEALTH MANAGEMENT. Healthcare is characterised by great pressure in a context where there is no room for experimentation or mistakes, given the fatal consequences and unpredictable outcomes. This paper aims to present the specifics of health management and usage of artificial intelligence to improve work performance, job satisfaction, and, most importantly, patients' health. This is achieved through the introduction of an artificial intelligence system in healthcare facilities [8].

Miljan PELEŠ, Svetlana JEVREMOVIĆ, Aleksandar SIMOVIĆ and Aleksandra HADŽIĆ made an interesting research about THE POSSIBILITIES FOR DEVELOPING AND IMPLEMENTING A MOBILE APPLICATION FOR RECOGNIZING THE SHAPE OF THE ENVIRONMENT, TEXT, AND READING QR CODES USING THE ANDROID CAMERAX FRAMEWORK AND THE MACHINE LEARNING KIT. The advancement and development of digital technologies have resulted in the need to network various devices at the application level. Wireless communication between devices via the Internet has opened a plethora of possibilities for enhancing user capabilities. We are witnessing dizzying changes in computer technology, and we can conclude that the device's purpose is no longer narrowly defined. The mobile phone is evolving into a personal computer, innovative features are being added to today's televisions, and cameras can process and send photos. These are merely a few examples of universal electronic devices. Of course, for the device to perform all these functions, adequate hardware infrastructure integrated into the device itself is required, as is the fundamental software component that connects user operations and the components themselves – the operating system. This paper's operating system under consideration is the Android operating system, which is currently the most popular operating system for smart devices [9].

Milica JEVREMOVIĆ, Hana STEFANOVIĆ, Dušan STOJAKOVIĆ and Nada STALETIĆ presented an interesting paper entitled: CAN WE PREDICT THE EFFECTS OF USING THE INTERACTIVE FEATURES OF THE WEBSITE? This paper aims to determine the effects expected on users after introducing interactive features into a website. For this purpose, three models by Song, Liu and Wu were compared, which gives this paper an extraordinary precision and depth of research on the given problem. The paper's contributions are reflected in a comprehensive, detailed review of previous research on interactivity, the importance of using the website and showing the specific effects expected from users after introducing interactive website features. Furthermore, the paper's contribution is reflected in recognizing the importance of site interactivity in job search/training courses/internships. Finally, users who used the interactive site compared to non-interactive sites had a significant increase in activity [10].

Roxana-Daniela PAUN, in her paper entitled OVERVIEW OF SOME LEGAL ASPECTS OF TECHNOLOGIES BASED ON ARTIFICIAL INTELLIGENCE, discusses artificial intelligence as a challenge of the new decades, more current than ever, that can help man or replace him. The decision belongs to those who decide, through their research, how much independence new human-created technologies create. Beyond the strictly scientific aspects that invented and developed artificial intelligence (AI), this consideration includes aspects of ethics, morality, and, last but not least, the legal aspect. There are already debates on this topic online, where opinions are divided between conservative issues and innovation at any cost. The fear of the new can persist, although man is already accustomed to assistance (Shazam, Waze, personal assistants). If AI is already replacing the musician who performs, for example, Beethoven's symphonies, how far can this technology evolve and what would be the limits to which man cannot replace it? The present study proposes a brief analysis of some legal aspects that must be considered with the large-scale application of AI-based technologies, from the perspective of respect for human rights and fundamental freedoms, on the one hand, but also the responsibility in AI. (Who is responsible and what would be the limits of liability for AI.) [11].

Valentin KULETO, Milena ILIC, Aleksandra HADŽIC and Katarina RAKETIC, in their paper entitled THE IMPLEMENTATION OF EXTENDED REALITY IN HIGHER EDUCATION, EXAMINING STUDENTS` AWARENESS describe the documents and confirm the benefits of applying extended reality (XR) into higher education. Challenges that occur in the comprehensive reality (XR)



domain (such as virtual reality (VR), augmented reality (AR), and mixed reality (MR)), as well as their causes and solutions, are further discussed. The chapters include perspectives from technology, design, human factors, and various technologies and ideas. XR is primarily or exclusively focused on the display, as it does not include other modalities such as audio, haptic, smell, or touch. Therefore, the primary focus was placed on the benefits of using XR, though other disciplines that may intersect with higher education were considered where appropriate. As a whole, the study aspires to provide a comprehensive overview of challenges, opportunities, and future trends of XR that will be applied in educational institutions. Primary research in the form of survey research (exploratory research) that included 83 subjects showed a high awareness of XR among students of the chosen HEI and usage of this technology in students' daily lives, and that whether they use XR depended on the age of the survey respondents. To determine whether there was a correlation between the use of augmented reality and the age of the survey respondents, non-parametric statistics based on the ranks of observations – Spearman's correlation coefficient – were used. IBM SPSS statistical data processing and analysis software was used to calculate Spearman's correlation coefficient. Based on the sample observations and the inference statistics used, it cannot be asserted that there is a direct correlation between the use of augmented reality in everyday life and the age of the survey respondents. However, the results showed that a high percentage of respondents were aware of XR (78.31%) but the responses on whether they use this technology in their daily lives were almost evenly distributed: 34.94% of survey respondents reported that they used it in their daily lives, 33.73% that they did not, while 31.33% opted for Maybe (not aware of the same) [12].

Marija Nikolic TOSOVIC and Violeta JOVANOVIC, in their paper entitled THE ANALYSIS OF ENTREPRENEURIAL INTENTION OF MANAGEMENT STUDENTS IN THE TIMOK REGION – OVERVIEW OF ATTITUDES AND OPINIONS are talking about the sector of small and medium enterprises and entrepreneurs (SMEs) could play a key role in further national economic growth of Serbia through employment, increasing competitiveness and exports, but also in solving the problem of unequal regional development. One of the most economically and demographically underdeveloped regions in Serbia is the Timok region. This region is also characterised by reduced investment activities in the SME sector. Increasing the attractiveness of the region for new entrepreneurs and investors and increasing the competitiveness of local entrepreneurs will create new, attractive and stable jobs which will further help to retain qualified people in the region. This paper gives a voice to future bearers of economic activity in this specific region, and represents the first research on entrepreneurial attitudes, opinions and intentions of young people in this part of Serbia; 199 students of the final years of Bachelor and Master Studies of management in the Timok region participated in the analysis of entrepreneurial intentions. The obtained research results indicate that students have an entrepreneurial intention and that people from their immediate environment have a mostly positive attitude towards entrepreneurship. Respondents believe that they possess necessary theoretical knowledge and skills, but not practical ones. The results of the research point to the necessity of shifting the focus of education from a strictly academic to a practical level, to the connection of educational institutions with the economy, to the better connection among entrepreneurs themselves, and to an urgent need for the activation of entrepreneurs' associations [13].

Strahinja ĐORĐEVIĆ, Svetlana JEVREMOVIĆ, Jovana TOŠIĆ and Nina STOJANOVIĆ in their paper entitled SMART HOUSE WEB APPLICATION: DESIGN AND IMPLEMENTATION USING JAVA EE, MVC FRAMEWORK AND ARDUINO MICROCONTROLLER discuss the automation of the environment as an outcome of hectic modern life, which resulted in applications that would simplify and facilitate everyday life. This paper aimed to explore the possibilities of designing and implementing the web application "Smart House", which would make it easier for all users, especially those with limited or disabled mobility, to control the devices in the house. In the initial part of the paper, dedicated to the technologies used to develop the web application "Smart House", is theoretically processed. The research is illustrated with diagrams and tables. Documentation on application design and implementation is processed by Larman's method. At the same time, theoretical analysis of used technologies refers to the literature of authorities in the field of research of advanced concepts of Java, Java EE platform and Arduino microcontroller open-source development system, which allow modularity and ease of modification. The research examines cases of using the application when the actor is a user, and on the other hand, cases of using the application when the actor is an admin. Further, the system operations that need to be designed are observed. This is followed by the application implementation process, in which testing is performed simultaneously, which is the last and final phase of software system development to facilitate troubleshooting [14].

Victoria IORDACHI, in her paper entitled SMART CITY DEVELOPMENT BY SUSTAINABLE DIGITAL TRANSFORMATION, discusses the smart city concept, which has been gaining interest among municipalities, representing one of the solutions for various city problems, starting from urbanisation problems and ending with environmental challenges. In these conditions, approaches to urban development management are gradually revised and are increasingly reliant on advanced technological solutions, digitalisation and platformisation. Today, the digital upgrade of cities is becoming a central political choice for many countries, because it achieves, on the one hand, savings and efficiency in the operation of its services and in the management of its problems, and on the other hand, speed and transparency in decision making. This paper aims to analyse the role of smart technologies in promoting sustainability and smart city concepts, as well as to establish a relationship between these two concepts. The authors applied methods of scientific investigation like analysis and synthesis of specific literature in the domain of circular economy, smart city, smart technologies, induction and deduction, critical analysis of materials. Sustainable development is based on the interaction of three aspects that are interdependent and mutually reinforcing. These are the economic, social and environmental aspects of development. Thus, the circular economy concept can provide new, more impactful solutions to the smart city systems through new mobility, improving energy efficiency, smart environmental solutions [15].

Viorica POPA and Mihail CIOBANU, in their paper called USING SMART DIGITIZATION IN HAZARDOUS WASTE MANAGEMENT, talk about the rapidly growing global information society. At the same time, the increase in purchasing power, urbanisation and industrialisation in many developing countries have led to an increase in the quantities of products placed on the market and respectively purchased, thus generating large volumes of toxic waste. Thus, digitisation and connectivity are critical to help achieve the Sustainable Development Goals; the transition to an increasingly digitalised world also involves multiple risks due to irrational consumption of resources and mismanagement of waste. In our view, the problem of hazardous waste management is possible to solve by implementing modern and smart digital technologies in waste management, and implementing waste digitisation to improve the health of planet Earth will reduce the negative impact of pollutant emissions on the environment, and restore essential ecosystems to ensure our long-term sustainability. Thus, the use of waste as a resource is necessary in order to reduce the need to



extract new resources. This study was developed within the State Program 20.80009.0807.22 Development of the mechanism for the formation of the circular economy in the Republic of Moldova [16].

Olga TIMOFEI, in her paper entitled THE AWARENESS OF THE CIRCULAR ECONOMY PRINCIPLES IN MOLDOVA'S COMPANIES, discusses circular economy as a new approach to the responsible and cyclical use of natural resources, where the economy should aim at minimising the impact on the environment and stimulating the economy. Solving environmental issues in tandem with promoting sustainable growth has never been more current than it is today. One of the essential stages of the transition to a circular economy is the improvement of waste management, which is primarily due to limited global natural resources and the need to reduce their consumption. The Republic of Moldova, similarly to other countries in the world, annually produces huge amounts of waste, a significant share of which comes from companies and enterprises. In order to hold economic agents accountable in recent years, certain steps have been taken by public authorities, but they have remained without visible impact on the situation in the field. Because the adaptation of such a circular economy model is done at different levels, including at the level of individual, whether owner or employee of a company, the authors decided to conduct their survey in order to determine awareness of the principles of the circular economy of those who are involved in the real sector of the country's economy. The results of the interview clearly showed that the greatest efforts in the field of raising awareness and empowering companies are yet to be undertaken, and the transition to a circular economy in the Republic of Moldova will take some time [17].

Velinka TOMIC and Svetlana ANDJELIC, in their paper entitled THE PRODUCTION OF ELECTRICITY FROM RENEWABLE ENERGY SOURCES IN THE REPUBLIC OF SRPSKA, point out that reducing greenhouse gas emissions by at least 55% by 2030 requires higher shares of renewable energy and greater energy efficiency in an integrated energy system. The RS produces electricity from different sources. The Thermal power plant "Ugljevik", a relatively small plant, emits unimaginable amounts of dangerous sulphur dioxide. Bearing in mind the share of energy from fossil fuels, the question for the RS is how to provide enough energy to future generations. The development of the RES production in the RS is a crucial challenge for policymakers nowadays. This transformation will improve our health and well-being, create jobs, generate investment and innovation, reduce energy poverty and dependency on energy imports and strengthen the security of supply [18].

Milena ILIĆ P, Nevenka POPOVIĆ ŠEVIĆ, Marko RANKOVIĆ and Rocsana BUCEA-MANEA-TONIS, in their paper entitled COMPETITIVENESS AND INNOVATION. CASE STUDIES FOR SERBIA AND ROMANIA discuss non-technological innovation that comes from sectors with the capacity of applying knowledge provided by foreign companies and trade partners. Green procurement proved to be an essential factor that stimulates innovation and economic resilience. Social responsibility, a high level of competencies, and agile operational management are often found in companies in South-Eastern Europe. Romania made critical green procurement and agile management steps to impact productivity with a low footprint on the environment positively. On the other hand, Serbia could not access FP7 funds to invest in R&D and eco-innovation, reflected in a low Global Innovation Index Ranking. The paper addresses competitiveness and innovation within the case study model of Serbia and Romania, explores similarities and differences, and makes recommendations. Competitiveness and innovation are observed within the context of circular economy [19].

luliana Petronela GÂRDAN, Daniel Adrian GÂRDAN, Claudia Gabriela BAICU and Daniel Constantin JIROVEANU, in their paper entitled A SYSTEMATIC VIEW REGARDING BUSINESS RETHINKING IN THE CONTEXT OF SUPPLY CHAINS SUSTAINABILITY, analyse the crisis generated by the pandemic that has challenged the hospitality industry on multiple levels. This does not refer only to the reduced number of customers and the instability of the tourists flows, a part of the total lockdown from the beginning of the pandemic, but also to the managerial and marketing capabilities of hospitality companies to deal with profound changes along their supply chains. The present paper proposes a systematic review that aims to highlight the main directions in which the scientific literature from the field is analysing the complex issue of hospitality supply chain sustainability implementation. Authors selected only articles from journals, conferences or books indexed in the last five years within Web of Science databases. The results of the analysis show that implementation of sustainability related principles along the supply chains, combined with a proper sustainable human resources management and a special view upon the customer relationship management, offers to the hospitality field companies a certain sum of strategic instruments in order to cope with the huge challenge imposed by the pandemic. The future business models adapted entirely to a post-pandemic economy should emphasise a sustainable type of consumer behaviour and a supply-delivery chain based on intelligent "out of the box" collaboration between organisations along the chain [20].

Happiness Ozioma OBI-ANIKE and Wilfred Isioma UKPERE, in their paper called DEMAND FORECASTING AS A VERITABLE TOOL FOR HIGHER MANAGERIAL EFFICIENCY IN INDUSTRIES IN NIGERIA aimed at exploring the benefits of demand forecasting and portrayed it as a veritable tool for increasing managerial efficiency in industries in Nigeria. The study is an effort to show that the utilisation of demand forecasting could become a veritable way of minimizing wastages, thereby maximizing profits, recovering and reviving of Nigeria's ailing and moribund industries. In specific terms, limestone production and sales in Nigeria was used for a practical illustration. In doing this, the least squares approach and t-test statistics were used to analyse limestone production and sales in Nigeria from 2001 through 2010. Projections were made for limestone production and sales from 2011 through 2014. The year 2011 was used as a base year to compare projections with actual realisations for limestone production and sales data. It was found that there was no significant difference between the projected and real values for the limestone production and sales in the base year, thus re-affirming the efficacy of demand forecasting. It was therefore recommended, among other things, that managers rely strongly on demand forecasting throughout their operations [21].

Raluca Ionela CRETOIU, Anca UNGUREANU, Adrian UNGUREANU, Ana Maria MIHALI and Silvia RASCU PISTOL, in their paper entitled NEW TYPES OF BUSINESS DEVELOPED IN THE PANDEMIC, note that the impact that COVID-19 had, especially on business, which could not be anticipated, was a real challenge for entrepreneurs, from which they had to learn, and were determined to develop their creativity, coming up with solutions. and proposals for survival. The pandemic opened up a number of opportunities for business owners to meet the ever-changing needs and demands of consumers. Opportunities are identified and exploited only by those entrepreneurs who think ahead, who eventually become successful entrepreneurs later. According to the United States Census Bureau, more than 4.4 million new businesses were created in the United States in 2020 – the largest number of new businesses recorded to date. The emergence of several types of business that developed in the pandemic was possible precisely due to digitalisation and the evolution of technology [22].

Snežana ŽIVKOVIĆ, Ivana ILIĆ KRSTIĆ, Aleksandra ILIĆ PETKOVIĆ, Marija STOJILJKOVIĆ and Miodrag MILENOVIĆ, in their paper



named JOB SATISFACTION OF NURSES DURING COVID-19 PANDEMIC, discuss job satisfaction of medical workers as an essential element of providing healthcare services. Ample empirical evidence supports the cause-and-effect relationship between employee job satisfaction and patient security and quality of care provided. This paper considers the job satisfaction of nurses during the Covid-19 pandemic with regard to their years of employment, age, professional education, job position, possibility of advancement, relationship with the superiors, and organisation of work. A standardised survey with a job satisfaction scale was used for data collection. The survey was completed from 23 June to 13 July 2020 by 27 out of the 50 nurses working at the Covid-designated hospital in Leskovac, Serbia. The results showed that the employees with fewer years of employment were more satisfied than their more experienced co-workers. The results on the entire job satisfaction scale showed that 2.6% of the respondents were very dissatisfied, 28.3% neither satisfied nor dissatisfied, while only 9.3% were very satisfied with their job. One of the main reasons for such response distribution is the lack of career advancement options. This research found that organisational commitment, job satisfaction, and years of experience are significant predictors of successful work for the nurses [23].

Raluca ZORZOLIU, Mariana IATAGAN and Elena GURGU, in their paper entitled THE ECONOMIC CRISIS CAUSED BY THE COVID 19 PANDEMIC, discuss the fact that in the midst of wave 4 of the pandemic, the demand for commodities seems unbridled, and the value of stock and real estate assets reaches record after record. On the other hand, container bottlenecks in the world's ports, production syncopes against the background of the crisis of raw materials, components and microprocessors, or the explosion of energy prices in Europe are less bright aspects of the period we are living in. The pandemic is not coming to an end, but since the fall of 2020, when most of the movement restrictions have been lifted, the world's population has pivoted unseen from thrift to excess. Inflation at the end of the year will be more than double compared to the last quarter of 2020, according to the NBR projections. According to some analysts, such as Valentin Tătaru, the chief economist of ING Romania, inflation could reach 6% this autumn. The injection of money into the economy, in theory, should only begin from now on, after the approval of the National Recovery and Resilience Plan (PNRR). The almost EUR 30 billion that would help areas such as health, education, energy, construction and transport over the next six years, as well as the capital market, should be a safety net in the most pessimistic scenarios. However, the labour crisis, the resolution of which is not even in the medium term, is the real time bomb that can undermine economic growth and, by extension, the absorption capacity of European funds. The areas with high shortages of specialists are well known — construction, HoReCa, medical services and technology [24].

Foluso Philip ADEKANMBI and Wilfred Isioma UKPERE, in their paper called PERCEIVED ORGANIZATIONAL CULTURE, CO-WORKER SUPPORT, WORK PERFORMANCE, AND EMPLOYEE DEMOGRAPHICS AS CORRELATES OF ORGANIZATIONAL COMMITMENT, investigate the perceived organisational culture, co-worker support, work performance, and employee demographics as correlates of organisational commitment within Nigeria's manufacturing industry. The current sample was taken from ten manufacturing organisations in Oyo and Lagos States of Nigeria. Data retrieved were analysed and presented in tables. This paper applied a cross-sectional survey approach, of which the survey forms were randomly disseminated. Out of 500 surveys, 476 were suitable for investigation and analysed with Statistical Packages for Social Sciences (SPSS vs. 27). The objectives of this paper were to find out if there are correlations between perceived organisational support, co-worker support, work performance, employee demographics, and organisational commitment, and to determine how organisational commitment can be enhanced and made consistent within Nigeria's manufacturing sector. The present results established a strong and significant positive correlation between perceived organisational culture, co-worker support, work performance, employee demographics, and organisational commitment within Nigeria's manufacturing industry. Therefore, the management of manufacturing industries should ensure a good and consistent strategy that makes employees committed to organisational culture, encourage support among co-workers, and enhance work performances [25].

Cleopas FORE and Wilfred Isioma UKPERE, in their paper named AMELIORATING ADVERSE EFFECTS OF GLOBALIZATION ON EMPLOYMENT RELATIONS IN ZIMBABWE discuss the fact that globalisation has been associated with accelerated deregulation and withdrawal of government from the workstation (Sweeney, 2004). The advent of globalisation has forced organisations in Zimbabwe to deal with implications such as loss of market, response to competition, and technological and legislative changes. This conundrum brought about a change in human resources policy, employee compensation, business strategies, among others. These changes have also resulted in massive shift in employment relations between employers and their unions. Subsequent to this background, this article's objectives are to identify challenges occasioned by globalisation on employment relations in Zimbabwe and proffer mechanisms to ameliorating the adverse effects of globalisation. A qualitative phenomenological research was adopted making use of interviews, researcher field notes and memoirs to gather data on participants' experiences. Results were analysed using Nvivo 10 and manual coding. Results identified six main challenges, namely (1) strife between employers and employees (2) dwindling employee democracy (3) employee marginalisation (4) increased disputes (5) general dissatisfaction of all parties and (6) disunity among unions and workers. The study recommended four mitigating strategies, namely: contextualising globalisation; making use of training and education; increased employee involvement; and use of dialogue and communication. If these factors are considered, a fair globalisation can be achieved [26].

#### 4. Conclusions

The ICESBA 20201 International Online Conference, 6th edition, called: Big Data-driven Smart Urban Economy, organized by the Bucharest Faculty of Economic Sciences, was a real success among the participants. It was a good opportunity to discuss scientific research topics and to make an exchange of high-standard ideas, being a starting point for other events and the establishment of future partnerships in academia.

We hope that a big part of our conference papers caught your attention and propelled you to read them. Also, we strongly believe that all the articles are interesting and deserve to be appropriated by those who are interested in understanding the specific issues of the global economy and big data.

If you have liked the articles, please visit our conference website at icesba.eu or the ASHUES journal website, where all the papers from conference were fully published in their long final form or are now in the process of publication – http://anale-economie.spiruharet.ro/. If you want to write an article in ASHUES journal, we invite you to present your ideas in new studies, in order to be published by our international indexed journal [27].



Finally, hoping that you found the ICESBA 2021 International Conference interesting, we strongly invite you to participate in our future editions and also to address your comments and suggestions at icesba@spiruharet.ro and, of course, to submit for publication your own paper via online submission system, using the following link of ASHUES journal: http://anale.spiruharet.ro/ index.php/economics/login [28] or to address your request for creating an account and credentials in order to publish your paper at ASHUES journal's official email address: ashues@spiruharet.ro.

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