

39th IBIMA Computer Science Conference: 30-31 May 2022

Presentations: Monday 30 May 2022

Tuesday 31 May 2022

| Paper Number | Day | Time in GMT+2 | Session Chair | Session Title | Manuscript Title | Archived online Powerpoint Presentation |
|--------------|---------|---------------|----------------------------|---|--|---|
| 10124 | Tuesday | 11:00 AM | Mariam Al Jouhi | Software Development and Database Systems Research | Database Security: Challenges and Protections | Link to Presentation |
| 10126 | Monday | 9:30 AM | Loredana-Cristina DUMITRIU | Mobile Applications Development | The Performance-Enhancing Capabilities in SAPUI5 | Link to Presentation |
| 10127 | Tuesday | 12:30 PM | Michalak Jarosław | Network Modeling and Geographical Information Systems | Location Accuracy of a Radio Ground Station in The Rice Channel by The Multilateration Method with The Use of Non-Linear Regression Function | Link to Presentation |
| 10139 | Monday | 11:00 AM | Dragos Florian Marcu | Research in Manufacturing Technology | Extended Process of Industry 4.0 Knowledge Transfer Using Automation Elements and Hardware Simulation | Link to Presentation |
| 10142 | Monday | 9:30 AM | Loredana-Cristina DUMITRIU | Mobile Applications Development | A Mobile App Oriented to Virtual Storage | Link to Presentation |
| 10143 | Monday | 9:30 AM | Loredana-Cristina DUMITRIU | Mobile Applications Development | Mobile Optical Character Recognition | Link to Presentation |
| 10144 | Monday | 9:30 AM | Loredana-Cristina DUMITRIU | Mobile Applications Development | A Mobile App to Suggest Baby Names | Link to Presentation |
| 10145 | Monday | 9:30 AM | Loredana-Cristina DUMITRIU | Mobile Applications Development | Harvest Control and Monitoring for Smart Devices | Link to Presentation |
| 10146 | Monday | 9:30 AM | Loredana-Cristina DUMITRIU | Mobile Applications Development | Document Management Application | Link to Presentation |
| 10190 | Tuesday | 11:00 AM | Mariam Al Jouhi | Software Development and Database Systems Research | Data analytics and Decision Making in Big Data: A Study on Criminality Case | Link to Presentation |
| 10216 | Monday | 11:00 AM | Dragos Florian Marcu | Research in Manufacturing Technology | Connection and Communication Between Computer and Hardware Simulation Model for Industrial Engineers | Link to Presentation |
| 10220 | Tuesday | 11:00 AM | Mariam Al Jouhi | Software Development and Database Systems Research | Performing Text Analytics –Human Vs. Computer | Link to Presentation |
| 10238 | Monday | 12:30 PM | Zbigniew PIOTROWSKI | Security Issues and Data Hiding Mechanisms | Overview of Deep Learning Voice Conversion Methods using Disentangling Speaker from Linguistic Content | Link to Presentation |
| 10239 | Monday | 12:30 PM | Zbigniew PIOTROWSKI | Security Issues and Data Hiding Mechanisms | Robust Data Hiding in Image by DenseNet architecture | Link to Presentation |
| 10277 | Monday | 11:00 AM | Dragos Florian Marcu | Research in Manufacturing Technology | Computer Accessories as Hardware Heritage | Link to Presentation |

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| 10298 | Monday | 11:00 AM | | Dragos Florian Marcu | Research in Manufacturing Technology | The Use of Reverse Engineering in A Plastics Processing Company | Link to Presentation |
| 10320 | Tuesday | 12:30 PM | | Michalak Jarosław | Network Modeling and Geographical Information Systems | Analysis of Adaptive Video Streaming Degradation Based on Clustering Approach | Link to Presentation |
| 10321 | Monday | 12:30 PM | | Zbigniew PIOTROWSKI | Security Issues and Data Hiding Mechanisms | Video Steganography by Machine Learning Method | Link to Presentation |
| 10322 | Monday | 12:30 PM | | Zbigniew PIOTROWSKI | Security Issues and Data Hiding Mechanisms | HEVC Codec Description and Comparison | Link to Presentation |
| 10339 | Tuesday | 11:00 AM | | Mariam Al Jouhi | Software Development and Database Systems Research | Algorithmic Processing of Natural Language | Link to Presentation |
| 10341 | Tuesday | 12:30 PM | | Michalak Jarosław | Network Modeling and Geographical Information Systems | Simulation Studies of The Impact of Traffic Prioritization Mechanisms on The Traffic Efficiency of Multi-Service Network Nodes | Link to Presentation |
| 10348 | Tuesday | 12:30 PM | | Michalak Jarosław | Network Modeling and Geographical Information Systems | Impact of Satellite Remote Sensing Versus Multispectral Aerial Photography Remote Sensing with Agricultural Drones | Link to Presentation |
| 10354 | Monday | 12:30 PM | | Zbigniew PIOTROWSKI | Security Issues and Data Hiding Mechanisms | Convolutions and Transposed Convolutions in Digital Image Processing | Link to Presentation |
| 10369 | Monday | 12:30 PM | | Zbigniew PIOTROWSKI | Security Issues and Data Hiding Mechanisms | Practical Implementation of The FSK Demodulator Based on Neural Network | Link to Presentation |
| 10370 | Monday | 12:30 PM | | Zbigniew PIOTROWSKI | Security Issues and Data Hiding Mechanisms | Demodulation of Faded QAM Signal Based on Neural Network | Link to Presentation |
| 10375 | Tuesday | 9:30 AM | | Zbigniew Gontar | Web Services, Encryption and Cloud Solutions | A Study on The Properties of Complex Non-Full-Availability Systems | Link to Presentation |
| 10384 | Monday | 11:00 AM | | Dragos Florian Marcu | Research in Manufacturing Technology | Industry 4.0 - Safety Guidelines in the Construction of Technical Devices | Link to Presentation |
| 10395 | Tuesday | 12:30 PM | | Michalak Jarosław | Network Modeling and Geographical Information Systems | Querying UML Based Ontology of Historical Geographic Information | Link to Presentation |
| 10398 | Tuesday | 9:30 AM | | Zbigniew Gontar | Web Services, Encryption and Cloud Solutions | Eliminating Electromagnetic Disturbances Generated by Radio Equipment Conducted in Onboard Power Supply Network | Link to Presentation |
| 10399 | Monday | 12:30 PM | | Zbigniew PIOTROWSKI | Security Issues and Data Hiding Mechanisms | Protecting Computer Systems and Technology Networks with Public Buildings: A focus on Lightning Protection | Link to Presentation |

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| 10405 | Monday | 12:30 PM | | Zbigniew PIOTROWSKI | Security Issues and Data Hiding Mechanisms | What is the Deepfake Technique? An application of Artificial Intelligence | Link to Presentation |
| 10411 | Monday | 12:30 PM | | Zbigniew PIOTROWSKI | Security Issues and Data Hiding Mechanisms | Existing Authentication and Challenge-Response Techniques in SDN Networking | Link to Presentation |
| 10412 | Monday | 12:30 PM | | Zbigniew PIOTROWSKI | Security Issues and Data Hiding Mechanisms | Existing Methods of Security Anomaly Detection in Software Defined Networks (SDN) | Link to Presentation |
| 10415 | Monday | 12:30 PM | | Zbigniew PIOTROWSKI | Security Issues and Data Hiding Mechanisms | Neural Networks Usage in Video Signal Watermarking | Link to Presentation |
| 10428 | Tuesday | 11:00 AM | | Mariam Al Jouhi | Software Development and Database Systems Research | Optimizing Statistical Databases Based on Transactional Database Systems | Link to Presentation |
| 10434 | Tuesday | 9:30 AM | | Zbigniew Gontar | Web Services, Encryption and Cloud Solutions | Ensuring Integrity in The SDN Networks | Link to Presentation |
| 10444 | Tuesday | 9:30 AM | | Zbigniew Gontar | Web Services, Encryption and Cloud Solutions | Software And Cloud Solutions to Streamline Costs of Metallurgical Processes | Link to Presentation |
| 10445 | Monday | 11:00 AM | | Dragos Florian Marcu | Research in Manufacturing Technology | Importance of Manufacturing Technologies with Emphasis on Operational Costs: The Case of Metal Matrix Composites | Link to Presentation |
| 10449 | Monday | 11:00 AM | | Dragos Florian Marcu | Research in Manufacturing Technology | Masking The Acoustic Signals Generated By 3D Printers Using Variety of Noise Types | Link to Presentation |
| 10450 | Monday | 12:30 PM | | Zbigniew PIOTROWSKI | Security Issues and Data Hiding Mechanisms | Deep Hiding of Audio Signals in Other Audio Signals | Link to Presentation |
| 10451 | Monday | 12:30 PM | | Zbigniew PIOTROWSKI | Security Issues and Data Hiding Mechanisms | Deep Neural Networks Selection of Finite Impulse Response (FIR) Filter Coefficients | Link to Presentation |
| 10452 | Monday | 12:30 PM | | Zbigniew PIOTROWSKI | Security Issues and Data Hiding Mechanisms | Steganography of Binary Information in Image Using Deep Learning Method | Link to Presentation |
| 10454 | Monday | 12:30 PM | | Zbigniew PIOTROWSKI | Security Issues and Data Hiding Mechanisms | Lossless audio compression using Variational Autoencoder on Mel-scaled spectrogram | Link to Presentation |
| 10455 | Monday | 12:30 PM | | Zbigniew PIOTROWSKI | Security Issues and Data Hiding Mechanisms | Audio Steganography Using Discrete Cosine Transform (DCT) With Memorizing the Features of The Chroma | Link to Presentation |
| 10456 | Tuesday | 12:30 PM | | Michalak Jarosław | Network Modeling and Geographical Information Systems | Research Problems and Network Modeling Concept in Urban Sensor Networks | Link to Presentation |

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| 10464 | Tuesday | 9:30 AM | | Zbigniew Gontar | Web Services, Encryption and Cloud Solutions | E-Voting Using Blockchain Technology | Link to Presentation |
| 10465 | Tuesday | 9:30 AM | | Zbigniew Gontar | Web Services, Encryption and Cloud Solutions | Authentication Methods in Modern Web Services | Link to Presentation |
| 10469 | Monday | 12:30 PM | | Zbigniew PIOTROWSKI | Security Issues and Data Hiding Mechanisms | Digital Audio Watermarking Technique with The Use Of Multiple DWT And DCT Transform | Link to Presentation |
| 10470 | Monday | 12:30 PM | | Zbigniew PIOTROWSKI | Security Issues and Data Hiding Mechanisms | Implementation And Comparison of Three Network Steganography Methods Based on Transmission Control Protocol | Link to Presentation |
| 10471 | Tuesday | 11:00 AM | | Mariam Al Jouhi | Software Development and Database Systems Research | Use of Software Testing Tools' Patterns in Polish Software Enterprises | Link to Presentation |
| 10507 | Tuesday | 11:00 AM | | Mariam Al Jouhi | Software Development and Database Systems Research | Twitter Arabic Dialect Identification using AraBERT | Link to Presentation |
| 10511 | Tuesday | 11:00 AM | | Mariam Al Jouhi | Software Development and Database Systems Research | Synthetic Spectral Image Database Generator for Deep Learning in a Radio Environment | Link to Presentation |
| 10535 | Tuesday | 9:30 AM | | Zbigniew Gontar | Web Services, Encryption and Cloud Solutions | Fast Fourier Transform (FFT) And Chirp-Z Transforms as Methods of Determining Image Raster Parameters | Link to Presentation |
| 10542 | Monday | 9:30 AM | | Loredana-Cristina DUMITRIU | Mobile Applications Development | NFT-Based User Authentication Scheme for Mobile Apps | Link to Presentation |
| 10545 | Monday | 12:30 PM | | Zbigniew PIOTROWSKI | Security Issues and Data Hiding Mechanisms | Load Balancing and Prioritization as A Part of Network Scattering In HDL | |
| 10547 | Monday | 12:30 PM | | Zbigniew PIOTROWSKI | Security Issues and Data Hiding Mechanisms | Packet Anonymization as a Part of Network Scattering in HDL | Link to Presentation |
| 10557 | Tuesday | 9:30 AM | | Zbigniew Gontar | Web Services, Encryption and Cloud Solutions | Application of Qboolsol Algorithm to The Fundamental Problems of Asymmetric Cryptography | Link to Presentation |
| 10565 | Monday | 9:30 AM | | Loredana-Cristina DUMITRIU | Mobile Applications Development | Implementation of the Android Source Code For 'Holmes and Rahe Stress Scale Questionnaire – To Identify the Stress Factors' | Link to Presentation |
| 10577 | Monday | 12:30 PM | | Zbigniew PIOTROWSKI | Security Issues and Data Hiding Mechanisms | Security Mechanisms for Applications Developed in Java | Link to Presentation |
| 10578 | Tuesday | 9:30 AM | | Zbigniew Gontar | Web Services, Encryption and Cloud Solutions | IT Systems Immunity against Electromagnetic Attacks: Reliability of MIL-STD-461G Test Method | Link to Presentation |

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| 10598 | Tuesday | 11:00 AM | | Mariam Al Jouhi | Software Development and Database Systems Research | Medical Diagnostic Support Algorithms Based on Fuzzy Set Methodology | Link to Presentation |
| 10611 | Tuesday | 9:30 AM | | Zbigniew Gontar | Web Services, Encryption and Cloud Solutions | Implementation And Performance Evaluation of The Xoodyak Lightweight Encryption Algorithm | Link to Presentation |
| 10635 | Tuesday | 9:30 AM | | Zbigniew Gontar | Web Services, Encryption and Cloud Solutions | Ensuring Data Security in Cloud Computing | Link to Presentation |
| 10666 | Monday | 9:30 AM | | Loredana-Cristina DUMITRIU | Mobile Applications Development | Internet of Things (IoT) - based Healthcare Monitoring Systems for Assisting Neurodegenerative Patients in Healthcare Environment | Link to Presentation |
| 10708 | Tuesday | 11:00 AM | | Mariam Al Jouhi | Software Development and Database Systems Research | Remote Learning in Programming, Robotics, And Computer Forensics: Tools and Methods for Conducting Laboratories | |
| 10709 | Tuesday | 9:30 AM | | Zbigniew Gontar | Web Services, Encryption and Cloud Solutions | Integrating Fuzzy TF-IDF Weighting with PCA Guided Clustering for Structuring CIO Knowledge On Advantages in Cloud Solutions Absorption in Manufacturing | Link to Presentation |