PRELIMINARY 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**)

09:15-09:30 Session O – Opening Session

(Room: Ban Zrinski) OPENING SESSION Prof. Pedro Isaias

09:30-11:00 Session 26.1 Information Systems (Room: Ban Zrinski) Chair: TBC 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

Data Analytics and Machine Learning (Room: Ban Frankopan) Chair: TBC PROPOSAL, DEVELOPMENT AND VALIDATION OF A STRATEGY FOR PREDICTING STUDENT PERFORMANCE ON THE TÔSABENDO 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

09:30-11:00 Session 26.2

11:30-13:00 Session 26.3 Algorithms (Room: Ban Zrinski) *Chair: TBC* 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) Chair: TBC TOKEN ACTS OF ONLINE SUPPORT AND FOSTERING EMPATHY AND PROSOCIAL BEHAVIOUR INTENTIONS TOWARD IMMIGRANTS AND ASYLUM SEEKERS (F017) Nonna 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) "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)

09:00-11:00 Session 27.1 Usability (Room: Ban Zrinski) *Chair: TBC*

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) *Chair: TBC*

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) *Chair: TBC*

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 OMITING 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

14:15-15:15 Session 27.4 eHealth and eSports (Room: Ban Frankopan) *Chair: TBC*

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 Elvira-Hurtado, Mario Salas, Christoph Schommer and Luis A. Leiva

15:20-16:05 Session 27.5 Data Analytics and Machine Learning (Room: Ban Frankopan) Chair: TBC 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 // Data bases and data mining // Other (Room: Ban Zrinski) Chair: TBC 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 TFBFORMER: 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)

09:10-11:00 Session 28.1 Semantic Web and XML (Room: Ban Zrinski) Chair: TBC 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

11:30-12:20 Session 28.2 Programming languages and concepts // eLearning (Room: Ban Zrinski) Chair: TBC 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

11:30-13:00 Session 28.3 Fundamental Concepts and Engineering (Room: Ban Frankopan) *Chair: TBC* 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)

Prof. Pedro Isaias