

ICISNA'25

*INTERNATIONAL CONFERENCE
ON INTELLIGENT SYSTEMS AND
NEW APPLICATIONS*

PROCEEDINGS BOOK

Antalya, TURKIYE

December 12-14, 2025



International Conference on Intelligent Systems and New Applications

**3rd International Conference, ICISNA'25
Antalya, TÜRKİYE, December 12-14, 2025**

Proceedings Book

**Editor
Karl JONES**

International Conference on Intelligent Systems and New Applications, ICISNA'25
Antalya, Türkiye, December 12-14, 2025

3rd International Conference on Intelligent Systems and New Applications**12-14 DECEMBER 2025****Editor**
Karl JONES

All rights in this book are reserved. All or any part of this book cannot be published, stored, printed, filmed or used indirectly without the permission of the authors. It cannot be reproduced using photocopy or any other technique. All the responsibilities of all the texts and visuals published in the book belong to the author(s).

EDITORS :*Karl JONES*

Liverpool John Moores University, UNITED KINGDOM

Faculty of Engineering and Technology, School of Engineering, Liverpool

e-mail: K.O.Jones@ljmu.ac.uk

ASSISTANT EDITORS :*Ilker Ali OZKAN*

Selcuk University, TÜRKİYE

Department of Computer Engineering, Faculty of Technology

Alaeddin Keykubat Campus 42031 Konya, TÜRKİYE

ilkerozkan@selcuk.edu.tr

Murat KOKLU

Selcuk University, TÜRKİYE

Department of Computer Engineering, Faculty of Technology

Alaeddin Keykubat Campus 42031 Konya, TÜRKİYE

mkoklu@selcuk.edu.tr

International Conference on Intelligent Systems and New Applications

Antalya, TÜRKİYE, December 12-14, 2025

TOTAL NUMBER OF PAPERS

27

EVALUATION PROCESS

All Submissions Have Passed a Double-Blind Review Evaluation Process

CONFERENCE LANGUAGE

English

PRESENTATION

Oral Presentation

PREFACE

It is with great pleasure to present the proceedings of the International Conference on Intelligent Systems and New Applications (ICISNA'25). The conference was held virtually from December 12-14, 2025.

ICISNA'25 aims to bring researchers, practitioners, and industry experts from around the world to exchange ideas and share their latest findings in the field of intelligent systems and their new applications. This conference provided an opportunity for attendees to discuss recent advancements, challenges, and future directions in intelligent systems research.

All paper submissions were double blind and peer reviewed and evaluated based on originality, technical and/or research content/depth, correctness, relevance to conferences, contributions, and readability. Selected papers presented at the conference that match the topics of the journals will be published in the following journals:

- International Journal of Applied Mathematics, Electronics and Computers (IJAMEC)
- International Journal of Automotive Engineering and Technologies (IJAET)
- International Journal of Energy Applications and Technology (IJEAT)
- Intelligent Methods in Engineering Sciences (IMIENS)

A total of 42 papers were submitted to the International Conference on Intelligent Systems and New Applications (ICISNA'25), and each paper was evaluated by two independent reviewers. Following the review process, 27 papers from 14 different countries (Albania, Algeria, Ethiopia, Hungary, India, Iran, Jordan, Lithuania, Madagascar, Tunisia, Türkiye, Ukraine, Uruguay, Vietnam) were accepted and presented at the conference. Among the presented papers, 10 were authored by researchers from Türkiye. We would like to express our gratitude to all the authors who submitted their papers, as well as the members of the organizing committee, the technical program committee, and the reviewers for their hard work and dedication in making ICISNA'25 a success.

We hope that you find the proceedings book informative and inspiring, and we look forward to seeing you at the next ICISNA.

Karl JONES
Editor

PROGRAMME COMMITTEES

GENERAL CHAIR :

Karl Jones, Liverpool John Moores University, UNITED KINGDOM

CO-CHAIRS :

Ismail Saritas, Selcuk University, TÜRKİYE

ORGANIZING COMMITTEE :

Amar Ramdane Cherif, University of Versailles, FRANCE

Angel Smrikarov, Rousse University, BULGARIA

Helen Burrell, Liverpool John Moores University, UNITED KINGDOM

Ilker Ali Ozkan, Selcuk University, TÜRKİYE

Ismail Saritas, Selcuk University, TÜRKİYE

Jurgis Porins, Riga Technical University, LATVIA

Karl Jones, Liverpool John Moores University, UNITED KINGDOM

Lilia Georgieva, Heriot Watt University, UNITED KINGDOM

Marco Porta, University of Pavia, ITALY

Mohamed Alobeady, University, IRAQ

Mohamed Hanifa Mohamed Sirajudeen, University, INDIA

Murat Koklu, Selcuk University, TÜRKİYE

Sebastian Chandler Crnigoj, Liverpool John Moores University, UNITED KINGDOM

Silyan Sibinov Arsov, Rousse University, BULGARIA

Stavros Nikolopoulos, University of Ioannina, GREECE

Suzanne Mccoll, Liverpool John Moores University, UNITED KINGDOM

Vikram Yadav, Bundelkhand Institute of Engineering and Technology Jhansi India, INDIA

Zarifä Jabrayilova, Institute of Information Technology Anas, AZERBAIJAN

INTERNATIONAL ADVISORY BOARD :

Alexander Sudnitson, Tallinn University of Technology, ESTONIA

Amar Ramdane Cherif, University of Versailles, FRANCE

Amir A Ghavifekr, University of Tabriz, IRAN ISLAMIC REPUBLIC OF

Anca Loana Andreescu, Academy of Economic Studies, BULGARIA

Anne Villems, University of Tartu, ESTONIA

Antonella Reitano, University of Calabria, ITALY

Antonio Mendes, Universidade De Coimbra, PORTUGAL

Artan Luma, Southeast European University, MACEDONIA

Biagio Lenzitti, University of Palermo, ITALY
Binod Kumar, University of Pune, INDIA
Dimitris Dranidis, Sheffield University, GREECE
Domenico Tegolo, Università Degli Studi Di Palermo, ITALY
Eisha Akanksha, Myj College of Engineering, INDIA
Elinda Kajo Mece, Polytechnic University of Tirana, ALBANIA
Heinz Dietrich Wuttke, Ilmenau University of Technology, GERMANY
Ivan Jelinek, Czech Technical University, CZECH REPUBLIC
Janis Grundspenkis, Riga Technical University, LATVIA
Jiri Srba, Aalborg University, DENMARK
Joshua A Abolarinwa, Namibia University of Science and Technology Nust, NAMIBIA
Majida Ali Abed Meshari, Tikrit University, IRAQ
Silyan Sibinov Arsov, Rousse University, BULGARIA
Stavros Nikolopoulos, University of Ioannina, GREECE
Tatjana Dulinskiene, Kaunas University of Technology, LITHUANIA
Virginio Cantoni, University of Pavia, ITALY
Yuri Pavlov, Bulgarian Academy of Sciences, BULGARIA
Zarifa Jabrayilova, Institute of Information Technology Anas, AZERBAIJAN

CONFERENCE PROGRAMME**SESSION I : 12.12.2025 – FRIDAY (10:30 – 12:00) (GMT +3)****SESSION CHAIR : BLERIM ZYLFIU****VIRTUAL HALL-1****0125 : COMPARATIVE EVALUATION OF MULTI CRITERIA DECISION MAKING METHODS IN THE ONLINE CADCOM PLATFORM**

LAVDIM MENXHIQI

Presenter: LAVDIM MENXHIQI

0114 : DIGITAL TWIN SYNCHRONIZATION WITH REAL TIME DATA COLLECTION

ABDULKADIR SADAY

Presenter: ABDULKADIR SADAY

0118 : CONVOLUTIONAL NEURAL NETWORK BASED FRAMEWORK FOR THE DETECTION OF TUBERCULOSIS

AONDOWASE JAMES ORBAN

Presenter: AONDOWASE JAMES ORBAN

0117 : SMARTCODEHUB LLM BASED FRAMEWORK FOR SEMANTIC CODE REUSE IN REACTIVE PROGRAMMING

AONDOWASE JAMES ORBAN

Presenter: AONDOWASE JAMES ORBAN

0124 : AN INTELLIGENT MULTI ALGORITHM INTEGRATION FRAMEWORK FOR AUTOMATED M A DECISION SUPPORT IN TECHNOLOGY INTENSIVE INDUSTRIES

BLERIM ZYLFIU

Presenter: BLERIM ZYLFIU

0112 : DIGITAL TWIN FOR CRYOGENIC EJECTOR SYSTEMS INTEGRATING ADVANCED MACHINE LEARNING AND DYNAMIC MODELING

LOTFI SNOUSSI, OLFA FAKHFAKH, EZZEDINE NEHDI

Presenter: LOTFI SNOUSSI

SESSION II : 12.12.2025 – FRIDAY (14:00 – 15:30) (GMT +3)
SESSION CHAIR : YAVUZ SELIM TASPINAR
VIRTUAL HALL-1

**0105 : FREQUENCY DOMAIN CHARACTERIZATION OF HIGH ORDER MODEL
SYNCHRONOUS MACHINE PARAMETERS UNDER STANDSTILL CONDITIONS**
LEGUEBEDJ FARID

Presenter: LEGUEBEDJ FARID

**0106 : SIMULATION BASED EVALUATION OF LIDAR PHOTOGRAMMETRY FUSION VIA
NERF RECONSTRUCTION AND ICP REGISTRATION IN URBAN SCENES**

RYTIS MASKELIUNAS, SARMADE MAQSOOD, AHMAD QURTHOBI, IRFAN ABBAS, MANTAS
VASKEVICIUS, JULIUS GELSVARTAS

Presenter: IRFAN ABBAS

**0110 : REACT MODULAR AGENT ORCHESTRATING TOOL USE AND RETRIEVAL FOR
FINANCIAL WORKFLOWS**

ARMANDO HERNANDEZ DE LA VEGA, SANTIAGO PEREZ, VICTOR SABBIA

Presenter: ARMANDO HERNANDEZ DE LA VEGA

**0128 : EMBEDDING BASED MACHINE LEARNING APPROACH FOR AUTOMATIC
CLASSIFICATION OF TURKISH NEWS ARTICLES**

AHMET ATASOGLU, YAVUZ SELIM TASPINAR

Presenter: YAVUZ SELIM TASPINAR

**0132 : REAL TIME FAULT DETECTION IN 3D PRINTERS WITH A HYBRID DEEP LEARNING
MODEL**

COSKUCAN BUYUKYILDIZ, ISMAIL SARITAS

Presenter: COSKUCAN BUYUKYILDIZ

**0127 : COMPUTER VISION BASED BEHAVIOR ANALYSIS FOR WORKPLACE EFFICIENCY
BAKERY ENVIRONMENT APPLICATION**

CENGİZ SAMET TEPE, İLKAY CİNAR

Presenter: CENGİZ SAMET TEPE

**0129 : A DEEP NEURAL NETWORK BASED MULTI AGENT MIXTURE OF EXPERTS
FRAMEWORK FOR GENERATING AI EDUCATIONAL CONTENT IN MALAGASY
LANGUAGE FOR CHILDREN 5–10**

MAHEFA ABEL RAZAFINIRINA MAHEFA, RINDRA NADIA RAZAFIARINIRINA NADIA, ELYSA
RAZAFINDRAFARA ELYSA, WILLIAM GERMAIN DIMBISOA WILLIAM, THOMAS MAHATODY
MAHATODY

Presenter: MAHEFA ABEL RAZAFINIRINA MAHEFA

SESSION III : 13.12.2025 – SATURDAY (09:00 – 10:30) (GMT +3)
SESSION CHAIR : P MANIKANTA SIMGAMSETTI
VIRTUAL HALL-1

0107 : TRANSFORMING HEALTHCARE: THE ROLE OF ARTIFICIAL INTELLIGENCE TODAY AND BEYOND

HA VAN SY HA, PHAM THI MAI LIEN PHAM

Presenter: HA VAN SY HA

0111 : EFFICACIOUS LUNG CANCER DETECTION UTILISING HYBRID DEEP LEARNING AND SOPHISTICATED IMAGE PROCESSING

P MANIKANTA SIMGAMSETTI

Presenter: P MANIKANTA SIMGAMSETTI

0121 : DESIGN AND SIMULATION OF A SMART MULTI FLOOR ELEVATOR CONTROLLER USING VERILOG HDL

SASHANK ABBURU, SRIKANTH DINESH, T PUSHKAR REDDY, DHEEPAK K, KAVERI HATTI, PARAMASIVAM C

Presenter: DHEEPAK K

0126 : INSPECTION OF STORAGE TANK BOTTOMS AND CORROSION MAPPING VIA ULTRASONIC TESTING AND SIGNAL PROCESSING METHODS

KEMAL OZGUVEN, ISMAIL SARITAS

Presenter: KEMAL OZGUVEN

0130 : TOMATO SEED CLASSIFICATION WITH ARTIFICIAL INTELLIGENCE: A SQUEEZENET-BASED APPROACH

ABDULKADIR SADAY, ILKER ALI OZKAN

Presenter: ABDULKADIR SADAY

0131 : AUTOMATED QUALITY CONTROL IN WELDING PROCESSES WITH YOLOV8

ADEM DILBAZ, ILKER ALI OZKAN

Presenter: ADEM DILBAZ

0134 : DEEP LEARNING METHODS FOR THE CLASSIFICATION OF TURKISH MUSIC GENRES

MUHAMMED EMINOGLU, MURAT KOKLU

Presenter: MUHAMMED EMINOGLU

SESSION IV : 13.12.2025 – SATURDAY (11:30 – 13:00) (GMT +3)
SESSION CHAIR : KIRUTHICK K M
VIRTUAL HALL-1

0104 : INTELLIGENT DISEASE DETECTION USING A HYBRID DEEP LEARNING SVM FRAMEWORK

NEGIN AMIRZADEH

Presenter: NEGIN AMIRZADEH

0115 : AN INTELLIGENT ANN-BASED FRAMEWORK FOR PREDICTING EMPLOYEE ATTRITION IN IMBALANCED DATA SCENARIOS

ESMAEL AHMED

Presenter: ESMAEL AHMED

0116 : EDGE INTELLIGENT BIOSENSING SYSTEMS WITH DUAL OPTIMIZATION OF SIGNAL PROCESSING AND ENERGY MANAGEMENT

YEVHENIIA BABENKO

Presenter: YEVHENIIA BABENKO

0120 : FIELD OF VIEW-BASED SPHERICAL VIDEO STITCHING AND OBJECT DETECTION FOR MULTI-CAMERA DRONES

GHASSAN AL JAYYOUSI, GHAITH AL REFAI, MUTAZ RYALAT, HISHAM ELMOAQET

Presenter: GHAITH AL REFAI

0122 : SECURE VOTING SYSTEM USING FPGA

KIRUTHICK K M, RUSHINDRA K R, KARTHIKEYAN T, KAVERI HATTI

Presenter: KIRUTHICK K M

0133 : AN EXPLAINABLE DEEP LEARNING FRAMEWORK FOR AGTRON-BASED COFFEE ROAST CLASSIFICATION USING GRAD-CAM

HAVVA HAZEL ARAS, YUSUF ERYESIL, MURAT KOKLU

Presenter: HAVVA HAZEL ARAS

0135 : EVALUATION OF CNN MODELS FOR MULTI-CLASS GEAR FAULT DETECTION USING WAVEFORM IMAGES

MUCAHID MUSTAFA SARITAS, OYA KILCI, MURAT KOKLU

Presenter: MUCAHID MUSTAFA SARITAS



<http://icisna.org>