

## OCTOBER 13-15, 2021

Opening and Welcome Session, Keynote speeches and Academic panels will be publicly available via provided Zoom links.  
Conference sessions will be available to registered participants only via links that will be sent to them by e-mail 24h prior to conference beginning.

OCTOBER

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DAY ONE

9:30 - 9:45

Opening and Welcome Session

CHAIR: Neven Vrček

🔗 <https://zoom.us/j/91897255016>

Open and available to the public

9:45 - 10:45

KEYNOTE SPEECH

Architecting Sustainable Software  
through Machine Learning:  
an experience report

Henry Muccini, University of L'Aquila,  
Information Engineering and Computer  
Science and Mathematics Department,  
L'Aquila, Italy

CHAIR: Neven Vrček

🔗 <https://zoom.us/j/91897255016>

Open and available to the public

10:45 - 11:00 Break

11:00 - 12:00

KEYNOTE SPEECH

Artificial Intelligence  
in/for the Society

Dunja Mladenić, Jozef Stefan Institute,  
Department of Artificial Intelligence,  
Ljubljana, Slovenia

CHAIR: Jasminka Dobša

🔗 <https://zoom.us/j/91897255016>

Open and available to the public

12:00 - 13:00 Break

Academic Panel

13:00 - 14:30

Accelerating smart industry  
and digital transformation

CHAIR: Neven Vrček

🔗 <https://zoom.us/j/92253240954>

Open and available to the public

Conference Sessions

14:30 - 15:45

Education and Learning Analytics

CHAIRS: Blaženka Divjak, Igor Balaban, Josep M Duarte

The Impact of Peer Assessment on the Results  
of Primary School Students' Self-Assessment  
in the e-learning System Loomen

T. Redep, L. Zignić, G. Hajdin

Web Platform for Carrer Centers in  
Higher Education – What do the  
Students need?

E. Lulić, I. Papac, K. Pažur Aničić

Exploring Ethical Considerations  
and Challenges in Online Assessment

J. Casas-Roma, J. Conesa, S. Caballé

Education 4.0 and Computer Science:  
A European perspective

B. Rienties, R. Ferguson, C. Herodotou,  
F. Iniesto, J. Sargent, I. Balaban, H. Muccini,  
S. Virkus

Digital propensity among academia  
members towards Elearning: a Romanian  
university case study

L. Ciucan-Rusu, D. Ștefan, C. Comes, M. Timuș,  
E. Bunduchi, M. Popa

15:45 - 16:00 Break

Conference Sessions

16:00 - 18:00

Trends in Software Engineering

CHAIRS: Zlatko Stapić, William Steingartner,  
Luis de Marcos Ortega

Employing Portable JavaFX GUIs with  
Scripting Languages

R. G. Flatscher, G. Müller

Mobile Continuous Authentication in eHealth:  
A case study for the ProTego project

L. de-Marcos, C. Cilleruelo, J. Junquera-Sánchez

Web Performance Tuning of WordPress-Based  
Websites Through Automatic Image Optimization

T. Heričko, Š. Čučić, B. Šumak, S. Brdnic

Insight of Croatian Open Data Portals  
Functionalities According to TODO

Interdisciplinary Assessment Framework v2.0

A. Kutnjak, L. Hrustek, B. Šlibar, I. Pihir, M. Tomičić-Furjan,  
N. Žajdela Hrustek, N. Vrček, R. Mekovec

Human Roles, Competencies and Skills in  
Industry 4.0: Systematic Literature Review

D. Narandžić, I. Spasojević, T. Lolić, D. Stefanović, S. Ristić

Impact of Agile-Hybrid Methods and Approaches  
on Software Quality: A Systematic Literature Review

Ž. Zekić, Z. Stapić

Data modelling for Blockchain Oriented  
Software Engineering

P. Reš, M. Turkanović

Some modeling technologies in educating of  
young IT experts in the field of formal languages  
and their semantics

W. Steingartner, V. Novitzká, P. Zorvan

OCTOBER

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DAY TWO

## Conference Sessions

9:00 - 10:45

## Strategic Planning and Decision Making

CHAIRS: Nina Begičević Redep, Tihomir Hunjak

Eliminating Disparate Impact in MCDM: The case of TOPSIS

S. Radovanović, A. Petrović, B. Delibašić, M. Suknović

An overview of skills foresight methods

J. Štefanić, D. Šimić

Corporate Entrepreneurship and ICT: Trends and Future Research Agenda

I. Sučić Funko, M. Dabić, B. Vlačić

Assessing the Maturity for Digital Education with HFL DEMATEL-HFL ARAS Techniques

G. Büyükközkın, M. Güler, E. Mukul

Evaluation of Sustainability for Turkey's Cities with Hesitant Fuzzy Linguistic MCDM Methods

E. Mukul, M. Güler, G. Büyükközkın

The differences in decision-making styles in the Croatian student population of military and nonmilitary studies

M. Kostañjevac, M. Gligora Marković, N. Kadoić

10:45 - 11:00 Break

11:00 - 12:00

## Sponsors Section

InfoDom, DignetSoftware, Oracle

📍 <https://zoom.us/j/99078911378>

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## Academic Panel

12:00 - 13:00

## Emerging research areas: the vision of journal editors

CHAIRS: Igor Balaban, Josep M Duart

📍 <https://zoom.us/j/9690978215>

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13:00 - 14:00 Break

## Conference Sessions

14:00 - 15:00

## ICT Entrepreneurship and Innovation

CHAIRS: Ksenija Vuković, Marina Klačmer Čalopa

Analysis of Factors Influencing Traditional WOM and eWOM

D. Dobrinčić, I. Gregurec

Advanced technologies for open innovation strategies: Systematic literature review  
T. Obradović Posinković, M. Dabić

## Quality in ICT

CHAIRS: Melita Kozina, Valentina Kirinić

IT Risk Management in the enterprise using COBIT 5

M. Kozina

The Key Elements of a Risk-based Product Security Program for Medical Devices: A Scoping Study

N. Hrgarek Lechner

Comparing the colour representation of browsers through the coloured shadow phenomenon

B. Halmosi, C. Sık-Lanyi, R. Hirschler

15:00 - 19:00

## Student Poster and Presentation Session

CHAIRS: Violeta VIDAČEK-HAINŠ, Victoria Appatova

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DAY THREE

## Conference Sessions

9:00 - 11:00

## Intelligent Systems

CHAIRS: Jasminka Dobaša, Dunja Mladenić

How good BERT based models are in sentiment analysis of Croatian tweets: comparison of four multilingual BERT

M. Ptiček

What Makes Machine-Translated Poetry Look Bad? A Human Error Classification Analysis

I. Dunder, S. Seljan, M. Pavlovsiki

Preprocessing of roads in OpenStreetMap based geographic data on a property graph

A. Rajšp, M. Heričko, I. Fister jr.

How Are the Economic Conditions and Political Alignment of a Newspaper Reflected in the Events They Report On?

A. Sittar, D. Mladenić

A Survey on 3D Digital Facial Reconstruction Algorithms

E. Barčić, P. Grd

A Survey on Neural Networks for Face Age Estimation

P. Grd

Model for improvement of nonprofit student organizations funding by machine learning and digital transition to blockchain

M. Vasilij, S. Skender, M. Horvat

The Polarity of Croatian Online News Related to COVID-19: A First Insight

A. Ilić, S. Beliga

11:00 - 11:15 Break

## Conference Sessions

11:15 - 12:30

## Computer Games

CHAIR: Markus Schatten

Conceptual Architecture of a Cognitive Agent for Telemedicine based on Gamification

M. Schatten, B. Okreša Đurić, R. Protrka

A Game Engine Layer for the Implementation of Massively Multiplayer On-line Interactive Fiction

M. Schatten, T. Peharda, J. Rasonja

Automated Educational Game Design from EBooks

G. G. Smith, B. Okreša Đurić, M. Ricijaš

An Active Game Bot Detection with Security Bots

I. Tomičić, T. Peharda, A. Bernik

## Data and Knowledge Bases

CHAIRS: Sandra Lovrenčić, Patrizia Poščić

Dependency-based Labeling of Associative Lexical Communities

B. Perak, T. Ban Kirigin

12:30 - 12:45 Break

## Conference Sessions

12:45 - 14:15

## Digital Transformation and Corporate Culture

CHAIR: Anna Czarczyńska, Katarina Tomičić Pupek

Development of a conceptual digital technology acceptance model for micro and small organizations

D. Dobrinčić

Conceptual model of smart industry value chain

L. Hrustek, N. Vrček, S. Vidović

Digital Transformation in Croatia: Contextual analysis

M. Barić, M. Alić

E-business and Digital Transformation in Client to Bookkeeping Case Studies: Longitudinal Case Study

S. VIDAČIĆ, I. Pihir, A. Kutnjak

Comprehension of digital transformation through the prism of an organizational design and redesign framework

R. Fabac

The importance of service user trust in the collaborative economy

A. Karačić, I. Marić, J. Kovač

14:15 - 14:30 Break

14:30 - 15:00

Best Paper Award, CECIIS 2022 Announcement, Conference Closing