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From Algorithms to Awareness

Navigating the New Digital Consciousness



Academician Karolj Skala, PhD
International Program
Committee General Chair

We stand at a pivotal juncture in human history - *a moment when our relationship with technology transcends mere utility and ventures into a deeper synthesis of intelligence*, purpose, and possibility. From the grain of silicon-rich sand that birthed computing to the omnipresent cloud that reshaped our access to information, we now step into an era where *artificial intelligence becomes not just a tool, but a collaborator*, a mirror of our complexity, and a compass for our evolution.

This year's MIPRO convention does not merely reflect on the digital society we have created - it challenges us to reimagine it. AI systems are beginning to learn, adapt, and *respond in ways that blur the boundaries between machine processing and human-like reasoning*. These systems are redefining work, ethics, communication, and even creativity itself. We are no longer building machines to serve our commands; we are entering a realm where *intelligence emerges, coexists, and co-evolves with us*. But this is not a moment of surrender to the machine - it is a call to heightened human agency. Tomorrow's digital society must be built on foundations of trust, inclusiveness, and sustainability. We must ensure that as we construct intelligent infrastructures and autonomous systems, we do so with a conscious mind - embedding our values, our wisdom, and our responsibility into every layer of code.

This is the time to ask the most important questions: What kind of future are we creating with AI? Will our digital society empower individuals or homogenize them? Can we shape systems that not only solve problems but understand purpose?

The answers lie not in technology alone but in the synergy of disciplines - where engineers collaborate with philosophers, scientists with artists, and data with empathy. MIPRO 2025 invites all thinkers, makers, and dreamers to be part of this symphonic effort to navigate the rise of a truly intelligent society. Let this convention be a place not only of knowledge exchange but of visionary commitment. A place where we explore how AI can illuminate the unexplored corridors of human potential, how the digital world can nourish our real-world humanity, and how tomorrow's innovations can serve as bridges - not walls - between people, cultures, and ideas. Dear participants, welcome to the 48th MIPRO Conference. *Let us explore the edge of tomorrow together, where algorithms gain awareness and society finds new meaning in the digital age.* May this gathering spark a legacy of insight, collaboration, and inspiration that outlives us all.

Od algoritama do svjesnosti

Putovanje kroz novu digitalnu stvarnost

Nalazimo se na prekretnici ljudske povijesti - u trenutku kada naš *odnos s tehnologijom nadilazi puku korisnost i prelazi u dublju sintezu inteligencije*, svrhe i mogućnosti. Od zrnca silicijem bogatog pijeska koje je pokrenulo eru računalstva, do sveprisutnog oblaka koji je preoblikovao naš pristup informacijama - sada kročimo u doba u kojem *umjetna inteligencija postaje, ne samo alat, već suradnik*, ogledalo naše složenosti i kompas našeg razvoja.



Ovogodišnji skup MIPRO ne zadržava se samo na promišljanju digitalnog društva koje smo stvorili – on nas izaziva da ga ponovno osmislimo. Sustavi umjetne inteligencije sve više uče, prilagođavaju se i odgovaraju na načine koji brišu granicu između strojnog procesiranja i ljudskog rezoniranja. Ti sustavi redefiniraju rad, etiku, komunikaciju, pa čak i kreativnost. Više ne gradimo strojeve koji slušaju naredbe - ulazimo u prostor gdje *inteligencija nastaje, suživi i supostoji s nama*. No, ovo nije trenutak predaje strojevima - ovo je poziv na jačanje ljudske svijesnosti. Digitalno društvo budućnosti mora se graditi na temeljima povjerenja, uključivosti i održivosti. Moramo osigurati da, dok gradimo intelligentne infrastrukture i autonomne sisteme, to činimo s punom svješću - usađujući naše vrijednosti, mudrost i odgovornost u svaki redak koda.

Sada je trenutak za postaviti najvažnija pitanja: Kakvu budućnost stvaramo uz pomoć umjetne inteligencije? Hoće li digitalno društvo osnažiti pojedince ili ih izjednačiti? Možemo li stvoriti sisteme koji, ne samo rješavaju probleme, već razumiju svrhu?

Odgovori ne leže samo u tehnologiji, već u sinergiji disciplina - tamo gdje inženjeri surađuju s filozofima, znanstvenicima s umjetnicima, a podaci s empatijom. Skup MIPRO 2025 poziva sve mislioce, stvaratelje i sanjare da budu dio ovog harmonijskog napora u usmjeravanju razvoja istinski intelligentnog društva. Neka ovaj skup bude više od razmjene znanja - neka bude mjesto vizionarske predanosti. Mjesto gdje istražujemo kako umjetna inteligencija može osvijetliti neistražene hodnike ljudskog potencijala, kako digitalni svijet može obogatiti našu stvarnu ljudskost i kako inovacije budućnosti mogu postati mostovi - a ne zidovi - među ljudima, kulturama i idejama. Dragi sudionici, dobrodošli na 48. skup MIPRO. Zajedno *istražimo rub sutrašnjice*, gdje *algoritmi zadobivaju svijesnost*, a društvo pronalazi novo značenje u digitalnom dobu. Neka ovaj susret zapali iskre spoznaje, suradnje i nadahnuća koje će trajati i nakon nas.

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For all further information concerning the tutorial and conference programs, please contact the International Program Committee General Chair, **Professor Karolj Skala**, Ruđer Bošković Institute, Bijenička 54, HR-10000 Zagreb, Croatia, phone: +385 1 457 1218, +385 98 209 816, email: skala@mipro.hr. For organizational technical questions and general media inquiries, please contact **Office MIPRO**, Jadranski trg 1/II, HR-51000 Rijeka, Croatia, phone: +385 51 423 984, e-mail: mipro@mipro.hr.

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WORKING TIME · RADNO VRIJEME

DATE DATUM	RECEPTION PRIJEMNI URED	EXHIBITION IZLOŽBA
02.06.2025., Monday · ponedjeljak	08 ⁰⁰ – 19 ⁰⁰	–
03.06.2025., Tuesday · utorak	08 ⁰⁰ – 19 ⁰⁰	10 ⁰⁰ – 19 ⁰⁰
04.06.2025., Wednesday · srijeda	08 ³⁰ – 19 ³⁰	09 ⁰⁰ – 19 ⁰⁰
05.06.2025., Thursday · četvrtak	07 ⁴⁵ – 19 ⁰⁰	09 ⁰⁰ – 19 ⁰⁰
06.06.2025., Friday · petak	08 ⁰⁰ – 17 ⁰⁰	09 ⁰⁰ – 13 ⁰⁰

The detailed schedule for all MIPRO 2025 events will be placed on bulletin boards and at www.mipro.hr. All registered participants have free access to plenaries and exhibition with obligatory badge carrying. Mikrosatnica svih događanja na MIPRO 2025 bit će istaknuta na oglašnim pločama i na www.mipro.hr. Svim registriranim sudionicima slobodan je pristup plenarnom radu i izložbi i programsko-stručnim prezentacijama uz obavezno nošenje bedževa.

TERMS · ROKOVI

- until / do 23.05.2025. Hotel reservation · [Rezervacija hotela](#)
until / do 23.05.2025. Early bird registration and fee payment
[Rana prijava i uplata kotizacije](#)
02.06.2025. Delivery of equipment/exhibits and booth setup
[Doprema izložbenih eksponata i postavljanje izložbi](#)
03.06.2025. Opening of the exhibition at 10⁰⁰ AM
[Početak rada u 10⁰⁰ sati](#)
06.06.2025. End of the exhibition at 1⁰⁰ PM
[Završetak rada u 13⁰⁰ sati i otprema eksponata](#)

HOTEL RESERVATION · REZERVACIJA HOTELA

Please arrange your accommodation in time, no later than May 23rd, 2025.
[Molimo Vas da rezervirate hotel što prije, najkasnije do 23.05.2025.](#)



For all information please contact: **Reservation office in Grand Hotel Adriatic d.d. Opatija**, phone +385 (0)51 719 010, fax +385 (0)51 719 015 or e-mail: info@hotel-adriatic.hr. Parking ticket is EUR 20,00 per day.

Za sve potrebne informacije obratite se na **Rezervacijski ured Grand hotela Adriatic d.d. Opatija**, tel. +385 (0)51 719 010, fax +385 (0)51 719 015 ili e-mail info@hotel-adriatic.hr. Dnevna parkirališna karta iznosi 20,00 EUR.



Accommodation booking in Hotel Admiral and Hotel Istra is made exclusively through the web portal www.liburnia.hr with the obligatory entry of the reservation code **MIPRO25**. In case of difficulties with booking, please contact the **Liburnia Hotels & Villas Reservation Center** at tel. +385 (0) 51 710 444 or e-mail reservation.mice@liburnia.hr.



Rezervacija smještaja u Hotelu Admiral i Hotelu Istra vrši se isključivo putem web portala www.liburnia.hr uz obavezan upis rezervacijskog koda **MIPRO25**. U slučaju poteškoća prilikom rezervacije, molimo kontaktirajte **Rezervacijski centar Liburnia Hotels & Villas** na tel. +385 (0)51 710 444 ili e-mail reservation.mice@liburnia.hr.

Booking can be made over the following QRcodes
[QR kodovi za rezervaciju smještaja](#)

HOTELS HOTELI	BED & BREAKFAST NOĆENJE S DORUČKOM		
	1/1	1/2	2/2
ADRIATIC I ****	129	129	180
ADRIATIC II ***	105	105	140
ADMIRAL ****	124	124	169
ISTRA ***	99	99	129

All prices are in EUR. The daily tax is EUR 2,00 per person per day and it isn't included in the above prices.

Sve cijene su izražene u EUR. Boravišna pristojba nije uključena u cijenu i iznosi 2,00 EUR po osobi dnevno.

PROGRAM FOR ACCOMPANYING PERSONS

For accompanying persons we propose some of the many programmes offered by the tourist agencies of Opatija. For more information, please ask at Grand Hotel Adriatic Opatija (www.hotel-adriatic.hr) or send an e-mail to the address info@hotel-adriatic.hr. Shorter and longer excursions are offered to the nearby City of Rijeka, the picturesque Istrian Peninsula with a string of charming medieval small towns, the world-renown Brioni islands, the mountainous region of Gorski Kotar, or a bit further Venice with its lagoons. In any case, see the sights of Opatija, visit her beautiful parks, one of the oldest seafront promenades on the Mediterranean which links the settlements of Volosko, Ičići, Ika and Lovran with Opatija, the Croatian Museum of Tourism, numerous restaurants and Viennese cafes with a first-class offer.

Last but not least, experience Kvarner Bay and Opatija by taking a pleasant boat trip from Opatija's harbour or visit Učka Nature Park with magnificent views from the peak Vojak (1400m).

REGISTRATION FEES · KOTIZACIJE

EVENTS DOGAĐAJI	PRICES IN EUR · CIJENA U EUR
	FEES · KOTIZACIJE
HEP	330 up to / do 23.5.2025.
IRP-ZT	330 from / od 24.5.2025.
AIS	300
BIS-BDP	300
CE	300
CIS	300
CTI	300
DC-CPS	300
DE-DS	300
DS-BE	300
EE	300
HCI	300
ICTLAW	300
MEET	300
OPHO	300
PM	300
SIDE	300
SSE	300
SP – MIPRO Junior	150
CCE	150
CRO-IGF, KIV, MULTI-STEM, EIR	Free access · Slobodan pristup

'All fees include Croatian VAT. *Sve cijene kotizacija uključuju PDV.*

All visitors have free access to the formal opening, plenary session, forum and exhibition.

Svim posjetiteljima slobodan je pristup svečanom otvaranju, plenarnom radu, forumu i izložbi.

Members of MIPRO or IEEE have a 10% fee discount. The unique fee for students (undergraduate and graduate) primary and secondary school teachers is 150 EUR (without any additional discount). **Discount doesn't apply to PhD students.** There will be a 10% discount for the registration fee to those participants who are attending more than one tutorial or conference.

Članovi MIPRO i IEEE imaju popust od 10%. Preddiplomski i diplomski studenti te nastavnici osnovnih i srednjih škola plaćaju jedinstvenu kotizaciju od 150 EUR bez prava na dodatni popust.

Popust se ne odnosi na studente doktorskog studija. Sudionicima koji sudjeluju na više seminara ili savjetovanja, ukupna kotizacija umanjuje se za 10%.

REGISTRATION · PRIJAVA

Conference fee payment can be done after the registration is processed. Registration can be made online at www.mipro.hr or via e-mail mipro@mipro.hr.

The fee is payable in EUR to the following IBAN of **MIPRO Croatian Society** (MIPRO, Jadranški trg 1/I, HR-51000 Rijeka, Croatia): **HR9824020061100139672**

at Erste & Steiermärkische Bank d.d., Jadranški trg 3a, HR-51000 Rijeka, Croatia (SWIFT: ESBCHR22), with the name of the person registered.

Note that bank charges are at the expense of the debtor.

The fee includes:

- MIPRO 2025 Proceedings on digital medium
- Conference material
- Official opening program (plenary session) with a cocktail party on Wednesday evening, June 4th, 2025

VAŽNO!

Sudionici plenarnih tema, okruglog stola, radionica i pratećih aktivnosti, koji nisu registrirani putem seminara ili savjetovanja, obavezni su se po dolasku registrirati na Prijemnom uredu MIPRO, gdje će dobiti bedževe i sve potrebne informacije. Nošenje bedževa je obvezno u svim prostorima odvijanja aktivnosti MIPRO-a. Osobe bez bedževa nemaju pravo pristupa jednom događaju.

**MIPRO 2025 certificate of attendance is being issued upon request.
MIPRO izdaje potvrde obveznicima stručnog usavršavanja na njihov zahtjev.**

Kotizacija se obračunava na temelju Prijave za MIPRO 2025. Prijava se vrši on-line preko portala www.mipro.hr ili putem e-maila mipro@mipro.hr.

Kotizacija se uplaćuje na IBAN MIPRO-a **HR9824020061100139672** kod Erste & Steiermärkische Bank d.d. Rijeka s naznakom "ime i prezime osobe za koju se uplaćuje + kratica odabranog događaja".

Uplate se, kao i prijave, rade za svaku osobu pojedinačno. Molimo vas da nam e-mailom dostavite kopiju o obavljenoj uplati.

Kotizacija uključuje:

- zbornik radova skupa MIPRO 2025 na digitalnom mediju
- konferencijski materijal
- svečani program (plenarni rad) s koktelom u srijedu navečer 4.06.2025.

02. GENERAL EVENTS

ZAJEDNIČKI DOGAĐAJI ZA SVE SUDIONIKE



EN
HR

FORMAL OPENING · SVEČANO OTVARANJE

(Formal Opening and Plenary session will be simultaneously translated - supported by Telemach)

04.06.25. 10⁰⁰-13⁰⁰ Congress Hall · Kongresna dvorana, Grand Hotel Adriatic

Event manager · Voditeljica: Iva Šulentić

Technical support · Tehnička podrška: Tibor Bün & Zorislav Šojat

Opening Addresses of Sponsors, Patrons and Guests

Pozdravne riječi sponzora, pokrovitelja i gostiju

MIPRO Annual ICT Award Ceremony

Dodjela MIPRO godišnje ICT nagrade



PLENARY LECTURE PLENARNO PREDAVANJE

Ferenc Krausz (Max Planck Institute of Quantum Optics, Germany)



SUB-ATOMIC MOTIONS
- From Capturing
Electrons to Speeding up
Signal Processing



KEYNOTE LECTURE ISTAKNUTO PREDAVANJE

Matjaž Gams (Jožef Stefan Institute, Slovenia)
Superintelligence is Coming
- How to Upgrade Our
Societies NOW?

COCKTAIL FOR PARTICIPANTS AND GUESTS KOKTEL ZA SUDIONIKE, GOSTE I UZVANIKE

04.06.25. 20⁰⁰-22⁰⁰

Halls · Dvorane
Liburna& Galija
Hotel Admiral



MIPRO Annual ICT Award · MIPRO godišnja ICT nagrada

MIPRO proudly presents the MIPRO Annual ICT Award, symbolized by Tesla's Egg. This prestigious award is inspired by the legacy of Nikola Tesla, a pioneer whose innovations have shaped the modern era. Tesla's Egg, a symbol of creativity and inexhaustible human imagination, perfectly reflects the spirit of our award. Each year, this award will be bestowed upon individuals and legal entities whose innovations have advanced the world of information and communication technologies, paving new paths and laying the groundwork for future generations. This award is not only a recognition of outstanding technological contributions but also a tribute to the creativity and courage that drive the ICT sector forward. Together, we celebrate the bravery, innovation, and visionary spirit that shape our digital world. We thank all the creators whose work has shown that the limits of possibility are just the beginning of a new, unexplored reality.



MIPRO s ponosom predstavlja MIPRO godišnju ICT nagradu, simboliziranu u obliku Teslinog jajeta. Ova prestižna nagrada inspirirana je naslijeđem Nikole Tesle, pionira koji je svojim inovacijama oblikovao moderno doba. Teslino jaje, simbol stvaralaštva i neiscrpne ljudske maště, savršeno odražava duh naše nagrade.

Svake godine, ova nagrada će se dodjeliti pojedincima i pravnim osobama čije su inovacije unaprijedile svijet informacijsko-komunikacijskih tehnologija, otvarajući nove puteve i postavljajući temelje za buduće generacije. Ova nagrada nije samo priznanje za izvanredne tehnološke doprinose, već i odavanje počasti kreativnosti i odvažnosti koje ICT sektor pokreće naprijed.

Zajedno slavimo hrabrost, inovativnost i vizionarski duh koji oblikuju naš digitalni svijet.

Zahvaljujemo svim stvaraocima koji su svojim radom pokazali da su granice mogućeg samo početak nove, neistražene stvarnosti.

Congratulations to this year's winners · Čestitamo ovogodišnjim dobitnicima



CATEGORY · KATEGORIJA

INDIVIDUALS POJEDINCI

Branimir Hackenberger Kutuzović for the development of the CADAPTI software platform

Branimir Hackenberger Kutuzović za razvoj program-ske platforme CADAPTI



CATEGORY · KATEGORIJA

PROJECTS PROJEKTI

Centre of Excellence in Maritime Robotics and Technologies for Sustainable Blue Economy (CoE MARBLE) led by Prof. Nikola Mišković, FER in Zagreb

Centar izvrsnosti u pomorskoj robotici i tehnologijama za održivo plavo gospodarstvo (CoE MARBLE) koji vodi prof. dr. sc. Nikola Mišković, FER u Zagrebu



CATEGORY · KATEGORIJA

ECONOMICS GOSPDARSTVO

Center of gaming industry Novska for a pioneering approach in creating a unique ecosystem in the gaming industry

Centar gaming industrije Novska za pionirski pristup u stvaranju jedinstvenog ekosustava u području gaming industrije

03. FORUMS FORUMI



GFB

GOSPODARSKI FORUM ZA BUDUĆNOST

Tranzicija prema Industriji 5.0 – Sinergija čovjeka i tehnologije za održivu i otpornu pametnu industriju

EN
HR

04.06.25. 15⁰⁰-17³⁰

Hall · Kongresna dvorana, Grand Hotel Adriatic

Moderator i kontakt osoba: Tadej Slapnik, tadej.slapnik@tolar.io (Hashnet, Industry 5.0 Institute, Slovenia)

Sudionici: Slavko Vidović (Infodom, Zagreb), Mario Čelan (Educatorium, Industry 5.0 Institute, Zagreb), Urban Pevnik (HIPROJECT, Industry 5.0 Institute, Slovenia), Neven Vrček (Fakultet organizacije i informatike, Varaždin), Boris Šajnović (Industry 5.0 Institute, Slovenia), Ernest Vlačić (Sveučilište u Rijeci), Alesandra Prodanović Stamenović (Ewasoft, Industry 5.0 Institute, Serbia), Lea Škrubelj (Metabees Agency, Industry 5.0 Institute, Slovenia), Karolj Skala (Institut Ruđer Bošković, Zagreb)

O forumu: Industrija 5.0 nadilazi automatizaciju i digitalizaciju prethodne faze (Industrija 4.0), stavljući naglasak na ljudsku dimenziju tehnologije, otpornost proizvodnih sustava te održivost poslovnih modela. Forum će raspraviti na koje načine europska i regionalna industrija može iskoristiti prilike koje donosi ova nova industrijska paradigma – od primjene umjetne inteligencije i digitalnih blizanaca, do razvoja organizacijskih modela temeljenih na suradnji čovjeka i stroja.

PROGRAM · PROGRAM

- **Industry 5.0 Community of Good Practice EU**
Tadej Slapnik (Hashnet, Industry 5.0 Institute, Slovenia)
- **Kako upravljati strateškim sposobnostima za razvoj „Pametnih proizvoda pomoći GenAI alata i DevOps platforme?**
Slavko Vidović (Infodom, Zagreb)
- **EU fondovi i financiranje razvoja Industrije 5.0**
Mario Čelan (Educatorium, Industry 5.0 Institute, Zagreb)
- **Potencijali industrije 5.0 na području teške industrije**
Urban Pevnik (HIPROJECT, Industry 5.0 Institute, Slovenia)
- **Razvoj projekata Industrije 5.0**
Boris Šajnović (Industry 5.0 Institute, Slovenia)
- **Industrija 5.0-Zelena ekonomija**
Ernest Vlačić (Sveučilište u Rijeci)
- **Predefiniranje putovanja: Industrija 5.0 i turizam**
Alesandra Prodanović Stamenović (Ewasoft, Industry 5.0 Institute, Serbia)
- **Ekosustav pametne industrije**
Neven Vrček (Fakultet organizacije i informatike, Varaždin)
- **Komuniciranje industrije 5.0**
Lea Škrubelj (Metabees Agency, Industry 5.0 Institute, Slovenia)
- **Industrija 5.0 kao prijelaz iz revolucije u evoluciju**
Karolj Skala (Institut Ruđer Bošković, Zagreb)

Forum will be simultaneously translated - supported by Telemach

04.06.25. 16⁰⁰-19⁰⁰

Hall · Dvorana Camelia 2, Grand Hotel Adriatic

Organizacijski odbor: Adrian Ježina (Telemach, Zagreb), Hrvoje Hadžić (Ericsson Nikola Tesla d.d., Zagreb), Martina Silov (CroAI, Zagreb), Branimir Rajtar (NOG.hr, Zagreb), Krešo Antonović (Ministarstvo mora, prometa i infrastrukture Republike Hrvatske, Zagreb), Tihomir Lulić (Ministarstvo vanjskih i europskih poslova Republike Hrvatske, Zagreb), Marin Ante Pivčević (Središnji državni ured za razvoj digitalnog društva, Zagreb), Marin Vuković (Fakultet elektrotehnike i računarstva, Zagreb), Tihomir Katulić (Pravni fakultet, Zagreb), Kristijan Zimmer (HrOpen, Zagreb), Mislav Hebel, Zdravko Jukić (HAKOM, Zagreb), Nataša Glavor, Ivana Jelačić (CARNET, Zagreb)

Voditelj i kontakt osoba: Ivana Jelačić, ivana.jelacic@carnet.hr (CARNET, Zagreb)

IGF je forum otvorenog tipa, bez obvezujućih zaključaka. Okuplja predstavnike četiri tipična dionika internetskog eko-sustava: industrije/privatnog sektora, akademske zajednice, javne uprave i civilnog društva, a bavi se svim pitanjima vezanim uz upravljanje i funkcioniranje interneta. Nacionalni IGF je dio sustava foruma koji djeluju u sustavu UN-a, a više informacija oko ustanovljenja, misije i pravila IGF-a možete vidjeti na poveznici <https://www.intgovforum.org/en>.

U svijetu u kojem digitalne tehnologije oblikuju svaki aspekt naših života, pitanje upravljanja internetom je ključno za očuvanje transparentnosti, sigurnosti i prava svih osoba. Osmo izdanje ovogodišnjeg CRO IGF-a fokusirat će se na sljedeće tematske cjeline

Fact-checkeri – Media and Content

Dezinformacije i manipulacije sadržajem prijetnja su demokratskim procesima i javnoj percepciji stvarnosti. Fact-checkeri, novinari i tehnološki stručnjaci svakodnevno se suočavaju s izazovima filtriranja istinitih podataka u moru dezinformacija.

U panel raspravi analizirat ćemo kako se određuje istinitost informacija, koji su izazovi u borbi protiv lažnih vijesti i kako algoritmi te regulacije utječu na dostupnost i kredibilitet sadržaja.

Sateliti i cyber – budućnost komunikacija

Mini interaktivne prezentacije će sudionicima pružiti jedinstveni uvid u najnovije projekte i tehnološki razvoj satelitskih mreža na europskoj i nacionalnoj razini. Fokus će biti na aktualnim inicijativama koje oblikuju budućnost svemirskih i komunikacijskih tehnologija, s posebnim naglaskom na njihov utjecaj na gospodarstvo, sigurnost i svakodnevni život.

Među temama koje se očekuju na program su:

CRO Cube – Prvi hrvatski satelit predstavlja prekretnicu za nacionalni svemirski sektor. Koja je njegova uloga i što znači za buduće misije?

GALILEO – Europski odgovor na GPS sustav osigurava neovisnost i preciznost navigacijskih podataka. Kakva je njegova uloga u sigurnosnim i komercijalnim aplikacijama?

LEO sateliti – Niska Zemljina orbita (LEO) postaje središte razvoja globalnog internetskog povezivanja. Kako će to utjecati na dostupnost interneta i cyber sigurnost?

Quantum komunikacija u EU – Kvantna tehnologija donosi revoluciju u šifriranju podataka i zaštitu digitalnih mreža. Što nas očekuje u budućnosti sigurnih komunikacija?

Pridružite nam se u razmjeni znanja i ideja te sudjelujte u interaktivnim raspravama koje oblikuju budućnost slobodnog interneta i komunikacijskih tehnologija!

Hrvatski IGF pokrenut je 2015. godine. Više informacija s prethodnih CRO-IGF događaja moguće je pronaći na poveznici <https://www.carnet.hr/en/projekt/internet-governance-forum/> i <https://www.linkedin.com/company/croatian-internet-governance-forum/>.

The forum will be held in Croatian.

SLOBODAN PRISTUP

04. WORKSHOPS RADIONICE



CCE

USPOREDNO INŽENJERSTVO – KAKO POBIJEDITI U TRŽIŠNOJ UTRCI POMOĆU
MODERNIH ELEKTRONIČKIH PROGRAMSKIH ALATA CAE/CAD/CAM

HR

02.06.25. 10⁰⁰-13³⁰, 14⁰⁰-17⁰⁰
03.06.25. 10⁰⁰-13⁰⁰, 14⁰⁰-17⁰⁰

Hall · Dvorana Bellavista, Grand Hotel Adriatic

Organizatori: MIPRO i Computer Controls

Kontakt: Robert Brekalo, robert.brekalo@ccontrols.hr (Computer Controls d.o.o., Zagreb)

Voditelji: Robert Brekalo, Matija Marković (Computer Controls d.o.o., Zagreb)

O radionici: Na radionici će biti predstavljeni novi trendovi s područja projektiranja i proizvodnje u elektronici. Bit će prikazana svojstva i mogućnosti najnovijih programskih alata za profesionalno električno projektiranje.

Prezentacije i seminarske vježbe održat će se na PC računalima za sljedeće proizvode:

- Altium Designer – popularni programski paket za projektiranje u elektronici: SCHEMATIC, SPICE SIMULATOR, PCB, SIGNAL INTEGRITY, SITUS TOPOLOGICAL AUTOROUTER, CAMTASTIC
- KEIL/ARM – C/C++ /EC++ compileri za niz DSP-a, 8-, 16-, i 32-bitnih procesora/kontrolera, alati za debugiranje, integracija sa RTOS i TCP/IP rješenjima...
- Silicon Labs, Silergy, Alliance... - nova tehnološka dostignuća vodećih svjetskih proizvođača integriranih električnih komponentata.

Predavanja će poprati praktičan rad na računalima, gdje će polaznici biti vođeni stručnjacima za specifična područja i to:

- hijerarhijsko projektiranje i izrada elektične sheme
- analiza oblika signala – analogno-digitalna simulacija
- automatsko postavljanje i povezivanje električnih veza
- optimizacija električnih veza
- priprema za proizvodnju tiskanih pločica
- EMC analiza (Integritet signala, refleksija, preslušavanje)
- pravila za optimalno analogno projektiranje
- izrada potrebne dokumentacije
- primjena električnih komponenata visoke integracije

Kome je radionica namijenjena: Radionica je namijenjena svima koji žele unaprijediti svoje znanje, upoznati mogućnosti najnovijih vrhunskih programskih paketa, te dobiti kvalitetnu edukaciju, što će im omogućiti brži i uspješniji budući rad.

Oprema: Sva predavanja i vježbe izvode se na PC računalima.

Materijali: Zbornik, tiskane materijale i CD-e s primjerima izraditi će Computer Controls i dobit će ih polaznici seminara.

The workshop will be held in Croatian.

03.06.25. 16⁰⁰-18⁰⁰

Hall · Dvorana Nava 1, Hotel Admiral

Organizator: MIPRO ICTLAW – Konferencija o pravu informacijskih tehnologija**Kontakt:** Tihomir Katulić, tkatulic@pravo.hr (Pravni fakultet, Zagreb)**Voditelji:** Tihomir Katulić (Pravni fakultet, Zagreb), Lara Ljubičić (Odvjetnički ured LLA, Zagreb)

O radionicici: Radionica je osmišljena kako bi polaznicima pružila dublji uvid u poslovne i pravne aspekte komercijalizacije intelektualnog vlasništva s naglaskom na autorsko pravo. Kroz nekoliko cjelina polaznici se upoznaju s osnovama zaštite autorskog prava i drugih oblika intelektualnog vlasništva, od registracije do ostvarivanja ekonomske vrijednosti, te istražuju načine kako softver, baze podataka i ostale digitalne sadržaje ponuditi tržištu kroz licenciranje ili druge strategije monetizacije, a neizostavan je i pregled potencijalnih pravnih rizika koji se mogu javiti prilikom globalnog poslovanja te načinima kako ih spriječiti ili ublažiti u svim fazama iskorištavanja.

Radionica uključuje analizu različitih modela licenciranja te prezentaciju ugovornih odredbi koje start-upi trebaju imati na umu kako bi učinkovito komercijalizirali svoje proizvode i pritom zaštitiли povjerljive podatke i razvojne procese. Sudionici će imati priliku razmijeniti ideje i stvarna iskustva u vezi s implementacijom strategija zaštite intelektualnog vlasništva unutar vlastitih razvojnih timova. Za kraj je predviđena interaktivna vježba u kojoj se naglasak stavlja na grupni rad i simulaciju pregovora oko prava korištenja softvera, baza podataka ili druge digitalne imovine, a cilj je da sudionici primijene naučene koncepte te razviju sveobuhvatnu sliku o pravnom okruženju i komercijalnim potencijalima autorskog prava u IT industriji, što će im koristiti prilikom daljnog razvoja vlastitih projekata i bržeg rasta na tržištu.

Očekivani ishodi radionice: Do kraja ove radionice trebali biste moći:

- Posjedovati praktičnu razinu razumijevanja pravnih i poslovnih aspekata vezanih uz komercijalizaciju autorskog prava te drugih oblika intelektualnog vlasništva
- Usvojiti konkretne vještine analize licencijskih ugovora, pregovaranja naknada te definiranja odnosa s razvojnim timovima i vanjskim suradnicima
- Biti upoznati s načinima upravljanja pravnim rizicima kako bi se izbjegli skupi sporovi

Kome je radionica namijenjena: Radionica je zamišljena kao praktičan dvostatni susret koji polaznicima nudi ključna znanja iz područja komercijalizacije intelektualnog vlasništva u IT industriji, s posebnim naglaskom na autorsko pravo i njegova poslovna rješenja.

Preliminarni program: Sva predavanja i vježbe izvode se na PC računalima.

The workshop will be held in Croatian or English.

FREE ACCESS / SLOBODAN PRISTUP

05. LIFELONG EDUCATION – TUTORIALS CJELOŽIVOTNO OBRAZOVANJE – SEMINARI



HEP

INFORMATION AND COMMUNICATION TECHNOLOGY IN THE ELECTRIC POWER SECTOR
INFORMACIJSKA I KOMUNIKACIJSKA TEHNOLOGIJA U ELEKTROPRIVREDNOJ DJELATNOSTI

HR

03.06.25. 10⁰⁰-12³⁰, 13³⁰-15³⁰

Hall · Dvorana Camelia 2, Grand Hotel Adriatic

CHAIRS · VODITELJI

Vitomir Komen, vitomir.komen@riteh.uniri.hr (Rijeka), Ivan Periša (HEP-ODS d.o.o., Zagreb), Renato Ćučić (HEP-ODS d.o.o., Zagreb)

THEMATIC FRAMEWORK · TEMATSKI OKVIR

- napredne tehnologije, spremnici energije, mikromreže, fleksibilna trošila, energetska učinkovitost
- informacijska integracija elektroprivredne organizacije
- informacijska i komunikacijska tehnologija (ICT) u vođenju elektroenergetskog sustava
- IP tehnologija i informacijski sustavi u elektroprivredi
- komunikacije u sustavima upravljanja
- nova rješenja i standardi za SCADA, EMS, DTS i DMS programske sustave
- sekundarni sustavi u elektroenergetskim objektima
- sigurnost sustava procesne informatike
- sustavi namijenjeni vođenju tržista električne energije

PRELIMINARY PROGRAM · PRELIMINARNI PROGRAM

10:00-10:30	Uravnoteženje sustava i nove tehnologije Josip Vasilj (Fakultet Elektrotehnike, Strojarstva i Brodogradnje, Split)
10:30-11:00	Distribuirana proizvodnja i otpornost elektroenergetskog sustava: koncepti, modeli i rješenja akademske zajednice Tomislav Capuder (Fakultet Elektrotehnike i Računarstva, Zagreb)
11:00-11:30	Uloga sustava za pohranu energije u zelenoj energetskoj tranziciji Danijel Topić (Fakulteta Elektrotehnike, Računarstva i Informacijskih Tehnologija Osijek)
11:30-12:00	Elektroenergetske mreže budućnosti Tea Grizelj, Berislav Korpar (Schneider Electric, Zagreb)
12:00-12:30	Nadzor i ekonomika poslovanja energetskih zajednica građana Damir Juričić, Damir Medved (UNIRI-Sveučilišni centar za pametne i održive gradove; Energetska zajednica Sjevernog Jadrana, Rijeka)
12:30-13:30	PAUZA
13:30-14:00	Današnja umjetna inteligencija i mrežne djelatnosti Hrvoje Keko (Argovolt d.o.o., Banjol)
14:00-14:30	Građanska energija u praksi 2025 - iskustva s terena Goran Čaćić (Zelena energetska zadruga, Zagreb)
14:30-15:00	INTERCEPT projekt: Platforma za razmjenu informacija o kibernetičkim prijetnjama i incidentima u kritičnoj infrastrukturi Tamara Hadjina (Končar - Digital d.o.o., Zagreb)
15:00-15:30	Zaštita pristupa i privilegija: Prva linija obrane protiv krađe poslovnih i procesnih digitalnih identiteta Matija Čiček, Marco Baban (CS Computer Systems d.o.o., Zagreb)

The tutorial will be held in Croatian.

02.06.25. 09⁰⁰-12⁰⁰, 14⁰⁰-17⁰⁰

Hall · Dvorana Camelia 2, Grand Hotel Adriatic

CHAIRS · VODITELJI

Dubravko Sabolić, dubravko.sabolic@hops.hr (HOPS d.d., Zagreb), **Hrvoje Pandžić**, hrvoje.pandzic@fer.hr (Fakultet elektrotehnike i računarstva, Zagreb), **Antun Andrić**, antun.andric@hops.hr (HOPS d.d., Zagreb)

ABOUT THE TUTORIAL · O SEMINARU

Seminar je namijenjen prvenstveno polaznicima iz poduzeća i ustanova zahvaćenih procesima deregulacije sektora elektroenergetike, odnosno zelene tranzicije energetskog sektora. Zelena tranzicija energetskog sustava uzrokuje rapidno ozelenjivanje proizvodnog dijela elektroenergetskog sustava te opću elektrifikaciju prometnog i ostalih industrijskih sektora. Na djelu je ubrzana integracija europskih tržišta energije, što podrazumijeva i upravljanja zagušnjima te uravnoteženje sustava, sve s ciljem ubrzavanja tranzicije te efikasnijeg korištenja resursa. S druge strane, težnje ka ostvarivanju sustava s distribuiranom proizvodnjom i, posljedično, uvođenje novih sudionika na tržištima električne energije, gdje praktički svako kućanstvo može postati aktivnim sudionikom tržišta, stavlja sve sudionike u zelenoj tranziciji, pa tako i operatore sustava, pred velike izazove u razdoblju koje je pred nama. Operatori sustava, akademska zajednica i industrijski partneri pripremaju se za izazove budućnosti kroz razne istraživačko razvojne projekte. Na ovom seminaru prezentirat će se projekti iz okvira Horizon 2020, Digital, HRZZ i CEF:

- CHESS (Coordinated Hydrogen and Electricity SyStems and markets) – Projekt se bavi integracijom baterijskih sustava za pohranu energije i vodikovih tehnologija u energetska tržišta. Kroz projekt se unaprjeđuju postojeći modeli baterijskih sustava, elektrolizatora i gorivnih članaka na temelju laboratorijskih mjerena. Također razvijaju se pogonski i investicijski modeli postrojenja koje proizvodi električnu energiju i vodik te sudjeluje na tržištima električne energije i vodika pritom pružajući pomoćne usluge operatorima sustava.
- WeForming (Buildings as Efficient Interoperable Formers of Clean Energy Ecosystems) – Projekt se bavi transformacijom zgrada iz pasivnih potrošača električne energije u aktivne sudionike elektroenergetskog sustava opremljene pametnim tehnologijama za učinkovito upravljanje potrošnjom energije. Cilj projekta je poboljšati energetsku učinkovitost, samodostatnost i otpornost zgrada, integrirajući ih u interoperabilan i niskouglijni elektroenergetski sustav. WeForming provodi šest pilot-projekata diljem Europe, uključujući Hrvatsku, kako bi demonstrao primjenu i skalabilnost svojih rješenja u različitim klimatskim i gospodarskim uvjetima.
- ECLIPSE – Projekt je financiran iz okvira Digital Europe Programme (DEP), s ciljem razvoja aplikacije za koordinirano upravljanje potrošnjom za raznovrsne namjene i poticanje upravljanja potrošnjom od strane operatora sustava, s ciljem povećanja volumena i ostvarivanja ušteda.
- SynGRID - Creating synergies on the topic of low-voltage grid management – Projekt je usmjeren na povećanje upravljivosti i osmotritosti niskonaponskih mreža s kontinuiranim rastom udjela OIE. Kroz projekt se razvija velik broj naprednih matematičkih modela te simulacijskih alata temeljenih na optimizacijskim i algoritmima strojnog učenja kojima će se operatoru distribucijskog sustava olakšati donošenje odluka pri planiranju i vođenju distribucijskih mreža. Teme koje se proučavaju kroz projekt SynGRID su fleksibilnost krajnjih korisnika, novi tržišni koncepti kao što su aggregatori i energetske zajednice, digitalni blizanci niskonaponskih mreža i sl.
- Dynamic Thermal Rating (DTR) u okviru RePower programa – Projekt se bavi uspostavom sustava za dinamički proračun ograničenja opterećenja prijenosnih vodova kroz implementaciju programskog rješenja i ugradnju meteoroloških stanica povezanih na HOPS-ov meteo sustav. DTR omogućuje bolje iskorištavanje postojećih prijenosnih kapaciteta, povećavajući sigurnost opskrbe i prihvrat obnovljivih izvora energije. Integracijom DTR podataka u SCADA/EMS proračune unapređuje se operativno vođenje i učinkovitije rješavanje zagušenja. Projekt je sufinciran u okviru programa RePowerEU.

PRELIMINARY PROGRAM · PRELIMINARNI PROGRAM

09:00-12:00	<p>Projekt CHESS Petra Drašković (Fakultet elektrotehnike i računarstva, Zagreb)</p> <p>Projekt WeForming Mirna Gržanić Antić (Fakultet elektrotehnike i računarstva, Zagreb)</p> <p>Projekt ECLIPSE Hrvoje Koščak (Hrvatski operator prijenosnog sustava d.d., Zagreb)</p> <p>Projekt SynGRID Tomislav Antić (Fakultet elektrotehnike i računarstva, Zagreb)</p> <p>Projekt Dynamic Thermal Rating Filip Grebenar (Hrvatski operator prijenosnog sustava d.d., Zagreb)</p>
12:00-14:00	Pauza za ručak
14:00-17:00	<p>Prezentacija zadnjih poremećaja elektroenergetskih sustava (blackout na Pirinejskom poluotoku) – jesu li povezani sa zelenom tranzicijom? Zoran Bunčec (Hrvatski operator prijenosnog sustava d.d.)</p> <p>Perspektive tržišta električne energije i zelene tranzicija, utjecaj izbora u SAD te regulatorni okvir u EU (Hrvatska energetska regulatorna agencija, Zagreb), Ivan Ubrikić (Hrvatski operator prijenosnog sustava d.d., Zagreb)</p> <p>Digitalizacija upravljanja procesima. Primjeri iz prakse (Platforma za uravnoteženje, AGC, EU projekti) (Končar Digital d.o.o., Zagreb)</p> <p>Informacijske i procesne podloge za povezivanje EU tržišta električne energije. Trendovi i iskustva digitalizacije u zelenoj tranziciji na primjerima iz prakse Tin Bobetko (Uprise d.o.o., Zagreb)</p> <p>Okrugli stol – Kako ubrzati zelenu tranziciju s naglaskom na upravljanje potrošnjom/distribuiranom proizvodnjom/skladištima energije? Može li digitalizacija uključiti više sudionika u tržišne mehanizme? Što donose novi HR/EU propisi o redizajnu tržišta el. energije? Hrvoje Pandžić (Fakultet elektrotehnike i računarstva, Zagreb), (Hrvatski operator prijenosnog sustava d.o.o., Zagreb), (Končar digital d.o.o., Zagreb), (Uprise d.o.o., Zagreb), (Hrvatska energetska regulatorna agencija, Zagreb)</p>

(Manje izmjene u redoslijedu predavanja i sastavu predavača su moguće).

The tutorial will be held in Croatian.

06. MULTI-STEM PROJECT ACTIVITIES MULTI-STEM PROJEKTNE AKTIVNOSTI



03.06.25. 12³⁰-14¹⁵, 15⁰⁰-16³⁰

Hall · Kongresna dvorana, Grand Hotel Adriatic

Organizatori: MIPRO i Akademija tehničkih znanosti Hrvatske - HATZ

Voditeljica i kontakt osoba: izv. prof. dr. sc. Snježana Babić snejzana.babic.ce@gmail.com (Fakultet Informatike Sveučilišta Jurja Dobrile u Puli)

Naziv projekta: Promicanje STEM tehnologija multidisciplinarnim putem – MULTI-STEM

Cilj projekta: Razviti održive programe koji povećavaju interes za STEM područja među učenicima, s naglaskom na otkrivanje, praćenje i usmjeravanje talenata, kao i na povećanje rodne ravnopravnosti kroz aktivno uključivanje učenika u promociju prirodoslovnih znanosti (fizike, matematike, kemije, biologije, ekologije) uz podršku ICT-a u STEM aplikacijama kroz multidisciplinarni pristup.



multistem

HRVATSKI DAN

savjetovanje Računala u obrazovanju (CE)

12³⁰-12⁴⁰ Predstavljanje MULTI-STEM projekta

12⁴⁵-14¹⁵ MULTI-STEM FORUM: akademik Karolj Skala & prof. dr. sc. Zorislav Šojat

STEM iskustvo: Budućnost u našim rukama - inovativni projekti, razmjena iskustva i radionice u STEM području.

15⁰⁰-16⁰⁰ MULTI-STEM & MEMA dan: *Otkrijmo zajedno*

- Natjecanje učenika u STEM području - igrokaz „My computer“ autorice prof. dr. sc. Marine Čičin-Šain
- Nagrada za talente: Podrška STEM-u
Promocija STEM-a kroz dodjelu nagrada najdarovitijim učenicima iz promocije STEM područja kroz održavanja radionica s djecom i učenicima te prezentacija inovacija u području STEM-a.

Popratni događaj: Izložba radova najtalentiranijih učenika iz STEM područja *Talentirana djeca, budućnost STEM-a*.

Kome je namijenjeno: Učenicima, studentima, nastavnicima, STEM stručnjacima, voditeljima STEM projekata i svima onima koji imaju za cilj razvoj STEM područja.

FREE ACCESS / SLOBODAN PRISTUP



Sufinancira
Europska unija

07. PANEL

OKRUGLI STOL



EIR

ECOSYSTEM FOR INNOVATIVE GROWTH
EKOSUSTAV ZA INOVATIVNI RAST

HR

05.06.25. 10⁰⁰-12⁰⁰

Hall · Dvorana Camelia 2, Grand Hotel Adriatic

Moderator: Ivan Marić (Sveučilišni računski centar-SRCE, Zagreb)

Sudionici: Predstavnici Centara izvrsnosti, kompetentnosti i EDIH-ova, predstavnici Ministarstva znanosti, obrazovanja i mladih, Ministarstva gospodarstva, Ministarstva pravosuđa i uprave.

Tema okruglog stola: Rasprava se usmjerava na multidisciplinarno povezivanje i horizontalno umrežavanje u svrhu transfera tehnologije i stvaranja inovativnih proizvoda i usluga s disruptivnim tehnologijama - stvaranje nacionalnog ekosustava.

Popratni događaj: Tematska izložba „Ekosustav za inovativni iskorak“ s ciljem okupljanja znanstvenih centara izvrsnosti, centara kompetentnosti, DIH-ova, EDIH-ova i regionalnih centara kompetentnosti u strukovnom obrazovanju.

This panel will be held in Croatian.

08. CONFERENCES SAVJETOVANJA



Accepted papers will be published in the ISBN registered conference proceedings. Presented papers in English will be submitted for inclusion in the IEEE Xplore Digital Library. After being published on IEEE Xplore they are going to be indexed in Scopus and Compendex.

Prihvaćeni radovi bit će objavljeni u zborniku radova s ISBN brojem. Prezentirani radovi na engleskom jeziku bit će poslati za uključenje u digitalnu bazu IEEE Xplore. Nakon objave u bazi IEEE Xplore, radovi se naknadno indeksiraju u bazama Scopus i Compendex.

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AIS

ARTIFICIAL INTELLIGENCE SYSTEMS
SUSTAVI UMJETNE INTELIGENCIJE

EN

HR

05.06.25. 09⁰⁰-13⁰⁰, 15⁰⁰-18³⁰
06.06.25. 09⁰⁰-12¹⁵

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PAPERS · RADOVI

ARTIFICIAL INTELLIGENCE SYSTEMS AND OPTIMIZATION

1. J. Mileski, M. Toshevská, S. Gievska (Faculty of Computer Science and Engineering, Skopje, North Macedonia)
 2. M. Schacht, J. Murach, A. Guldner, L. Begić Fazlić, L. Creutz, S. Naumann, K.U. Gollmer, G. Dartmann (Institute for Software Systems, Birkenfeld, Germany)
- Architecture of an AI on Device Board for Local, Automated Training and Inference**

3. G.A. Oparin, V.G. Bogdanova, A.A. Pashinin (Matrosov Institute for System Dynamics and Control Theory of SB RAS, Irkutsk, Russia)

Permutational Logical Networks

4. M. Popović (Faculty of Technical Sciences, Novi Sad, Serbia), M. Popović (RT-RK Institute for Computer Based Systems, Novi Sad, Serbia), M. Đukić, I. Bašićević (Faculty of Technical Sciences, Novi Sad, Serbia)

Translating Federated Learning Algorithms in Python into CSP Processes Using ChatGPT

5. J. Sabljo, R. Čorić, M. Đumić (School of Applied Mathematics and Informatics, Osijek, Croatia), M. Đurasević (Faculty of Electrical Engineering and Computing, Zagreb, Croatia)

Evolving Priority Rules to Optimize Multi-Objective Criteria for the Resource-Constrained Project Scheduling Problem

6. S. Delalić (Faculty of Science, Sarajevo, Bosnia and Herzegovina), R. Mutapčić, I. Fejzić (Info Studio d.o.o., Sarajevo, Bosnia and Herzegovina)

Clustering Approaches in Vehicle Routing Problems: a Comparative Study on Real-World Scenarios

COMPUTER VISION

1. D. Marušić (Zagreb, Croatia), S. Popović, Z. Kalafatić (Faculty of Electrical Engineering and Computing, Zagreb, Croatia)

Template Matching in Images Using Segmented Normalized Cross-Correlation

2. T. Krčmar, D. Šabanović, M. Habijan, I. Galić, I. Lukić (Faculty of Electrical Engineering, Computer Science and Information Technology Osijek, Croatia)

MRI Image Reconstruction Using Adaptive Sampling and Diffusion Models

3. A. Antunović, R. Marković, M. Karajko (Faculty of Electrical Engineering, Computer Science and Information Technology, Osijek, Croatia), E.A. Fernandez (Faculty of Education, Economics and Technology ,Ceuta, Spain), G. Martinović, I. Aleksi, J. Balen (Faculty of Electrical Engineering, Computer Science and Information Technology, Osijek, Croatia)

Advancements in Fire Detection: a Review of Computer Vision and Deep Learning Approaches

4. S. Zhang, A. Zakariya, T. Aaltonen (Satakunta University of Applied Sciences, Pori, Finland)

Advancing Welding Automation: Optimized Weld Pool Segmentation via Hybrid Model Integration and Two-Stage Data Augmentation

5. D. Petkov Sofiykov, P.V. Georgieva (Burgas Free University, Bulgaria)

A Computer Vision System for Real-time Vehicular Traffic Management

6. J. Maltar, L. Borozan (School of Applied Mathematics and Informatics, Osijek, Croatia)

Siamese Neural Networks for Visual Place Recognition

7. B. Kotevski, S. Koceski, N. Koceska (Faculty of Computer Science, Stip, North Macedonia)

Deep Learning-Based System for Detection and Classification of Household Entry Points Using YOLOv11

NATURAL LANGUAGE PROCESSING - I

1. R. Rana, Z.W. Bhuiyan, M.H. Limon (Department of Computer Science and Engineering, Independent University, Dhaka, Bangladesh), A. Rahman (Center of Excellence in Teaching and Learning, Green University, Dhaka, Bangladesh), M. Hasan, T. Habib (Department of Computer Science and Engineering, Independent University, Dhaka, Bangladesh)

Review of Modern Chatbot Technologies: Performance, Capabilities and Applications

2. M. Toshevská, G. Mirceva, S. Gjevska (Faculty of Computer Science and Engineering, Skopje, North Macedonia)

Exploring Large Language Models for Data Augmentation: a Case Study for Text Style Transfer

3. I. Mikulić, M. Vlaic, G. Delač, M. Šilić, K. Vladimir (Faculty of Electrical Engineering and Computing, Zagreb, Croatia)

Integrating External Knowledge with LLMs: a Systematic Review of RAG Approaches

4. T. Sternak, D. Runje (Faculty of Electrical Engineering and Computing, Zagreb, Croatia), D. Granoša (SplixAI, Split, Croatia), C. Wang (Google DeepMind, London, UK)

Automating Prompt Leakage Attacks on Large Language Models Using Agentic Approach

- S. Ribić, R. Turčinhodžić Mulahasanović, K. Hodžić (Faculty of Electrical Engineering, Sarajevo, Bosnia and Herzegovina)

Torturing the Turing Test with Suggestive Anagrams in Slavic Languages

- V. Davidović (The University of Applied Sciences of Rijeka, Croatia), S. Martinčić Ipšić (Faculty of Informatics and Digital Technology, Rijeka, Croatia)

Fine-Tuning BART for Croatian Abstractive Text Summarization Using a Novel News Dataset

NATURAL LANGUAGE PROCESSING – II

- I. Dunder, S. Seljan (Faculty of Humanities and Social Sciences, Zagreb, Croatia), M. Odak (Faculty of Humanities and Social Sciences, Mostar, Bosnia and Herzegovina)

Phishing Attacks in the Age of Embeddings: a Word-Vector Approach to Cyber Threats

- S. Delalić (Faculty of Science, Sarajevo, Bosnia and Herzegovina), Z. Kadrić, J. Jerkić, F. Mehmedović (Info Studio d.o.o., Sarajevo, Bosnia and Herzegovina)

Efficient CV Parsing: Lightweight Models and Heuristic Methods for Diverse and Non-Standard Formats

- A. Jankov, M. Toshevska, S. Gievska (Faculty of Computer Science and Engineering, Skopje, North Macedonia)

Enhancing LLMs with LoRA Fine-Tuning Using Medical Data and Knowledge Graph Enrichment for Improved Healthcare Outcomes

- D. Bužić (College for Information Technology, Zagreb, Croatia), J. Dobša (Faculty of Organization and Informatics, Varaždin, Croatia)

Emotions in Eurovision Song Contest Lyrics

- J.K. Meena, I. Jha (Department of Computer Engineering, Delhi Technological University, India), P.G. Shambharkar (Department of Software Engineering, Delhi Technological University, India)

Customizable Chatbots for Real Estate - an LLM Driven Approach to Information Retrieval

- J. Virtanen (Department of Mathematics and Statistics, Tampere, Finland), M. Toshevska (Faculty of Computer Science and Engineering, Skopje, North Macedonia)

A Comparison of GEC tools for Grammatical Error Correction in English

ARTIFICIAL INTELLIGENCE APPLICATIONS AND OTHER TOPICS – I

- M. Vlaić, I. Mikulić, G. Delač, M. Šilić, K. Vladimir (Faculty of Electrical Engineering and Computing, Zagreb, Croatia)

A Review of Time Series Dimensionality Reduction Methods

- D. Kopljarić (Faculty of Electrical Engineering and Computing, Zagreb, Croatia), V. Drvar (CROZ AI, Zagreb, Croatia), J. Babić, V. Podobnik (Faculty of Electrical Engineering and Computing, Zagreb, Croatia)

xAAD in Practice: Explainable Anomaly Detection in Cybersecurity

- D. Oreščanin (Legit Software d. o. o., Zagreb, Croatia), V. Kužina (Zagreb, Croatia)

Engine for Discovery of Personal Data Based on Machine Learning

- V. Vodilovska, N. Ackovska, I. Ivanoska (Faculty of Computer Science and Engineering, Skopje, North Macedonia)

Leveraging Graph Attention Networks for Blood-Brain Barrier Permeation Prediction

- L. Batistić, S. Ljubić (Faculty of Engineering, Rijeka, Croatia), K. Griparić, D. Sušanj (Faculty of Engineering, Pula, Croatia)

Comparison of Image-based Deep Learning Classification Models for Motor Imagery EEG Signals

ARTIFICIAL INTELLIGENCE APPLICATIONS AND OTHER TOPICS – II

- L. Dobruna, A. Berisha (Faculty of Mathematical and Natural Sciences, Prishtina, Kosovo)

A Data-Driven Approach for Predicting Solar Energy Production Using Machine Learning Techniques

- P. Medur (Faculty of Engineering, Rijeka, Croatia), M. Lubbers (Institute for Computing and Information Sciences, Nijmegen, Netherlands), G. Mauša (Faculty of Engineering, Rijeka, Croatia)

Optimizing Keyword Spotting Classifier Based on Tiny Machine Learning for Low-Power Embedded Devices

3. M.K. Banjanin (Faculty of Philosophy, Pale, Bosnia and Herzegovina), M. Stojčić, M. Vasiljević, A. Stjepanović, G. Jotanović, M. Husić, G. Jauševac (Faculty of Transport and Traffic Engineering, Doboј, Bosnia and Herzegovina)

Prediction of the Number of Parcels Sent Via Express Mail Service in a Time Series Using Statistical and Machine Learning Models

4. B. Okreša Đurić (Faculty of Organization and Informatics, Varaždin, Croatia), C. Carrascosa (Department of Computer Systems and Computation, Polytechnic University of Valencia, Spain)

A Framework for Ontology-Driven Multiagent System Generation

5. D. Demeterfi, T. Kovačević, Z. Kostanjčar (Faculty of Electrical Engineering and Computing, Zagreb, Croatia), V. Bilas (Notitia Ltd., Zagreb, Croatia)

Bridging the Gap Between Model Complexity and Data Availability for Forecasting Tourist Activity



BIS-BDP

BUSINESS INTELLIGENCE SYSTEMS AND BIG DATA PROCESSING
POSLOVNI INTELIGENTNI SUSTAVI I OBRADA VELIKIH PODATAKA

EN

04.06.25. 16⁰⁰-19⁰⁰

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INVITED LECTURE · POZVANO PREDAVANJE

Matteo Francia (University of Bologna, Cesena, Italy)

Unified Data Platforms: Challenges and Opportunities in the Era of Heterogeneous Big Data

PAPERS · RADOVI

1. A. Rajh (Faculty of Humanities and Social Sciences, Zagreb, Croatia)

Semantic and Other Serializations of Archival Description: Impact on the Understanding, Processing, and Use of Archival Materials

2. L. Štefan (Faculty of Civil Engineering, Zagreb, Croatia), L. Đud, D. Pintar (Faculty of Electrical Engineering and Computing, Zagreb, Croatia), K. Potočki (Faculty of Civil Engineering, Zagreb, Croatia)

Overview of Machine Learning Methods for Analyzing and Clustering of Flood Wave Data

3. S. Delalić (Faculty of Science, Sarajevo, Bosnia and Herzegovina), S. Behić, H. Goralija (Faculty of Electrical Engineering, Sarajevo, Bosnia and Herzegovina), Z. Šabanac (Faculty of Science, Sarajevo, Bosnia and Herzegovina)

Enhancing Warehouse Efficiency: Estimating Order Picking Complexity for Improved Performance

- A. Meštrović, S. Beliga (Faculty of Informatics and Digital Technologies, Rijeka, Croatia), D. Pitoski (Center for Artificial Intelligence and Cybersecurity, University of Rijeka, Croatia)
Peoplet: Exploring Organizational Structures through Social Network Analysis
- Lj. Brkić, I. Mekterović, M. Fertalj (Faculty of Electrical Engineering and Computing, Zagreb, Croatia)
Enhancing Accuracy in Peer Assessment by Addressing Bias and Outliers through Calibration Method
- I. Pavić (Faculty of Electrical Engineering and Computing, Zagreb, Croatia), F. Varga (Faculty of Agriculture, Zagreb, Croatia), I. Čavrank (Faculty of Electrical Engineering and Computing, Zagreb, Croatia)
Assessing Spatial Accuracy of Nature Observations Using the LLM-Based Geoparser Service
- I. Mekterović, Lj. Brkić (Faculty of Electrical Engineering and Computing, Zagreb, Croatia)
Can LLM Pass a CS1 Course?
- D. Begušić, D. Pintar (Faculty of Electrical Engineering and Computing, Zagreb, Croatia), Z. Smole (Modalis Ltd., Zagreb, Croatia), B. Dalbelo Bašić (Faculty of Electrical Engineering and Computing, Zagreb, Croatia)
- Large-Scale Molecular Similarity Search using Vector Database**



CE

COMPUTERS IN EDUCATION RAČUNALA U OBRAZOVANJU



EN
HR

02.06.25. 10⁰⁰-13⁰⁰, 15⁰⁰-19⁰⁰
 03.06.25. 09⁰⁰-14¹⁵, 15⁰⁰-18⁰⁰
 04.06.25. 15⁰⁰-19⁰⁰
 05.06.25. 09⁰⁰-13⁰⁰, 15⁰⁰-19⁰⁰
 06.06.25. 09⁰⁰-13⁰⁰

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U utorak, 3.6. u okviru HRVATSKOG DANA održat će se predstavljanje rezultata natječaja za najbolji crtež na temu „Što bi radio moj program? Zadaj zadatak (slikom i/ili tekstom) programeru!“ u organizaciji Društva kibernetičara Rijeka.

PAPERS · RADOVI

- Z. Li, S. Manoharan, X. Ye (University of Auckland, New Zealand)
Using Instrumentation to Infer Difficulty Levels in Isomorphic Questions
- M. Galić (University North, Koprivnica, Croatia), A. Šulentić (Faculty of Political Science, Zagreb, Croatia), I. Rosanda-Žigo (University North, Koprivnica, Croatia)
Familiarity with AI and Its Use in Programme Production by Croatia's Most Listened-to Radio Stations

3. J. Žufić, A. Debeljuh (Faculty of Educational Sciences, Pula, Croatia), D. Kukuljan (Juraj Dobrila University of Pula, Croatia)

Frequency of Use and User Feelings When Using ChatGPT

4. T. Velki (Faculty of Education, Osijek, Croatia), M. Miočić (Department of Teachers and Preschool Teachers Education, University of Zadar, Croatia)

Adaptation and Validation of a Questionnaire on Perceived Benefits and Risks of Children's Internet Use

5. M. Ayub, O. Karnalim, H. Toba, M.C. Wijanto (Maranatha Christian University, Bandung, Indonesia)

Programming with Hedy for Indonesian Junior High Schools

6. S. Kunić, B. Kotarski, P. Dražić (Croatian Radiotelevision, Zagreb, Croatia), M. Sokele (Zagreb University of Applied Sciences, Croatia)

Introduction of the Course "Television and Radio Systems" at the Professional Graduate Study Program

7. R. Repnik, P. Cajnko, E. Klemenčič, D. Osrajanik (Faculty of Natural Sciences and Mathematics, Maribor, Slovenia)

Graduates Insights: Development of Digital and Computational Competences in Physics and Mathematics Study Programs at University of Maribor

8. M. Mihaljević, V. Kirinić (Faculty of Organization and Informatics, Varaždin, Croatia)

Enhancing Accessibility of Learning Analytics System User Interface: a Case Study

9. J. Žufić (Faculty of Educational Sciences, Pula, Croatia), A. Žufić (Veli Vrh Elementary School Pula, Croatia), S. Bodriš (Marčana Elementary School, Juršići, Croatia)

Hour of Code: Classroom Escape

10. M. Duić (Department of Information Sciences, University of Zadar, Croatia)

Education about Artificial Intelligence Technologies: Attitudes and Practices of School Librarians in Croatia

11. M. Drushlyak, A. Yurchenko, Y. Khvorostina, M. Soroka, I. Gorovoy, O. Semenikhina (Sumy State Pedagogical University named after A. S. Makarenko, Ukraine)

Mobile Planetarium as a Means for Popularization of STEM Education

12. M. Drushlyak, T. Lukashova, D. Ielizarenko, O. Nadtochyj (Sumy State Pedagogical University named after A. S. Makarenko, Ukraine)

Transformation of Homework in Mathematics in the Digital Era

13. M. Gagula, M. Hell (Faculty of Economics, Business and Tourism, Split, Croatia)

User Awareness and Website Implementation of Cookie Notices: a Comparative Study in Croatia

14. R. Vrana (Faculty of Humanities and Social Sciences Zagreb, Croatia)

AI as a Study Companion: an Exploration of Student Experiences at the Faculty of Humanities and Social Sciences, Zagreb, Croatia

15. A. Zaikina, D. Surin (Sumy State Pedagogical University named after A. S. Makarenko, Ukraine), O. Shukatka (Ivan Franko National University of Lviv, Ukraine), N. Oliynyk (Vinnytsia Mykhailo Kotsybubynskyi State Pedagogical University, Ukraine), S. Kharchenko (Sumy National Agrarian University, Ukraine), O. Semenikhina (Sumy State Pedagogical University named after A. S. Makarenko, Ukraine)

Training Program on Mastering Digital Health Tools for Physical Therapists

16. A.O. Rozumenko, A.M. Rozumenko (Sumy National Agrarian University, Ukraine), A.O. Yurchenko, I.V. Stotskyi, V.R. Bespalyi, O.V. Semenikhina (Sumy State Pedagogical University named after A. S. Makarenko, Ukraine)

The Influence of Geometry Visual Tasks on Students' Learning Motivation

17. M. Vejačka, J. Štofa (Faculty of Economics, Košice, Slovakia)

Education in the Field of Electronic Banking in University Courses

18. M. Pokorný (Faculty of Education, Trnava, Slovakia)

Moodle and MS Teams Can Eliminate the Possibility of Students Cheating in Online Testing

19. P. Hadrović, T. Alajbeg, M. Sokele, K. Osman (Department of Electrical Engineering, Zagreb University of Applied Sciences, Croatia)

Printed Circuit Board Design in Computer-Aided Design Tool

20. D. Škopljanc-Maćina, T. Mesić (Algebra Bernays University, Zagreb, Croatia)

A Web Interface for Evaluating Search Engines and AI Chatbots

21. D. Škopljanc-Maćina, T. Mesić (Algebra Bernays University, Zagreb, Croatia)
Evaluation of Search Engines and AI Chatbots Using A/B Testing
22. V. Zuppa Bakša, A. Bednjanec, L. Tepeš Golubić (Zagreb University of Applied Sciences, Croatia)
Methods and Tools for Efficiently Evaluating Students' Understanding During Lectures in Electrical Engineering
23. N. Hrona (Taras Shevchenko National University of Kyiv, Ukraine), O. Semenog (Sumy State Pedagogical University named after A. S. Makarenko, Ukraine), I. Kharchenko (Sumy National Agrarian University, Ukraine), M. Ostroha, R. Momot, O. Semenikhina (Sumy State Pedagogical University named after A. S. Makarenko, Ukraine)
ChatGPT in Native Language Teaching: Local Ukrainian Experience
24. Y. Rudenko (Sumy National Agrarian University, Ukraine), K. Zhurba, I. Bekh (Institute of Problems on Education of the NAES of Ukraine, Kyiv, Ukraine), S. Petrenko, A. Bobokalo, O. Semenikhina (Sumy State Pedagogical University named after A. S. Makarenko, Ukraine)
Using Dashboards in the Development of Students' Analytical Thinking
25. M. Maček, M. Novak (Faculty of Organization and Informatics, Varaždin, Croatia)
Women's Involvement in the Field of Computer Programming: A Systematic Mapping Study
26. L. Droždek, I. Pesek (Faculty of Natural Sciences and Mathematics, Maribor, Slovenia)
Pilot Study: Epsilon-Greedy Algorithm in AI-Based Web Application for Mastering Multiplication Tables
27. A. Kuveždić Divjak (Faculty of Geodesy, Zagreb, Croatia), F. Welle Donker (Faculty of Architecture and The Built Environment, Delft, Netherlands), I. Bosnić (Faculty of Electrical Engineering and Computing, Zagreb, Croatia), B. van Loenen (Faculty of Architecture and The Built Environment, Delft, Netherlands)
Promoting Digital Data Literacy in Primary Education: First Lessons from the DIRECTORS Project
28. N. Dehtiarova (Sumy State Pedagogical University named after A.S. Makarenko, Ukraine), M. Medvedieva, M. Zakharevych, V. Kibalenko (Pavlo Tychyna Uman State Pedagogical University, Ukraine), V. Myhal, M. Pronikova (Sumy State Pedagogical University named after A.S. Makarenko, Ukraine)
Teaching Algorithmization Through the Creation of Android Applications in a Visual Development Environment
29. O. Zhmud (Pavlo Tychyna Uman State Pedagogical University, Ukraine), N. Dehtiarova (Sumy State Pedagogical University named after A.S. Makarenko, Ukraine), O. Viunenko (Sumy National Agrarian University, Ukraine), V. Hryhorenko (Pavlo Tychyna Uman State Pedagogical University, Ukraine), I. Lantukh, O. Didkivskyi (Sumy State Pedagogical University named after A.S. Makarenko, Ukraine)
Development of Responsible Attitudes Towards AI-Generated Results Among Future Computer Science Teachers
30. Y. Rudenko, L. Sytnyk (Sumy National Agrarian University, Ukraine), R. Pasichnyi (Lviv Polytechnic National University, Ukraine), O. Bieliaieva (Sumy National Agrarian University, Ukraine), N. Dehtiarova (Sumy State Pedagogical University named after A.C. Makarenko, Ukraine), A. Barabash (Sumy Region Institute of Postgraduate Education, Ukraine)
Analyzing the Results of a Study of the Effectiveness of Developing Students' Cybersecurity Skills
31. L. Elhiny, U. Speidel, X. Ye, S. Manoharan (The University of Auckland, New Zealand)
Leveraging Keystroke Dynamics for Detecting Academic Dishonesty in Online Assessments
32. F. Urem, A. Udovičić, (Šibenik University of Applied Sciences, Croatia), D. Jureković (Oracle Hrvatska d.o.o., Zagreb, Croatia)
Fostering Equitable and Inclusive Online IT Education: Insights from the CodeIn Project
33. T. Nikolova, A. Staneva, K. Rasheva-Yordanova, S. Toleva-Stoimenova, D. Stanev (Department "Computer Sciences", University of Library Studies and Information Technologies, Sofia, Bulgaria)
Illustration in Education with a Focus on Reducing Cognitive Strain
34. P. Rantanen, M. Saari, U.-T. Virta, P. Abrahamsson (Faculty of Information Technology and Communication Sciences, Tampere, Finland)
Toward AI Evaluation of Student Essays

35. A. Yurchenko, Y. Khvorostina (Sumy State Pedagogical University named after A. S. Makarenko, Ukraine), S. Ahadzhanova, K. Ahadzhanov-Honsales (Sumy National Agrarian University, Ukraine), S. Bohoslavskyi, O. Semenikhina (Sumy State Pedagogical University named after A. S. Makarenko, Ukraine)

Artificial Intelligence in Mathematics Education: Quantitative Analysis of Publication Activity

36. Y. Rudenko (Sumy National Agrarian University, Ukraine), M. Drushlyak, V. Shamonia, Y. Diemientiev, O. Semenikhina (Sumy State Pedagogical University named after A. S. Makarenko, Ukraine)

Partnership Pedagogy and the Pygmalion Effect in the Digital Learning Environment

37. K. Bedi (School of Civil Engineering, Art and Craft Čakovec, Croatia)

AI-Driven Creativity: Investigating Student Motivation in the Process of AI Photo Generation

38. Y. Januzaj, E. Beqiri (University "Haxhi Zeka" Peja, Kosovo), A. Luma (South East European University, Tetovo, North Macedonia)

Implementing Machine Learning Algorithms for Personalizing the Learning Process and Real-Time Monitoring of Student Activity in University Environments

39. A. Mirković Moguš, R. Varga, V. Kiralj (Faculty of Education, Osijek, Croatia)

Prospective Kindergarten Teachers' Readiness to Integrate Computational Thinking into Early Childhood Education

40. D. Paľová, J. Zoričáková (Faculty of Economics, Košice, Slovakia)

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5. S. Vojvodić, K. Vidović, D. Leljak, A. Najev (Ericsson Nikola Tesla, Zagreb, Croatia), N. Grubišić (Faculty of Maritime Studies, Rijeka, Croatia)
A Traffic Decision Support System Assisted by Mobile Network Data
6. P. Lončar, P. Lončar (University of Split, Croatia)
Evolutionary Computation Algorithms for Task Scheduling in Distributed Computing
7. J. Vehovar, M. Rot (Jozef Stefan International Postgraduate School, Ljubljana, Slovenia), G. Kosec (Institut "Jožef Stefan", Ljubljana, Slovenia)
Performance Trade-offs of High Order Meshless Approximation on Distributed Memory Systems
8. A. Shekerov (Faculty of Computer Science and Engineering, Skopje, North Macedonia), A. Angelevska (Innovation Dooel, Skopje, North Macedonia), M. Gusev (Faculty of Computer Science and Engineering, Skopje, North Macedonia)
Efficient Time-Series Heart Rate Variability Metrics in C++
9. D. Mileski, N. Petrovski, M. Gusev (Faculty of Computer Science and Engineering, Skopje, North Macedonia)
Scalability Evaluation of HPC Multi-GPU Training for ECG-based LLMs
10. R. Piltaver, A. Janach (Faculty of Informatics and Digital Technologies, Rijeka, Croatia)
A Decision-Making Framework for Evaluating Orchestration Systems in Microservices Applications
11. I. Vlašić, G. Malčić, M. Lučan, D. Malez (Technical College of Applied Sciences in Zagreb, Croatia)
Application of Open Source and MQTT Network Protocol in Simatic S7 Automation Systems
12. D. Miljković (Hrvatska Elektroprivreda, Zagreb, Croatia)
LLM-Enhanced Aircraft Piston Engine Diagnostics with Expert Knowledge Integration
13. D. Miljković (Hrvatska Elektroprivreda, Zagreb, Croatia)
Intelligence Beyond Human Limits: The Evolution and Implications of Machine Cognition

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PAPERS · RADOVI

1. R. Jurković, R. Kopal (Algebra Bernays University, Zagreb, Croatia)
Self-Assessment of Digital Literacy Skills Using Internet Skills Scale (ISS): a Preliminary Report
2. P. Iliev, D. Todorov (University of Plovdiv Paisii Hilendarski, Bulgaria)
The Chance or The Margin Drives Bookies' Revenue
3. J. Ložić, K. Fotova Čiković (University North, Koprivnica, Croatia), I. Ložić (Centar za Financijska Vještina, Zagreb, Croatia)
The Impact of the Presidential Campaign in the USA on the Business Results of the X/Twitter Platform
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Research on the Impact of Algorithmic Echo Chambers on Perceptions and Attitudes of Social Network Users in Digital Society
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Online Consumer Profile and Intergenerational Comparison in the Republic of Croatia
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Transforming Maritime Transport in Croatia through Hydrogen Technologies: Economic Potentials and Critical Perspectives
8. D. Nižetić, S. Jovčić (Sveučilište VERN', Zagreb, Hrvatska), M. Bednjanec (Veleučilište ASPIRA, Zagreb, Hrvatska)
Optimizacija Stranica za Pozicioniranje na Internetskim Tražilicama - Analiza Korelacije SEO Elemenata i Ostvarene Pozicije
9. L. Hrustek (Faculty of Organization and Informatics, Varaždin, Croatia), E. Krhač Andrašec (Faculty of Organizational Sciences, Maribor, Slovenia), M. Tomičić Furjan (Faculty of Organization and Informatics, Varaždin, Croatia)
At the Crossroads of Sustainability and Digital Transformation: Exploring Synergies and Challenges in Global Development
10. L. Lozev, Y. Hadzhisyska, K. Rasheva-Yordanova (Faculty of Information Sciences, Sofia, Bulgaria), A. Lozeva (Faculty of Library Studies and Cultural Heritage, Sofia, Bulgaria)
Applications of Artificial Intelligence in Library Activities

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Measuring the Readiness of Public Policies For E-Inclusion of the 54+ Population with a Composite Index - the Croatian Counties Case
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A Triple Approach to Initiating Digital Transformation: Insights Through Metamodeling
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Taxation of Robots
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Cybersecurity Challenges in Open Data and AI Systems for Sustainable Local Development
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Digital Transformation and Business Decision Making for Sustainability in E-Learning Management
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Inovacije u Digitalnom Marketingu - Bibliometrijski Pregled Radova od 2021. do 2024.
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AI-Enhanced Exam Preparation: Addressing Economic and Sustainability Challenges in Digital Transformation
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Reducing Costs and Improving Customer Satisfaction in Insurance Using AI
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Evaluation of the Current Process of Inspection Supervision (AS-IS) and Recommendations for the Future (TO-BE) Model in Croatia
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Artificial Intelligence in Higher Education: A Global Analysis of AI-Focused Educational Programs
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The Impact of Digitalization on the Workforce, Productivity and Efficiency of Companies
27. L. Petrović, V. Vinšalek Stipić (Polytechnic "Nikola Tesla" in Gospić, Croatia), D. Jurković (CHEA Croatian Health Employers' Association, Zagreb, Croatia)
Digitalisation of Public Services Using the Example of Health Care in the Republic of Croatia
28. A. Mandić (University North, Koprivnica, Croatia)
Optimizing the Research Process: The Role of AI Tools in Scientific Literature Searches
29. S. Rosandić (Ericsson Nikola Tesla d.d.)
The Role of Data Catalog in Advancing Data Monetization Strategy



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PAPERS · RADOVI

DATA SCIENCE

1. G. Golob, M. Rot, G. Kosec (Jožef Stefan Institute, Ljubljana, Slovenia)
Issues with Accurate Boundary Representation in Oversampled Meshless Methods
2. A. Rogan, A. Kolar-Požun, G. Kosec (Jožef Stefan Institute, Ljubljana, Slovenia)
A Numerical Study of Combining RBF Interpolation and Finite Differences to Approximate Differential Operators
3. N. Malivuk, A. Ilić, I. Putnik, L. Milić (Faculty of Technical Sciences, Novi Sad, Serbia), B. Petrović (Faculty of Medicine, Novi Sad, Serbia), S. Kojić (Faculty of Technical Sciences, Novi Sad, Serbia)
Fluid Velocity Optimization in a Computational Lab-on-Chip Model for Cellular Analysis
4. A. Ilić, N. Malivuk, L. Milić, F. Mrkić (Faculty of Technical Sciences, Novi Sad, Serbia), B. Petrović (Faculty of Medicine, Novi Sad, Serbia), S. Kojić (Faculty of Technical Sciences, Novi Sad, Serbia)
In Silico Optimization of Scaffolds for Skeletal Muscle Tissue Engineering
5. D. Katović (Faculty of Kinesiology Zagreb, Croatia), T. Bronzin, D. Adamec, B. Prole, A. Stipić (CITUS, Zagreb, Croatia), M. Horvat (Faculty of Electrical Engineering and Computing, Zagreb, Croatia)
Structured Overview of the Similarity Metrics Commonly Used in 3D Skeleton-Based Re-Identification Studies
6. I. Vasileska, P. Tomšić, L. Kos (Faculty of Mechanical Engineering, Ljubljana, Slovenia)
Accelerating Sheath Particle-in-Cell Simulations with StarPU
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Cost-Effectiveness Analysis of a Serverless Noise Detection Module
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Improving Transparency and Accessibility in the Academic Publication Process on EBSI Network
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Predictive Modeling of Correlation And Volatility in Multivariate Financial Time Series
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Prediction of Wind Direction Variability in Dynamic Thermal Rating with Decision Trees

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Improving Surface Soil Moisture Estimation with Distributed Deep Learning and HPC

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Integrating Deep Learning and Raman Spectroscopy for Early Detection of Plant Diseases

13. A. Robek (Jožef Stefan Institute, Ljubljana, Slovenia), J. Stergar, M. Modic, Č. Keber, T. Tomanč (Faculty of Mathematics and Physics, Ljubljana, Slovenia), I. Štajduhar (Faculty of Engineering, Rijeka, Croatia), M. Milanič (Faculty of Mathematics and Physics, Ljubljana, Slovenia)

In Vitro Visualization of Bacterial Colonies by Optical Coherence Tomography

14. M. Burch, M. Barbosa, M. Schmid (University of Applied Sciences of the Grisons, Chur, Switzerland)
Currency Matrices for the Visual Analysis of Currency Correlations

15. M. Burch (University of Applied Sciences of the Grisons, Chur, Switzerland), S. Dannehl (Eindhoven University of Technology, Netherlands)

Analyzing Player Types in Football

BIOMEDICAL ENGINEERING

1. M. Melinščak (Zagreb University of Applied Sciences, Zagreb, Croatia)

Enhancing Interpretability in Retinal OCT Analysis Using Grad-CAM: A Study on the AROI Dataset

2. A. Ribarić (Faculty of Electrical Engineering and Computing, Zagreb, Croatia), T. Domazet-Lošo (Ruđer Bošković Institute, Zagreb, Croatia), M. Domazet-Lošo (Faculty of Electrical Engineering and Computing, Zagreb, Croatia)

Gene Age Prediction is Robust to False Homology

3. B. Borožan, L. Borožan, T. Prusina, J. Maltar, D. Matijević (School of Applied Mathematics and Informatics, Osijek, Croatia), S. Canzar (Faculty of Informatics and Data Science, Regensburg, Germany)

Accelerating Marker Gene Selection in ScRNA-Seq

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Bridging Gaps in Ligand Binding Affinity Prediction: Empirical Machine Learning Analyses

5. F. Fetaji, S. Gievská, S. Kalajdziski (Faculty of Computer Science and Engineering, Skopje, North Macedonia)

Graph and Convolutional Methods for Advancing Ligand Binding Affinity Modeling in Drug Research

6. O. Czimbalmos, G. Korosi (Department of Computer Algorithms and Artificial Intelligence, University of Szeged, Hungary), G. Kekesi, G. Horvath (Albert Szent-Gyorgyi Medical School, Szeged, Hungary)

A Data Science Perspective for the Effective Selective Breeding Process to Produce Striking Behavioral Differences Between Two Rat Substrains During Several Generations

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Non-Destructive Phenotyping of Duckweed Using Segment Anything Model

8. M. Kapo, E. Buza, A. Akagić (Faculty of Electrical Engineering, Sarajevo, Bosnia and Herzegovina)
Super-Resolution of DermaMNIST Images Using Deep Learning Models

9. J.S. Busch, C.S. Barakat (Julich Supercomputing Centre, Forschungszentrum Julich, Germany), T. Pauli, S. Fonck, A. Stollenwerk (Informatik 11 - Chair of Embedded Software, RWTH Aachen University, Germany), S.J. Fritsch, M. Riedel (Julich Supercomputing Centre, Forschungszentrum Julich, Germany)

Leveraging Vision Transformers with Hyperparameter Optimization for the Classification of Acute Respiratory Distress Syndrome

10. A. Stanešić, L. Klaic, D. Cindrić, M. Cifrek (Faculty of Electrical Engineering and Computing, Zagreb, Croatia)
- Analog Frontend for Capacitive Electrodes in Biomedical Applications**
11. I. Tomašić (School of Innovation, Design and Engineering, Västerås, Sweden), N. Tomašić (Division of Pediatric Endocrinology and Metabolism, Karolinska University Hospital, Stockholm, Sweden)
- Optimized Synthesis of 12-Lead ECG from Bipolar Torso Leads**
12. K. Čaleta, A. Šarčević, J. Božek, M. Horvat (Faculty of Electrical Engineering and Computing, Zagreb, Croatia), I. Zmijanović (General Hospital Šibenik, Croatia)
- Preliminary Results on Automated Binary Classification of Congenital Heart Defects in Fetal Ultrasound Images Using Deep Learning Algorithm**
13. E. Dupljak, E. Domazet (Faculty of Engineering, Computer Engineering, Skopje, North Macedonia)
- Hybrid Deep Learning Architectures for Multi-Modal AI-Driven Breast Cancer Detection: A Comparative Analysis of Computational Efficiency and Diagnostic Accuracy**
14. S. Tudjarski, M. Gusev, A. Madevska Bogdanova (Faculty of Computer Science and Engineering, Skopje, North Macedonia), A. Stankovski (Polytechnic University of Madrid, Spain)
- Improving Atrial Fibrillation Detection with Machine Learning Models**



EE

ENGINEERING EDUCATION
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INVITED LECTURE · POZVANO PREDAVANJE

1. Diana Bairaktarova (Virginia Tech, United States)
Engineering with Heart: Centering Ethics and Empathy in the Age of AI

PAPERS · RADOVI

1. A. Sahni (National College of Ireland, Dublin, Ireland), A.A. Simiscuka (Dublin City University, Ireland) B. O'Riordan, J. Booth, D. Mothersill, A. Hargreaves, K. Darmody, J. Bleach, P. Stynes (National College of Ireland, Dublin, Ireland)

Senior Coding Framework for Enhancing Python Skills in Students Aged 13-16

2. I. Bosnić (Faculty of Electrical Engineering and Computing, Zagreb, Croatia), A. Kuveždić Divjak (Faculty of Geodesy, Zagreb, Croatia), F. Welle Donker, B. van Loenen (Faculty of Architecture and The Built Environment, Delft, Netherlands)

Integrating Engineering Principles in Data Literacy Workshops for Primary Education

3. B. Založnik, P. Bernad, E. Rihter, J. Rakun (Faculty of Agriculture and Life Sciences, Maribor, Slovenia)
 4. G.J. Collins (Department of Computer Science, University College London, United Kingdom)
- Integrating ICT into Precision Agriculture Education: Insights from the IPA Summer School**
- From STEM to STEAM: Enhancing the Engineering Education Experience**

5. P. Tomšič (Faculty of Mechanical Engineering, Ljubljana, Slovenia), D. Harish (ARNES, The Academic and Research Network of Slovenia, Ljubljana, Slovenia), I. Vasileska (Faculty of Mechanical Engineering, Ljubljana, Slovenia)
- Informal Education for High-Performance Computing and Cross-National Collaboration with National Competence Centers and Centers of Excellence**
6. E. Ndassimba (Polytechnic School, Dakar, Senegal), N. Zoh-Ponguele, G.M.S.-J. Kossingou (Faculty of Science, Bangui, Central African Republic)
- Bridging the Digital Divide in Education: IPTV Architecture Using TVWS, FFmpeg, and OBS**
7. P. Orta, H. Ahuett-Garza, R. Mora, I. Cazares (Tecnológico de Monterrey, Mexico)
- Global Collaboration in Engineering Education: Six Years of IDEEA's Multidisciplinary Projects**
8. I. G. Martinez (Department of Industrial Engineering and Operations Research, University of the Philippines, Quezon City, Philippines), R.P. Martinez (Philippine Space Agency, Quezon City, Philippines)
- Blueprint of Integrity: Continuing Ethics Education in Engineering**
9. P. Koulouri (Aigio, Greece), A. Miari (Department of Biological Applications & Technology, University of Ioannina, Greece), A. Daneli (Department of Chemistry, University of Ioannina, Greece), P. Nicolaidis (The National Institute of Dramatic Art, Kensington, Australia), I. Leonardos, L.-V. Andreou (Department of Biological Applications & Technology, University of Ioannina, Greece)
- Drama Techniques Reduce Public Speaking Class Anxiety Among Science Undergraduates**
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- Stress Monitoring During University Exam Period Using Smartwatches**
11. M. Krajačić, J. Petrović (Faculty of Electrical Engineering and Computing, Zagreb, Croatia), V. Putarek (Kutak za mene d.o.o, Zagreb, Croatia)
- Prevalence and Correlates of Impostor Syndrome Among Computer and Electrical Engineering Students**
12. C. Andersson (Frankfurt University of Applied Sciences, Germany), G. Kroisandt (University of Applied Sciences, Saarbrücken, Germany)
- A First Analysis of Students' Feedback to an EduScrum-Based Course in a Computer Science Master's Program**
13. N.V.C. de Vasconcelos, M.C.C. Pontarolo (Department of Engineering, Federal Rural University of the Semi-Arid Region, Angicos, Brazil)
- Positive Education and Project-Based Learning: Exploring Competency Development in Engineering Students**
14. S. Pumrin, S. Sangwongwanich (Department of Electrical Engineering, Chulalongkorn University, Bangkok, Thailand), P. Deachapok, N. Neamsang, S. Phontongjalearn (Faculty of Engineering, Bangkok, Thailand), T. Singhanart, K. Maneeratana (Department of Mechanical Engineering, Chulalongkorn University, Bangkok, Thailand)
- An Experience in Using Library's Service in Distributing Self-learning Analog Discovery Kits**
15. P. Kuhar (University North, Koprivnica, Croatia)
- Application of Factor Analysis in Determining the Dimensions of the Public Relations Model in Croatian Higher Education Institutions**
16. M. Mohammadali Mazlaghani, D.C. Zuiderwiet, P.J. van Duijsen (The Hague University Of Applied Sciences, Delft, Netherlands)
- Lifelong Learning in the Energy Transition: Implementation of Wireless Power Transfer**
17. B. Crnković (Faculty of Mathematics, Rijeka, Croatia), M. Holenko Dlab (Faculty of Informatics and Digital Technologies, Rijeka, Croatia), V. Mikulić Crnković, I. Traunkar (Faculty of Mathematics, Rijeka, Croatia)
- Exploring Optimization Algorithms through a Game-Based Learning Approach**
18. O.A. Oreshkina (Department of Chemistry, Bauman Moscow State Technical University, Russia), Y.A. Safonova (Department of Sociology and Cultural Studies, Bauman Moscow State Technical University, Russia)
- Generative AI as a Technology to Support Hearing-Impaired Students in Inclusive Programs of a Technical University**

19. M. Žunić, M. Holenko Dlab, K. Stančin (Faculty of Informatics and Digital Technologies, Rijeka, Croatia)
- Exploring Primary School Computer Science Teachers' Perceptions of the Metaverse**
20. P. Matarrodona Moragas, R. Baltà-Salvador, M. Peña (Universitat Politècnica de Catalunya BarcelonaTech, Spain)
- Generative Artificial Intelligence: A Tool to Bridge Gender Gaps in STEM Careers**
21. A. Dimitrova, P. Georgieva (Burgas Free University, Bulgaria)
- Improving Cognitive Skills with a Multi-Agent DQN: A MATLAB Implementation**
22. B. Fetaji (Faculty of Informatics, Skopje, North Macedonia), M. Fetaji (Faculty of Computer Science, Tetovo, North Macedonia), G. Armenksi, F. Fetaji (Faculty of Computer Science and Engineering, Skopje, North Macedonia)
- Assessing Personalized Engineering Learning Experience with a Multi-Modal AI Tutoring Framework**
23. S.T. Chong (Universiti Tenaga Nasional, Selangor, Malaysia), I.M. Hanika (Pertamina University, Jakarta, Indonesia), K.S. Loh (Universiti Kebangsaan Malaysia, Selangor, Malaysia), A.Z. Abd Rahman (Malaysian Examinations Council, Selangor, Malaysia), E.E.L. Yeap (Universiti Tenaga Nasional, Selangor, Malaysia), H. Hashim (Universiti Kebangsaan Malaysia, Selangor, Malaysia)
- Assessing STEM Initiatives for Malaysian Secondary Schools: a Case Study on Basics of Sustainability (BoS)**
24. E. Tumarova (Sofia University "St. Kliment Ohridski", Bulgaria), D. Tumarova (South-West University "Neofit Rilski", Blagoevgrad, Bulgaria), G. Tumarov (New Bulgarian University, Sofia, Bulgaria)
- Exploring the Role of Large Language Models in Advancing Student Assessment in Database Courses**
25. N. Dehtiarova (Sumy State Pedagogical University named after A.S. Makarenko, Ukraine), O. Zhmud (Pavlo Tychyna Uman State Pedagogical University, Ukraine) O. Boriak (Sumy State Pedagogical University named after A.S. Makarenko, Ukraine), D. Dehtiarova (Institute of International Relations, Kyiv, Ukraine)
- Fostering a Responsible Attitude towards Intellectual Property and Copyright Among Participants of the Discussion Club**



HCI

HUMAN-COMPUTER INTERACTION
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PAPERS · RADOVI

1. J. Valacich, P. Weisgarber (University of Arizona, Tucson, USA), J. Jenkins, D. Wilson (Brigham Young University, Provo, USA), D. Kim (Texas Christian University, Fort Worth, USA)
Revolutionizing Competency Assessment: The Role of Digital Behavioral Biometrics
2. L. Žužić, J. Lerga (Faculty of Engineering, Rijeka, Croatia)
A Web-Based Card Game Simulation for Optimal Strategy Development
3. M. Brkić Bakarić (Faculty of Informatics and Digital Technologies, Rijeka, Croatia)
Redefining the Translation Profession: The Impact of Artificial Intelligence
4. M. Gombar (Centre for Defence and Strategic Studies "Janko Bobetko," Zagreb, Croatia)
Algorithmic Echo Chambers and User Interaction in Understanding the Societal Impact of Personalized Content
5. M. Qureshi, A. Knutas, A. Wolff (Lappeenranta-Lahti University of Technology, Finland)
Exploring Interface Design for Energy Data Visualization: A Usability Testing Workshop
6. H.J. Kam (University of Tampa, USA), A. Hemon-Hildgen (ESSCA School of Management, Angers, France)
GenAI in DevOps: Boon or a Bane
7. T. Hyyninen (HAMK Tech Research Unit, Häme University of Applied Sciences, Hameenlinna, Finland)
Field-Tested: Usability Insights from a Mobile VSEE Application
8. F. Pehar (Department of Information Sciences Laboratory for Interactive Systems and User Experience, University of Zadar, Croatia)
AI as Synthetic Users in Human-Centred Design: a Systematic Review
9. M.H. Doan (IMT - Institute for Advanced Studies, Lucca, Italy), N. Caporusso (Northern Kentucky University, Highland Heights, USA)
Visualizing the Dynamics of the KAB Model with Sankey Diagrams
10. R. Love, A. Price, D. Bačić (Loyola University Chicago, Chicago, USA)
The Effects of Information Load and Brand Familiarity on Visual Attention Strategies and Smartphone Product Preferences
11. A. Skinner, E. Kallmeyer, P. Gutierrez, D. Bačić (Loyola University Chicago, Chicago, USA)
Gendered Endorsers' Impact on Consumers' Subconscious Visual Attention Using Eye-Tracking
12. N. Tylosky, A. Knutas, A. Wolff (Lappeenranta-Lahti University of Technology, Finland)
A Qualitative Study of Sensemaking Through Data Exploration
13. D. Čišić, S. Drezgić, S. Čegar (Faculty of Economics and Business, Rijeka, Croatia)
A Bibliometric Analysis of Artificial Intelligence in Human-Computer Interaction: Insights from Core Web of Science Literature
14. K. Walker, A. Lezic, D. Bačić (Loyola University Chicago, Chicago, USA)
Unveiling the Impact of Subtitles: Insights into Recall and Viewer Visual Engagement on Streaming Video Content
15. S. Vlahović, M. Moslavac, K. Mišura, L. Boban, A. Jović, M. Sužnjević (Faculty of Electrical Engineering and Computing, Zagreb, Croatia)
Usability and User Experience Evaluation of a Multiplatform House Design Pipeline: Navigating Web, AR, and Mobile VR Workflows
16. Y. Lin, J. Xu (Graduate School of Interdisciplinary Information Studies, Chiba, Japan), S. Hachisuka (Interfaculty Initiative in Information Studies, Chiba, Japan), T. Sasano (Institute of Gerontology, Tokyo, Japan), B.-K. Son (Institute for Future Initiatives, Tokyo, Japan)
Exploring Emotional Changes Before and After Electronic Sports Participation in Older Persons Using Facial Expression Analysis

17. M. Burch, A. Kuriger (The University of Applied Sciences of the Grisons, Chur, Switzerland)
F. Pehar (University of Zadar, Croatia), B. Bekavac (The University of Applied Sciences of the Grisons, Chur, Switzerland)

Flights and Airports - A Visual Analytics Perspective

18. N. Pascale, O. Tinawi, J.V. Moraes Barreto, A. Aldaas, D. Baćić (Loyola University Chicago, Chicago, USA)

Short-Form Videos: An Exploratory Study on the Impact of Subtitles and ASMR Split-Screen Format Options Using Eyegaze and Facial Expression Data

19. N. Lekaj, T. Orehočki (Faculty of Informatics, Pula, Croatia)

Interruptions or Assistance: The Impact of Mobile Notifications

20. L. Bekavac (University of St. Gallen, Switzerland), L. Bekavac (Stuttgart Media University, Germany), B. Bekavac (University of Applied Sciences of the Grisons, Chur, Switzerland)

Visualizing Children's Filter Bubbles: a Digital Window for Bridging Social Media Experiences

21. L. Liker, D. Baćnar, D. Barić, M. Jardas (Faculty of Maritime Studies, Rijeka, Croatia)
Translating FlexSim Models into Virtual Reality Environments

22. K. Jurina, T. Prelec (University of Applied Sciences Baltazar, Zaprešić, Croatia)
Digital Dementia: a Case Study of High School Students

23. L. Načinović Prskalo, J. Stojković, D. Ljubobratović (Faculty of Informatics and Digital Technologies, Rijeka, Croatia)

Exploring the Quality Characteristics of Peaches through Data Visualization

24. D. Ogrizović, A. Perić Hadžić, B. Debelić (Pomorski fakultet, Rijeka, Croatia)
Višesmjerne Trake za Kretanje Unutar Imerzivne Virtualne Stvarnosti



ICTLAW

INFORMATION AND COMMUNICATION TECHNOLOGY LAW
PRAVO INFORMACIJSKIH I KOMUNIKACIJSKIH TEHNOLOGIJA

EN
HR

05.06.25. 09⁰⁰-14⁰⁰

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INVITED LECTURE · POZVANO PREDAVANJE

Đorđe Krivokapić (Faculty of Organizational Sciences, Belgrade, Serbia)
Legal Definitions of AI Systems: Insights from the AI Act

1. M. Klarić (Faculty of Law, Split, Croatia)
The Role Artificial Intelligence Technology in Reducing Social Complexity
2. T. Ramljak (Center for Missing and Exploited Children, Osijek, Croatia), L. Vejmelka (Faculty of Law, Zagreb, Croatia), R. Matković (Institute for public Health of Split-Dalmatia County, Split, Croatia, M. Rajter (Faculty of Law, Zagreb, Croatia))
EXPLOITED ONLINE: Sending Self-Generated Sexual Material and Sextortion of Children in Croatia and Serbia
3. P. Loutocký, V. Stupka, F. Kasl (Masaryk University, Brno, Czech Republic)
Certification of the EU Digital Identity Wallets and Its Challenges in the Era of AI
4. K. Šolić, I. Jurić (Faculty of Medicine, Osijek, Croatia), B. Herceg Pakšić (Faculty of Law, Osijek, Croatia)
The Use of AI in Healthcare: Students' Opinions on Ethical Considerations, Legal Consequences, and Future Implications
5. S.S. Yilmaz (Sant'Anna School of Advanced Studies, Pisa, Italy)
Patient Asks to AI: Is There Anybody There? Patient-Centered AI Approach and Human Oversight
6. G.M. Riccio (University of Salerno, Italy)
Tort Rules and Regulatory Sandboxes: The Influence of the National Jurisdictions
7. G. Brkić, V. Zelić Ferencic (Ministarstvo Pravosuda, Uprave i Digitalne Transformacije, Zagreb, Hrvatska)
Probacijska Virtualna Realnost: Edukacija i Rehabilitacija
8. M. Hren (Faculty of Law, Zagreb, Croatia)
NFTs as Negotiable Instruments: Croatian and EU Perspectives
9. T. Čičić, T. Ramljak, I. Ćaleta (Centar za Nestalu i Zlostavljanu Djecu, Višnjevac, Hrvatska)
Pravni Okvir Gaminga u Europskoj Uniji
10. M. Stilinović (Faculty of Law, Zagreb, Croatia)
Payment Tokens In The Succession Law
11. M. Milenković, L. Pacek, E. Rožić (Faculty of Transport and Traffic Sciences, Zagreb, Croatia)
Challenges of Implementing Fully Autonomous Trams in the City of Zagreb - From the Passenger Perspective
12. T. Szádeczky (Institute of Electronic and Communication Systems, Budapest, Hungary), G.L. Szőke (Faculty of Law, Pécs, Hungary)
Legal Challenges of Confidentiality and Publicity in the View of Information Security in Hungary
13. M. Milenković (Faculty of Transport and Traffic Sciences, Zagreb, Croatia), G. Vojković (University North, Koprivnica, Croatia)
Implementation of Regulation (EU) 2024/1183 in Higher Education in the Republic of Croatia
14. V. Rekrutiač (Institute of Law and Technology, Brno, Czech Republic)
Jurisdiction in the Digital Age with the Focus on Quantum Computing

PRESENTATIONS · PREZENTACIJE

1. R. Polčak (Masaryk University, Brno, Czech Republic)
Enforcing the AI Act - An Institutional-Normative Challenge
2. N. Mike (Corvinus University of Budapest, Hungary)
Implications of Cumulative Micro-Decisions and Group-Level Privacy
3. I. Kanceljak (Faculty of Law, Zagreb, Croatia)
Unlocking the Right to Repair: Legal Instruments and Obstacles to Implementation
4. N. Gumzej (Faculty of Law, Zagreb, Croatia)
Ignored Signals: Algorithmic Inaction and the Duty to Act under the Digital Services Act



MEET

MICROELECTRONICS, ELECTRONICS AND ELECTRONIC TECHNOLOGY MIKROELEKTRONIKA, ELEKTRONIKA I ELEKTRONIČKA TEHNOLOGIJA

EN

05.06.25. 09⁰⁰-13⁰⁰, 15⁰⁰-19⁰⁰
06.06.25. 09⁰⁰-13⁰⁰

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PAPERS · RADOVI

1. J. Wimmer, J.F. Dick, J. Schulze (Chair of Electron Devices, Friedrich-Alexander-Universität Erlangen-Nürnberg, Germany)

Fabrication and Electrical Characterization of Pure Boron on 4H-SiC Junctions

2. S. Ultsch, J. Dick, J. Schwarz, J. Schulz (Chair of Electron Devices, Friedrich-Alexander-Universität Erlangen-Nürnberg, Germany)

Electro Luminescent Behavior of Defects in 4H-SiC Light Emitting Diodes

3. R. Kammler, J.F. Dick (Chair of Electron Devices, Friedrich-Alexander-Universität Erlangen-Nürnberg, Germany), A. May, M. Rommel (Fraunhofer Institute for Integrated Systems and Device Technology IISB, Erlangen, Germany), J. Schulze (Chair of Electron Devices, Friedrich-Alexander-Universität Erlangen-Nürnberg, Germany)

600 °C Operation of a LDMOS Integrated on the 4H-SiC CMOS Platform

4. A. Žamboki, L. Gočan (Faculty of Electrical Engineering and Computing, Zagreb, Croatia), J. Mikulić, G. Schatzberger (ams-OSRAM AG, Premstaetten, Austria), T. Mandić, A. Barić (Faculty of Electrical Engineering and Computing, Zagreb, Croatia)

Reducing Mechanical Stress Sensitivity of Integrated Circuits through Component Rotation in Layout

5. B. Schwemmer, J.F. Dick (Chair of Electron Devices, Friedrich-Alexander-Universität Erlangen-Nürnberg, Germany), A. Mayy (Fraunhofer Institute for Integrated Systems and Device Technology IISB, Erlangen, Germany), J. Schulze (Chair of Electron Devices, Friedrich-Alexander-Universität Erlangen-Nürnberg, Germany)

Empirical Modelling of Tunneling Processes in 4H-SiC Gated Pin-Diodes

6. M. Chavoshi, M. Martinić, G.A.E. Vandebosch, B. Nauwelaers, T. Marković, D. Schreurs (Department of Electrical Engineering, KU Leuven, Belgium)

Application of a Calibration Technique for Broadband Dielectric Characterization Using a Narrowband Microwave Resonator Sensor

7. A. Hartmann (Friedrich-Alexander University Erlangen-Nürnberg, Germany), N. Boettcher (Fraunhofer Institute for Integrated Systems and Device Technology IISB, Erlangen, Germany)

A Novel Design Variation of a Monolithically Integrated SiC Circuit Breaker

8. A. Akšamović (Faculty of Electrical Engineering, Sarajevo, Bosnia and Herzegovina), S. Odžak (Faculty of Science, Sarajevo, Bosnia and Herzegovina)
Estimation of Single-Diode Model Parameters of Photovoltaic Panels Using Four Points on the I – V Curve
9. M. Poljak (Faculty of Electrical Engineering and Computing, Zagreb, Croatia)
Probing the Design Space of InSb Topological Superconductor Nanowires for the Realization of Majorana Zero Modes
10. P. Kolar (VERN' University, Zagreb, Croatia), L. Blažok (Geotech Ltd., Rijeka, Croatia), D. Bojanjac (Faculty of Electrical Engineering and Computing, Zagreb, Croatia)
Improving NMR Sensitivity with a Predictive Noise Modeling Calculator
11. J. Kundrata, A. Barić (Faculty of Electrical Engineering and Computing, Zagreb, Croatia)
Architectural and Post-Silicon Evaluation of RISC-V vs. Cortex-M0+ SoCs
12. A. Cortiula, M. Danelutti (Polytechnic Department of Engineering and Architecture, University of Udine, Italy), D. Menin, A. Bandiziol (Infineon Technologies Austria AG, Villach, Austria), F. Driussi (Polytechnic Department of Engineering and Architecture, University of Udine, Italy), P. Palestri (Department of Engineering "Enzo Ferrari", University of Modena and Reggio Emilia, Italy)
Comparison between NRZ, PAM-3, PAM-4 and Duobinary Modulation in High-Speed Serial Interfaces
13. A. Miloš, G. Molnar (Ericsson Nikola Tesla d.d., Zagreb, Croatia), M. Vučić (Faculty of Electrical Engineering and Computing, Zagreb, Croatia)
Spectrally Efficient UWB Pulse Shaping Based on Sharpening of Polynomially Weighted Gaussian Pulses
14. L. Gočan, A. Žamboki (Faculty of Electrical Engineering and Computing, Zagreb, Croatia), J. Mikulić, G. Schatzberger (ams-OSRAM AG, Premstaetten, Austria), T. Mandić, A. Barić (Faculty of Electrical Engineering and Computing, Zagreb, Croatia)
Signal Conditioning Circuit for CMOS-Based Wheatstone Bridge Stress Sensors
15. M. Matić, A. Miljavac (Faculty of Electrical Engineering and Computing, Zagreb, Croatia), V. Sharma (Department of Mechanical and Materials Engineering, University of Turku, Finland), M. Poljak (Faculty of Electrical Engineering and Computing, Zagreb, Croatia)
Resistivity Modeling of Copper Nanowires With Sub-100 nm Diameter
16. I. Budić, T. Marković (Faculty of Electrical Engineering and Computing, Zagreb, Croatia)
High Spectral Purity Sinusoidal Voltage Signal Source for Neuromodal Stimulation in the Frequency Range from 1 Hz to 500 kHz
17. A. Križanić (Faculty of Electrical Engineering and Computing, Zagreb, Croatia), M. Magerl (ams-OSRAM AG, Premstaetten, Austria), T. Mandić, A. Barić (Faculty of Electrical Engineering and Computing, Zagreb, Croatia)
Characterization of Microstrip Resonator for EM Immunity Measurements
18. K. Šolaja, R. Blečić, A. Broznić (Rimac Technology d.o.o., Sveta Nedelja, Croatia)
Design and Analysis of Power Supply Input EMC/EMI Filter for Automotive Electronic Control Units
19. T. Vukadin, M. Matić, M. Poljak (Faculty of Electrical Engineering and Computing, Zagreb, Croatia)
Electronic Properties and Ballistic Transport in the 1D van der Waals Material Si2Br4
20. C. Zhang (School of Information Science and Engineering, Shenyang University of Technology, China), H. Wu (School of Information Science and Engineering, Shenyang Ligong University, China), F. Qi (The Shenyang Institute of Automation, Chinese Academy of Sciences, China), Y. Guo (School of Information Science and Engineering, Shenyang University of Technology, China), J. Bao (The Shenyang Institute of Automation, Chinese Academy of Sciences, China)
Design of a High-Gain Biconvex Non-Spherical Lens Antenna for Millimeter-Wave Communication Applications
21. W. Zhang (School of Information Science and Engineering, Shenyang University of Technology, China), H. Wu (School of Information Science and Engineering, Shenyang Ligong University, China), F. Qi (The Shenyang Institute of Automation, Chinese Academy of Sciences, China), Y. Guo (School of Information Science and Engineering, Shenyang University of Technology, China), J. Bao (The Shenyang Institute of Automation, Chinese Academy of Sciences, China)
Experimental Millimeter-Wave Radar Image Analysis for Ice Detection in Low-Temperature Environments

22. A. Barua, V. Sharma (Department of Mechanical and Materials Engineering, University of Turku, Finland)
Biomimetic Breathable Surfaces for Triboelectric Nanogenerator for Energy Harvesting
23. M. Marušić, D. Novaković, I. Berdalović, T. Suligoj (Faculty of Electrical Engineering and Computing, Zagreb, Croatia)
Impact of AlGaN and InAlN Barrier Layer Materials on Double-Heterostructure GaN HEMT's Conduction Properties
24. A. Tabaković, F. Bogdanović, L. Marković (Faculty of Electrical Engineering and Computing, Zagreb, Croatia), J. Žilak (Ericsson Nikola Tesla d.d., Zagreb, Croatia, M. Koričić, T. Suligoj (Faculty of Electrical Engineering and Computing, Zagreb, Croatia)
Modeling of Silicon Bipolar Transistor's Current Gain at Cryogenic Temperatures down to 40 K
25. B. Pejčinović, H. Tran (Electrical and Computer Engineering Department, Portland State University, USA), A. Ramachandran, K.G.R. Thompson, R. Doneker (TangiTek, LLC, Portland, USA)
Effects of Calibration and De-embedding on Material Parameter Extraction Using Coaxial Airline



OPHO

OPTOELECTRONICS AND PHOTONICS
OPTOELEKTRONIKA I FOTONIKA

EN

04.06.25. 15⁰⁰-19⁰⁰

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INVITED LECTURES · POZVANA PREDAVANJA

1. Andraž Debevc (Faculty of Electrical Engineering, University of Ljubljana, Slovenia)
Design of Passive Integrated Photonic Components for Optical Coupling and Polarization Handling
2. Jonas Junker (Australian National University, Canberra, Australia)
Pulsed 3D Cluster States for CV Quantum Computing

PAPERS · RADOVI

1. D. Milovančev (AIT Austrian Institute of Technology, Vienna, Austria)
Monolithically Integrated Switchable Optical Receiver for Classical and Quantum Communication
2. A.P. Weiss (Institute for Sensors, Photonics and Manufacturing Technologies, Joanneum Research, Pinkafeld, Austria), G.J. Mohr (Institute for Sensors, Photonics and Manufacturing

Technologies, Joanneum Research, Weiz, Austria), A. Kröpfl, C. Krutzler (Institute for Sensors, Photonics and Manufacturing Technologies, Joanneum Research, Pinkafeld, Austria)

Phosphorescent Markers for Visible Light Sensing Put Into Practice

3. M. Tomic (Institute of Technical Sciences of SASA, Belgrade, Serbia), A. Gavrilovic-Wohlmuther (Schoeller-Bleckmann Nitec GmbH, Ternitz, Austria), Z. Djinovic (ACMIT GmbH, Wiener Neustadt, Austria)

Measurement of Wall Thickness in Heat Exchanger Tubes by Simultaneous Use of Low-and High-Coherence Fiber-Optic Interferometry

4. J. Janković, I. Ursu, J. Lončar, J. Vuković (Faculty of Electrical Engineering and Computing, Zagreb, Croatia), M. Šprem, I. Skokić, M. Španović, M. Orić, V. Galić, F. Novoselnik (Protostar Labs d.o.o., Osijek, Croatia), D. Babić (Faculty of Electrical Engineering and Computing, Zagreb, Croatia)

Towards Spectral Data Reduction in Paprika Powder Adulteration Detection

5. S. Sladić (University of Rijeka, Croatia), M. De Santis (Department of Engineering, University of Campania Luigi Vanvitelli, Aversa, Italy), E. Zivić (Faculty of Engineering, Pula, Croatia), W. Giernacki (Poznan University of Technology, Poland)

Smart PV Power Inverter for Emerging Solar Technologies: Case Study Perovskite Solar Cells



PM

**PROJECT MANAGEMENT
UPRAVLJANJE PROJEKTIMA**

(EN)

03.06.25. 09⁰⁰-13⁰⁰, 15⁰⁰-16³⁰

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PANEL · OKRUGLI STOL

Moderator: Darko Jureković (PMI Croatia, Zagreb, Croatia)

PM in Turbulent Times: How AI and War Affect Our Profession and Education?

INTRODUCTION LECTURE · UVODNO PREDAVANJE

Nenad Marjanović (PMI Croatia, Zagreb, Croatia)

A View from a Seasoned PM: Do We Matter Anymore?

PAPERS · RADOVI

1. K. Pažur Aničić, V. Bušelić (Faculty of Organization and Informatics, Varaždin, Croatia)
From Methodology and Tools to AI: Insights into IT Project Management Practices in Croatia
2. Z. Mitrović, D. Petrović, M. Mihić (Faculty of Organisational Sciences, Belgrade, Serbia)
The Role of Causal Relationships in Critical Success Factors Models for Software Projects

- V. Omelyanenko, O. Omelianenko (Sumy Makarenko State Pedagogical University, Sumy, Ukraine), G. Pawłowski (Poznan University of Technology, Poland), A. Artiukhov, S. Lytvynenko (Sumy State University, Sumy, Ukraine)

Technology Transfer Projects Management at Regional Level

- F. Hidri (South East European University, Tirana, Albania), B. Abazi Chaushi (South East European University, Tetovo, Macedonia), G. Tigno (European University of Tirana, Albania)

Analyzing Topic Dynamics, Sentiments, and Semantic Coherence in Reddit Discussions on Agile and Digital Transformation

- I. Lorencin (Faculty of Informatics, Pula, Croatia), G. Krčelić (Faculty of Organization and Informatics, Zagreb, Croatia), L. Blašković, A. Žužić, J.T. Licardo, S. Babić, D. Ettinger, N. Tanković (Faculty of Informatics, Pula, Croatia)

From Innovation to Impact: Case Studies of EDIH Adria TBI Projects

- D. Medved (Sveučilište u Rijeci, Hrvatska), B. Perak (Syntagent d.o.o., Rijeka, Hrvatska), A. Meštrović (Fakultet informatike i Digitalnih Tehnologija, Rijeka, Hrvatska)

ESG - Kako AI Može Pomoći u Dosizanju Ciljeva i Transformaciji Organizacija

- G. Krčelić (Faculty of Organization and Informatics, Zagreb, Croatia), I. Lorencin, N. Tanković (Faculty of Informatics, Pula, Croatia)

Digital Maturity of Private and Public Organizations in RH

- B. Kardum (Pontis Technology, Zagreb, Croatia), Ž. Car (Faculty of Electrical Engineering and Computing, Zagreb, Croatia)

Exploring Stakeholders' Perspectives on the Impact of Generative AI on IT Project Management Roles

- M. Bajica (Oikon – Institute of Applied Ecology, Zagreb, Croatia)

The Implications of use of AI and Geo/Spatial Technologies in Data Harvesting for Sustainability Reporting on Corporate and Project Level

PRESENTATIONS · PREZENTACIJE

- O. Yehorchenkov, N. Yehorchenkova (SPECTRA Centre of Excellence, Slovak University of Technology in Bratislava, Slovakia)

Advancing Project Management Education in the Field of Urban Development: Case Studies from the DREAMER and PM4U Projects

- A.M. Filipović, I. Fastić-Pajk, H. Puljiz, I. Šabić (CARNET, Zagreb, Hrvatska)

Upravljanje IT Projektom Registra Izdanih Isprava u Obrazovanju: Izazovi i Višedionička Suradnja Velikih Organizacija

04.06.25. 17³⁰-19⁰⁰

Hall · Kongresna dvorana Grand Hotel Adriatic



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15⁰⁰-17³⁰ U sklopu sayjetovanja SIDE održat će se forum „Gospodarski Forum za budućnost –Tranzicija prema Industriji 5.0 – Sinergija čovjeka i tehnologije za održivu i otpornu pametnu industriju”.

PAPERS · RADOVI

1. M. Ilić, M. Tošić, A. Tomčić (VizLore Labs Foundation, Novi Sad, Serbia)
Interoperability as an Enabler for Digital Twin Based Decision Making in Smart Agriculture
2. V. Omelyanenko (Sumy Makarenko State Pedagogical University, Ukraine), I. Pidorycheva (Institute of Industrial Economics of National Academy of Sciences of Ukraine, Kyiv, Ukraine), Y. Revtiuk (Poznan University of Technology, Poland), O. Omelianenko (Sumy Makarenko State Pedagogical University, Ukraine), V. Voronenko (Sumy State University, Ukraine)
Empowering Industrial Development through the Smart City Paradigm
3. M. Marić (Millenium Project, Podgorica, Montenegro), D. Marić (Datalogic, Bologna, Italy), A. Gualandi (Astreo, Bologna, Italy.)
Smart Audit and Monitoring of Transmission Towers (SAMST)
4. H. Keserica, S. Sučić, T. Hadjina (Končar - Digital, Zagreb, Croatia)
Addressing Cybersecurity in Aggregator-Based Smart Grid Control Architecture
5. S. Nesimi, E. Domazet (International Balkan University, Skopje, Macedonia)
Securing Heterogeneous Computing Architectures in Self-Driving Cars: Isolation, Inter-Processor Communication, and Threat Mitigation
6. Z. Kljaić (Ericsson Nikola Tesla, Zagreb, Croatia), D. Pavković (Faculty of Mechanical Engineering and Naval Architecture, Zagreb, Croatia), M. Kristić (A1 Hrvatska, Zagreb, Croatia), B. Antolović (Hrvatska Elektroprivreda, Zagreb, Croatia), E. Briški (Hrvatska Regulatorna Agencija za Mrežne Djelatnosti (HAKOM), Zagreb, Croatia)
A Brief Review of Potential Benefits of Integrating Solar Energy into Future Smart City Parking Systems
7. M. Kirinčić, V. Komen (Tehnički fakultet Rijeka, Hrvatska)
Podizanje Razine Pouzdanosti Distribucijske Mreže s Prikluženim Obnovljivim Distribuiranim Izvorima Električne Energije Implementacijom Sustava Virtualnih Baterija

03.06.25. 09⁰⁰-15⁰⁰

Hall · Dvorana Nava 1, Hotel Admiral



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PAPERS · RADOVI

1. K. Kavran, I. Rakarić (InfoDom Ltd., Zagreb, Croatia)
Application of the Command Query Responsibility Segregation Design Pattern in the Information Systems of Croatian State Administration Bodies
2. K. Kavran, I. Rakarić (InfoDom Ltd., Zagreb, Croatia)
Caching in Information Systems Based on Command Query Responsibility Segregation Design Pattern
3. K. Kavran, I. Rakarić (InfoDom Ltd., Zagreb, Croatia)
Eventing in Information Systems Based on Command Query Responsibility Segregation Design Pattern
4. T. Nikolova, S. Toleva-Stoimenova (Department "Computer Sciences", University of Library Studies and Information Technologies, Sofia, Bulgaria)
Application of Large Language Models for Enhancing Bug Reporting Activities
5. J. Benjak, F. Tišljar, M. Šarić, N. Miljančić (Nybble d.o.o., Nedelišće, Croatia)
Flexible User Management and Access Control in Multitenant Microservice Systems
6. I. Zakarija, T. Besjedica, M. Lazo, R. Senjo (Faculty of Electrical Engineering and Applied Computing, Dubrovnik, Croatia)
An Overview of the Online Room Booking System for Higher Education Institutions
7. V. Diklić (dSPACE engineering d. o. o. Zagreb, Croatia), I. Marković (Faculty of Electrical Engineering and Computing, Zagreb, Croatia)
Vehicle Trajectory Filtering Based on Optimal Control and Simulator-Based Reconstruction
8. D. Sindičić, N. Momčilović (Department of Distributed Systems, APIS IT, Zagreb, Croatia)
Efficient Container Image Distribution for Multi-Tenant Kubernetes Clusters
9. D. Ložić, V. Bralić (University of Applied Sciences Velika Gorica, Croatia), A.M. Filipović (Croatian Academic and Research Network, Zagreb, Croatia)
Concurrency Model in Go Programming Language
10. M. Mijač, D. Oreški, L. Posarić (Faculty of Organization and Informatics, Varaždin, Croatia)
A Framework for AI-Powered Neutralization of Environmental Interferences in Measurement Processes
11. M. Kovács, K.M. Bolla (GAMF Faculty of Engineering and Computer Science, Kecskemét, Hungary)
A Comparison of UIKit and SwiftUI in iOS Development
12. Z. Sirotić, S. Sovilj, M. Oršulić (Faculty of Informatics, Pula, Croatia), K. Pripužić (Faculty of Electrical Engineering and Computing, Zagreb, Croatia)
Comparison of Java Virtual and Non-Virtual Threads in Parallel Programming
13. G. Spaits, K. Umann, Z. Porkolab (Department of Programming Languages and Compilers, Eotvos Lorand University, Budapest, Hungary)
A Comparative Study of Static Program Slicing Tools for C

14. D. Fonović (Faculty of Engineering, Pula, Croatia)
A Survey of CoAP Congestion Control in the Context of 6TiSCH Networks for Real-Time Applications
15. E. Leka (Polytechnic University of Tirana, Albania), A. Aliti (Mother Teresa University, Skopje, North Macedonia), L. Lamani (Polytechnic University of Tirana, Albania), E. Hoxha (Albanian University, Tirana, Albania)
The Role of Artificial Intelligence in Transforming Tourism: Enhancing Personalization, Engagement, and Sustainability
16. T. Hynninen, S. Maunula (HAMK Tech Research Unit, Häme University of Applied Sciences, Hämeenlinna, Finland)
Towards Enabling Privacy-First AI Solutions for SMEs Using Open-Source LLMs
17. P. Kudela, M. Fandáková, M. Jakubec, M. Plačák (University Science Park, University of Zilina, Slovakia)
Comparison of Digital Technologies Deployed in The Preservation of Selected Cultural Heritage: Analysis of Accuracy, Quality and Effectiveness
18. J. Matković (Faculty of Mechanical Engineering, Computing and Electrical Engineering, Mostar, Bosnia and Herzegovina)
Analysis of Event-Driven Service Interactions: Choreography versus Orchestration Approach
19. S. Miftari (Faculty of Contemporary Sciences, Tetovo, North Macedonia), A. Aliu (Faculty of Contemporary Sciences, Skopje, North Macedonia)
Designing a Tailored ERP System with Localized Architecture for North Macedonian Enterprises
20. M. Burch, S. Mettler (The University of Applied Sciences of the Grisons, Chur, Switzerland)
A Preliminary Study of the Structural Dynamics of Open Source Software
21. A. Dreshaj, M. Hamiti (Faculty of Contemporary Sciences and Technologies, Tetovo, North Macedonia), Z. Hasani (Faculty of Computer Science, Prizren, Kosovo), N. Besimi, J. Ajdari (Faculty of Contemporary Sciences and Technologies, Tetovo, North Macedonia)
Systematic Literature Review on Automatic Anomaly Detection Based on Database Logs
22. I. Urek, K. Aleksić Maslać, A. Budin (Zagreb School of Economics and Management, Croatia)
An Insight into the Impact Of Generative Artificial Intelligence Tools on Software Development Practices
23. S. Siddeeq (Tampere University, Finland)
Distributed Approach to Haskell Based Applications Refactoring with LLMs Based Multi-Agent Systems

03.06.25. 09⁰⁰-13⁰⁰, 16⁰⁰-19⁰⁰

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PAPERS · RADOVI

1. T. Alajbeg, J. Ećimović, M. Sokele (Department of Electrical Engineering, Zagreb University of Applied Sciences, Croatia), M. Mačković (Fiditas – Explosion Safety Solutions d.o.o., Zagreb, Croatia)

Determination the Temperature Class for Explosion Proof Equipment

2. E. Starić, N. Tanković (Faculty of Informatics, Pula, Croatia)

Preliminary Study on the Difference of Web Services Load Balancing Performance in Theory and Practice

3. E. Mirković, V. Kirinčić, R. Prenc, M. Rojnić (Faculty of Engineering, Rijeka, Croatia)

Decarbonization through Hybrid Energy Systems

4. M. Tomašević, V. Zuppa Bakša, T. Tolnauer Ackermann (Zagreb University of Applied Sciences, Croatia)

The Role of Hydroelectric Power Plants in Power System Stabilization

5. K. Bešenić, V. Zuppa Bakša, A. Bednjanec (Zagreb University of Applied Sciences, Croatia)

Economic Aspects of Electricity Production in Wind Power Plants

6. I. Črnjak, M. Sokele, G. Vujisić (Department of Electrical Engineering, Zagreb University of Applied Sciences, Croatia)

Development of the Device And Mobile Application For Collecting, Analyzing and Displaying Vehicle Diagnostic Data

7. A. Vedriš, B. Tomičić, D. Sente (Zagreb University of Applied Science, Croatia)

Modelling of Permanent Magnet Generators Using the Finite Element Method (FEM)

8. T. Jakopac, S. Kroflin (Faculty of Humanities and Social Sciences, Osijek, Croatia)

An Analysis of the Performance of .hr Domain Homepages Using the Google Lighthouse Tool

9. A. Hasanović, D. Pozderac, E. Cogo, E. Cogo, I. Bešić (Faculty of Electrical Engineering, Sarajevo, Bosnia and Herzegovina)

Comparison of MSP-EXP432P401R Program Performances by Using Different Development Environments

10. D. Švraka, A. Ali Al Zayat, E. Cogo, E. Cogo, I. Bešić (Faculty of Electrical Engineering, Sarajevo, Bosnia and Herzegovina)

Evaluation of The Usability of Analog Joystick Movement in MSP-EXP432P401R Snake Game

11. E. Smajić, E. Cogo, E. Cogo, I. Bešić (Faculty of Electrical Engineering, Sarajevo, Bosnia and Herzegovina)

IoT-Based Braille Alphabet Input and Translator System

12. D. Radošević, I. Lacković (Faculty of Electrical Engineering and Computing, Zagreb, Croatia)

Contribution to Human Respiratory System Modelling Using Electrical Networks

13. V. Imrović, A. Bednjanec, V. Zuppa Bakša (Zagreb University of Applied Sciences, Croatia)

Environmental Management in Electrotechnical Products Manufacturing Process

14. R. Turčinović, G. Mikić, S. Beliga, A. Meštrović (Faculty of Informatics and Digital Technologies, Rijeka, Croatia)

Analyzing Social Networks of Sport Preferences for Personalized Recommendations

15. R. Katalinić, M. Rabađija, A. Meštrović, S. Beliga (Fakultet Informatike i Digitalnih Tehnologija, Rijeka, Hrvatska)

Mreže Supovljivanja Entiteta u Medijskim Tekstovima za Analizu Političkih Kampanja

16. S. Jakjimovski, A. Vlahovski, M. Stojcheva, A. Dedinec (Faculty of Computer Science and Engineering, Skopje, Macedonia), J. Prodanova (Macedonian Academy of Sciences and Arts, Skopje, Macedonia), F. Liebana Cabanillas (University of Granada, Spain), Lj. Kocarev (Macedonian Academy of Sciences and Arts, Skopje, Macedonia)

Sentiment Analysis of Pro-Environmental Behavior using X Data: A Comparative Study of Waste Management in Spain and Macedonia

17. V. Pavlović, K. Širić, B. Mihaljević (Rochester Institute of Technology Croatia, Zagreb, Croatia), A. Radovan (Algebra Bernays University, Zagreb, Croatia)

Optimizing Java Performance with the Vector API for Data-Parallel Computations

18. M. Šimatović, H. Markulin, D. Beronić and B. Mihaljević (Rochester Institute of Technology Croatia, Zagreb, Croatia)

Evaluating Memory Management and Garbage Collection Algorithms with Virtual Threads in High-Concurrency Java Applications

19. F. Alaber, B. Novoselnik (Faculty of Electrical Engineering and Computing, Zagreb, Croatia) **IoT-Driven Weather Station for Comprehensive Data Collection**

20. E.Z. Gill (Department INGEO, University of Chieti-Pescara, Italy), M. Mastromatteo (Italferr S.p.A, Firenze, Italy), L. Cangelmi, P. Cellini, D. Cardone, A. Amelio (Department INGEO, University of Chieti-Pescara, Italy)

A Comparative Analysis of Artificial Intelligence Methods for Air Quality Prediction on Construction Sites

21. G. Perković, A. Drobniak, I. Botički (Faculty of Electrical Engineering and Computing, Zagreb, Croatia)

Reaching Artificial General Intelligence (AGI): Challenges and Opportunities

22. J. Kolarec, J. Petrović (Faculty of Electrical Engineering and Computing, Zagreb, Croatia) **An Overview of Passive Digital Image Tampering Detection Methods**

23. J. Bernetić, M. Ašenbrener Katić, S. Candrić (Faculty of Informatics and Digital Technologies, Rijeka, Croatia)

Developing a Child-Friendly Chatbot Using GPT and OpenAI API: A Case Study

24. N. Ithal, L. Sathya, M. Sudharshan, K. Kayartaya, R. Seethur (Department of ECE, PES University, Bangalore, India) **Efficient Implementation of Error Sampling Block for Homomorphic Encryption Using HLS**

25. S. Trojer (Faculty of Computer and Information Science, Ljubljana, Slovenia), V. Bhateja (Faculty of Engineering and Technology, Jaunpur, India), P. Peer, Ž. Emeršić (Faculty of Computer and Information Science, Ljubljana, Slovenia) **DeepCombine: Multimodal Person Recognition**

26. D. Kerman (Voltify d.o.o., Čakovec, Croatia), S. Barac (Faculty of Electrical Engineering and Computing, Zagreb, Croatia), D. Sabolić (HOPS d.d., Zagreb, Croatia)

Exploring the Operational Dynamics and Structural Properties of Croatia's EV Charging Network

27. L. Jakić, I. Botički, A.S. Kržić (Faculty of Electrical Engineering and Computing, Zagreb, Croatia) **Bridging Virtual and Physical Robotics: An AI-Driven Educational Platform Using NVIDIA Omniverse Isaac Sim and Jetson Orin Nano**

28. H. Markulin (Rochester Institute of Technology Croatia, Zagreb, Croatia), A. Radovan (Algebra Bernays University, Zagreb, Croatia), B. Mihaljević (Rochester Institute of Technology Croatia, Zagreb, Croatia), K. Bilić (Zagreb University of Applied Sciences, Croatia)

Using ChatGPT in Designing Web Applications Resistant to SQL Injection Attacks

29. M. Držić, D. Delija (Tehničko Veleučilište u Zagrebu, Hrvatska)

Mrežna Akvizicija Dokaza u Stvarnom Vremenu: Usporedba Linux i Windows Alata za Udaljeno Prikupljanje Digitalnih Dokaza

09. EXHIBITION IZLOŽBA



ECOSYSTEM FOR INNOVATION BREAKTHROUGH · EKOSUSTAV ZA INOVACIJSKI ISKORAK

1 EDIH Adria, Sveučilište u Rijeci

- Usluge EDIH ADRIA konzorcija. Informacije o projektu EDIH Adria, konzorciju te primjerima uspješnih priča korisnika.

2 EDIH AI and Gaming, Regionalni koordinator Sisačko-moslavačke županije, Sisak

- VR Digital twin, promotivni materijali - leci i brošure

3 EDIH CROBOHUB++, Fakultet elektrotehnike i računarstva, Zagreb

- Promotivni materijal – leci i brošure.

4 CROCCS Hrvatski centar kompetencija za poluvodiče, Zagreb

- Promotivni materijal

5 DAP Platforma za demokratizaciju akademskog izdavaštva, CIR, Institut Ruđer Bošković, Zagreb

- Promotivni materijal

6 EBSI Nacionalni tehnički centar kompetencija, CIR, Institut Ruđer Bošković Zagreb

- EBSI mreža i djelovanje centra na području DLT-a

7 CRTA - Regionalni centar izvrsnosti za robotske tehnologije, Fakultet strojarstva i brodogradnje, Zagreb

- Promotivni materijal - posteri, roll up

8 Centar izvrsnosti za pomorsku robotiku i tehnologije za održivo plavo gospodarstvo, Centar izvrsnosti Marble, Zagreb

- Predstavljanje aktivnosti centra, reklamni/promo materijali

9 RCK ELPROS, Elektrotehnička i prometna škola Osijek

- Javne prezentacije na štandu i poster prezentacije, promidžbeni materijal.

10 HRVATSKA ZAJEDNICA INOVATORA, Zagreb

- Predstavljanje Hrvatske zajednice inovatora

11 HR HPC CC Hrvatski centar kompetencija za HPC, SRCE Zagreb i NCC SLING Slovenski nacionalni kompetenčni center SLING, Fakulteta za strojništvo, Ljubljana

- Zajednički štand slovenskog i hrvatskog HPC centra kompetencija: plakati, brošure, promidžbeni materijal. Video prezentacije na promotivnim ekranima.

12 MJERNE TEHNOLOGIJE, Zagreb

- Mjerni instrumenti i rješenja renomiranih proizvođača:
Keysight Technologies, EXFO, TEMS, ETS-Lindgren, Ixia, VeEX, CUBRO, Sumitomo, Softing, ELEKTRONIKA, TraceSpan, albedo

13 IEEE

- Promotivni materijal

14 MULTISTEM - Promocija STEM tehnologija multidisciplinarnim pristupom, MIPRO i partneri

- Cilj projekta je jačanje kapaciteta udruge te razvijanje održivih programa koji povećavaju interes za STEM područja među učenicima na području Republike Hrvatske, s naglaskom na otkrivanje, praćenje i usmjeravanje talenata, kao i na povećanje rodne ravnopravnosti.

15 STEM PROJEKTI

- Predstavljanje STEM projekata

**OVERVIEW OF CONFERENCES, TUTORIALS AND OTHER ASSOCIATED ACTIVITIES
PRIKAZ RADA SAVJETOVANJA, SEMINARA I STRUČNIH PRATEĆIH SADRŽAJA**

HOTEL		HALL / DVORANA		02.06. - MONDAY / PONEDJELJAK		03.06. - TUESDAY / UTORAK		04.06. - WEDNESDAY / SRUJEDA		05.06. - THURSDAY / ČETVRTAK		06.06. - FRIDAY / PETAK	
HOTEL	HALL / DVORANA	A.M. / DOPODNE	P.M. / PODPODNE	A.M. / DOPODNE	P.M. / PODPODNE	A.M. / DOPODNE	P.M. / PODPODNE	A.M. / DOPODNE	P.M. / PODPODNE	A.M. / DOPODNE	P.M. / PODPODNE		
CONGRESS HALL KONGRESNA DVORANA	10.00-13.00 CE	15.00-19.00 CE	09.00-12.30 CE	15.00-16.30 MULTI-STEM	16.30-18.00 CE	10.00-13.00 MULTI-STEM	16.30-18.00 CE	10.00-13.00 OPHO	15.00-17.30 Gospodarski forum PLENARY SESSION SIDE	09.00-13.00 CE	15.00-19.00 CE	09.00-13.00 CE	09.00-13.00 CE
BELLAVISTA	10.00-13.30 CCE	14.00-17.00 CCE	10.00-13.00 CCE	14.00-17.00 CCE	15.00-16.30 PM	09.00-13.00 PM	15.00-16.30 PM	15.00-19.00 CE	09.00-13.00 MEET	15.00-19.00 MEET	09.00-13.00 MEET	09.00-13.00 MEET	
CAMELIA 1													
CAMELIA 2	09.00-12.00 IRP-ZT	14.00-17.00 IRP-ZT	10.00-12.30 HEP	13.30-15.30 HEP					16.00-19.00 CRO-iGF	10.00-12.00 Ekonastav za inovativna rast	15.00-18.45 DS-BE	09.00-12.45 DS-BE	
NAVA 1									15.00-19.00 DC-CPS	08.15-13.00 HCI	15.00-19.00 HCI		
NAVA 2									14.30-19.00 CTI	09.00-13.00 DE-DS	15.00-19.00 DE-DS		
LJUBURNA										09.00-14.00 ICTLAW			
GALIJA									20.00-22.00 COCKTAIL	09.00-13.00 EE	15.00-19.00 EE		
LEUT I										15.00-19.30 CIS	09.00-12.45 DS-BE		
LEUT II											16.00-19.00 BIS-BDP		

The diagram consists of seven vertically stacked colored rectangles. From top to bottom, the colors are: light green (CONFERENCE SAVJEŤOVANIA), light blue (TUTORIALS SEMINARI), dark blue (WORKSHOPS RADIONICE), yellow (PANEL OKRÚHLY STOL), orange (FORUM FORUM), red (GENERAL EVENTS ZAJOVNÍCKE AKTIVNOSTI), and pink (CONFERENCE SAVJEŤOVANIA).

MI PRO

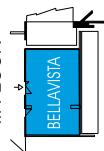
GRAND HOTEL ADRIATIC CONGRESS CENTRE
KONGRESNI CENTAR GRAND HOTELA ADRIATIC

mi pro 2025

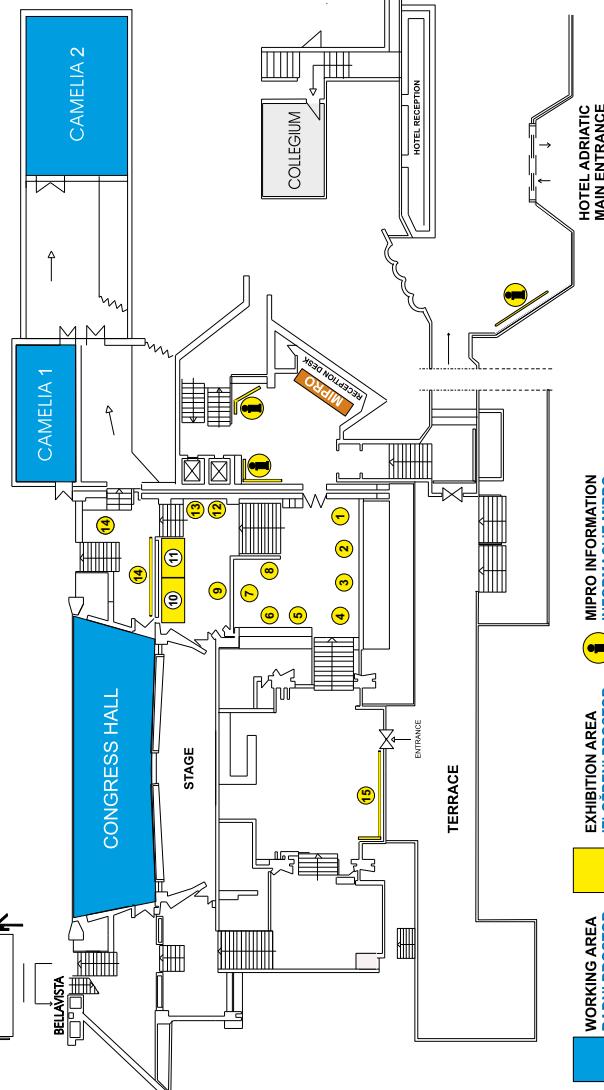
HYBRID CONVENTION

EXHIBITION AREA AND LECTURE ROOMS RADNI I IZLOŽBENI PROSTOR

III FLOOR



BELLAVISTA



WORKING AREA
RADNI PROSTOR

EXHIBITION AREA
IZLOŽBENI PROSTOR

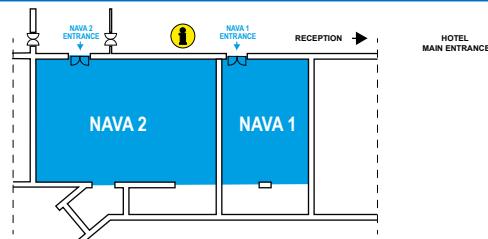
MI PRO INFORMATION

IEEE

MULTISTEM Pronocija STEM tehnologija multidisciplinarnim pristupom, MI PRO i partneri

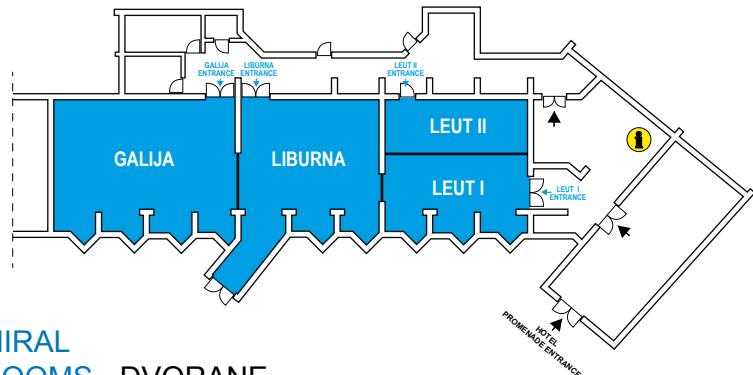
STEM PROJEKTI

LEVEL 4
HOTEL RECEPTION



MIPRO INFORMATION
INFORMACIJE MIPRO

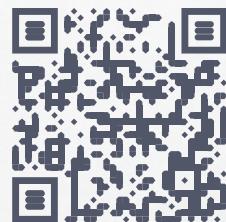
LEVEL 0



HOTEL ADMIRAL
LECTURE ROOMS - DVORANE



**Carrier Grade Device
& CX Management**



Najbolja mreža je ona koju ne primjećuješ.

A¹



Tvrтka specijalizirana za mjerena
u telekomunikacijama i elektrotehnici

Prodaja mjerne opreme, najam, izvođenje mjerena,
specijalizirani treninzi, tehničke konzultacije

Djelatnici tvrtke su inženjeri s dugogodišnjim
iskustvom na ovom području



www.MTEH.hr

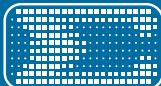
ENT

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multistem



Promocija STEM tehnologija multidisciplinarnim pristupom

MULTI-STEM

GDJE ZNANOST POSTAJE IGRA

► NAZIV PROJEKTA

Promocija STEM tehnologija multidisciplinarnim pristupom – MULTI-STEM

► KOD PROJEKTA

SF.2.4.06.04.0092

► PRIJAVITELJ

Hrvatska udruga za informacijsku, komunikacijsku i elektroničku tehnologiju - MIPRO

► PARTNERI NA PROJEKTU

Akademija tehničkih znanosti Hrvatske (HATZ), Institut Ruđer Bošković (IRB), Osnovna škola Granešina Zagreb i Elektrotehnička i prometna škola Osijek

► PROJEKTNI TIM

akademik Karolj Skala, koordinator projekta i izv. prof. dr. sc. Snježana Babić, voditeljica projekta

► CILJ PROJEKTA

jačanje kapaciteta udruga te razvijanje održivih programa koji povećavaju interes za STEM područja među učenicima na području Republike Hrvatske, s naglaskom na otkrivanje, praćenje i usmjeravanje talenata, kao i na povećanje rodne ravnopravnosti

► TRAJANJE PROJEKTA

12.3.2025. – 12.3.2027.

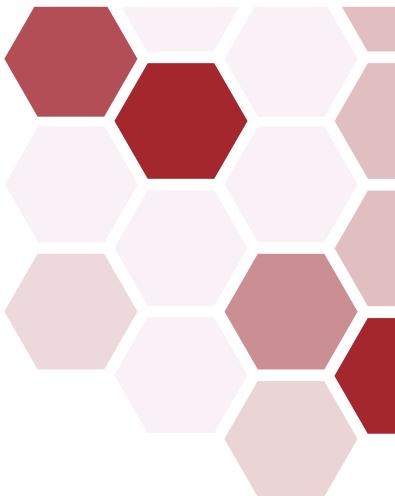
upro



Sufinancira
Europska unija

INFODOM

Napredak pokretan inovacijama



Iskustvo temeljeno na znanju

InfoDom je vodeći ponuđač fleksibilnih digitalnih platformi za javni i privatni sektor koji osigurava postizanje poslovne izvrsnosti i ekonomski održivosti temeljenih na najboljim svjetskim i domaćim standardima. S više od dva desetljeća iskustva, mrežom renomiranih ICT partnera, s odjelom razvoja vlastitih proizvoda i rješenja osigurava ključne kompetencije za buduća tržišna kretanja kojima postiže poslovnu agilnost u okvirima digitalne transformacije.

Sredstvima EU osiguravaju provedbu digitalne transformacije

InfoDom kontinuirano ulaze u razvoj novih proizvoda i usluga te u istraživanja, u sklopu čega su realizirali nekoliko EU finansiranih projekata (Razvoj inovativne platforme za digitalnu transformaciju poduzeća, Razvoj novog proizvoda za samoprocjenu regulatorne usklađenosti, procjenu zrelosti i kontroling za područje održive proizvodnje i prerađe hrane te CEKOM – Centar kompetencija za digitalnu transformaciju prehrambene industrije na ruralnim područjima).

Pogled u budućnost

Strateški razvoj InfoDoma temelji se na iskustvima iz prethodnih razdoblja s jedne strane, i snažnom razumijevaju budućih tehnoloških i poslovnih trendova s druge strane, fokusirajući se na pet područja razvoja: komercijalizaciju proizvoda, usmjerenost na poslovnu izvrsnost, strateška partnerstva, održivost indeksa rasta te stvaranju inkubatora znanja.

Referenti projekti

- 250 korisničkih iskustava

U dosadašnjoj praksi InfoDom se ističe referencama iz područja javnog sektora i državne uprave te realnog sektora.



Sigurno upravljanje kritičnom infrastrukturom



KONČAR
Inspirirani izazovima

Sva ICT rješenja, jedan partner.



ICT mrežna rješenja
i infrastruktura



LAN/WAN
i kabliranje



Data centar, cloud
i telco usluge



Kibernetička
sigurnost



Kontrola pristupa
i monitoring



Fotonaponska
energetska rješenja



Odoo ERP i
razvoj aplikacija



Digitalizacija

STORM Grupa okuplja devet specijaliziranih tvrtki s jednim ciljem – isporuka sveobuhvatnih ICT rješenja i usluga na jednom mjestu.

U suradnji s vodećim svjetskim IT dobavljačima i primjenom najnovijih tehnoloških trendova, povezujemo infrastrukturu, sigurnost, softver i obnovljive izvore energije u snažan, pouzdan i skalabilan sustav. Tehnologiju, znanje i inovaciju pretvaramo u konkretna rješenja koja vam omogućuju fokus na ono što je zaista važno.

Enterprise rješenja. Tehnologija budućnosti. Sve na jednom mjestu.



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