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OF APPLIED SCIENCES

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Uvodne riječi · *Introduction*

Riječ glavnog urednika časopisa Polytechnic and Design



Časopis Polytechnic and Design je kolekcija članaka autora koji obrađuju najrazličitije teme koje prezentiraju svojim studentima i kolegama. Objavljujemo rezultate istraživanja širokog područja ideja koje zadiru u tehniku, tehnologiju i digitalni dizajn. Časopis Polytechnic and Design izlazi devet godina i donosi znanstvene radove iz matematike, fizike te različitih područja obrade materijala.

U ovom broju dobili smo interdisciplinarni rad s odjela „Mechanical Engineering“ u kojem matematičari i tehnolozi Petar Mamić, Vesna Alić Kostešić, Goran Sirovatka i Vlatko Mićković prezentiraju „Simulation of robotic arm operation“.

Profesor Gojko Nikolić je uvijek prisutan u našem časopisu, a u ovom broju iznosi svoje razmišljanje o aktualnom razvoju robotike i njene primjene. Izabrao je naslov „Roboti i nezaposlenost“. Kolege Tuličić i Žagar s Informatičko-računarskog odjela prezentiraju rad pod naslovom „Analysis of the security of smartphone fingerprint authentication“.

Kolega Vedran Mihelj i Aleksandar Stojanović obradili su temu o osnovnim principima genetskih algoritma. Naš časopis prihvaća najraznorodnije teme kao na primjer „Razvoj registra za životinje u skloništu“ što su autori Kovačević i Perković ponudili za objavu u posljednjem broju ove godine. Stalne suradnice Darija Čutić i Maja Turčić prezentiraju svoja nova rješenja u web okruženju. Pod naslovom „Dinamično oblikovanje e-udžbenika s naglaskom na interaktivnost“ krije se moderna tema, ali obrađena na jedinstven način. Dodirno područje je i rad „Razvojna platforma za internet stvari temeljena na mikro upravljaču esp32“ obrađeno od kolega s našeg studija, Marka Miletića, Josipa Kordeka, Deana Fraja i Krune Martinčića.

U ovom broju bih htio posebno naglasiti rad profesora Stjepana Cara i dugogodišnjeg direktora razvoja društva Rade Končar. Njegova knjiga nudi pregled i bezbroj pojedinosti, a ovdje je sažet prikaz povijesti Končara uz opis uspješnica tog društva od osnutka do danas. To ogromno društvo čiji proizvodi su u funkciji po cijelom svijetu rasadnik je znanstvenog kadra iz tehničkog područja. U Končaru su obučeni istraživači koji prenose svoja iskustva i vještine na mnoge studente s Fakulteta elektrotehnike i strojarstva. Naše veleučilište TVZ ima danas u sastavu visoko učilište „Rade Končar“, a koje je desetljećima bilo perjanica i rasadnik inženjerskog kadra.

Sa sljedećim brojem P&D ulazimo u desetu godinu izlaženja časopisa. Radovi su već na web stranicama, a nadamo se izlaženju „tiskane inačice“ ovaj mjesec, prije konferencije „Tiskarstvo and Design“. Izabrani radovi s tog znanstveno/stručnog skupa biti će objavljeni u broju P&D 10&2.

Glavni urednik časopisa Polytechnic and Design

prof. emeritus dr. sc. Vilko Žiljak

Word of Chief editor of journal Polytechnic and Design

The journal Polytechnic and Design is a collection of articles by authors that cover a wide variety of topics that they present to their students and colleagues. We publish the research results of a wide range of ideas that touch on the areas of technique, technology, and digital design. The journal Polytechnic and Design has been published for nine years and brings scientific papers in mathematics, physics, and various fields of material processing.

In this issue, we received an interdisciplinary paper from the "Mechanical Engineering" department in which mathematicians and technologists Petar Mamić, Vesna Alić Kostešić, Goran Sirovatka and Vlatko Mićković present "Simulation of robotic arm operation". Professor Gojko Nikolić is always present in our journal, and in this issue, he presents his thoughts on the current development of robotics and its application. He chose the title "Robots and unemployment". Colleagues Tuličić and Žagar from the Computer Science department present a paper entitled "Analysis of the security of smartphone fingerprint authentication".

Colleagues Vedran Mihelj and Aleksandar Stojanović covered the topic of the basic principles of genetic algorithms. Our journal accepts a variety of topics such as "Development of a register for animals in the shelter" that the authors Kovačević and Perković offered for publication in the last issue of this year. Permanent collaborators Darija Čutić and Maja Turčić present their new solutions in the web environment. The title "Dynamic design of e-textbooks with an emphasis on interactivity" hides a modern topic but is covered in a unique way. A similar area is also covered in the paper "Development platform for the Internet of Things based on the microcontroller esp32" by colleagues from our studio, Marko Miletić, Josip Kordek, Dean Fraj and Kruno Martinčić.

In this issue, I would like to emphasize the paper of professor Stjepan Car and the long-time director of development of the company Rade Končar. His book offers an overview and countless details, and here is a summary of the history of Končar with a description of the successes of this company from its founding to the present day. This huge company whose products are in operation all over the world is a spreading point for scientific personnel from the technical field. In Končar are trained researchers who transfer their experiences and skills to many students from the Faculty of Electrical Engineering and Computing. Today, Rade Končar College, which has been a leader and a spreading point for engineering staff for decades, is part of our TVZ Polytechnic.

With the next issue of P&D, we are entering the tenth year of the journal's publication. The papers are already on the website, and we hope to publish a "printed version" this month, before the conference "Printing and Design". Selected papers from this scientific/professional conference will be published in issue P&D 10 & 2.

Editor-in-chief of journal Polytechnic and Design

Prof. Emer. Vilko Žiljak, PhD