

CONFERENCE PROGRAM

21st International Conference on Applied Computing 2024

23rd International Conference on WWW/Internet 2024

Saturday 26th, October 2024

08:30-15:25 Welcome Desk (closes for lunch – 13:00-14:15)
(Room: Ban Mazuranic - 1st Floor)

09:15-09:30 Session O – Opening Session
(Room: Ban Zrinski - 1st Floor)

OPENING SESSION

Prof. Pedro Isaias

09:30-11:00 Session 26.1

Information Systems

(Room: Ban Zrinski - 1st Floor)

Chair: Henry-Norbert Cocos

CROSS ORGANIZATIONAL WORKFLOW MANAGEMENT SYSTEM WITH CONTROLLED DISCLOSURE AND NO-REDUNDANT DATA ON BLOCKCHAIN (F075)

Hirofumi Nagano, Kaiho Fukuchi, Norihisa Komoda and Takenao Ohkawa

A GUIDE FOR SELECTING RESEARCH DESIGN IN INFORMATION SYSTEMS STUDIES (F019)

Irja Shaanika and Tiko Iyamu

DESIGN AND IMPLEMENTATION OF A VIRTUAL LAB PLATFORM FOR ACADEMIC TEACHING: EXPERIENCE IN THE DEVELOPMENT AND USE OF A NEW PLATFORM FOR THE DIGITIZATION OF LABORATORIES FOR COMPUTER SCIENCE CLASSES (F015)

Christian Baun, Martin Kappes, Henry-Norbert Cocos, Malte Martin Koch and Maurizio Petrozziello

09:30-11:00 Session 26.2

Data Analytics and Machine Learning

(Room: Ban Frankopan - Mezzanine)

Chair: Sabina Lissitsa

PROPOSAL, DEVELOPMENT AND VALIDATION OF A STRATEGY FOR PREDICTING STUDENT PERFORMANCE ON THE TÖSABENDO PLATFORM (F027)

Gabriel Catizani Faria Oliveira and Guilherme Tavares de Assis

LYRICCOVERS: A COMPREHENSIVE LARGE-SCALE DATASET OF COVER SONGS WITH LYRICS (F062)

Maximilian Balluff, Peter Mandl and Christian Wolff

METHODS FOR GENERATING CLUES TO MAKE NOVICES EXPERIENCE IN CHECKING RISKY FACTORS IN AI-GENERATED DOCUMENTS (F070)

Shogo Uchida, Ryo Onuma, Hiroki Nakayama, Hiroaki Kaminaga, Youzou Miyadera and Shoichi Nakamura

11:00-11:30 Coffee Break

11:30-13:00 Session 26.3

Algorithms

(Room: Ban Zrinski - 1st Floor)

Chair: William Steingartner

NEW APPROACH FOR THE GENERALIZED MAXIMUM FLOW PROBLEM (F025)

Delia Elena Spridon, Adrian Marius Deaconu, Javad Tayyebi and Iulian Popa

AN ANT COLONY OPTIMIZATION ALGORITHM FOR THE STEEL PLATE YARD INBOUND PROBLEM WITH PRE-PROCESS TIME AND RELOCATION (F054)

Lebao Wu and Zuhua Jiang

WEB-BASED LIGHT SIMULATION AND INTERACTIVE CONFIGURATION FOR LIGHTING SYSTEMS (F042)

Luca Fluri, Manuel Riedi and Hilko Cords

11:30-13:00 Session 26.4
Semantic Web Middleware
(Room: Ban Frankopan - Mezzanine)
Chair: Shoichi Nakamura

TOKEN ACTS OF ONLINE SUPPORT AND FOSTERING EMPATHY AND PROSOCIAL BEHAVIOUR INTENTIONS TOWARD IMMIGRANTS AND ASYLUM SEEKERS (F017)
Nomna Kushnirovich and Sabina Lissitsa
MODELING OF AN E-DELIBERATION SYSTEM A REWARDING MECHANISM FOR ENHANCING CITIZENS' INVOLVEMENT (F041)
Vassilis Tsakanikas and Vassilis Triantafyllou
A MECHANISM TO ENHANCE PROPOSAL MERGING IN AN E-DELIBERATION SYSTEM (F051)
Georgia Rokkou and Vassilis Triantafyllou

13:00-14:15 Lunch Break

14:15-15:15 Session KL – Keynote Presentation
(Room: Ban Zrinski - 1st Floor)

“DATA ANALYTICS AND ARTIFICIAL INTELLIGENCE IN BUSINESS, SOCIETY, AND ACADEMIA: OPPORTUNITIES AND RISKS BEYOND THE TECHNOLOGICAL HYPE”
Dr Claudia Loebbecke Dept. of Media and Technology Management, University of Cologne, Germany

15:30 – Social Event (meeting point at the hotel lobby)

Sunday 27th, October 2024

08:15-19:05 Welcome Desk (closes for lunch – 13:00 to 14:15)
(Room: Ban Mazuranic - 1st Floor)

09:00-11:00 Session 27.1
Usability
(Room: Ban Zrinski - 1st Floor)
Chair: Markus Westner

ADVANCING INSIGHTS INTO SMARTPHONE USAGE DYNAMICS: UNVEILING PATTERNS AND TRENDS IN APP-SPECIFIC BEHAVIORS (F014)
Mohamed Basel Almourad, Mohammed Hussein, Emad Bataineh and Zelal Wattar
SYSTEM DEVELOPMENT MODELS ESTABLISHMENT IN PRACTICE – A GROUNDED THEORY METHOD STUDY (F094)
Ia Williamsson, Linda Askenäs and Antonios Tsertsidis
ENHANCING END-TO-END USER STORY CREATION WITH OPEN-SOURCE LARGE LANGUAGE MODELS: A GUIDED CHAIN-OF-THOUGHT METHOD (F070)
Andrius Dalisanskis and Enda Fallon
EXTRACTION OF THE DIFFERENCES BETWEEN INTENTIONS OF ADVISING TO ACADEMIC PAPER AND ITS REVISION BASED ON ANALYSIS OF GAZE AND COMMENTS (F087)
Kodai Kobayashi, Hiroki Nakayama, Ryo Onuma, Hiroaki Kaminaga, Youzou Miyadera and Shoichi Nakamura

11:00-11:30 Coffee Break

11:30-12:50 Session 27.2
Applications and Uses
(Room: Ban Zrinski - 1st Floor)
Chair: Vassilis Triantafyllou

INCLUSIVE DESIGN: A CONTRIBUTION TO THE DEVELOPMENT OF ONLINE TRAINING FOR SENIORS (F057)
Louise Sauvé
AI-BASED SOLUTIONS FOR INTER-SECTORAL DATA DRIVEN APPLICATIONS (F036)
Alexandros Kostopoulos, Ioannis P. Chochliouros, Ioannis Panaretou, Alexandros Patsias, Christos Panagiotou, Dimitris Karadimas, Katerina S. Karadima, Christos Zaroliagis and Spyros Kontogiannis
ANALYZING NETWORK ANOMALIES USING WAZUH SIEM (S038)
Maria-Mădălina Andronache, Alexandru Vulpe and Corneliu Burileanu

13:00-14:15 Lunch Break

14:15-15:55 Session 27.3

Distributed and Parallel Systems // Embedded Computing

(Room: Ban Zrinski - 1st Floor)

Chair: William Steingartner

DESIGN PROBLEMS OF CONTROL SYSTEMS FOR MANUFACTURING AND INSTRUMENTATION EQUIPMENT (S059)

Alexey Platunov, Arkady Kluchev, Vasiliy Pinkevich, Maxim Kolchurin, Vladislav Kluchev and Fedor Asminkin

OFFLINE-FIRST STRATEGIES - A NOVEL CONCEPT FOR THE MIGRATION OF WORKLOADS USING VIRTUAL MACHINES

OMITTING LIMITATIONS OF TRADITIONAL SERVICE DEPLOYMENT CONCEPTS (F017)

Henry-Norbert Cocos

UNIFIED OPENCL PROFILING FOR GPU-BASED HETEROGENEOUS EMBEDDED APPLICATIONS (F023)

Gul N. Khan and Mohid Tayyub

POWER CONSUMPTION BENCHMARK FOR EMBEDDED AI INFERENCE (S035)

Zijie Ning, Maarten Vandersteegen, Kristof Van Beeck, Toon Goedemé and Patrick Vandewalle

14:15-15:05 Session 27.4

Programming Languages and Concepts // eLearning

(Room: Ban Frankopan - Mezzanine)

Chair: Luis Marcelo Bortolotti

DEVELOPMENT AND EVALUATION OF A METHOD FOR IDENTIFYING LOGIC ERRORS USING MACHINE LEARNING WITH A FOCUS ON PROGRAM STRUCTURE (F083)

Yuta Harada, Soichiro Sato, Shoichi Nakamura and Youzou Miyadera

IDENTIFICATION OF IMPASSE FACTORS IN PROGRAMMING EXERCISES BASED ON THE ANALYSIS OF EXPLORATORY TRACES (S084)

Mitsuhiro Kawasaki, Sho Onami, Ryo Onuma, Hiroki Nakayama, Youzou Miyadera and Shoichi Nakamura

15:15-16:00 Session 27.5

Data Analytics and Machine Learning

(Room: Ban Frankopan - Mezzanine)

Chair: Alexandros Kostopoulos

PROPOSAL OF A MACHINE LEARNING MODEL FOR ESTIMATING RESPECTIVE STUDENTS' PROGRAMMING LOGICS IN AN EXERCISE (F068)

Ryo Onuma, Sho Onami, Jotaro Kumagai, Hiroki Nakayama, Youzou Miyadera and Shoichi Nakamura

CONSIDERATIONS ON HUMAN COGNITIVE PROCESSES IN AI LEARNING: AN INDIVIDUAL DIFFERENCES PERSPECTIVE (P034)

Robert Zheng

ANALYSIS OF GLOBAL R&D TRENDS IN NATURAL COSMETICS BASED ON PATENT BIBLIOMETRICS (P064)

Eunsoo Sohn, Jinny Seo and Chang-Hoan Lee

GLOBAL CORPORATE COOPERATION TREND ANALYSIS WITH DATA ANALYSIS – FOCUSING ON THE ELECTRIC VEHICLE INDUSTRY (P066)

Jinny Seo and Eunsoo Sohn

16:15-16:45 Coffee Break

16:45-19:05 Session 27.6

IT Services // Databases and Data Mining // Other

(Room: Ban Zrinski - 1st Floor)

Chair: Gul Khan

ONE CASH: A NEW GENERATION OF E-WALLET FOR MOBILE MONEY (F024)

Macaire Ngomo and Clavy Viannet Mbou Mouyele

A SEMANTIC DATA MODEL FOR EFFICIENCY ENHANCEMENT OF THE HARMONIZED SURVEY ON HOUSEHOLDS LIVING STANDARDS (F037)

Marc Mfoutou Moukala, Macaire Ngomo and Régis Freguin Babindamana

TFFBFORMER: DECOMPOSITION TRANSFORMERS WITH TIME-FREQUENCY FOR LONG-TERM SERIES FORECASTING (F077)

Hao Cang, Xuejie Zhang and ShuFang Xu

CHATGPT IN SOFTWARE ENGINEERING: POTENTIALS, CHALLENGES AND POSSIBLE APPLICATIONS FOR UNIT TESTING AND CODE DEBUGGING (F061)

Dominik Capellmann and Markus Westner

THE FACTORS INFLUENCING APPLYING SOCIAL MEDIA FOR MARKETING (S020)

Magdeline Moche and Tiko Iyamu

Monday 28th, October 2024

08:30-13:15 Welcome Desk
(Room: Ban Mazuranic - 1st Floor)

09:10-11:00 Session 28.1
Semantic Web and XML
(Room: Ban Zrinski - 1st Floor)
Chair: Pedro Isaías

DEPLOYING A KNOWLEDGE-BASED SYSTEM FOR SUPPORTING THE SOUNDNESS OF DIGITAL FORENSIC INVESTIGATION ON A LABORATORY SERVER (F048)
Milica Matijević Gostojić, Branko Milosavljević, and Željko Vuković

TRACEABLE RDF DATA GENERATION FROM GERMAN LEGISLATIVE DOCUMENTS THROUGH KNOWLEDGE GRAPH TRANSFORMATIONS (F033)
Alexander Gashkov, Oliver Schmidtke and Andreas Both

TOWARDS LLM-GENERATED EXPLANATIONS FOR COMPONENT-BASED KNOWLEDGE GRAPH QUESTION ANSWERING SYSTEMS (F055)
Dennis Schiese, Aleksandr Perevalov and Andreas Both

AN EFFECTIVENESS ASSESSMENT OF A KNOWLEDGE-BASED SYSTEM FOR SUPPORTING THE SOUNDNESS OF DIGITAL FORENSIC INVESTIGATIONS (S042)
Milica Matijević Gostojić, Jelena Slivka, Željko Vuković, and Stevan Gostojić

11:00-11:30 Coffee Break

11:30-12:30 Session 28.2
eHealth and eSports
(Room: Ban Zrinski - 1st Floor)
Chair: Henry-Norbert Cocos

A BREAST CANCER IMAGE DATA WAREHOUSE FOR DECISION-MAKING IN CLINICAL ROUTINE (F045)
Luis Marcelo Bortolotti and Cristina Dutra de Aguiar

SCREENING OF ALZHEIMER'S DISEASE AND MILD COGNITIVE IMPAIRMENT THROUGH INTEGRATED ON-LINE AND OFF-LINE HOUSE DRAWING TESTS (F092)
Nina Hosseini-Kivanani, Elena Salobrar-García, Lorena Elyira-Hurtado, Mario Salas, Christoph Schommer and Luis A. Leiva

11:30-13:00 Session 28.3
Fundamental Concepts and Engineering
(Room: Ban Frankopan - Mezzanine)
Chair: Linda Askenäs

PARAMETRIC STRUCTURAL OPTIMIZATION USING GENETIC ALGORITHMS (F030)
Alexandru Cherdivar, Alexandra Băicoianu and Iulian Popa

SEMANTIC FRAMEWORKS FOR SELECTED DOMAIN-SPECIFIC LANGUAGES IN OUR RESEARCH: METHODOLOGIES AND APPLICATIONS (F050)
William Steingartner and Davorka Radaković

TUNING INTERSECTION-OVER-UNION ALGORITHM TO ENHANCE TRACKING PERFORMANCES (F038)
Lorenzo Calisti, Chiara Contoli, Nicholas Kania and Emanuele Lattanzi

13:05 Best Paper Awards Ceremony and Closing Session
(Room: Ban Jelacic - 1st Floor)

Prof. Pedro Isaías

You are invited to check the virtual presentations below.

Video Presentations

ICWI 2024

AC 2024

Online: Youtube

[THE IMPACT OF HYBRID METHODOLOGIES IN HIGHER EDUCATION](#) (ICWI – S023)

Ana Paula Pinto Guimarães

[A QUIZ CREATION TOOL TO SUPPORT PROGRAMMING CLASSES](#) (AC – F033)

Joana Alves, Sofia Santos And Pedro Rangel Henriques

[MULTIMODAL HATE SPEECH DETECTION: LEVERAGING TEXTUAL AND VISUAL INFORMATION \(IN PORTUGUESE\)](#) (AC – F047)

Thayná Alves And Leila Weitzel

[SERVER TASK SYNCHRONIZER: AN AUTOMATION FOR SERVER'S INITIAL SETUPS](#) (AC – S048)

Ajay Ramchandani, Lucas Oliveira Borges, Wellington Cabral De Oliveira, Erick Costa Bezerra And Phillip De Menezes Furtado

[MHA-SEPA: A COMPREHENSIVE MODEL FOR LUNG NODULE SEGMENTATION](#) (AC – F052)

Khai Dinh Lai, Thai Hoang Le And Thanh Thuy Nguyen

[FRAGMENTATION-DRIVEN SIMILARITY DETECTION IN LARGE BUSINESS PROCESS MODELS](#) (AC – F089)

Wiem Kbaier, Asma Mejri And Sonia Ayachi Ghannouchi