

# **Miodrag J. Mihaljević**

## **Biografski Podaci (CV) i izabrana Bibliografija**

### **Summary**

MIODRAG J. MIHALJEVIĆ is a Research Professor and the Deputy Director with the Mathematical Institute, Serbian Academy of Sciences and Arts, Belgrade. His main research interests include cryptology, information security and blockchain technology. He has published more than 100 research articles in the leading international journals and conference proceedings and over 200 publications in total. He is co-inventor of eight granted patents in Japan, U.S., and China. He has organized and played principal investigator roles in over ten national projects and has participated in over ten international research projects. Since 1997, he has been holding long-term visiting positions at the universities and research institutes in Japan, including The University of Tokyo, Sony Research Labs, the National Institute AIST, and Chuo University, Tokyo. In 2013, he received the National Award of the Serbian Academy of Sciences and Arts for ten years achievements. Since 2014, he has been an Elected Member of the Academia Europaea. In the four consecutive years 2020, 2021, 2022. And 2023, Dr. Mihaljevic is included in the ranked list colloquially known as "World's Top 2% Scientists" (by Elsevier and Stanford University) regarding his career achievements. He is an Elected Member of the Serbian Academy of Sciences and Arts from 2021. For more information, please visit <https://www.sanu.ac.rs/en/member/mihaljevic-miodrag/>

### **Obrazovanje, izbori i zaposlenje**

Završio Elektrotehnički fakultet, Univerziteta u Beogradu 1979., magistrirao je jula 1981., doktorirao juna 1990. Stekao zvanje naučnog savetnika 1999. godine u Matematičkom institutu (MI) SANU i Ministarstvu nauke Republike Srbije. Od septembra 1979. do maja 1998. radio je u vojnom Institutu za primenjenu matematiku i elektroniku, koji je bio federalna institucija za zaštitu informacija u SFRJ, gde je, između ostalog, bio predsednik naučnog veća od 1994. Od 1992. je i spoljni saradnik MI-SANU, a od maja 1998. radi kao stalno zaposlen u MI-SANU. Od marta 2015. je zamenik direktora MI-SANU, a od januara 2021. je i rukovodilac Sektora za računarstvo u MI-SANU. Radni odnos M. Mihaljevića u MI-SANU je produžen do novembra 2025., prema članu 100, Zakona o nauci, Republike Srbije.

### **Oblast rada**

Oblast rada i naučno-tehničkih dostignuća M. Mihaljevića je informaciona bezbednost&privatnost i blokčejn tehnologija koji su danas opšte prepoznati kao oblasti od ključnog značaja za razvoj i primene informaciono-komunikacionih tehnologija. Glavna dostignuća su u domenima evaluacije, dizajna i primena kriptografskih algoritama za ostvarivanje informacione bezbednosti u informaciono-komunikacionim sistemima kao i napredne tehnike i primene blokčejn tehnologije.

## **Rukovođenje projektima.**

U MI-SANU, M. Mihaljević je organizovao i rukovodio projektima osnovnih istraživanja realizovanim tokom 1993-1995, 1996-2000, 2002-2005, 2006-2010, i 2011-2019 godine, i projektima tehnološkog razvoja tokom 1998-2000 i 2002-2004 godine i III potprojektom 2011-2018 godine (koje su finansirala ministarstva Vlade Republike Srbije) u kojima je bio i jedan od vodećih realizatora. Svi ovi projekti su imali veoma uspešne realizacije, tokom kojih je, između ostalog, objavljeno i više od 300 radova u vodećim međunarodnim časopisima i odbranjeno više od 10 doktorskih disertacija. Takođe, M. Mihaljević je organizovao i rukovodio i više od 10 projekata koje su realizovani kroz bilateralne ugovore MI-SANU sa državnim i privrednim institucijama uključujući Vladu Republike Srbije, Centralnu banku Crne Gore i Telekom Srbija, u kojima je takođe bio i jedan od glavnih realizatora. Kao ilustracija projekata koje je organizovao i kojima je rukovodio M. Mihaljević, navode se sledeći projekti osnovnih idstraživanja „Novi prilozi tehnikama kriptologije, procesiranja slika i algebarske topologije za informacionu bezbednost“ (2011-2018), „Nove metode u kriptologiji i procesiranju informacija“ (2006-2010), „Nove metode za kriptografsku zaštitu i modelovanje informacija“ (2002-2005), i projekat tehnološkog razvoja „Softverski sistem za kriptografsku zashtitu elektronskih arhiva“ (2002-2004).

## **Međunarodna saradnja**

M. Mihaljević je realizovao međunarodnu saradnju, kao deo realizacije projekata kojima je rukovodio, i u kojima je bio jedan od vodećih istraživača, a koja je započela 1997. godine i koja traje i dalje. Ova međunarodna saradnja je realizovana ili se realizuje u sledećim okvirima: FP6 okvirnog programa EU (2006-2009 godina), Tempus projekta (2009-2011 godina), COST akcija (2014-2018 godina), Japansko-Indijskog strateškog projekta u oblasti kriptologije (2009-2012 godina), i učešća po pozivu u realizaciji više od 10 projekata u Japanu, SAD i Singapuru (1997-2021 godina).

M. Mihaljević je u funkciji našeg istraživačkog razvoja i promocije naših istraživačkih potencijala od 1997. godine imao više gostujućih pozicija po pozivu u Japanu: “Visiting Researcher” na The University of Tokyo, SONY Computer Science Laboratories, SONY Corporation Research Laboratories, “Visiting Foreign Professor” na The University of Tokyo, “Invited Senior Research Scientist” u National Institute AIST, “Researcher/Professor” na Chuo University, i “Project Professor” na The University of Tokyo. Tekuće, M. Mihaljević je učesnik dvogodišnjeg projekta (2021-2022 godina) iz oblasti blokčejn tehnologije koji se realizuje u okviru Shandong Academy of Science, Kina, saglasno krovnom ugovoru sa MI-SANU.

## **Načno-stručne reference**

M. Mihaljević je autor preko 230 javno objavljenih referenci uključujući sledeće: editor jedne monografije i autorstvo više od 10 poglavlja u monografijama, više od 70 radova u časopisima, više od 50 radova na međunarodnim konferencijama, više od 20 predavanje po pozivu, 8 međunarodno priznatih patenata (Japan, SAD, Kina) i više od 40 tehničkih rešenja. Posebno se ukazuje da kumulativna lista razmatranih 230 javno objavljenih ostvarenja M.

Mihaljevića ne uključuje rezultate koji nisu javno dostupni zato što su vlasništvo državnih ili poslovnih institucija.

Njegova citiranost, bez autocitata, je: više od 1000 puta u WoS i više od 1500 puta u Scopus-u.

### **Nagrade i priznanja**

M. Mihaljević je je dobitnik više priznanja i nagrada uključujući i sledeće:

- Uvršćen je po ukupnim karijernim rezultatima na rang liste kolokvijano posnate kao "World's Top 2% Scientists by Stanford University" (i unutar je 1.6% najboljih u oblasti Networks & Telecommunications) za 2019., 2020., 2021. i 2022. godinu.
- Izabran je dopisnog člana Srpske akademije nauka i umetnosti (SANU) 2021. godine za odeljenje tehničkih nauka
- Izabran za člana Academia Europaea sa sedištem u Londonu i sada je jedan od 17 članova (među kojima je i 5 članova SANU) ove akademije iz Srbije (2014. godina);
- Jedan od dobitnika Nagrade SANU u oblasti matematike i srodnih nauka 2013. godine za njegova desetogodišnja dostignuća 2003-2012 u oblasti kriptologije i informacione bezbednosti (2013. godina);
- Nagrada Ministarstva nauke i tehnološkog razvoja Republike Srbije za izuzetne rezultate u oblasti osnovnih istraživanja ostvarene 2002.-2003. godine (2004. godina);
- Nagrada iz Generalštaba JNA za doktorsku disertaciju (1990. godana) ;
- "Medalja rada" za višegodišnje ukupne radne rezultate (1989. godina);
- "Majska nagrada" grada Beograda kao jednom od tri u generaciji prvo-diplomirana inženjera na Elektrotehničkom fakultetu u Beogradu (1979. godana).

**Biografske i bibliografske informacije su raspoložive i na sledećim linkovima:**

### **SANU**

<https://www.sanu.ac.rs/en/member/mihaljevic-miodrag/>

<https://www.sanu.ac.rs/clan/mihaljevic-miodrag/>

### **MI-SANU**

<https://www.mi.sanu.ac.rs/cv/cvmihaljevic.htm>

<https://www.mi.sanu.ac.rs/cv/pubmihaljevic.htm>

[https://www.mi.sanu.ac.rs/novi\\_sajt/NationalCenterCyberSecurityPrivacy/index.php](https://www.mi.sanu.ac.rs/novi_sajt/NationalCenterCyberSecurityPrivacy/index.php)

### **Repozitorijum rezultata MI-SANU**

<http://researchrepository.mi.sanu.ac.rs/cris/rp/rp00003>

# **Miodrag J. Mihaljević – Lista izabranih reference**

( raspoloživa na:

[\*\*https://www.mi.sanu.ac.rs/cv/pubmihaljevic.htm\*\*](https://www.mi.sanu.ac.rs/cv/pubmihaljevic.htm) )

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[\*\*Selected Patents\*\*](#)

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2. **Japan Patent JP 6602210 B2:** K. Matsuura and **M.J. Mihaljević**, *Authentication System and Method*, November, 2019.
3. **Japan Patent JP 4863283 B2: M.J. Mihaljević** and H. Watanabe *Authentication system using light-weight authentication protocol*, November 18, 2011.
4. **United States Patent US 8023649 B2: M.J. Mihaljević** and J. Abe *Method and apparatus for cellular automata based generation of pseudorandom sequences with controllable period*, September 20, 2011.  
available at  
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5. **China Patent CN 1698306 B2: M.J. Mihaljević** and J. Abe

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[http://worldwide.espacenet.com/publicationDetails/biblio?DB=EPODOC&at=7&locale=en\\_EP&FT=D&CC=US&NR=2005213765A1&KC=A1\)](http://worldwide.espacenet.com/publicationDetails/biblio?DB=EPODOC&at=7&locale=en_EP&FT=D&CC=US&NR=2005213765A1&KC=A1)

6. **Japan Patent JP 4432350 B2: M.J. Mihaljevic** and J. Abe

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35 pages, March 2010.

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7. **United States Patent US 7502941 B2:** L. Michael and **M.J. Mihaljevic**

*Wireless data communication method and apparatus for software download system,*  
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8. **Japan Patent JP 3918578 B2:** R. Morelos Zaragoza and **M.J. Mihaljevic**

*Method and apparatus for loss correction and limited reception in streaming data,*  
*and data communication apparatus,*

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Pool Mining Employing the Consensus Protocol Robust against Block Withholding and Selfish Mining Attacks", *Symmetry* 2022, 14 (8), 1711. (28 pages)

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