

HORA 2023

5th International Congress on **HUMAN-COMPUTER INTERACTION, OPTIMIZATION AND ROBOTIC APPLICATIONS**

June 8-10, 2023, Istanbul, Türkiye

Congress Information

Committees
Accepted Papers

Congress Statistics
Technical Program

www.horacongress.com / hora.congress@gmail.com



HORA2023

Committees

Congress Honorary Chair

Prof. Dr. Yevgen Ivanovych SOKOL

National Technical University "Kharkiv Polytechnic Institute", Kharkiv, Ukraine

Congress Chair

Assoc. Prof. Dr. Turgut Özseven

Department of Computer Engineering, Tokat Gaziosmanpaşa University, Turkey

Technical Program Chairs

Prof. Dr. Serhii Yevseiev

National Technical University "Kharkiv Polytechnic Institute", Ukraine

Assist. Prof. Dr. Ebubekir Yaşar

Tokat Gaziosmanpaşa University, Turkey

Advisory Committees

- » Azzedine Draou, The Islamic University in Madinah, Saudi Arabia
- » Caner Özcan, Karabük University, Turkey
- » Jamshed Iqbal, University of Jeddah, Saudi Arabia

- » Köksal Erentürk, Atatürk University, Turkey
- » Muharrem Düğenci, Karabük University, Turkey
- » Oleksandr Laptiev, Taras Shevchenko National University of Kyiv, Ukraine

Technical Program Committee Members

- » Adel Dallali, Réseau National Universitaire, Tunisia
- » Adil Baykasoglu, Dokuz Eylul University, Turkey
- » Ahmet Özek, Pamukkale University, Turkey
- » Ali Özgedik, Gazi University, Turkey
- » Ali Durmuş, Erciyes University, Turkey
- » Andrew Kusiak, University of Iowa, USA
- » Andrii Musienko, National Technical University of Ukraine "Igor Sikorsky Kyiv Polytechnic Institute", Ukraine
- » Arezki Benfdila, Université Mouloud Mammeri de Tizi Ouzou, Algeria
- » Arzum Işitan, Pamukkale University, Turkey
- » Bachir Achour, University of Biskra, Algeria
- » Benjamin Durakovic, International University of Sarajevo, Bosnia Herzégovine
- » Bilal Babayığit, Erciyes University, Turkey
- » Carlos Alves, Polytechnic Institute of Castelo Branco, Portugal
- » Cem Emeksiz, Tokay Gaziosmanpaşa University, Turkey
- » Ceyhun Karpuz, Pamukkale University, Turkey
- » Chiew-Foong Kwong, University of Nottingham, Ningbo Campus, China
- » Çağdaş Allahverdi, Toros University, Turkey
- » Dursun Ekmekci, Karabük University, Turkey
- » Elif Erzan Topçu, Uludağ University, Turkey
- » Fa'eq Radwan, Near East University, Cyprus
- » Feyza Gürbüz, Erciyes University, Turkey
- » George Christou, European University Cyprus, Cyprus
- » Georgina Mirceva, Ss. Cyril and Methodius University in Skopje, Macedonia
- » Güven Çankaya, Ankara Yıldırım Beyazıt University, Turkey
- » Grigoris Kaltsas, University of West Attica, Greece
- » Hakan Gokdag, Bursa Technical University, Turkey
- » Hakan Temeltaş, Istanbul Technical University, Turkey
- » Hao Wu, Maynooth University, Ireland
- » Hayriye Serra Altınoluk, Muğla Sıtkı Koçman University, Turkey
- » Ijjada Sreenivasa Rao, Gandhi Institute of Technology and Management, India
- » Indubhushan Patnaikuni, RMIT University, Australia
- » İsmail İşeri, Ondokuz Mayıs University, Turkey
- » Ivan Ganchev, University of Limerick, Ireland / University of Plovdiv "Paisii Hilendarski", Bulgaria
- » Ivane Murusidze, Ilia State University, Georgia
- » Kamil Dimililer, Near East University, TRNC
- » Kazım Hanbay, Bingöl University, Turkey
- » Kenan Zengin, Tokat Gaziosmanpaşa University, Turkey
- » Kübra Tuncal, Near East University, TRNC
- » Lim Seng Poh, Universiti Tunku Abdul Rahman, Jalan Universiti, Malaysia

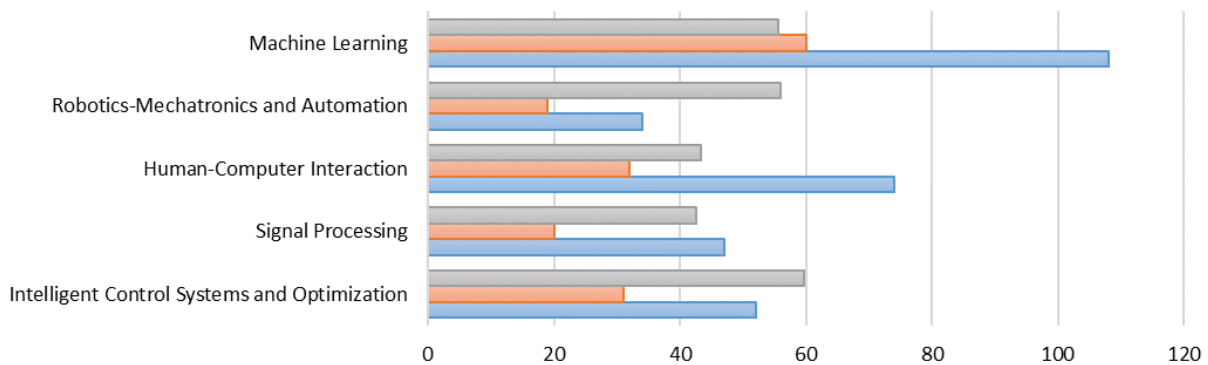
- » Ljiljana Trajkovic, Simon Fraser University, Canada
- » Ljubisa Stankovic, University of Montenegro, Montenegro
- » Lucian N. Vintan, University of Sibiu, Romania
- » M.Cengiz Taplamacıoğlu, Gazi University, Turkey
- » Manuel G. Gericota, Polytechnic of Porto, Portugal
- » Marco Anisetti, Università degli Studi di Milano, Italy
- » Mariana Petrova, St.Cyril and St.Methodius University of Veliko Tarnovo, Bulgaria
- » Marius Cioca, University of Sibiu, Romania
- » Matteo Gaeta, University of Salerno, Italy
- » Mehmet Emir Köksal, Ondokuz Mayıs University, Turkey
- » Mehmet Yüksekaya, Ankara University, Turkey
- » Melih Onuş, Bartın University, Turkey
- » Mete Çelik, Erciyes University, Turkey
- » Mohd Asyraf Kassim, Universiti Sains Malaysia, Malaysia
- » Mohd Zulkifly Abdullah, Universiti Sains Malaysia, Malaysia
- » Muhammet Baykara, Firat University, Turkey
- » Nadiia Kazakova, Odessa State Environmental University, Ukraine
- » Nimesh A. Shah, Saurashtra University, India
- » Nur Syazreen Ahmad, Universiti Sains Malaysia, Malaysia
- » Oleg Barabash, National Technical University of Ukraine "Igor Sikorsky Kyiv Polytechnic Institute", Ukraine
- » Ömer Galip Saracoğlu, Erciyes University, Turkey
- » Patrick Goh Kuan Lye, Universiti Sains Malaysia, Malaysia
- » Recep Özdağ, Yüzüncü Yıl University, Turkey
- » Ricardo Branco, University of Coimbra, Portugal
- » Ryszard Pukala, PWSTE, Poland
- » Safia Yasmeen, Alfaisal University, Saudi Arabia
- » Salim el Khediri, University of Gafsa, Tunisia
- » Selcuk Helhel, Akdeniz University, Turkey
- » Semcheddine Derfouf, University of Biskra, Algeria
- » Sergey Mikhailovsky, University of Brighton, UK
- » Selahattin Budak, Gumushane University, Turkey
- » Shahbaz Memon, Juelich Supercomputing Centre, Germany
- » Sinan Kivrak, Ankara Yıldırım Beyazıt University, Turkey
- » Sobchuk Valentyn, Taras Shevchenko National University of Kyiv, Ukraine
- » Sos Agaian, The University of Texas at San Antonio, USA
- » Tayfun Dede, Karadeniz Technical University, Turkey
- » Uğur Fidan, Afyon Kocatepe University, Turkey
- » Vilas Thakare, Amravati University, India
- » Vito Calderaro, Università degli Studi di Salerno, Italy
- » Zafer Doğan, Tokay Gaziosmanpaşa University, Turkey
- » Zuhaila Mat Yasin, Universiti Teknologi MARA, Malaysia



HORA 2023 Congress Statistics

Submissions By Topics

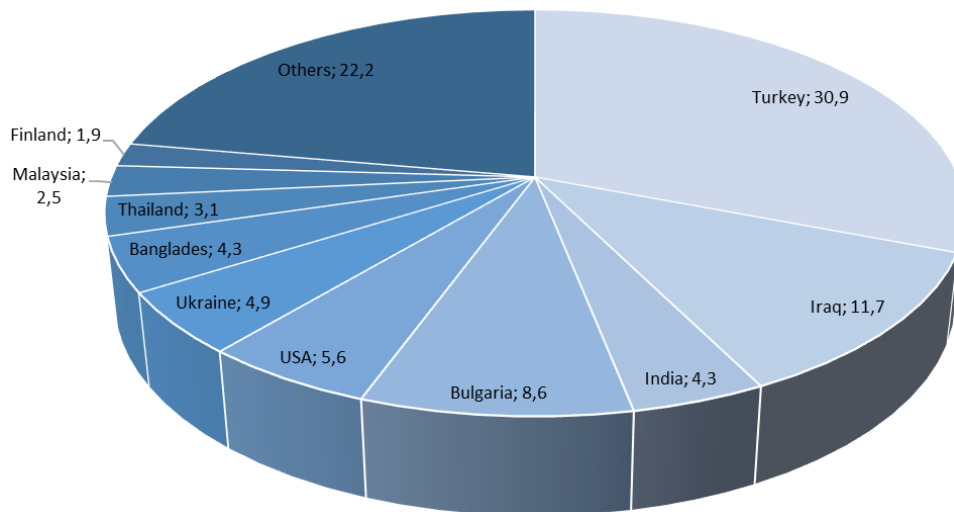
Acceptance Rate (52.03%)



	Intelligent Control Systems and Optimization	Signal Processing	Human-Computer Interaction	Robotics-Mechatronics and Automation	Machine Learning
■ Acceptance Rate (%)	59,62	42,55	43,24	55,88	55,56
■ Accepted Paper Count	31	20	32	19	60
■ Submitted Paper Count	52	47	74	34	108

■ Acceptance Rate (%)
 ■ Accepted Paper Count
 ■ Submitted Paper Count

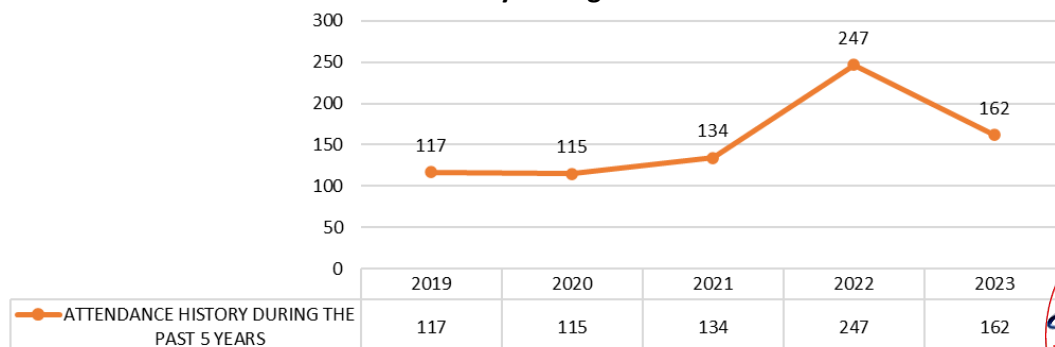
Top 10 Countries



■ Turkey
 ■ Iraq
 ■ India
 ■ Bulgaria
 ■ USA
 ■ Ukraine
 ■ Banglades
 ■ Thailand
 ■ Malaysia
 ■ Finland
 ■ Others

Algeria, Australia, Azerbaijan, Bahrain, Bangladesh, Brazil, Bulgaria, China, Croatia, Cyprus, Czech Republic, Egypt, Finland, Germany, Greece, Hungary, India, Iraq, Ireland, Italy, Kazakhstan, Lebanon, Malaysia, North Macedonia, Norway, Oman, Pakistan, Peru, Portugal, Romania, Somalia, Spain, Sri Lanka, Switzerland, Taiwan, Thailand, Tunisia, Türkiye, UAE, UK, Ukraine, USA, Uzbekistan

Attendance History During the Past 5 Years



HORA 2023 Accepted Papers

Title	Author(s)
Efficient Routing in Manet AdHoc Networks Using Metaheuristic Optimization Algorithm	Ashraf Mustafa Kadhim Bahiya, Abdullahi Ibrahim
Malware Detection in AdHoc E-Government Network Using Machine Learning	Aras AbdulQadir Mohammed, Abdullahi Ibrahim
LAN Based GIS Optimization for Coverage in Wireless Networks	Israa Salman Atiyah, Galip Cansever, Ali Saadoon Ahmed
Design and Implementation of a Project Model for a Serious Logical Game	Georgi Krastev, Valentina Voinohovska, Vanya Dineva
Wireless Body Area Networks: Applications and Congestion Control Technologies	Ahmed Shakir Al-Hiti, Ratna KZ Sahbudin, SW Harun, Ammar Naser Obaid, Mustafa Maad Hamdi, Mahmood A. Al-Shareeda
Designing a system for data processing and visualization in the public health system	Nikola Sabev, Ivan Ralev
A Symmetric TDMA Mechanism to Optimize the Performance of the Body Sensor Network for Sports Application	Mohammed M. Mustafa, Ahmed A. Khalifa, Korhan Cengiz
Data Mining Management System Optimization Using Swarm Intelligence	Asraa Ahmed Hasan Al_Mashhadani, Timur Inan, Ali Saadoon Ahmed
Learning to Walk on a Human Musculoskeletal Model Wearing a Knee Orthosis via Deep Reinforcement Learning	Omer Kayan, Hulya Yalcin
Maintenance Scheduling Optimization Using Artificial Intelligence Techniques: A Review	Aseel Haleel, Lamyaa Dawood
Color Image Encryption Using a Sine Variation of the Logistic Map for S-Box and Key Generation	Yousef Korayem, Mohamed Gabr, Wassim Alexan
Cellular Automata, S-Box and DNA Coding Based SPN for Image Encryption	Omar Omran, Wassim Alexan
The Investigation of Skin Effect in Tissue, the Estimation of the Electromagnetic Risk Interference with Living Organisms	Tomáš Souček, Aleš Richter, Jakub Eichler
A Real-Time Smartphone App for Field Personalization of Hearing Enhancement by Adaptive Dynamic Range Optimization	Aoxin Ni, Nasser Kehtarnavaz
Web Accessibility of the Cyprus Island Food Retailers' Websites	Erkut Inan Iseri, Kaan Uyar, Umit Ilhan
Poultry EGG Classification System Using Deep Learning	José María Pasco Sánchez, Luis Antonio Orbegoso Moreno, José Luis Ruiz Rodríguez, Isac Daniel Miñano Corro
Flood Prediction Using Ensemble Machine Learning Model	Tanvir Rahman, Miah Mohammad Asif Syeed, Maisha Farzana, Ishadie Namir, Ipshita Ishrar, Meherin Hossain Nushra, Bhoktear Mahub Khan
Optimizing Crop Deduction Using IoT and Deep Neural Networks	Tanupriya Choudhury, Rohini A, Hussain Falih Mahdi
Belt Drive Condition Monitoring using Generalised Gaussian Distribution based Entropy Features	Rameshkumar Ganjam Ramaswamy, Ragavesh Dhandapani, Varghese Manappallil Joy, Ramachandran K P
10GHz Printed Circuit Antenna for Wireless Power Transfer Applications	Yaser Amer Jassim, Mesut Çevik, Taha A. Elwi
Evaluating AI-UAV Systems: A Combined Approach with Operator Group Comparison	Omar Alharasees, Muftah Abdalla, Utku Kale
Technology Acceptance Model (TAM) for Mobile Durian Plantation Apps(Pro Durian): The Analysis for Malaysian Farmers	Noraziahtulhidayu Kamarudin, Aiman Yusoff, Zuraidin Safar, Abdul Samad Hassan Basari, Hatta Hussin
Classification of Attempted Hand Movements from EEG Signals Using the Hadamard Basis Matching Movement-Related Cortical Potential	Alhaji Osman Bah, Sami Arica
An Air Induced Tactile Display With Olfaction	Rıza İlhan, Zakaria El Asker, Haroune Boudjellal
Algorithm for Recognition of Network Traffic Anomalies Based on Artificial Intelligence	Oleksandr Laptiev, Andrii Musienko, Volodymyr Nakonechnyi, Andrii Sobchuk, Sergii Gakhov, Serhii Kopytko
ML-based Anomalies Detection in Wireless Network Link Layer of the Internet of Things (IoT)	Pankaj Goswami, Garima Goswami, Hussain Falih Mahdi, Arti Vaish, Bhupesh Dewangan, Tanupriya Choudhury
Review of User Experience Models in The Context of eLearning Setting	Mohammed Hassan Mohammed Alhejaili, Roslina Ibrahim
A Dual-Band High Efficiency Fractal Rectenna for RF Energy Harvesting Systems	Tamam Sameer Abdul Azeez Al-Rawe, Taha A. Elwi, Didem Kıvanç Türelı
Data Analytics on Opportunities for Women in the Field of Technology	Pallavi Lanke, Sai Sathwik Kosuru, Abhinav Goud Dulam, Kousthubha Debbata, Kaushik Varma Datla, Raghuveer Chaitanya Gangavarapu
Metaverse and Healthcare: An Empirical Investigation	Hussain Falih Mehdi, Bhumika Sharma, Roohi Sille, Tanupriya Choudhury
Wireless JTAG to USB Emulator Architecture	Ahmet Onur Kaplan, Firat Hardalaç, Fatma Uysal
Age And Gender Detection By Face Segmentation And Modified CNN Algorithm	Ahmed Raed Sabah Alrashed, Timur Inan



Distributed Optimization Algorithm for Resource Allocation in MIMO Network with Intelligent Reflective Surfaces	Afnan Ayad Raheem Raheem, Didem Kıvanç Türelı
Vehicle Suspension Control using Physics Guided Machine Learning	Utkarsh Gupta, Anish Gorantiwar, Saied Taheri
Recoil Stabilization of Two-Wheeled Robot Through Control Moment Gyroscope (CMG)	Faruk Ünker
Guven Bölgesi Çerçevesi Algoritması ile 28/38 GHz Anten Tasarımı	Ahmet Turgut, Begüm Korunur Engiz, Ebru Zülal Bayram
A Technology Demonstration and Design Approach to Predictive and Reliability Displays to Aircraft Manufacturing Processes	Ivan Garcia, Emilia Villani
Experimental Comparison of Global Planners for Trajectory Planning of Mobile Robots in an Unknown Environment with Dynamic Obstacles	Zehra Tüfekçi, Gökhan Erdemir
Development of a Method for Digital Synthesis of Electrical Signals with a Normalized Harmonic Coefficient	Serhii Herasymov, Viacheslav Soroka, Stanislav Milevskiy, Natalia Voropay, Herman Zviertsev, Yevhen Motalyhin
Advancing Canine Health and Care: A Multifaceted Approach using Machine Learning	Hashen Kottegoda, Yasith Wimukthi, Dilshan Andaraweera, Pabasara Palihena, Harinda Fernando, Darshana Kasthurirathnae
Quantum Signal Analysis combined to Artificial Intelligence and Green Sustainability: A Protocol of Feasible Rules	Dimosthenis K. Michopoulos, Spyridon K. Chronopoulos, Periklis Papadopoulos, Konstantinos Arvanitis, Kostas P. Peppas
Design and Implementation of Motion Imitation Robot	Prabhakara Rao Kapula, Sanjay Dubey, Anudeep Deekonda
Analysis Of Undergraduate Student Performance Patterns and Profiling Potential Dropouts	Abdisamad Ali Mohamed, Ismail Mohamed Jamal, Sajjad Rizvi
Design of a Traffic Light System Using Verilog HDL	Marin Zhielvski, Mikho Mikhov, Madlena Zhilevska
An Extensive Study: Creation of A New Inverted Microscope Image Data Set and Improving Auto-Encoder Models for Higher Accuracy Segmentation of HaCaT Cell Culture Line	Zeynep Sevim, Hulya Dogan, Zeynep Demir, Feride Sena Sezen, Ramazan Ozgur Dogan
Real-Time Hardware Acceleration of Low Precision Quantized Custom Neural Network Model on ZYNQ SoC	Ayşe Kübra Erenoğlu, Guner Tatar
Students' Performance Prediction Using Machine Learning Based on Generative Adversarial Network	Aws Khudhur, Nehad T.A Ramaha
Implementation of Information and Communication Technologies in the Educational Process	Yevgen Sokol, Oleksandr Trush, Serhii Yevseiev, Oleksandr Milov
Exploring the Landscape of Artificial Intelligence in Education: Challenges and Opportunities	Mohammed Rizvi
Determining the Level of Preference for Innovative Services in Educational Institutions	Aldeniz Rashidov, Fatme Rashidova
Detection and Analyzing Phishing Emails Using NLP Techniques	Rian Al-Yozbaky, Mafaz Alanezi
Smart Home Based on IoT - Architecture and Practices	Tsvetelina Mladenova, Vladimir Cankov
Models for Implementation of Augmented and Virtual Reality Technologies In Folklore Dancing Halls	Teodor Kalushkov, Donika Valcheva, Emiliyan Petkov, Georgi Shipkovenski, Vassil Milev
Development and Storage of Data Models Based on Data Building Blocks	Vassil Milev, Georgi Shipkovenski, Donika Valcheva, Teodor Kalushkov, Emiliyan Petkov
Impact of Artificial and Physical Locomotion Techniques on Cybersickness, Usability, Immersion	Yaşar Daşdemir
High Performance FIR and IIR Filters Based on FPGA for 16 Hz Signal Processing	Yousif Samer Mudhafar, Saif Hasan Abdulnabi
Design and Implementation of Power Converter Circuit Toward Electric Vehicle Charging Applications	Fawaz Y. Abdullah, Mohammad Tariq Yaseen, Firas S. Alsharbaty
Smart Eco-Friendly and Low-Cost Farming Control System	Fawaz Y. Abdullah, Mohammad Tariq Yaseen, Yazen Subhi Sheet
Actor-Critic TD3-based Deep Reinforcement Learning for Energy Management Strategy of HEV	Ozan Yazar, Serdar Coskun, Lin Li, Fengqi Zhang, Cong Huang
Automatic Segmentation of Maxillary Sinus with U-Net Model with Pre-trained Encoder	Ahmet Said Dedeoğlu, Serkan Özbay, Orhan Tunç
Computer-Mathematical Support for Analytical Assessment of Trends in the Ukrainian Grain Market development	Iryna Sierova, Iryna Aksonova, Viktoriia Shlykova, Tetiana Milevska
Portioning Algorithm Using the Bisection Method for Slicing Food	Jetnipat Thongprasith, Poom Separattananan, Phumrpee Meyer, Ratchatin Chanchareon
Properties of Low-Frequency Filters of One-Dimensional Signals with Limited Energy Spectrum	Andriy Makarchuk, Oleg Barabash, Mykola Myroniuk, Hennadii Mylnykov, Vasyl Yasynetskyi, Serhii Bazilo
Optimal Sizing and Detailed Analysis of Microgrid with Photovoltaic Panel and Battery Energy Storage System Integrated Electric Vehicle Charging Station	Uğur Mert Işık, Said Mirza Tercan, Erdin Gökalp
Automated Cerebral Vessel Segmentation Using Deep Learning for Early Detection of Cerebrovascular Diseases	Furkan Kutan, Uğurhan Kutbay, Oktay Ağrı
Effects of Data Augmentation Techniques on Classification Performance in Knee MRIs	Elif Nur Küçük, Aybars Uğur



An Algorithm-based Approach for Mapping Customer Journeys by Identifying Customer Browsing Behaviors on E-commerce Clickstream Data	Shiuann-Shuoh Chen, Tzu-Ling Li, Vinay Singh, Yu-Chen Wu
Design of Cloud Computing System for Homes Electric Energy Larceny Detection	Saja Abdul-hamza, Laith A. Abdul-Rahaim, Sarmad Ibrahim
Measuring and Qualification on Camera Recordings in Wire Arc Additive Manufacturing Monitoring	Oğuzhan Güler, Esra Dinçer
Modeling a System Determining the Fastest Way to Get From One Point to Another by Public Transport	Kamelia Shoilekova, Boyana Ivanova
Project-based Teaching of Students with Development of a Smart Control of the Free Range Chicken House	Nikolay Valov
Brake System Model for a Haptic Brake Pedal Control	Ljuba Isacco, Francesco La Mura, Hermes Giberti
Analysis of the Results of using Gesture Recognition in Software Applications	Ivan Ralev, Georgi Krastev
Saw-YOLOv5: Scale-Aware YOLOv5 for Object Detection in Aerial Images	Abdullah Doruk, Osman Alpaydın, Müçteba Algül, Feyzullah Akyürek, Fatmatülzehra Uslu
Evaluation and Analysis Data From Twitter Data By Using Hybrid CNN & LTSM	Salma Abdullah Aswad
Drug Target Interaction Prediction Using Support Vector Machine (SVM)	Baraa Taha Yaseen
A Comparative Study for 6D Pose Estimation of Textureless And Symmetric Objects Used in Automotive Manufacturing Industry	Abdullah Doruk, Ensar Özkaya
Unknown Input Nonlinear Observer for a Soft Pneumatic Robotic Gripper Application	Saravut Lin, Patchara Pitchayawetwongsa, Nattaphat Boonchumanee, Ratchathin Chancharoen
IoT-Enabled Smart Solution for Rice Disease Detection, Yield Prediction, and Remediation	Ishara Wanninayake, Thamal Wickramaarachchi, Upeka Pathirana, Wikum Bambaranda, Samitha Vidhanaarachchi, Ishara Gamage, Dilshan Silva
A Proposed Secure And Efficient Big Data (Hadoop) Security Mechanism Using Encryption Algorithm	Abdulnaser Fashakh, Abdullahi Abdu Ibrahim
Drug Target Interaction Prediction Using Convolutional Neural Network (CNN)	Baraa Taha Yaseen
Effect of Drop-out Layers Inside an Long Short-Term Memory for Household Load Forecast Application	Sanaullah Soomro, Wanchalerm Pora
Design of the Robot Application for Slicing Food into Equal-Mass Slices	Poom Separattananan, Jetnipat Thongprasith, Phumrapee Meyer, Ratchatin Chancharoen
Web-Based Teleoperation System for Enhanced Precision and Efficiency in Food Industry Applications	Phumrapee Meyer, Poom Separattananan, Jetnipat Thongprasith, Chawaphon Payattapong, Ratchatin Chancharoen
NNA and Activation Equation-Based Prediction of New COVID-19 Infections	Faris Shaban
Performance Evaluation of Various ML Techniques for Software Fault Prediction using NASA Dataset	Baraah Alsangari, Goksel Biricik
Dispersion Parameters Of PVA-PAAm-Sb2O3 Nanocomposites Prepared By Casting Solution Method	Baidaa Y. Mohamed, Sura . Alasdi , Sokina Fakfry , Khalid Haneen Abass, Ashraq Mohammed Kadim
Analyzing The Employee Turnover by Using Decision Tree Algorithm	Saadalden Rashid Ahmed, Aso Kurdo Ahmed, Swran Jawamir Jwmaa
Contextual Bangla Next Word Prediction and Sentence Generation Using Bi-directional RNN With Attention	Abdul Kyume, Md. Musfiqur Rahman, Md. Irfan Azad, Md. Nahid, M. Saddam Hossain Khan, Md. Mohsin Uddin
Super Resolution Image Acquisition for Object Detection in the Military Industry	Mehmet Batuhan Özdaş, Fatih Uysal, Fırat Hardalaç
Parameters Extraction of Miniaturized Metamaterial Unit Cell at Millimeter Wave Applications	Huda A. Al-Tayyar, Y. E. Mohammed Ali
Time-Optimized Detection of Cardiovascular Complications with Artificial Intelligence in Rescue Operations using FPGA-based Wearable	Aniebiet Micheal Ezekiel, Roman Obermaisser
Advancing Home Healthcare Through Machine Learning: Predicting Service Time for Enhanced Patient Care	Yagmur Selenay Selcuk, Elvin Coban
Gesture Controlled Mobile Robot	Edward Solly, Ahmed Aldabbagh
Research on Speech Synthesis Based on Prosodic Controllability	Wenyu Gao, Askar Hamdulla, Xipeng Yang
Impact of Technology Use on Frontline Supervision Practices in the Construction Industry	Bassam Ramadan, Hala Nassereddine, Timothy Taylor, Paul Goodrum
Exploring Uncharted Architectural Territories through Generative Adversarial Networks with Human Collaboration	Ashik Vaskor Mannan, Md Sazzad Islam
Development of Temperature Control in Climatic Test Chambers with LSTM-based Deep Neural Network Algorithm	Abdullah Çakıroğlu, Gökay Bayrak, Ayberk Nurel
Twajood: Two-Factor Authentication Based on Distance and Face Recognition for Secure and Efficient Employee Attendance Monitoring	Rahaf Adam Alnuaimi, Ranem Khaled Almasalmeh, Sarah Adel Baker, Maryam Nasser Alsaiaari, Moatasim Alawida
Prediction of Turkish Sign Language Alphabets Utilizing Deep Learning Method	Ahmed Kasapbaşı, Hüseyin Canbolat
The Mapping of Electromagnetic Field of Machine Tool for Assessment of Its Influence on the Pacemaker	Tomáš Souček, Aleš Richter, Jan Morava, Lubomir Slavík
A Comparative Assessment of Various Embeddings for Keyword Extraction	Ghaith Ashqar, Alev Mutlu



Enhancing the Programming Sequence for Undergraduate Computer Science Students: A Program for Improving Learning Outcomes	Musfikur Rahaman, Robin Ghosh, Indira Dutta, Tolga Ensari, Rebecca Cunningham
Variable Grasp Pose and Commitment for Trajectory Optimization	Jiahe Pan, Kerry He, Jia Ming Ong, Akansel Cosgun
Crime Prediction Using Machine Learning: The Case of The City of Little Rock	Zurab Sabakhtarishvili, Sijan Panday, Clayton Jensen, Robin Ghosh
Additively Manufactured Soft Pneumatic Gripper Integrated Remotely Operated Underwater Vehicle (ROV) for Grasping Archeological Remains	Emre Tugberk Gulnergiz, Savas Dilibal, Bilal Gormus, Josiah Owusu Danquah, Omar Faruk Emon
Optimizing IoT Data Transmission in Smart Agriculture: A Comparative Study of Reduction Techniques	Raad.M. Khaleefah, Nadhim A. M Al-isawi, M. K. Hussein, N.A.M. Alduais
WoA - Wisdom of Age Collaborative Learning using Human-Computer Interaction	Adrian Pisla, Samira Hüsler, Mihai Ciupe, Frank Andreas Schittenhelm, Süleyman Toraşan, Leen Stulens
A Medical History Card Utilizing the Blockchain Technology	Samiha Fairouz, Shakila Yeasmin Miti, Zihadul Islam, Meem Tasfia Zaman
A Review of the Application of Machine Learning in Home Automation	Tsvetelina Mladenova, Irena Valova
Utilizing GloVe Embeddings for Deep Learning Based Analysis of Research Paper Abstracts	Al Hossain, Umme Hani Konok, Rezoanul Islam, Raihan Mohd Karmol Ruhani, Ruhadina Musfikin, Md. Mohsin Uddin, M. Saddam Hossain Khan, Rashedul Amin Tuhin
Leveraging User Experience for Enhancing Product Design: A Study of Data Collection and Evaluation	Gabriel Kanev, Tsvetelina Mladenova, Irena Valova
Enhancing Performance of Abstractive Multi-Document Update Summarization on TAC Dataset	Marwa Khanom Nurtaj, Rafsan Bari Shafin, Md Nahid Hasan, Krittika Roy, M. Saddam Hossain Khan, Rashedul Amin Tuhin, Md. Mohsin Uddin
Implementation of Bangla Extractive Update Summarization Task on BUSUM-BNLP-Dataset: A Multi-Document Update Summarization Corpus	Md Nahid Hasan, Rafsan Bari Shafin, Marwa Khanom Nurtaj, Zeshan Ahmed, M. Saddam Hossain Khan, Rashedul Amin Tuhin, Md. Mohsin Uddin
Deep Reinforcement Learning of Position and Velocity PID Control for Rotational Wing Unmanned Aerial Vehicles	Angelina Kim
Electronic Voting Through Blockchain: A Survey	Antonio De Castro, Carlos Coutinho
Leveraging Robotics to Enhance Accessibility and Engagement in Mathematics Education for Vision-Impaired Students	Muhammad H. Al Omoush, Tracey Mehigan
Plaka Tanıma Sistemleri ve Hibrit Bir Sistem Önerisi	Ruya Zake Kamal Baba, Soydan Serttaş
Developing an Efficient VGG19-based Model and Transfer Learning for Detecting Acute Lymphoblastic Leukemia (ALL)	Mohammed Y. Al-khuzaei, Sajad A. Zearah, Noor J. Mohammed
Sentiment-enhanced Neural Collaborative Filtering Models Using Explicit User Preferences	Ceren Dursun, Alper Özcan
Handling Imbalanced Data in Predictive Maintenance: A Resampling-Based Approach	Sejma Cacak, Umut Avci
BilinBot: A Bilingual Chatbot using Deep Learning	Sanjeda Sara Jennifer, Sheikh Aminul Islam, Sharmin Sultana Koly, Rashedul Amin Tuhin, M. Saddam Hossain Khan, Md. Mohsin Uddin
Generating Personalized Abstract Art Paintings by using People's Life Energy Distribution	Furkan Ayas, Feriştah Dalkılıç
Artificial Intelligence Based Transportation System	Mehmet Akif Nacar, Ömer Özkan, Arif Furkan Mendi, Hasan Tolga Ünal, Tunç Taner
Signal Change Estimation of One Important Class in the Filtering Process	Volodymir Kireyenko, Yurii Kolomiets, Andriy Makarchuk, Alla Hutnik, Tetiana Fedchuk, Yuriy Shcheblanin
WEB 3.0 Applications and Projections	Mehmet Akif Nacar, Ömer Özkan, Arif Furkan Mendi, Serkan Ulucan, Hasan Tolga Ünal, Burak Barış Frat, Tunç Taner, Mustafa Mert Sandal
Object Detection System in Self-Driving Cars by Calibrated Camera and LiDAR Sensor data – Implementation of the Hybrid PointPillar Method	Shaikh Baleeghuddin Kashif, R. Anirudh Reddy, Kambotula Eshwar Kumar, Kalal Sanjana, Sharina Samreen
Improved Malaria Cells Detection Using Deep Convolutional Neural Network	Sarmad Nozad Mahmood, Swash Sami Mohammed, Ayad Ghany Ismaeel, Hülya Gökalep Clarke, Iman Nozad Mahmood, Dinya Abdulahad Aziz, Sameer Alani
Fuzzy based Preventive Maintenance Priorities with Safety consideration for a Power Plant	Aseel Haleel, Lamyaa Dawood
An extensive review of Applications, Methods and Recent Advances in Deep Reinforcement Learning	Shiva Shashank Dhavala, Srihari C, Vanishree K, Rashmi R
A Method for Path Identification of Wheel Robot using UHF RFID Technology	Satyanarayana Degala, Nadir Kamal Salih Idries, Abdullah Said Al Kalbani, Gopal Rathinam
Firefly Algorithm for Shape Reconstruction of 3D Point Clouds with Normal and Gamma Univariate Functions	Akemi Galvez, Andres Iglesias, Sara Perez Araba
Detection of Clips Failures in Manufacturing using Audio Signals	Sabri Süer, İlknur Köseoğlu, Rahim Öner, Gökhan İnce
A Review of Electrical Network Frequency (ENF) Based Applications in Media Forensics	Ahmet Seyfullah Güneş, Saffet Vatansever



Opinion Analysis of Bi-Lingual Event Data from Social Networks	Iqra Javed, Haris Saeed
Quantitative Analysis of Regression-Based Temperature Dynamics Models for Households with A/C Units Subject to Unknown Disturbances	Nikola Hure, Mario Vašak
Classification of PCA based Reduced Deep Features by SVM for Diagnosing Lung and Colon Cancer	Shireen Al-Ofary, Hamza Osman Ilhan
Optimization of Multi-Criteria Solutions to Selection Problems	Shevchenko Sergiy
Decision Making in Managing the Choice of UAV Threat Detection Systems in the Protection of Critical Infrastructure Facilities	Serhii Pohasii, Roman Korolov, Nataliia Dzhenuk, Alla Jammine, Tetiana Andriushchenko, Tetiana Milevska
Valuable Insights Framework for Big Data and Analytics in the Malaysian Public Sector Organization	Yunnyzar Mohd Zain, Suraya Yaacob, Roslina Ibrahim, Surya Sumarni Hussein
Improving Retweet Prediction via Tweet Features	Safa Enes Turkoglu, Alev Mutlu
Compare The Size: Automatic Synthesis of Size Comparison Animation in Virtual Reality	Wanwan Li
Dynamic Programming vs Q-learning for Feedback Motion Planning of Manipulators	Uğur Yıldiran
Modeling of Quality Control Management Processes in the Development and Operation of VLC Systems	Karlygash Alibekkyzy, Saule Belginova, Madina Batalova
Moving Object Detection Based on Enhanced Yolo-V2 Model	Mukaram Safaldin, Nizar Zaghden, Mahmoud Mejdoub
Optimizing Cycle Time of Industrial Robot for Loading Molding Machine: A Comprehensive Analysis and Optimization Approach	Boris Kostov, Vladimir Hristov
Design and Development of 3D Printed based Magnetic Coupling System for Autonomous Underwater Vehicle	Iftikhar Ahmad, Ali Ghafail, Ahmed M. Abdelrhman, Subramanian Chithambaram, Syed Asad Imam, Mahmood Hammad
Classification of Urban Sounds with PSO and WO based Feature Selection Methods	Turgut Ozseven, Mustafa Arpacioğlu
Enhanced Data Hiding Using Some Attribute of Color Image	Thulfiqar Muayad Hameedi, Gülsüm Akkuzu Kaya
Method of Selecting Informative Signs for Determining the State of Sports Readiness of Athletes	Malika Doshanova, Ortiq Ruzibayev, Sherzod Sobirov
Optimizing Variable Selection and k in the k-NN Classifier with Precision Objective	Ka Yuk Carrie Lin
Human-Centered Artificial Intelligence: Designing for User Empowerment and Ethical Considerations	Usman Ahmad Usmani, Ari Happonen, Junzo Watada
Secure Integration Of IoT-Enabled Sensors And Technologies: Engineering Applications For Humanitarian Impact	Usman Ahmad Usmani, Ari Happonen, Junzo Watada
Care Professionals' Experience of Deploying an Original Non-Autonomous Air-Purification Robot in Residential Care Homes in Ireland and Japan	Naonori Kodate, Kazuko Obayashi, Yurie Maeda, Wenwei Yu, Diarmuid O'Shea, Nobuhiro Sakata, Sayuri Suwa, Shigeru Masuyama
Stock Market Prediction By Combining CNNs Trained On Multiple Time Frames	Nader Nemati, Hadi Farahani, Saeed Reza Kheradpisheh
Towards A Conceptual Model for Citizen's Adoption of E-Government Services in Developing Countries	Modher Almufti, Rahma Sellami, Lamia Hadrach Belguith
Applying Deep Learning For Automated Quality Control And Defect Detection In Multi-stage Plastic Extrusion Process	Erkan Tur
A Real-Time Speaker Diarization System based on Convolutional Neural Networks architectures	Thaer M. Al-Hadithy, Mondher Frikha
Conceptual Design Of A Multi-Sensor Based Dexterity Assessment System	Sena Zeybek Kılıç, Mehmet Emin Aktan, Erhan Akdoğan, Tuğçe Özekli Mısırlıoğlu, Deniz Palamar
Dispersion Parameters Of PVA-PAAm-Sb2O3 Nanocomposites Prepared By Casting Solution Method	Baidaa Y. Mohamed, Sura . Alasdi, Sokina Fakfry, Khalid Haneen Abass, Ashraq Mohammed Kadim
The Usage of a Force Controlled Delta Manipulator for Composite Hand Lay-Up Fiber Placement Process	Erdem Arslan, Ekrem Ayaz
New Microstrip Patch Antenna Design for L1-Band used for Global Positioning System	Maher Muayad Hefdh, Raad Hamdan Thaher
An Early Warning System for Fires in Hospitals and Health Centers Via the Internet of Things to Reduce Human and Material Losses	Omar Mohammed Abed Al-Isawi, Karam Hatem Alkhatir, Saif H. Alrubae, Ammar Hatem AlMarzooqee, Alaa Hamid Mohammed



HORA 2023
Technical Program

June 8, 2023			
	9:30 am - 10:00 am	Invited Speaker Session 1.1. (VROOM3) Prof. Dr. Ömer Nezh Gerek	
	10:00 am - 10:30 am	Coffee Break	
Time (GMT+3)	10:30 am - 12:30 pm	Session 2.1. (VROOM2) "Intelligent Control Systems and Optimization"	Session 2.2. (VROOM3) "Signal Processing"
	12:30 pm - 1:30 pm	Lunch	
	1:30 pm - 3:30 pm	Session 3.1. (VROOM2) "Robotics-Mechatronics and Automation"	
	3:30 pm - 4:00 pm	Coffee Break	
	4:00 pm - 7:00 pm	Session 4.1. (VROOM2) "Human-Computer Interaction"	Session 4.2. (VROOM3) "Intelligent Control Systems and Optimization"
	June 9, 2023		
Time (GMT+3)	9:30 am - 11:30 am	Session 5.1. (VROOM1) "Machine Learning"	Session 5.2. (VROOM2) "Machine Learning"
	11:30 am - 12:30 pm	Invited Speaker Session 6.1. (VROOM3) Prof. Dr. Huseyin Canbolat Invited Speaker Prof. Tanupriya Choudhury	
	12:00 pm - 1:30 pm	Lunch	
	1:30 pm - 3:30 pm	Session 7.1. (VROOM2) "Human-Computer Interaction"	
	3:30 pm - 4:00 pm	Coffee Break	
	4:00 pm - 7:00 pm	Session 8.1. (VROOM1) "Machine Learning"	Session 8.2. (VROOM2) "Human-Computer Interaction"
	June 10, 2023		
Time (GMT+3)	9:30 am - 12:30 pm	Session 9.1. (VROOM2) "Machine Learning"	
	12:30 pm - 1:30 pm	Lunch	
	1:30 pm - 4:30 pm	Session 10.1. (VROOM1) "Machine Learning"	
	2:00 pm - 2:30 pm	Coffee Break	
	2:30 pm - 4:30 pm	Session 11.1. (VROOM2) "Robotics-Mechatronics and Automation"	Session 11.2. (VROOM3) "Signal Processing"
	4:30 pm - 5:00 pm	Coffee Break	
	5:00 pm - 8:00 pm	Session 12.1. (VROOM2) "Machine Learning"	Session 12.2. (VROOM3) "Machine Learning"

HORA 2023 Technical Program

Session 1.1. (VROOM3)

Invited Speaker

Prof. Dr. Ömer Neziğ Gerek

"2D or Multi Dimensional Processing of 1D Data"

June 8, 2023

Time (GMT+3): 9:30 am - 10:00 am

Chair: Oguzhan Pektezeli

Session 2.1. (VROOM2) Chair: Ebubekir Yasar		Date: June 8, 2023
		Time (GMT+3): 10:30 am - 12:30 pm
Paper	Author (s)	
A Review of the Application of Machine Learning in Home Automation	Tsvetelina Mladenova , Irena Valova	
Design and Implementation of a Project Model for a Serious Logical Game	Georgi Krastev, Valentina Voinohovska , Vanya Dineva	
Smart Home Based on IoT - Architecture and Practices	Tsvetelina Mladenova, Vladimir Cankov	
Quantitative Analysis of Regression-Based Temperature Dynamics Models for Households with A/C Units Subject to Unknown Disturbances	Nikola Hure , Mario Vařak	
Design of a Traffic Light System Using Verilog HDL	Marin Zhielvski , Mikho Mikhov, Madlena Zhilevska	
Development of Temperature Control in Climatic Test Chambers with LSTM-based Deep Neural Network Algorithm	Abdullah Çakirođlu , Gökay Bayrak, Ayberk Nurel	
Güven Bölgesi Çerçevesi Algoritması ile 28/38 GHz Anten Tasarımı	Ahmet Turgut , Begüm Korunur Engiz, Ebru Zülal Bayram	
Optimizing IoT Data Transmission in Smart Agriculture: A Comparative Study of Reduction Techniques	Raad.M. Khaleefah, Nadhim A. M Al-isawi, M. K. Hussein , N.A.M. Alduais	
Modeling a System Determining the Fastest Way to Get From One Point to Another by Public Transport	Kamelia Shoilekova , Boyana Ivanova	
Development and Storage of Data Models Based on Data Building Blocks	Vassil Milev, Georgi Shipkovenski , Donika Valcheva, Teodor Kalushkov, Emiliyan Petkov	
Session 2.2. (VROOM3) Chair: Oguzhan Pektezeli		Date: June 8, 2023
		Time (GMT+3): 10:30 am - 12:30 pm
Paper	Author (s)	
High Performance FIR and IIR Filters Based on FPGA for 16 Hz Signal Processing	Yousif Samer Mudhafar , Saif Hasan Abdulnabi	
Signal Change Estimation of One Important Class in the Filtering Process	Volodymyr Kireyenko, Yurii Kolomiiets, Andriy Makarchuk, Alla Hutnik, Tetiana Fedchuk , Yuriy Shcheblanin	
Cellular Automata, S-Box and DNA Coding Based SPN for Image Encryption	Omar Omran , Wassim Alexan	
A Real-Time Smartphone App for Field Personalization of Hearing Enhancement by Adaptive Dynamic Range Optimization	Aoxin Ni, Nasser Kehtarnavaz	
Wireless Body Area Networks: Applications and Congestion Control Technologies	Ahmed Shakir Al-Hiti , Ratna KZ Sahbudin, SW Harun, Ammar Naser Obaid, Mustafa Maad Hamdi, Mahmood A. Al-Shareeda	
Properties of Low-Frequency Filters of One-Dimensional Signals with Limited Energy Spectrum	Andriy Makarchuk, Oleg Barabash, Mykola Myroniuk, Hennadii Mylnykov , Vasyl Yasynetskyi, Serhii Bazilo	
Electronic Voting Through Blockchain: A Survey	Antonio De Castro , Carlos Coutinho	
Detection of Clips Failures in Manufacturing using Audio Signals	Sabri Süer , İlknur Köseođlu, Rahim Öner, Gökhan İnce	
Session 3.1. (VROOM2) Chair: Ebubekir Yasar		Date: June 8, 2023
		Time (GMT+3): 1:30 pm - 3:30 pm
Paper	Author (s)	
Optimizing Cycle Time of Industrial Robot for Loading Molding Machine: A Comprehensive Analysis and Optimization Approach	Boris Kostov , Vladimir Hristov	
Gesture Controlled Mobile Robot	Edward Solly , Ahmed Aldabbagh	
Recoil Stabilization of Two-Wheeled Robot Through Control Moment Gyroscope (CMG)	Faruk Ünker	
Portioning Algorithm Using the Bisection Method for Slicing Food	Jetnipat Thongprasith , Poom Separattananan, Phumrpee Meyer, Ratchatin Chanchareon	
Variable Grasp Pose and Commitment for Trajectory Optimization	Jiahe Pan , Kerry He, Jia Ming Ong, Akansel Cosgun	
Web-Based Teleoperation System for Enhanced Precision and Efficiency in Food Industry Applications	Phumrapee Meyer , Poom Separattananan, Jetnipat Thongprasith, Chawaphon Payattapong, Ratchatin Chanchareon	
Design of the Robot Application for Slicing Food into Equal-Mass Slices	Poom Separattananan , Jetnipat Thongprasith, Phumrapee Meyer, Ratchatin Chanchareon	
Unknown Input Nonlinear Observer for a Soft Pneumatic Robotic Gripper Application	Saravut Lin , Patchara Pitchayawetwongsa, Nattaphat Boonchumane, Ratchathin Chanchareon	

Session 4.1. (VROOM2) Chair: Ebubekir Yasar		Date: June 8, 2023
		Time (GMT+3): 4:00 pm - 7:00 pm
Paper	Author (s)	
Analysis of the Results of using Gesture Recognition in Software Applications	Ivan Ralev , Georgi Krastev	
Project-based Teaching of Students with Development of a Smart Control of the Free Range Chicken House	Nikolay Valov	
Compare The Size: Automatic Synthesis of Size Comparison Animation in Virtual Reality	Wanwan Li	
Models for Implementation of Augmented and Virtual Reality Technologies In Folklore Dancing Halls	Teodor Kalushkov , Donika Valcheva, Emiliyan Petkov, Georgi Shipkovenski, Vassil Milev	
Classification of attempted hand movements from EEG signals using the Hadamard basis matching movement-related cortical potential	Alhaji Osman Bah , Sami Arica	
A Dual-Band High Efficiency Fractal Rectenna for RF Energy Harvesting Systems	Tamam Sameer Abdul Azeez Al-Rawe, Taha A. Elwi , Didem Kıvanç Türeli	
Leveraging User Experience for Enhancing Product Design: A Study of Data Collection and Evaluation	Gabriel Kanev , Tsvetelina Mladenova, Irena Valova	
WoA - Wisdom of Age Collaborative Learning using Human-Computer Interaction	Adrian Pisla , Samira Hüsler, Mihai Ciupe, Frank Andreas Schittenhelm, Süleyman Toraşan, Leen Stulens	
Design and Implementation of Motion Imitation Robot	Prabhakara Rao Kapula, Sanjay Dubey, Anudeep Deekonda	
A Technology Demonstration and Design Approach to Predictive and Reliability Displays to Aircraft Manufacturing Processes	Ivan Garcia , Emilia Villani	
Session 4.2. (VROOM3) Chair: Oguzhan Pektezel		Date: June 8, 2023
		Time (GMT+3): 4:00 pm - 7:00 pm
Paper	Author (s)	
Deep Reinforcement Learning of Position and Velocity PID Control for Rotational Wing Unmanned Aerial Vehicles	Angelina Kim	
Vehicle Suspension Control using Physics Guided Machine Learning	Utkarsh Gupta, Anish Gorantiwar , Saied Taheri	
Design of Cloud Computing System for Homes Electric Energy Larceny Detection	Saja Abdul-hamza , Laith A. Abdul-Rahaim, Sarmad Ibrahim	
Computer-Mathematical Support for Analytical Assessment of Trends in the Ukrainian Grain Market development	Iryna Sierova, Iryna Aksonova, Viktoriiia Shlykova , Tetiana Milevska	
Distributed Optimization Algorithm for Resource Allocation in MIMO Network with Intelligent Reflective Surfaces	Afnan Ayad Raheem Raheem , Didem Kıvanç Türeli	
Data Mining Management System Optimization Using Swarm Intelligence	Asraa Ahmed Hasan Al_Mashhadani , Timur İnan, Ali Saadoon Ahmed	
Optimal sizing and detailed analysis of microgrid with photovoltaic panel and battery energy storage system integrated electric vehicle charging station	Uğur Mert Işık , Said Mirza Tercan, Erdin Gökalp	
Firefly Algorithm for Shape Reconstruction of 3D Point Clouds with Normal and Gamma Univariate Functions	Akemi Galvez, Andres Iglesias , Sara Perez-Carabaza	
Modeling of Quality Control Management Processes in the Development and Operation of VLC Systems	Karlygash Alibekkyzy, Saule Belginova, Madina Batalova	
Optimizing Variable Selection and k in the k-NN Classifier with Precision Objective	Ka Yuk Carrie Lin	
Conceptual Design Of A Multi-Sensor Based Dexterity Assessment System	Sena Zeybek Kılıç , Mehmet Emin Aktan, Erhan Akdoğan, Tuğçe Özekli Mısırlıoğlu, Deniz Palamar	
Maintenance Scheduling Optimization Using Artificial Intelligence Techniques: A Review	Aseel Haleel , Lamyaa Dawood	
Fuzzy based Preventive Maintenance Priorities with Safety consideration for a Power Plant	Aseel Haleel , Lamyaa Dawood	

Session 5.1. (VROOM1) Chair: Turgut Özseven	Date: June 9, 2023 Time (GMT+3): 09:30 am - 11:30 pm
Paper	Author (s)
Implementation of Information and Communication Technologies in the Educational Process	Yevgen Sokol, Oleksandr Trush, Serhii Yevseiev, Oleksandr Milov
Classification of Urban Sounds with PSO and WO based Feature Selection Methods	Turgut Ozseven, Mustafa Arpacioğlu
Decision Making in Managing the Choice of UAV Threat Detection Systems in the Protection of Critical Infrastructure Facilities	Serhii Pohasii , Roman Korolov, Nataliia Dzheniuk, Alla Jammine, Tetiana Andriushchenko, Tetiana Milevska
Optimization of Multi-Criteria Solutions to Selection Problems	Shevchenko Sergiy
Development of a Method for Digital Synthesis of Electrical Signals with a Normalized Harmonic Coefficient	Serhii Herasymov, Viacheslav Soroka, Stanislav Milevskiy , Natalia Voropay, Herman Zviertsev, Yevhen Motalyhin
Algorithm for Recognition of Network Traffic Anomalies Based on Artificial Intelligence	Oleksandr Laptiev , Andrii Musienko, Volodymyr Nakonechnyi, Andrii Sobchuk, Sergii Gakhov, Serhii Kopytko
Malware Detection in AdHoc E-Government Network Using Machine Learning	Aras AbdulQadir Mohammed , Abdullahi Ibrahim
Method of Selecting Informative Signs for Determining the State of Sports Readiness of Athletes	Malika Doshanova , Ortiq Ruzibayev, Sherzod Sobirov

Session 5.2. (VROOM2) Chair: Ebubekir Yaşar	Date: June 9, 2023 Time (GMT+3): 09:30 am - 11:30 pm
Paper	Author (s)
Crime Prediction Using Machine Learning: The Case of The City of Little Rock	Zurab Sabakhtarishvili , Sijan Panday, Clayton Jensen, Robin Ghosh
Determining the Level of Preference for Innovative Services in Educational Institutions	Aldeniz Rashidov , Fatme Rashidova
Flood Prediction Using Ensemble Machine Learning Model	Tanvir Rahman, Miah Mohammad Asif Syeed , Maisha Farzana, Ishadie Namir, Ipshita Ishrar, Meherin Hossain Nushra, Bhoktear Mahub Khan
Advancing Home Healthcare Through Machine Learning: Predicting Service Time for Enhanced Patient Care	Yagmur Selenay Selcuk , Elvin Coban
Learning to Walk on a Human Musculoskeletal Model Wearing a Knee Orthosis via Deep Reinforcement Learning	Omer Kayan , Hulya Yalcin
Implementation of Bangla Extractive Update Summarization Task on BUSUM-BNLP-Dataset: A Multi-Document Update Summarization Corpus	Md Nahid Hasan , Rafsan Bari Shafin, Marwa Khanom Nurtaj, Zeshan Ahmed, M. Saddam Hossain Khan, Rashedul Amin Tuhin, Md. Mohsin Uddin
Analysis Of Undergraduate Student Performance Patterns and Profiling Potential Dropouts	Abdisamad Ali Mohamed , Ismail Mohamed Jamal, Sajjad Rizvi
Artificial Intelligence Based Transportation System	Mehmet Akif Nacar, Ömer Özkan, Arif Furkan Mendi, Hasan Tolga Ünal , Tunç Taner
WEB 3.0 Applications and Projections	Mehmet Akif Nacar, Ömer Özkan, Arif Furkan Mendi, Serkan Ulucan, Hasan Tolga Ünal , Burak Barış Firat, Tunç Taner, Mustafa Mert Sandal

Session 6.1. (VROOM3) Invited Speaker Prof. Dr. Huseyin Canbolat "Prediction of Turkish Sign Language Alphabets Utilizing Deep Learning Method" June 9, 2023 Time (GMT+3): 11:30 am - 12:00 pm Chair: Oguzhan Pektezel	
Invited Speaker Prof. Tanupriya Choudhury "Optimizing Crop Deduction Using IoT and Deep Neural Networks" June 9, 2023 Time (GMT+3): 12:00 am - 12:30 pm Chair: Oguzhan Pektezel	

Session 7.1. (VROOM2) Chair: Ebubekir Yaşar	Date: June 9, 2023 Time (GMT+3): 1:30 pm - 3:30 pm
Paper	Author (s)
Exploring the Landscape of Artificial Intelligence in Education: Challenges and Opportunities	Mohammed Rizvi
Metaverse and Healthcare: An Empirical Investigation	Hussain Falih Mehdi, Bhumika Sharma, Roohi Sille , Tanupriya Choudhury
Leveraging Robotics to Enhance Accessibility and Engagement in Mathematics Education for Vision-Impaired Students	Muhammad H. Al Omoush , Tracey Mehigan
Age And Gender Detection By Face Segmentation And Modified CNN Algorithm	Ahmed Raed Sabah Alrashed , Timur Inan
Wireless JTAG to USB Emulator Architecture	Ahmet Onur Kaplan , Firat Hardalaç, Fatih Uysal

Session 8.1. (VROOM1) Chair: Turgut Ozseven	Date: June 9, 2023 Time (GMT+3): 4:00 pm - 7:00 pm
Paper	Author (s)
Super Resolution Image Acquisition for Object Detection in the Military Industry	Mehmet Batuhan Özdaş , Fatih Uysal, Fırat Hardalaç
Saw-YOLOv5: Scale-Aware YOLOv5 for Object Detection in Aerial Images	Abdullah Doruk, Osman Alpaydın
Actor-Critic TD3-based Deep Reinforcement Learning for Energy Management Strategy of HEV	Ozan Yazar , Serdar Coskun, Lin Li, Fengqi Zhang, Cong Huang
Stock Market Prediction By Combining CNNs Trained On Multiple Time Frames	Nader Nematı , Hadi Farahani, Saeed Reza Kheradpisheh
Opinion Analysis of Bi-Lingual Event Data from Social Networks	Iqra Javed , Haris Saeed
An Early Warning System for Fires in Hospitals and Health Centers Via the Internet of Things to Reduce Human and Material Losses	Omar Mohammed Abed Al-Isawi , Karam Hatem Alkhater, Saif H. Alrubae, Ammar Hatem AlMarzoogee, Alaa Hamid Mohammed
Generating Personalized Abstract Art Paintings by using People's Life Energy Distribution	Furkan Ayas , Feriştah Dalkılıç
Contextual Bangla Next Word Prediction and Sentence Generation Using Bi-directional RNN With Attention	Abdul Kyume , Md. Musfiqur Rahman, Md. Irfan Azad, Md. Nahid, M. Saddam Hossain Khan, Md. Mohsin Uddin
10GHz Printed Circuit Antenna for Wireless Power Transfer Applications	Yaser Amer Jassim , Mesut Çevik, Taha A. Elwi
Evaluating AI-UAV Systems: A Combined Approach with Operator Group Comparison	Omar Alharasees , Muftah Abdalla, Utku Kale
A Review of Electrical Network Frequency (ENF) Based Applications in Media Forensics	Ahmet Seyfullah Güneş , Saffet Vatanserver

Session 8.2. (VROOM2) Chair: Ebubekir Yasar	Date: June 9, 2023 Time (GMT+3): 4:00 pm - 7:00 pm
Paper	Author (s)
Web Accessibility of the Cyprus Island Food Retailers' Websites	Erkut Inan Iseri, Kaan Uyar, Umit Ilhan
Impact of Artificial and Physical Locomotion Techniques on Cybersickness, Usability, Immersion	Yaşar Daşdemir
Efficient Routing in Manet AdHoc Networks Using Metaheuristic Optimization Algorithm	Ashraf Mustafa Kadhim Bahiya , Abdullahi Ibrahim
LAN Based GIS Optimization for Coverage in Wireless Networks	Israa Salman Atiyah , Galip Cansever, Ali Saadon Ahmed
An Air Induced Tactile Display With Olfaction	Rıza İlhan, Zakaria El Asker, Haroune Boudjellal
Exploring Uncharted Architectural Territories through Generative Adversarial Networks with Human Collaboration	Ashik Vaskor Mannan, Md Sazzad Islam
Object Detection System in Self-Driving Cars by Calibrated Camera and LiDAR Sensor data – Implementation of the Hybrid PointPillar Method	Shaik Baleeghuddin Kashif , R. Anirudh Reddy, Kambotula Eshwar Kumar, Kalal Sanjana, Sharina Samreen
An extensive review of Applications, Methods and Recent Advances in Deep Reinforcement Learning	Shiva Shashank Dhavala , Srihari C, Vanishree K, Rashmi R
Human-Centered Artificial Intelligence: Designing for User Empowerment and Ethical Considerations	Usman Ahmad Usmani, Ari Happonen , Junzo Watada
Secure Integration Of IoT-Enabled Sensors And Technologies: Engineering Applications For Humanitarian Impact	Usman Ahmad Usmani, Ari Happonen , Junzo Watada

Session 9.1. (VROOM2) Chair: Ebubekir Yaşar	Date: June 10, 2023 Time (GMT+3): 09:30 am - 12:30 pm
Paper	Author (s)
Performance Evaluation of Various ML Techniques for Software Fault Prediction using NASA Dataset	Baraah Alsangari , Goksel Biricik
Sentiment-enhanced Neural Collaborative Filtering Models Using Explicit User Preferences	Ceren Dursun , Alper Özcan
Effects of Data Augmentation Techniques on Classification Performance in Knee MRIs	Elif Nur Küçük , Aybars Uğur
Advancing Canine Health and Care: A Multifaceted Approach using Machine Learning	Hashen Kottegoda , Yasith Wimukthi, Dilshan Andaraweera, Pabasara Paliheena, Harinda Fernando, Darshana Kasthurirathnae
ML-based Anomalies Detection in Wireless Network Link Layer of the Internet of Things (IoT)	Pankaj Goswami , Garima Goswami, Hussain Falih Mahdi, Arti Vaish, Bhupesh Dewangan, Tanupriya Choudhury
Enhancing Performance of Abstractive Multi-Document Update Summarization on TAC Dataset	Marwa Khanom Nurtaj, Rafsan Bari Shafin , Md Nahid Hasan, Krittika Roy, M. Saddam Hossain Khan, Rashedul Amin Tuhin, Md. Mohsin Uddin
Effect of Drop-out Layers Inside an Long Short-Term Memory for Household Load Forecast Application	Sanaullah Soomro , Wanchalerm Pora
BilinBot: A Bilingual Chatbot using Deep Learning	Sanjeda Sara Jennifer , Sheikh Aminul Islam, Sharmin Sultana Koly, Rashedul Amin Tuhin, M. Saddam Hossain Khan, Md. Mohsin Uddin
Dynamic Programing vs Q-learning for Feedback Motion Planning of Manipulators	Uğur Yıldiran
Classification of PCA based Reduced Deep Features by SVM for Diagnosing Lung and Colon Cancer	Shireen Al-Ofary , Hamza Osman Ilhan
Improved Malaria Cells Detection Using Deep Convolutional Neural Network	Sarmad Nozad Mahmood, Swash Sami Mohammed , Ayad Ghany Ismaeel, Hülya GÖKALP CLARKE, Iman Nozad Mahmood, Dlnya Abdulahad Aziz, Sameer Alani
An Algorithm-based Approach for Mapping Customer Journeys by Identifying Customer Browsing Behaviors on E-commerce Clickstream Data	Shiuann-Shuoh Chen, Tzu-Ling Li , Vinay Singh, Yu-Chen Wu
Session 10.1. (VROOM1) Chair: Turgut Ozseven	Date: June 10, 2023 Time (GMT+3): 1:30 pm - 4:30 pm
Paper	Author (s)
Enhanced Data Hiding Using Some Attribute of Color Image	Thulfiqar Muayad Hameedi , Gülsüm Akkuzu Kaya
Towards A Conceptual Model for Citizen's Adoption of E-Government Services in Developing Countries	Modher Almufti , Rahma Sellami, Lamia Hadrich Belguith
A Real-Time Speaker Diarization System based on Convolutional Neural Networks architectures	Thaer M. Al-Hadithy , Mondher Frikha
New Microstrip Patch Antenna Design for L1-Band used for Global Positioning System	Maher Muayad Hefdhi , Raad Hamdan Thaher
Moving Object Detection Based on Enhanced Yolo-V2 Model	Mukaram Safaldin , Nizar Zaghden, Mahmoud Mejdoub
Plaka Tanıma Sistemleri ve Hibrit Bir Sistem Önerisi	Ruya Zake Kamal Baba , Soydan Serttaş
Developing an Efficient VGG19-based Model and Transfer Learning for Detecting Acute Lymphoblastic Leukemia (ALL)	Mohammed Y. Al-khuzai , Sajad A. Zearah, Noor J. Mohammed
Evaluation and Analysis Data From Twitter Data By Using Hybrid CNN & LTSM	Salma Abdullah Aswad
A Proposed Secure And Efficient Big Data (Hadoop) Security Mechanism Using Encryption Algorithm	Abdulnaser Fashakh , Abdullahi Abdu Ibrahim
Drug Target Interaction Prediction Using Support Vector Machine (SVM)	Baraa Taha Yaseen
Drug Target Interaction Prediction Using Convolutional Neural Network (CNN)	Baraa Taha Yaseen
Dispersion Parameters Of PVA-PAAm-Sb2O3 Nanocomposites Prepared By Casting Solution Method	Baidaa Y. Mohamed , Sura . Alasdi , Sokina Fakfry , Khalid Haneen Abass, Ashraq Mohammed Kadim
Analyzing The Employee Turnover by Using Decision Tree Algorithm	Saadalddeen Rashid Ahmed , Aso Kurdo Ahmed, Swran Jawamir Jwmaa

Date: June 10, 2023	
Time (GMT+3): 2:30 pm - 4:30 pm	
Session 11.1. (VROOM2) Chair: Ebubekir Yasar	
Paper	Author (s)
A Method for Path Identification of Wheel Robot using UHF RFID Technology	Satyanarayana Degala , Nadir Kamal Salih Idries, Abdullah Said Al Kalbani, Gopal Rathinam
Brake System Model for a Haptic Brake Pedal Control	Ljuba Isacco , Francesco La Mura, Hermes Giberti
Experimental Comparison of Global Planners for Trajectory Planning of Mobile Robots in an Unknown Environment with Dynamic Obstacles	Zehra Tüfekçi, Gökhan Erdemir
Smart Eco-Friendly and Low-Cost Farming Control System	Fawaz Y. Abdullah, Muhammed Tariq Yaseen , Yazen Subhi Sheet
Technology Acceptance Model (TAM) for Mobile Durian Plantation Apps(Pro Durian): The Analysis for Malaysian Farmers	Noraziahtulhidayu Kamarudin , Aiman Yusoff, Zuraidin Safar, Abdul Samad Hassan Basari, Hatta Hussin
Design and Development of 3D Printed based Magnetic Coupling System for Autonomous Underwater Vehicle	Iftikhar Ahmad, Ali Ghafail , Ahmed M. Abdelrhman, Subramanian Chithambaram, Syed Asad Imam, Mahmood Hammad
The Usage of a Force Controlled Delta Manipulator for Composite Hand Lay-Up Fiber Placement Process	Erdem Arslan, Ekrem Ayaz
Care Professionals' Experience of Deploying an Original Non-Autonomous Air-Purification Robot in Residential Care Homes in Ireland and Japan	Naonori Kodate , Kazuko Obayashi, Yurie Maeda, Wenwei Yu, Diarmuid O'Shea, Nobuhiro Sakata, Sayuri Suwa, Shigeru Masuyama
Additively Manufactured Soft Pneumatic Gripper Integrated Remotely Operated Underwater Vehicle (ROV) for Grasping Archeological Remains	Emre Tugberk Gulnergiz , Savas Dilibal, Bilal Gormus, Josiah Owusu Danquah, Omar Faruk Emon

Date: June 10, 2023	
Time (GMT+3): 2:30 pm - 4:30 pm	
Session 11.2. (VROOM3) Chair: Oguzhan Pektezel	
Paper	Author (s)
Parameters Extraction of Miniaturized Metamaterial Unit Cell at Millimeter Wave Applications	Huda A. Al-Tayyar , Y. E. Mohammed Ali
Design and Implementation of Power Convertor Circuit Toward Electric Vehicle Charging Applications	Fawaz Y. Abdullah, Muhammed T. Yaseen , Firas S. Alsharbaty
Color Image Encryption Using a Sine Variation of the Logistic Map for S-Box and Key Generation	Yousef Korayem, Mohamed Gabr, Wassim Alexan
Research on Speech Synthesis Based on Prosodic Controllability	Wenyu Gao , Askar Hamdulla, Xipeng Yang
Impact of Technology Use on Frontline Supervision Practices in the Construction Industry	Bassam Ramadan , Hala Nasserredine, Timothy Taylor, Paul Goodrum
A Symmetric TDMA Mechanism to Optimize the Performance of the Body Sensor Network for Sports Application	Mohammed M. Mustafa, Ahmed A. Khalifa, Korhan Cengiz
Quantum Signal Analysis combined to Artificial Intelligence and Green Sustainability: A Protocol of Feasible Rules	Dimosthenis K. Michopoulos, Spyridon K. Chronopoulos, Periklis Papadopoulos, Konstantinos Arvanitis, Kostas P. Peppas
The Investigation of Skin Effect in Tissue, the Estimation of the Electromagnetic Risk Interference with Living Organisms	Tomáš Souček , Aleš Richter, Jakub Eichler
The Mapping of Electromagnetic Field of Machine Tool for Assessment of Its Influence on the Pacemaker	Tomáš Souček , Aleš Richter, Jan Morava, Lubomír Slavík

		Date: June 10, 2023
Session 12.1. (VROOM2) Chair: Ebubekir Yasar		Time (GMT+3): 5:00 pm - 8:00 pm
Paper	Author (s)	
Automatic Segmentation of Maxillary Sinus with U-Net Model with Pre-trained Encoder	Ahmet Said Dedeoğlu , Serkan Özbay, Orhan Tunç	
Students' Performance Prediction Using Machine Learning Based on Generative Adversarial Network	Aws Khudhur , Nehad T.A Ramaha	
A Comparative Study for 6D Pose Estimation of Textureless And Symmetric Objects Used in Automotive Manufacturing Industry	Abdullah Doruk, Ensar Özkaya	
NNA and Activation Equation-Based Prediction of New COVID-19 Infections	Faris Shaban	
Automated Cerebral Vessel Segmentation Using Deep Learning for Early Detection of Cerebrovascular Diseases	Furkan Kutan , Uğurhan Kutbay, Oktay Algin	
Dispersion Parameters Of PVA-PAAm-Sb2O3 Nanocomposites Prepared By Casting Solution Method	Baidaa Y. Mohamed , Sura . Alasdi , Sokina Fakfry , Khalid Haneen Abass, Ashraq Mohammed Kadim	
Real-Time Hardware Acceleration of Low Precision Quantized Custom Neural Network Model on ZYNQ SoC	Ayşe Kübra Erenoğlu, Guner Tatar	
Applying Deep Learning For Automated Quality Control And Defect Detection In Multi-stage Plastic Extrusion Process	Erkan Tur	
Handling Imbalanced Data in Predictive Maintenance: A Resampling-Based Approach	Sejma Cicak , Umut Avcı	
An Extensive Study: Creation of A New Inverted Microscope Image Data Set and Improving Auto-Encoder Models for Higher Accuracy Segmentation of HaCaT Cell Culture Line	Zeynep Sevim , Hulya Dogan, Zeynep Demir, Feride Sena Sezen, Ramazan Ozgur Dogan	
Detection and Analyzing Phishing Emails Using NLP Techniques	Rian Al-Yozbak y, Mafaz Alanezi	
Designing a system for data processing and visualization in the public health system	Nikola Sabev, Ivan Ralev	
Measuring and Qualification on Camera Recordings in Wire Arc Additive Manufacturing Monitoring	Oğuzhan Güler, Esra Dinçer	
A Comparative Assessment of Various Embeddings for Keyword Extraction	Ghaith Ashqar , Alev Mutlu	

		Date: June 10, 2023
Session 12.2. (VROOM3) Chair: Oguzhan Pektezel		Time (GMT+3): 5:00 pm - 8:00 pm
Paper	Author (s)	
Utilizing GloVe Embeddings for Deep Learning Based Analysis of Research Paper Abstracts	Al Hossain , Umme Hani Konok, Rezoanul Islam, Raihan Mohd Karmol Ruhani, Ruhadina Musfikin, Md. Mohsin Uddin, M. Saddam Hossain Khan, Rashedul Amin Tuhin	
Time-Optimized Detection of Cardiovascular Complications with Artificial Intelligence in Rescue Operations using FPGA-based Wearable	Aniebiet Micheal Ezekiel , Roman Obermaisser	
Twajood: Two-Factor Authentication Based on Distance and Face Recognition for Secure and Efficient Employee Attendance Monitoring	Rahaf Adam Alnuaimi , Ranem Khaled Almasalmeh, Sarah Adel Baker, Maryam Nasser Alsaiaari, Moatsum Alawida	
Belt Drive Condition Monitoring using Generalised Gaussian Distribution based Entropy Features	Rameshkumar Ganjam Ramaswamy , Ragavesh Dhandapani, Varghese Manappallil Joy, Ramachandran K P	
Improving Retweet Prediction via Tweet Features	Safa Enes Turkoglu , Alev Mutlu	
IoT-Enabled Smart Solution for Rice Disease Detection, Yield Prediction, and Remediation	Ishara Wanninayake, Thamal Wickramaarachchi, Upeka Pathirana, Wikum Bambaranda, Samitha Vidhanaarachchi , Ishara Gamage, Dilshan Silva	
Review of User Experience Models in The Context of eLearning Setting	Mohammed Hassan Mohammed Alhejaili , Roslina Ibrahim	
Data Analytics on Opportunities for Women in the Field of Technology	Pallavi Lanke, Sai Sathwik Kosuru , Abhinav Goud Dulam, Kousthubha Debbata, Kaushik Varma Datla, Raghuv eer Chaitanya Gangavarapu	
Valuable Insights Framework for Big Data and Analytics in the Malaysian Public Sector Organization	Yunnyzar Mohd Zain , Suraya Yaacob, Roslina Ibrahim, Surya Sumarni Hussein	
A Medical History Card Utilizing the Blockchain Technology	Samiha Fairouz , Shakila Yeasmin Miti, Zihadul Islam, Meem Tasfia Zaman	
Enhancing the Programming Sequence for Undergraduate Computer Science Students: A Program for Improving Learning Outcomes	Musfikur Rahaman , Robin Ghosh, Indira Dutta, Tolga Ensari, Rebecca Cunningham	
Poultry EGG Classification System Using Deep Learning	José María Pasco Sánchez , Luis Antonio Orbegoso Moreno, José Luis Ruiz Rodríguez, Isac Daniel Miñano Corro	