Information Systems, Embedded Systems and Intelligent Applications - ISESIA 2023
May 26-27, Sofia, Bulgaria

Sofia University, Conference hall, 26.05.2023

Conference opening: 14.00-14.15

Main Track – 14.15-15.45
Session chair: Vl. Dimitrov

- Analysis of Deep Learning Methods for Cybersecurity in Industry 4.0
- Intelligent System Model Design for Travel Mode Selection Using Machine Learning Algorithms
- Security improvement text encryption algorithm based on two-dimensional doubled Clifford attractors
- Essentials for Developing an Educational Course in Artificial Intelligence in Cybersecurity for Managers
- Game Theme Based Instructional Module to Teach Loops and Choice Statements in Computer Science Courses

eHealth Workshop - part 1: 10.00-12.00
Session chair: I. Patias

- Information technology adoption in promoting digital mental health literacy – data usage and specifics
- Information technology specifics of digital mental health literacy promotion
- Tools and digital technologies used for the promotion of mental health literacy in me_HeLi-D
- Exchange of Occupational Health Assessment Summaries Based on the EN 13606 Standard
- Modeling and Clinical Data Exchange in Registration of Communicable Disease Cases

eHealth Workshop – part 2: 16.15-18.00
Session chair: K. Kaloyanova

- Increase Digital Health Literacy with the practical implementation of an e-learning system according to WCAG compliance standards
- The adoption of information technologies in health promotion.
- Machine Learning for Biomedical Applications- Focus on Brain Signals
- Adapting Data Models in Health Data Secondary Use for Treatment Evaluation

Faculty of Mathematics and Informatics, Conference Hall, 27.05.2023

UNITe Workshop – part 1: 10.00-12.00
Session chair: M. Nisheva

- Frequency Modulated Signal Standing Out by Stochastic Resonance Effect
- Real-time data integration in information systems using stream processing for medical data
- Preprocessing Techniques for Brain MRI Scans: A Comparative Analysis for Radiogenomics Applications
- A Compact Hardware-Based Finite Automaton for Secure Access Control
- Scattered Data Interpolation with Quartic Triangular Bézier Patches: An Optimized Implementation
- Enterprise data and semantic modeling: Conceptual model of information technology incident management

Main track: 13.30 -16.00
Session chair: V. Georgiev

- CAPEC Ontology
- CAPEC Ontology Generator
- An Improved Bulgarian Natural Language Processing Pipeline
- Next Generation Service Models of Mobile Autonomous Systems

An ontology-based model validation for intelligent systems monitoring
Step by step implementation of a hybrid approach to capital markets modeling
Overview of autonomous and intelligent services integration models in transactions processing
Recent Advances of Artificial Intelligence Application for Sustainable Development Goals
Modeling ecological water bodies' environment using GIS and 3D systems
Closing Session: 16.00