Programme of the 11th International IEEE Conference
Dependable Systems, Services and Technologies, DESSERT2020

Time regarding the Kyiv

Countries which represent authors	Time in countries regarding the time of Ukraine
Belarus	The same
Belgium	- 1
Bulgaria	The same
China	+ 4+
France	- 1
Germany	- 1
Ireland	- 2
Iraq	+ 3
Kazakhstan	+ 2+
Poland	- 1
Russia	The same +
Saudi Arabia	The same
Slovakia	- 1
United Kingdom	- 2
United States	- 7+

Timetable of the Conference

Time	May 14ᵗʰ 2020, Thursday	May 15ᵗʰ 2020, Friday					May 16ᵗʰ 2020, Saturday				
9.30	Testing of connection	**Plenary Session 3** Dependable IoT, Edge and Embedded Systems					**Plenary Session 4** Digital Transformation, Cyber Defense and Critical Infrastructures				
11.00	(Additional testing, *May 13ᵗʰ* *14.00 – 16.00*)	Coffee break					Coffee break				
11.30		RDS1	CCR1	AIM1	DIS1	DTE1	RDS4	CCR4	AIM4	DIS4	DTE4
13.00		Lunch					Lunch				
14.00	**Plenary Session 1** Welcome. Dependable World and Safety Critical Systems	RDS2	CCR2	AIM2	DIS2	DTE2	**Round Table** Trusted Dependability, Safety and Security during and after Covid19 Pandemic **Plenary Session 5** Awards and Close Ceremony				
15.30	Coffee break	Coffee break					Coffee Bye-Bye				
16.00	**Plenary Session 2** Resilient, Safe and Secure Engineering	RDS3	CCR3	AIM3	DIS3	DTE3					
17.45	Business in Travel: One from the Models of the Future	Abstract Art and Augmented Reality.									

Presentation timing: Invited speakers – 30 minutes + 5 minutes Q&A; Industrial and session talks – 15 minutes + 5 minutes Q&A. Each session includes additional 10 minutes for discussion.

Google Meet references

Plenary Sessions and
RDS – Reliability, Dependability and Safety of Hardware, Software, Systems
https://meet.google.com/ior-impj-xjz

CCR – Cryptography, Cybersecurity and Resilience of Systems, Networks, Clouds
https://meet.google.com/kia-hdon-rrf

AIM – Artificial Intelligence, Control and Decision Making in Dependable Computing
https://meet.google.com/jim-kvhe-hfc

DIS – Dependable Internet of Things, Smart Systems and Embedded Technologies
https://meet.google.com/iqo-iqvz-npd

DTE – Digital Transformation, Economics, Manufacturing for Safe and Secure World
https://meet.google.com/tzi-moxb-cgf

Plenary Sessions Schedule

Plenary sessions	Plenary talks
Plenary Session 1 Welcome. Dependable World and Safety Critical Systems *May 14th* *14.00 – 15.30* Moderator: Vyacheslav Kharchenko	14.00 – 14.25 Invitation of the DESSERT Organizers (TBC). **Professor Vyacheslav Kharchenko**, National Aerospace University KhAI, Ukraine (General Chair of the Conference) **Professor Anzhela Kuznetsova**, Rector of Banking University, Ukraine **Professor Mykola Nechyporuk**, Rector of National Aerospace University KhAI, Ukraine **Professor Anatoliy Gorbenko**, Leeds Beckett University, United Kingdom **Dr Mona Ghassemian,** IEEE United Kingdom and Ireland Section, United Kingdom **Professor Felix Yanovsky**, IEEE Ukraine Section, Ukraine **Professor Jüri Vain**, Tallinn University of Technology, Estonia **Oleksandre Yurchak,** General Director of Association of Industrial Automation of Ukraine 14.25 – 14.35 **Professor Vyacheslav Kharchenko**, National Aerospace University KhAI, and **Professor Yuriy Kondratenko**, Petro Mohyla Black Sea National University, Ukraine *Trends of the DESSERT* 14.35 – 15.10 **Professor Andrzej Rucinski**, New-Hampshire University, USA. *Global Trusted Dependability as a Grand Challenge* 15.10 – 15.30 **Dr Anton Andrashov**, RPC Radiy, Ukraine. *Licensing of FPGA-based Safety Platform for NPPs: Challenges and Solutions*
Plenary Session 2 Resilient, Safe and Secure Engineering *May 14th* *16.00 – 17.30* Moderator: Yuriy Kondratenko	16.00 – 16.35 **Professor Mike Hinchey**, Lero – the Irish Software Research Centre, Ireland. *Building Resilient Space Exploration Missions* 16.35 – 17.10 **Dr Peter Popov**, City, University of London, United Kingdom. *Co-engineering for Safety and Security: The AQUAS project perspective* 17.10 – 17.30 **Leonid Khatskevych**, 482.solutions, Ukraine. *Blockchain as a digital implementation of Ronald Coase's transaction cost theory*
Plenary Session 3 Dependable IoT, Edge and Embedded Systems *May 15th* *09.30 – 11.00*	09.30 – 10.05 **Professor Axel Sikora**, Offenburg University of Applied Sciences, Germany *Network Security Strategies and Standards for the Industrial Internet of Things* 10.05 – 10.40 **Yannick Fourastier**, CodEUrope SAS, France. *Safety of autonomous intelligent systems: from cognitive techniques dependability to assurance level of decision self-making*

Moderator: Oleg Illiashenko	10.40 – 11.00 **Dr Oleksandr Karpin**, Infineon Technologies, Ukraine. *Challenges of Capacitive Sensing for Automotive*
Plenary Session 4 Digital Transformation, Cyber Defense and Critical Infrastructures *May 16th* *09.30 – 11.00* Moderator: Anatoliy Gorbenko (TBC)	09.30 – 10.05 **Dr Zlatogor Minchev**, Institute of ICT, Bulgarian Academy of Sciences, Bulgaria *Digital Society Future Transformation Perspectives in the Informational Age* 10.05 – 10.40 **Col. Dr Nikolai Stoianov**, Bulgarian Defence Institute, Bulgaria and **Matteo Merialdo**, RHEA Group, Brussel, Belgium. *Strengthening Cyber Defence in Europe through efficient multi-sector and multi-domain collaboration, based on a network of centres of competences* 10.40 – 11.00 **Professor Oleksandr Potii**, Institute of Information Technology, Ukraine. *Critical Infrastructure Security Assessment: The Standards and Techniques*
Round Table Trusted Dependability, Safety and Security in Covid19 Time *May 16th* *14.00 – 15.00*	Moderators: **Professor Andrzej Rucinski**, New-Hampshire University, USA **Professor Vyacheslav Kharchenko**, National Aerospace University KhAI, Ukraine **Professor Todor Tagarev,** Institute of ICT, Bulgarian Academy of Sciences, Bulgaria **Dr Thaddeus Paul Kochanski,** Sensors Signals Systems, Lexington, MA USA **Professor Inna Skarga-Bandurova**, East-Ukrainian Volodymyr Dahl University, Ukraine
Plenary Session 5 Closing the Conference *May 16th* *15.00 – 15.30* Moderators: Vyacheslav Kharchenko, Yuriy Kondratenko	Awards and Close Ceremony

Section Sessions Schedule

Sections	Sessions	Session papers
RDS – Reliability, Dependability and Safety of Hardware, Software, Systems Moderators (TBC): Juri Vain, Herman Fesenko, Oleg Odarushchenko, Ievgen Babeshko	**RDS-1** Dependability of Clouds, SCADA, Databases *May 15th* *11.30 – 13.00*	91 Anatoliy Gorbenko (United Kingdom), Andrii Karpenko, Olga Tarasyuk (Ukraine) *Analysis of Trade-offs in Fault-Tolerant Distributed Computing and Replicated Databases* 35 Oleg Bisikalo, Viacheslav Kovtun, Oksana Kovtun, Volodimir Romanenko (Ukraine) *Research of safety and survivability models of the information system for critical use* 61 Oleg Ivanchenko, Yuriy Ponochovniy, Vyacheslav Kharchenko, Borys Moroz, Evgene Brezhnev, Leonid Kabak (Ukraine) *Dependability Assessment for SCADA System Considering Usage of Cloud Resources* 56 Viktoriia Merlak, Heorgii Kuchuk (Ukraine) *Resource allocation for hierarchical widget system*
	RDS-2 Performance, Reliability and Safety of Networks and UAV Systems *May 15th* *14.00 – 15.30*	19 Oleksandr Lemeshko, Oleksandra Yeremenko, Maryna Yevdokymenko, Batoul Sleiman (Ukraine), Pavel Segec, Jozef Papan (Slovakia) *Advanced Performance-Based Fast Re-Routing Model with Path Protection* 22 Lev Raskin, Oksana Sira, Yurii Parfeniuk (Ukraine) *Reliability assessment of large systems that fail as a result of damage accumulation* 80 Herman Fesenko, Ihor Kliushnikov, Vyacheslav Kharchenko, Serhii Rudakov, Elena Odarushchenko (Ukraine) *Routing an Unmanned Aerial Vehicle During NPP Monitoring in the Presence of an Automatic Battery Replacement Aerial System* 88 Vladimir Sklyar, Vyacheslav Kharchenko (Ukraine) *Structured Argumentation for Assurance Case of Monitoring System based on UAVs*
	RDS-3 Development of Fault-Tolerant Embedded Systems *May 15th* *16.00 – 17.30*	18 Anton Kamenskih, Yuri Stepchenkov, Yuri Diachenko, Yuri Rogdestvenski, Denis Diachenko (Russian Federation) *Improvement of the Quasi Delay-Insensitive Pipeline Noise Immunity* 33 Sergey Tyurin (Russian Federation) *Reversible Majority Voter Based on Fredkin Gates* 43 Oleksandr Drozd, Vitaliy Romankevich, Mykola Kuznietsov, Myroslav Drozd, Oleksandr Martynyuk (Ukraine) *Using Natural Version Redundancy of FPGA Projects in Area of Critical Applications* 103 Vadym Puydenko, Vyacheslav Kharchenko (Ukraine) *The Minimization of Hardware for Implementation of Pseudo-LRU Algorithm for Cache Memory*

Sections	Sessions	Session papers
	RDS-4 Verification and Deployment of Critical Software and FPGA Systems *May 16th* *11.30 – 13.00*	102 Oleksandr Gordieiev, Daria Gordieieva, Andrii Tryfonov, Vladyslav Dokukin, Elena Odarushchenko (Ukraine) *Method and tool for support of software requirements profile quality assessment* 74 Oleg Odarushchenko, Oleksiy Striuk, Elena Odarushchenko, Kostiantyn Leontiiev (Ukraine) *Software Fault Insertion Testing for SIL Certification of Safety PLC-Based System* 87 Maryna Miroshnyk, Oleksandr Shkil, Elvira Kulak, Dariia Rakhlis, Inna Filipenko, Anatolii Miroshnyk (Ukraine) *Verification of FPGA control systems by analyzing the correctness of state diagrams* 105 Kostiantyn Leontiiev, Ievgen Babeshko, Vyacheslav Kharchenko (Ukraine) *Assumption Modes and Effect Analysis of XMECA: Expert based safety assessment*
CCR – Cryptography, Cybersecurity and Resilience of Systems, Networks, Clouds Moderators (TBC): Nikos Bardis, Oleg Illiashenko, Aleksandr Kuznetsov, Roman Oliynykov	**CCR-1** Models and Methods for Cyber Attacks Detection and Assessment *May 15th* *11.30 – 13.00*	65 Vyacheslav Kharchenko, Yuriy Ponochovniy, Al-Khafaji Ahmed Waleed, Oleg Ivanchenko, Dmytro Uzun, Larysa Degtyareva (Ukraine) *Availability model of two-zone physical security system considering cyber attacks and software update* 67 Sergii Lysenko, Kira Bobrovnikova, Oleg Savenko, Roman Shchuka (Ukraine) *A Cyberattacks Detection Technique Based on Evolutionary Algorithms* 72 Tamara Radivilova, Lyudmyla Kirichenko, Maxim Tawalbeh, Petro Zinchenko (Ukraine), Abed Saif Alghawli (Saudi Arabia), Andrii Ilkov (Ukraine) *The Complex Method of Intrusion Detection Based on Anomaly Detection and Misuse Detection* 73 Maryna Kolisnyk, Vyacheslav Kharchenko, Iryna Piskachova (Ukraine) *Availability Models of Industrial Internet of Things Wired System Considering Cyberattacks*
	CCR-2 Cyber Security of Mobile Systems, IoT and Services *May 15th* *14.00 – 15.30*	24 Dmytro Progonov, Veronika Prokhorchuk, Andriy Oliynyk (Ukraine) *Evaluation System for User Authentication Methods on Mobile Devices* 32 Dmytro Likhomanov, Vladyslav Poliukh (Ukraine) *Predicting malicious hosts by blacklisted IPv4 address density estimation* 25 Anastasiia Poltorak, Nataliia Sirenko, Igor Atamanyuk, Yuriy Volosyuk, Olha Melnyk, Polina Fenenko (Ukraine) *Paradigm Changes that Strengthen the Financial Security of the State through FINTECH Development* 96 Victoriia Turkina, Dmytro Ihnatiev (Ukraine) *Approach to Sustainable Trust and Reputation Evaluation in Distributed Mobile Networks of the Internet of Things*

Sections	Sessions	Session papers
	CCR-3 Residual Class Systems, Cryptography and Steganography *May 15th* *16.00 – 17.30*	48 Victor Krasnobayev, Alexandr Kuznetsov, Irina Lokotkova, Anastasiia Kiian, Tetiana Kuznetsova (Ukraine) *Techniques for Raising the Remainder to a Power in the Residual Class System* 49 Victor Krasnobayev, Alexandr Kuznetsov, Victoria Popenko, Anna Kononchenko, Tetiana Kuznetsova (Ukraine) *Determination of Positional Characteristics of Numbers in the Residual Class System* 92 Mariia Rodinko, Roman Oliynykov (Ukraine) *The Method of Searching for Differential Trails of ARX-based block cipher Cypress* 101 Alexandr Kuznetsov, Alexey Smirnov, Alexander Onikiychuk, Tymur Makushenko, Olha Anisimova, Anna Arischenko (Ukraine) *Adaptive Pseudo-Random Sequence Generation for Spread Spectrum Image Steganography*
	CCR-4 Quantum Computing and Post-Quantum Cryptography *May 16th* *11.30 – 13.00*	44 Alexandr Kuznetsov, Anastasiia Kiian, Vitalina Babenko, Iryna Perevozova, Iryna Chepurko, Oleksii Smirnov (Ukraine) *New Approach to the Implementation of Post-Quantum Digital Signature Scheme* 45 Alexandr Kuznetsov, Anastasiia Kiian, Oleksii Smirnov, Alla Cherep (Ukraine), Meruert Kanabekova (Kazakhstan), Iryna Chepurko (Ukraine) *Testing of Code-Based Pseudorandom Number Generators for Post-Quantum Application* 83 Valeriy Hlukhov (Ukraine) *FPGA Based Digital Quantum Computer Verification* 108 Sergiy Gnatyuk, Tetyana Okhrimenko, Olena Azarenko, Andriy Fesenko (Ukraine), Rat Berdibayev (Kazakhstan) *Experimental Study of Secure PRNG for Q-trits Quantum Cryptography Protocols*
AIM – Artificial Intelligence, Mobile Robotics and Decision Making in Dependable Systems Moderators (TBC): Yuriy Kondratenko, Igor Atamanyuk, Ievgen Sidenko, Olga Morozova	**AIM-1** Artificial Intelligence and Neuro Models *May 15th* *11.30 – 13.00*	51 Anatoly Shevchenko, Alexander Sosnitsky (Ukraine) *Universal meta-definition of Intelligence* 31 Olga Morozova, Vyacheslav Kharchenko, Oleg Illiashenko, Sergii Sokolov (Ukraine) *Combination of Digital Twin and Artificial Intelligence in Manufacturing Using Industrial IoT* 59 Oleh Pihnastyi, Georgii Kozhevnikov, Tetiana Bondarenko (Ukraine) *An Analytical Method for Generating a Data Set for a Neural Model of a Conveyor Line* 76 Roman Leizerovych, Galyna Kondratenko, Ievgen Sidenko, Yuriy Kondratenko (Ukraine) *IoT-complex for Monitoring and Analysis of Motor Highway Condition Using Artificial Neural Networks*

Sections	Sessions	Session papers
	AIM-2 Machine Learning and Cognitive Modeling *May 15th* *14.00 – 15.30*	52 Olena Protsenko, Mykyta Myronenko, Taras Savchenko, Olesandr Prikhodchenko (Ukraine) *Informational and extreme machine learning for on-board recognition system of ground objects* 112 Bo Jiang, Pengfei Liu, Jie Xu (China) *A Deep Learning Approach to Locate Buggy Files* 17 Valeriy Mygal, Galyna Mygal (Ukraine) *The viability of dynamic systems in difficult conditions: cognitive aspects* 89 Petr Makarenko, Mikola Mogilat, Anton Neklesa, Olena Ponochovna, Yulia Makarenko (Ukraine) *Cognitive modeling of the consumer market: sensitivity and scenario analysis*
	AIM-3 Mobile Robotics, UAV and Advanced Control Systems *May 15th* *16.00 – 17.30*	3 Maryna Derkach, Danylo Matiuk, Inna Skarga-Bandurova (Ukraine) *Obstacle Avoidance Algorithm for Small Autonomous Mobile Robot Equipped with Ultrasonic Sensors* 13 Oleksandr Tymochko, Andrii Trystan, Andrii Berezhnyi, Olga Matiushchenko (Ukraine), Oleksandr Timochko (Germany) *Method of Automated Flight Route Planning for Unmanned Aerial Vehicles to Search for Stationary Objects* 81 Kostiantyn Dergachov, Serhii Bahinskii, Iryna Piavka (Ukraine) *The algorithm of UAV automatic landing system using vision systems* 57 Oleh Pihnastyi, Georgii Kozhevnikov, Valery Khodusov (Ukraine) *Conveyor Model with Input and Output Accumulating Bunker*
	AIM-4 Decision Support in Dependable Systems *May 16th* *11.30 – 13.00*	2 Igor Atamanyuk, Vyacheslav Shebanin, Valerii Havrysh, Vadim Lykhach, Sergey Kramarenko (Ukraine) *Identification of the Optimal Parameters for Forecasting the State of Technical Objects Based on the Canonical Random Sequence Decomposition* 39 Vitaliy Tsyganok, Sergii Kadenko, Oleh Andriichuk (Ukraine) *Hybrid Decision Support Methodology Based on Objective and Expert Data* 79 Yaroslav Khortiuk, Galyna Kondratenko, Ievgen Sidenko, Yuriy Kondratenko (Ukraine) *Increasing Reliability of Programming Interfaces Based On Fuzz Testing* 86 Olena Golembovska, Vyacheslav Kharchenko, Igor Shostak, Mariia Danova, Olena Feoktystova (Ukraine) *Assessing the Perception of Abstract Paintings with Elements of Augmented Reality*

Sections	Sessions	Session papers
DIS – Dependable Internet of Things, Smart Systems and Embedded Technologies Moderators (TBC): Vladimir Lukin, Nataliia Kussul, Viktor Makarichev, Anatoly Sachenko	**DIS-1** Image Processing, Quality and Privacy Assurance *May 15th* *11.30 – 13.00*	10 Maksim Pavlenko, Oleksandr Tymochko, Volodymyr Larin, Maksym Kolmykov, Serhii Khmelevskiy (Ukraine) *Conceptual Basis of Cascading Differential Masking Technology* 11 Mykhailo Babii, Andrii Dikhtiarov (Ukraine) *Identification of a Person by Gait on the Basis of Wavelet Technology* 14 Viktor Makarichev, Vladimir Lukin, Iryna Brysina (Ukraine) *Discrete Atomic Compression with Different Structures of Discrete Atomic Transform: Efficiency Comparison and Perspectives of Application to Digital Images Privacy Protection* 20 Fangfang Li (China), Sergey Krivenko, Vladimir Lukin (Ukraine) *A Two-step Procedure for Image Lossy Compression by ADCTC With a Desired Quality*
	DIS-2 Internet of Things for Safety and e-Health *May 15th* *14.00 – 15.30*	85 Igor Shostak, Mariia Danova, Olga Morozova, Tamara Kliuieva (Ukraine) *Using Internet of Things Technologies to Ensure Cargo Transportation Safety* 97 Oksana Luchsheva, Ihor Turkin, Pavlo Luchshev (Ukraine) *Navigation Assistive Application for the Visually Impaired People* 115 Anatoliy Sachenko, Oleksandr Osolinnskyi (Ukraine), Maciej Dobrowolski (Poland), Pavlo Bykovyy, Volodymyr Kochan (Ukraine) *Development of the Flexible Traffic Control System Using the LabView and ThingSpeak* 113 Igor Zhukov, Nickolay Pechurin, Lyudmila Kondratova (Ukraine) *IoT's Primary Information Load Estimation*
	DIS-3 Data Analysis for Security and Availability *May 15th* *16.00 – 17.30*	28 Iryna Svyd, Ivan Obod, Oleksandr Maltsev, Ganna Zavolodko (Ukraine) *Fusion Method of Primary Surveillance Radar Data and IFF systems Data* 29 Iryna Svyd, Ivan Obod, Oleksandr Maltsev, Artem Hlushchenko (Ukraine) *Secondary Surveillance Radar Response Channel Information Security Improvement Method* 66 Nataliia Kussul, Andrii Shelestov, Bohdan Yailymov, Hanna Yailymova, Mykola Lavreniuk, Leonid Shumilo, Yuliia Bilokonska (Ukraine) *Crop monitoring technology based on time series of satellite imagery* 54 Yaroslav Klyatchenko, Lev Yasenko, Oksana Tarasenko-Klyatchenko (Ukraine) *Image noise reduction by denoising autoencoder*

Sections	Sessions	Session papers
	DIS-4 Advanced Methods for Dependable Systems Development and Assessment *May 16th* *11.30 – 13.00*	26 Valerii Zhabin, Valentina Zhabina (Ukraine) *Methods of On-Line Computation Acceleration in Systems with Direct Connection between Units* 27 Sergii Saukh (Ukraine) *Regularization Method for the Clarke's Generalized Jacobian to Ensure the Formation of Nonsingular Systems for Inexact Newton Methods* 58 Vadym Shkarupylo, Oleksandr Chemerys, Valentyna Dusheba, Ravil Kudermetov, Andrii Oliinyk (Ukraine) *On Hoare Triples Applicability to Dependable System Specification Synthesis* 50 Artem Perepelitsyn, Inna Zarizenko, Vitaliy Kulanov (Ukraine) *FPGA as a Service Solutions Development Strategy*
DTE – Digital Transformation, Economics, Manufacturing for Safe and Secure World Moderators: Tetiana Hovorushchenko, Volodymyr Kazymyr, Anastasiia Strielkina, Todor Tagarev	**DTE-1** Digital Economy, Information Systems and Industry 4.0 *May 15th* *11.30 – 13.00*	1 Halyna Chmeruk, Tetiana Bludova (Ukraine) *Probabilistic Approach for Evaluation of Organization of Enterprise Reengineering* 71 Tamara Lozinska, Oleksandr Dorofyeyev, Yurij Ponochovnij, Tetiana Vlasenko (Ukraine) *Linear Regression Model for Substantiation of Sustainable State Policy in a Digital Economy* 98 Olena Kopishynska, Yrii Utkin, Oleksandr Galych, Mykola Marenych, Ihor Sliusar (Ukraine) *Main Aspects of the Creation of Managing Information System at the Implementation of Precise Farming* 64 Svitlana Gutsu, Tetiana Katkova, Andrii Babych, Maryna Mkrtchyan, Anastasiia Strielkina (Ukraine) *Social and Legal Aspects of the Transition to Industry 4.0*
	DTE-2 Modelling, Ranking Analysis and VR Technology *May 15th* *14.00 – 15.30*	5 Tetiana Hovorushchenko, Alla Herts, Yelyzaveta Hnatchuk (Ukraine) *Modelling the Decision Making Process on Legal Conducting the Surrogate Motherhood* 110 Viktoriya Saravas, Evgenii Pahalchuk, Andrii Molchan, Yuriy Kampov (Ukraine) *The Development of Educational Application with Virtual Reality Placing Objects System Using Snap Zone Technology* 82 Iryna Yakymenko, Volodymyr Kazymyr, Svitlana Lytvyn (Ukraine) *Webometrics ranking analysis and possible ways to improve the position of the university* 23 Artyom Shamyna, Aleksey Ardyako, Alexandr Labokha (Belarus) *Modeling the distribution of radionuclides in the environment as a result of radiation accidents*
	DTE-3 Networked Organisations for Security and	16 Todor Tagarev, Yantsislav Yanakiev (Bulgaria) *Business Models of Collaborative Networked Organisations: Implications for Cybersecurity Collaboration*

Sections	Sessions	Session papers
	IT-Dependent Information Society *May 15th* *16.00 – 17.30*	21 Todor Tagarev (Bulgaria) *Governance of Collaborative Networked Organisations: Stakeholder Requirements* 77 Kateryna Isirova, Oleksandr Potii (Ukraine) *Development Principles for Electronic Voting System Using Distributed Ledger Technology* 69 Lyudmila Vasylieva, Olga Procenko, Svitlana Chmykhun (Ukraine) *Problems and Solutions for an IT-Dependent Information Society: Essence, Development and Prospects*
	DTE-4 Software, Management Systems and Ecosystems Safety and Security *May 16th* *11.30 – 13.00*	4 Sergiy Kryvyi, Olena Grinenko, Volodymyr Opanasenko (Ukraine) *Logical Approach to the Research of Properties of Software Engineering Ecosystem* 8 Tetiana Hovorushchenko, Ivan Lopatto, Olga Pavlova (Ukraine) *Concept of Activity of Intelligent Agent of Verification of Considering the Subject Area Information in the Process of Software Systems Development* 99 Sergii Dotsenko, Herman Fesenko, Oleg Illiashenko, Vyacheslav Kharchenko, Valentin Moiseenko, Liudmyla Yermolenko (Ukraine) *Integration of Security, Functional and Ecology Safety Management Systems: Concept and Industrial Case*

Round Table Schedule

Time	Topics (TBC)
Round Table Trusted Dependability, Safety and Security during and after Covid19 Pandemic *May 16th* *14.00 – 15.00*	Moderators: Prof Andrzej Rucinski, New-Hampshire University, USA Prof Vyacheslav Kharchenko, National Aerospace KhAI, Ukraine *Welcome and Introduction* Prof Todor Tagarev, Institute of ICT, Bulgarian Academy of Sciences, Bulgaria *Understanding and countering hybrid influence: What scientists can do to support policy-making?* Dr Thaddeus Paul Kochanski, Sensors Signals Systems, Lexington, MA USA *Issues of Global Trust and Dependability of Technology in the Pandemic Age* Prof Inna Skarga-Bandurova, East-Ukrainian Volodymyr Dahl University, Ukraine *The pitfalls of big data and AI in the era of big disease: Art of Survive*

Social Events Schedule

Time	Topics
Social Event 1 *May 14th* *17.45 – 18.30*	Vladimir Sklyar (Ukraine) **Business in Travel: One from the Models of the Future** Essay and online travel to India, Vietnam, Cambodia, Bali
Social Event 2 *May 15th* *17.45 – 18.30*	Olena Golembovska (Ukraine) **Abstract Art and Augmented Reality** Online Exhibition and Discussion (Mobile application Artivive should be uploaded)