ktu
faculty of informatics
1922

01001001
01000011
01001001
01010011
01010100

**ICIST
2020**

26th International Conference on
Information and Software Technologies

ICIST

**15–17 October, 2020
KTU Santaka Valley**

The *26th International Conference on Information and Software Technologies (ICIST 2020)* is taking place in Kaunas, Lithuania.

WELCOME

The scientific conference programme includes three invited talks, a workshop and research paper presentations in parallel sessions. The conference papers present recent results as well as discuss research challenges, propose methodologies and describe new applications in four major areas that are covered during the conference, namely,

- Intelligent Methods for Data Analysis and Computer Aided Software Engineering,
- Intelligent Systems and Software Engineering Advances,
- Smart e-Learning Technologies and Applications,
- Language Technologies.

The papers on the aforementioned areas are further subdivided into four special sessions that are to be held at the conference:

- Special Session on Intelligent Methods for Data Analysis and Computer Aided Software Engineering;
- Special Session on Intelligent Systems and Software Engineering Advances;
- Special Session on Smart e-Learning Technologies and Applications;
- Special Session on Language Technologies;
- Special Session on Distance education, Technologies and Security During the Period of COVID-19 Pandemic.

For the ninth time already, the Conference Proceedings are published by Springer as a part of *Communications in Computer and Information Science (CCIS)* series and will be referred in Clarivate Analytics.

The conference was made possible due to the support of the *Faculty of Informatics*, Kaunas University of Technology, and *Research Council of Lithuania*, whose contribution is gratefully acknowledged.

ICIST 2020

CHAIRS & COMMITTEE

GENERAL CHAIR
Rita Butkienė, Kaunas University of Technology, Lithuania

PROGRAMME COMMITTEE CHAIR
Audrius Lopata, Kaunas University of Technology, Lithuania

SPECIAL SECTION CHAIRS
Audrius Lopata, Kaunas University of Technology, Lithuania

Maria Dolores Afonso Suárez, SIANI University Institute, Spain

Justyna Patalas-Maliszewska, University of Zielona Gora, Poland

Nadine Schlüter, University of Wuppertal, Germany

Marcin Wozniak, Silesian University of Technology, Poland

Christian Napoli, Sapienza University of Rome, Italy

Danguolė Rutkauskienė, Kaunas University of Technology, Lithuania

Radu Adrian Vasiu, Politehnica University of Timisoara, Romania

Rolf Engelbrecht, European Federation for Medical Informatics – Health Information Management Europe, ProRec, Germany

Vytenis Punys, Kaunas University of Technology, Lithuania

Giedrius Vanagas, Lithuanian University of Health Sciences, Lithuania

Jurgita Kapočiūtė-Dzikienė, Vytautas Magnus University, Lithuania

Peter Dirix, University of Leuven, Belgium

Jakub Swacha, University of Szczecin, Poland

Ricardo Queirós, Polytechnic Institute of Porto, Portugal

LOCAL ORGANIZING COMMITTEE
Daina Gudonienė (Chair), Kaunas University of Technology, Lithuania

Vilma Sukackė, Kaunas University of Technology, Lithuania

Romas Šleževičius, Kaunas University of Technology, Lithuania

Lina Repšienė, Kaunas University of Technology, Lithuania

Gintarė Lukoševičiūtė, Kaunas University of Technology, Lithuania

SPONSORS
Research Council of Lithuania

Faculty of Informatics, Kaunas University of Technology

KEY NOTES & SPEAKERS

Dr. **AJITH ABRAHAM** is the Director of Machine Intelligence Research Labs (MIR Labs), a Not-for-Profit Scientific Network for Innovation and Research Excellence connecting Industry and Academia. The Network with Head quarters in Seattle, USA has currently more than 1,000 scientific members from over 100 countries. As an Investigator / Co-Investigator, he has won research grants worth over 100+ Million US$ from Australia, USA, EU, Italy, Czech Republic, France, Malaysia and China. Dr. Abraham works in a multi-disciplinary environment involving machine intelligence, cyber-physical systems, Internet of things, network security, sensor networks, Web intelligence, Web services, data mining and applied to various real world problems. In these areas he has authored / coauthored more than 1,300+ research publications out of which there are 100+ books covering various aspects of Computer Science. One of his books was translated to Japanese and few other articles were translated to Russian and Chinese. About 1000+ publications are indexed by Scopus and over 800 are indexed by Thomson ISI Web of Science. Some of the articles are available in the ScienceDirect Top 25 hottest articles. He has 700+ co-authors originating from 40+ countries. Dr. Abraham has more than 36,000+ academic citations (h-index of 89 as per google scholar). He has given more than 100 plenary lectures and conference tutorials (in 20+ countries). For his research, he has won seven best paper awards at prestigious International conferences held in Belgium, Canada Bahrain, Czech Republic, China and India.

Since 2008, Dr. Abraham is the Chair of IEEE Systems Man and Cybernetics Society Technical Committee on Soft Computing (which has over 200+ members) and served as a Distinguished Lecturer of IEEE Computer Society representing Europe (2011–2013). Currently Dr. Abraham is the editor-in-chief of Engineering Applications of Artificial Intelligence (EAAI) and serves/served the editorial board of over 15 International Journals indexed by Thomson ISI. He is actively involved in the organization of several academic conferences, and some of them are now annual events. Dr. Abraham received Ph.D. degree in Computer Science from Monash University, Melbourne, Australia (2001) and a Master of Science Degree from Nanyang Technological University, Singapore (1998). More information at: **http://www.softcomputing.net/**

Industry 4.0 and Society 5.0: Challenges from a data science perspective

Thursday, October 15th, 10.00 – 11.00

We are blessed with the sophisticated technological artifacts that are enriching our daily lives and the society. Industry 4.0 is the current trend of automation and data exchange in manufacturing technologies, which also includes a close integration of cyber-physical systems, the Internet of things and cloud computing. In this talk, the concept of Industry 4.0 and Society 5.0 will be presented and then various research challenges from several applications perspective will be illustrated. Some real world applications involving the analysis of complex data / applications would be the key focus.

The AI Journey: A Vision into the Future Guided from the Past

Friday, October 16th, 14.00 – 15.00

The future is Artificial Intelligence (AI) according to all predictions and that has created a frenzy of investments in products, academic programs, and political agendas. The recent advances in AI have given us more confidence on its adoption in many fields, and those will be discussed in the context of its perceived value to industry, health and society. Examples of its revolutionary impact on those areas will be discussed in addition to its effect on employment and the educational system. The rise in research and interest in areas such as Artificial General Intelligence (AGI) and others who discuss the dangers of AI and its effects on security and privacy.

The future promises of AI are bright and shiny, but we need to relate it to the past. Humanity has aspired to automation since the ancient Geeks and the Pharos. Early understanding of machine intelligence and formulation of ideas and coining the Artificial Intelligence have emerged in the 1950s, successes and failures have been the drivers of funding and research cycles. So, understanding the past should help us filter our expectations and better predict the future.

Prof. dr. **ADEL S. ELMAGHRABY** is the Director of Industrial Research and Innovation and Winnia Professor of Computer Science and Engineering at the Speed School of Engineering – University of Louisville. He has also held appointments at the Software Engineering Institute – Carnegie-Mellon University, and the University of Wisconsin-Madison. He advised over 60 master's graduates and 25 doctoral graduates. His research contributions and consulting spans the areas of Intelligent Multimedia Systems, Neural Networks, PDCS, Visualization, AI, and Simulation. His research applications include Smart Cities, Data Analytics, Medical Imaging, Bioinformatics, and Computer-Aided Diagnostics. He is a well-published author, a public speaker, member of editorial boards, and technical reviewer. He was recognized for his achievements by several professional organizations including a Golden Core Membership Award by the IEEE Computer Society at the 50th anniversary celebration. Dr. Elmaghraby continued collaborations, mentoring, and scientific contributions have resulted in research funding, international collaboration, and published articles in many prestigious journals such as IEEE-TMI, Medical Physics, Journal of Neuroscience Methods, and Protein Engineering. He is the former President and lifetime member of the Association of Egyptian American Scholars.

Prof. dr. **VLADIMIR TRAJKOVIKJ** is currently giving courses in Algorithms and Data Structures, Embedded Systems, Mobile Information Systems, Information Systems Analyses and Design, Introduction to Entrepreneurship, New Media and Communication (undergraduate level) and Mobile and Web Services, Collaborative Systems, Embedded Computer Components Design II, Innovative Technologies for Business, Web based Eco Systems, Internet based communications and Cyber culture (graduate level) as well as Service Oriented Architectures and Advanced Topics in Distance Education System Development (postgraduate level). Professor used to be Head of Computer Science Department Laboratory, Coordinator of International project dedicated to design integrated information system for Macedonian Telecommunications, Administrative and coordinative work on several International Research and Educational Projects (see list below), consultant work for more than 10 companies and institutions aimed for establishing different management, negotiation and interoperability procedures, Director of Non-Governmental Organization ICT-ACT, ICT Innovation 2013 Conference chair, ITHET 2017 Technical Program chair, Vice Dean for Science and Cooperation. Dr. Trajkovikj has more than 150 research papers presented on International Conferences or published in International Journals in Computer Science and Informatics. Research interests include: Information Systems Analyses and Design, Connected Health Systems, Distance Educational Systems, ICT based Collaboration Systems and Mobile services.

Big Data, Internet of Things and Health: May the Force Be with You

Saturday, October 17th, 10.00 – 11.00

The big data and internet of things are enablers of technologies based on machine learning and block-chain that tend to establish novel services in many areas. Typical example can be connected health that introduce technology in all well being, healthcare, and e-health. Yet, in some cases, the role of data science and data engineering is not yet clear, and face different challenges. The speech will elaborate on those roles and challenges, and provide input on the current state of art that addresses them.

THURSDAY, OCTOBER 15th

08.00 – 09.30   **REGISTRATION**
1st floor reception of Santaka Valley

09.30 – 10.00   **OPENING CEREMONY**
Assoc. Prof. Dr. *Rita Butkienė*,
Kaunas University of Technology, Faculty of Informatics
Prof. *Leonas Balaševičius*, Kaunas University of Technology
Prof. Dr. *Audrius Lopata*, Kaunas University of Technology,
Faculty of Informatics
Big Hall of Santaka Valley

10.00 – 11.00   **KEY NOTE**
Dr. *Ajith Abraham*
Industry 4.0 and Society 5.0: Challenges from a Data Science Perspective
Big Hall of Santaka Valley

11.00 – 11.30

11.30 – 13.00   **SESSION 1**

SOFTWARE ENGINEERING
*Special Session on **Intelligent Systems and Software Engineering Advances (part 1)***
Chaired by Assoc. Prof. Dr. *Marcin Wozniak*
Big Hall of Santaka Valley

1
Genetic Optimization Approach to Construct Schedule for Service Staff

Dalia Čalnerytė, Andrius Kriščiūnas, Rimantas Barauskas

2
Sigma Key Agreement Protocol for e-Banking System

Donatas Bartkus, Aušrys Kilčiauskas, Eligijus Sakalauskas

3
Table Header Correction Algorithm Based on Heuristics for Improving Spreadsheet Data Extraction

Viacheslav Paramonov, Alexey Shigarov, Varvara Vetrova

4

A Review of Self-balancing Robot Reinforcement Learning Algorithms

Aistis Raudys, Aušra Šubonienė

5

Exploring Web Service QoS Estimation for Web Service Composition

Guillermo Rodriguez, Cristian Mateos, Sanjay Misra

13.00 – 14.30

Restaurant "Profesorius" at Santaka Valley

14.30 – 16.00   **SESSION 2**

SOFTWARE ENGINEERING
*Special Session on **Intelligent Systems and Software Engineering Advances (part 2)***
Chaired by Assoc. Prof. Dr. *Marcin Wozniak*
Big Hall of Santaka Valley

ICIST 2020

1

Random Forests and Homogeneous Granulation

Krzysztof Ropiak, Piotr Artiemjew

3

A Novel Edge Detection Operator for Identifying Buildings in Augmented Reality Applications

Ciprian Orhei, Silviu Vert, Radu Vasiu

5

Run-time Class Generation: Algorithm for Decomposition of Homogeneous Classes

Dmytro Terletskyi

2

Orchestration Security Challenges in the Fog Computing

Nerijus Šatkauskas, Algimantas Venčkauskas, Nerijus Morkevičius, Agnius Liutkevičius

4

Military Vehicle Recognition with Different Image Machine Learning Techniques

Daniel Legendre, Jouko Vankka

6

Twitter based Classification for Personal and Non-Personal Heart Disease Claims

Ghita Amrani, Fadoua Khennou, Nour El Houda Chaoui

FRIDAY, OCTOBER 16th

09.00 – 10.00 **REGISTRATION**
1st floor reception of Santaka Valley

10.00 – 16.00 **SESSIONS**
*Special Session on **Distance Education, Technologies and Security During the Period of COVID-19 Pandemic***
Chaired by Prof. Dr. *Algimantas Venčkauskas*
Santaka Valley, Room A228

10.00 – 12.00 **SESSION 3**
BUSINESS INTELLIGENCE FOR INFORMATION AND SOFTWARE SYSTEMS
*Special Session on **Intelligent Methods for Data Analysis and Computer Aided Software Engineering (part 1)***
Chaired by Prof. Dr. *Audrius Lopata*
Big Hall of Santaka Valley

1
Survey of Open-Source Clouds Capabilities Extension

Rita Butkienė, Jaroslav Karpovič, Gytis Vilutis, Ričardas Sabaliauskas, Mindaugas Vaitkūnas, Laurynas Šriupša

2
A Novel Model Driven Framework for Image Enhancement and Object Recognition

Yawar Rasheed, Muhammad Abbas, Muhammad Waseem Anwar, Wasi Haider Butt, Urooj Fatima

3
Knowledge-Based UML Dynamic Models Generation from Enterprise Model in Ticket Buying Process Example

Ilona Veitaitė, Audrius Lopata

4
Standardised Questionnaires in Usability Evaluation. Applying Standardised Usability Questionnaires in Digital Products Evaluation

Oana Alexandra Rotaru, Silviu Vert, Radu Vasiu, Diana Andone

5
Research of Semi-automated Database Development Using Data Model Patterns

Vytautas Volungevičius, Rita Butkienė

12.00 – 14.00 *Restaurant "Profesorius" at Santaka Valley*

14.00 – 15.00 **KEY NOTE**

Prof. Dr. *Adel S. Elmaghraby*

The AI Journey: A Vision into the Future Guided from the Past

Big Hall of Santaka Valley

15.00 – 16.30 **SESSION 4**

BUSINESS INTELLIGENCE FOR INFORMATION AND SOFTWARE SYSTEMS

*Special Session on **Intelligent Methods for Data Analysis and Computer Aided Software Engineering (part 2)***

Chaired by Prof. Dr. *Audrius Lopata*

Big Hall of Santaka Valley

1

Decision-making Model at the Management of Hybrid Power Grid

Sergii Tymchuk, Sergii Shendryk, Vira Shendryk, Anton Panov, Anastasia Kazlauskaite, Tetiana Levytska

3

Analytical Model of Design Workflows Organization in The Automated Design of Complex Technical Products

Nikolay Voit, Sergey Kirillov, Semen Bochkov, Irina Ionova

2

Mining Data with Many Missing Attribute Values Using Global and Saturated Probabilistic Approximations Based on Characteristic Sets

Patrick G. Clark, Jerzy W. Grzymala-Busse, Teresa Mroczek, Rafal Niemiec

4

A Model-Driven Framework for Optimum Application Placement in Fog Computing Using a Machine Learning Based Approach

Madeha Arif, Farooque Azam, Muhammad Waseem Anwar, Yawar Rasheed

5

Diffusion of Knowledge in the Supply Chain over Thirty Years – Thematic Areas and Sources of Publications

Anna Maryniak, Yuliia Bulhakova, Włodzimierz Lewoniewski, Monika Bal

ICIST 2020

17.00 – 19.00   *Fourchette at Restaurant "Profesorius" at Santaka Valley*

SATURDAY, OCTOBER 17th

09.00 – 10.00 **REGISTRATION**
1st floor reception of Santaka Valley

10.00 – 11.00 **KEY NOTE**
Prof. Dr. *Vladimir Trajkovikj*
Big Data, Internet of Things and Health: May the Force Be with You
Big Hall of Santaka Valley

11.00 – 11.30

11.30 – 12.15 **SESSION 5**

INFORMATION TECHNOLOGY APPLICATIONS
*Special Session on **Language Technologies***
Chaired by Prof. Dr. *Jurgita Kapočiūtė-Dzikienė*
Big Hall of Santaka Valley

1
Cross-Lingual Metaphor Paraphrase Detection – Experimental Corpus and Baselines

Martin Vita

2
Deep Learning-Based Part-of-Speech Tagging of the Ethiopic Language

Senait Gebremichael Tesfagergish, Jurgita Kapočiūtė Dzikienė

3
Tag Me If You Can: Insights into the Challenges of Supporting Unrestricted P2P News Tagging

Frederik S. Bäumer, Joschka Kersting, Bianca Buff, Michaela Geierhos

12.15 – 13.00 *Restaurant "Profesorius" at Santaka Valley*

13.00 – 15.00   **SESSION 6**

INFORMATION TECHNOLOGY APPLICATIONS
*Special Session on **Smart e-Learning Technologies
and Applications***
Chaired by Prof. Dr. *Danguolė Rutkauskienė*
Big Hall of Santaka Valley

1
*Escape the Lab:
Chemical Experiments
in Virtual Reality*
*Airidas Janonis, Eligijus
Kiudys, Martynas Girdžiūna,
Tomas Blažauskas, Lukas
Paulauskas, Aleksandras
Andrejevas*

2
*The VOIL Digital
Transformation Competence
Framework. Evaluation and
Design of Higher Education
Curricula*

*Klaus North, Andreas Hermann,
Isabel Ramos, Nekane Aramburu,
Daina Gudoniene*

3
*Gamified Evaluation in
Game-Based Learning*
*Pavel Boytchev,
Svetla Boytcheva*

4
*Hyperparameter Tuning Using
Automated Methods to Improve
Models for Predicting Student
Success*

Bogdan Dragulescu, Marian Bucos

5
*A Case Study of Applying
Gamification in Teaching
Project Management*
*Kristina Magylaitė, Lina
Čeponienė, Mantas
Jurgelaitis, Tomas
Danikauskas*

6
*Design of the Platform Solutions
to Increase the Employability and
E-Learning Opportunities for Low
Skilled Women*

*Danguolė Rutkauskienė, Greta
Volodzkaitė*

ICIST 2020

15.00 – 15.30   **BEST PAPER AWARDS AND CLOSING THE CONFERENCE**
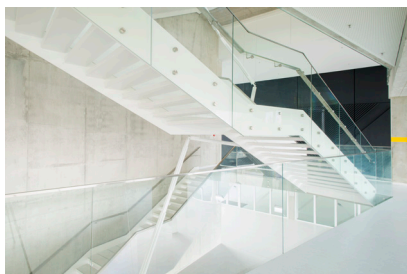*Big Hall of Santaka Valley*

CONFERENCE VENUE

Association Santakos slėnis (Santaka Valley) unites and integrates activities of the largest research, technology and study institutions of Kaunas: Kaunas University of Technology, Lithuanian University of Health Sciences, Lithuanian Energy Institute, Vytautas Magnus University, the Hospital of Lithuanian University of Health Sciences Kauno Klinikos, Kaunas Science and Technology Park and business companies: Achema Group at the science and business valley "Santaka"

Association Santakos lėnis (Santaka Valley) unites and integrates activities of the largest research, technology and study institutions of Kaunas: Kaunas University of Technology, Lithuanian University of Health Sciences, Lithuanian Energy Institute, Vytautas Magnus University, the Hospital of Lithuanian University of Health Sciences Kauno Klinikos, Kaunas Science and Technology Park and business companies: Achema Group at the science and business valley "Santaka".

KTU Rector prof. Eugenijus Valatka is the president of Association Santakos slėnis.

The aim of this association is to carry out interdisciplinary scientific and applied research, to create proper conditions for high-quality research services for businesses, to coordinate technology development and its commercialization by helping to start-up and develop business companies, and to attract the necessary investment.

asociacija.santakos.slenis@gmail.com
www.santakosslenis.lt

ABOUT KAUNAS

Kaunas, second-largest Lithuania's city, which keeps the authentic spirit of the country's national character alive. The city is located at the confluence of the two largest Lithuanian rivers, surrounded by the hills and situated at the crossroads of the most important roads in Lithuania. Due to its geographical position, today, Kaunas is Lithuania's most important center of communication.
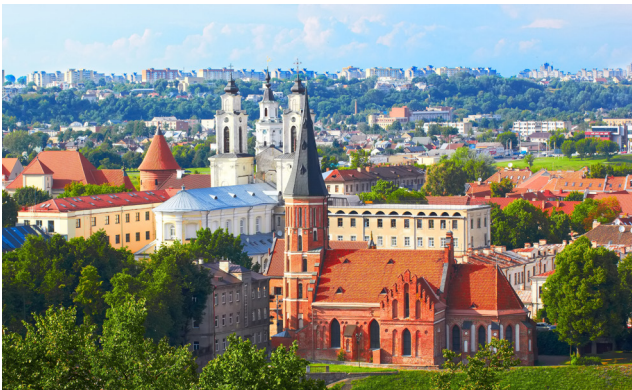
It is a home of a variety of festivals & events, from operettas to modern dance, from classical music to Jazz. Kaunas was chosen as the European Capital of Culture 2022. And as a Capital of Culture 2022, Kaunas is changing: from the TEMPORARY CAPITAL to CONTEMPORARY. The city is famous for its Interwar architecture which was awarded the European Heritage Label and is on its way to UNESCO. Kaunas is the only city in the world where so much of the style of the buildings has survived to the present day.

Kaunas is a colorful city, famous for its street art, with probably the only square in the world that you can't get into - George Maciunas square, inspired by FLUXUS movement.

Discover Kaunas as a great place for meetings, experience the city's unique ambience and get introduced to a number of modern conference facilities and quality services, along with exciting leisure activities. The unique atmosphere of Kaunas can be explored, which is distinguished by the heritage of the painter and composer M. K. Čiurlionis.

Kaunas is not only a city of old traditions but also a large centre of business and

industry. It can also lay claim to being a city of young people with over 35,000 students (the largest number in Lithuania) studying at one of the seven universities here. For business and investors, our city offers a friendly, open, and creative space for partnerships and cooperation. Green streets, tree-lined avenues and wide–open squares create surroundings to match everybody's moods. Kaunas is proud of its great number of museums, theatres, universities, colleges, fine hotels, restaurants, cafes and bars. Guests can try a range of cuisine from many European and Asian countries as well as an abundance of traditional Lithuanian food, drink and hospitality.

For more information about Kaunas please visit *https://visit.kaunas.lt/en/*

ktu
1922

ABOUT KAUNAS UNIVERSITY OF TECHNOLOGY

Kaunas University of Technology, with its eight faculties, a branch in Panevėžys, high school (gymnasium), progymnasium and nine research centres, is the second-largest university in Lithuania. About 80% of Lithuania's industrial engineers have graduated from KTU. In 1990, KPI was restructured and brought into line with most Western universities. Under Parliamentary decision, it was then granted its present university status and name. Now, Kaunas University of Technology is the largest technical university in Lithuania. More information about Kaunas University of Technology can be found at *http://ktu.edu*

ICIST 2020

FACULTY OF INFORMATICS

The Faculty of Informatics of Kaunas University of Technology was established in 1977. The faculty currently consists of five departments:

Department of Multimedia Engineering,
Department of Information Systems,
Department of Computer Science,
Department of Software Engineering,
Department of Applied Informatics,

and two research centres:

Centre of Real Time Computer Systems,
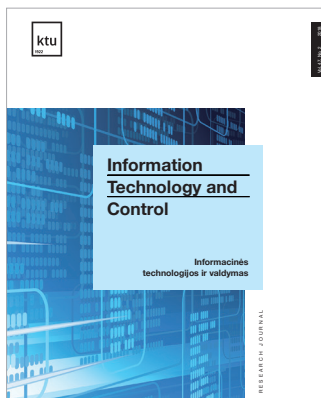*Centre of Information Systems Design Technology.*

The faculty offers the choice of Informatics, Informatics Engineering, Multimedia Technologies, Information Systems, and Software Systems Bachelor degree programmes. Those pursuing a Master's degree can choose accordingly from five study programmes:

Informatics,

Information and Information Technology Security,

Information Systems Engineering,

Information Technologies of Distance Education,

Software Engineering.

Graduates of master's degree studies can pursue the academic career by choosing Informatics or Informatics Engineering doctoral studies. Each year the Faculty of Informatics accepts around 500 new students seeking Bachelor's or Master's degree, respectively. In 2020, we have more than 2100 Bachelor, 190 Master, and 40 Doctoral students.

The Faculty also publishes a scientific journal,

INFORMATION TECHNOLOGY AND CONTROL

(indexed by Clarivate Analytics)
www.itc.ktu.lt
itc@ktu.lt

USEFUL INFORMATION

Lithuanian Time
Lithuania is located in the Eastern European Time Zone, GMT+2.

Currency Euro (€).

Useful Phone Numbers
Emergency call: 112
Information: 118

Kaunas Airport
Information: (+370 6) 12 44442

Kaunas Bus Station
Information: (+370 37) 40 90 60

Kaunas Railway Station
Information: (+370 5) 269 3636

Taxi in Kaunas

GET IT ON
Google Play

Download on the
App Store

Bolt

TRANSPORT.LT

CALL FOR PAPERS

27th International Conference on
Information and Software Technologies

October 14th – 16th, 2021, Kaunas, Lithuania

01001001
01000011
01001001
01010011
01010100

ICIST 2021

PROCEEDINGS AND PUBLICATION

The paper's size should be 10–12 pages (fee for extra pages is 10 EUR per page) in Springer Template. Accepted papers will be published as a volume of Springer-Verlag CCIS. CCIS is indexed in Scopus, Clarivate Analytics Web of Science.

LOCATION

ICIST is organised by Kaunas University of Technology, a leading technical university of the Baltic States. In 2021, the conference will be organised in Kaunas, the second largest Lithuania's city, which keeps the authentic spirit of the country's national character alive.

ORGANIZATION

PC Chair
Audrius Lopata, Kaunas, Lithuania

Local Organising Committee Chair
Daina Gudonienė, Kaunas, Lithuania

Local Organising Committee:
icist@ktu.lt

DEADLINES

16 03 2021 –   Full paper submission.

17 04 2021 –   Notification of acceptance.

19 06 2021 –   Print ready paper submission.

14 10 2021 – 16 10 2021 – Conference. Research sessions.

The International Conference on Information and Software Technologies (ICIST) is an international annual event, organized by Kaunas University of Technology. In 2021, the University will organize the 27th ICIST Conference from 14th to 16th October in Kaunas, Lithuania.

ktu faculty of informatics
1922

SCOPE AND TOPICS

INFORMATION SYSTEMS

Special Sessions on
• Innovative Applications for Knowledge Transfer Support;
• e-Health Information Systems;

Information Systems Development; Conceptual Modelling, Ontologies, and Databases; Business Processes and Business Rules; Enterprise Architecture and Enterprise Modelling; Distributed Information Systems and Semantic Web; Quality of Information Systems; Health Care Management Systems.

BUSINESS INTELLIGENCE FOR INFORMATION AND SOFTWARE SYSTEMS

Special Session on
• Intelligent Methods for Data Analysis and Computer-Aided Software Engineering

Data Mining and Knowledge Discovery; Decision Support Systems; Big Data Analytics; Expert Systems; Intelligent Web Mining; Knowledge-Based System Engineering.

SOFTWARE ENGINEERING

Special Sessions on
• Intelligent Systems and Software Engineering Advances

Software and Systems Engineering Methodologies; Model-Driven Development, SOA; Component-Based Development; Distributed, Mobile, and Open Architectures; Cloud Computing Software Quality and Testing; CASE Tools for Software Development; Compuitational Intelligence; Security and Trust.

IT APPLICATIONS

Special Sessions on
• Smart e-Learning Technologies and Applications;
• Digital Transformation;
• Language Technologies

STEAM Education; IT in Teaching and Learning; Internet of Things and Smart Environments; Wireless and Mobile Applications; Compuitational Linguistics; Learning Objects and MOOCs; Natural Language Processing; Computer Graphics and Multimedia.

More information and registration on http://icist.ktu.edu/