

**COMMITTEE FOR PREPARATION OF PROPOSALS FOR APPOINTMENT
INTO ACADEMIC TITLE FOR SCIENTIFIC FIELD OF "COMPUTER SCIENCES"****INTERNATIONAL UNIVERSITY OF SARAJEVO
Faculty of Engineering and Natural Sciences**

Pursuant to Article 107, paragraph (3) of the Law on Higher Education ("Official Gazette of Sarajevo Canton" 33/2017) and based on the Decision of the Council of the Faculty of Engineering and Natural Sciences, number: IUS-FENS 06-562/18 dated February 28, 2018, acting in accordance with the submitted Confirmation Certificate by Administrative Service No. IUS-FENS 06-395-1/18 (attached to this Report), the Committee for preparation of proposals for the appointment to academic titles composed of:

- 1. Prof. Dr. Ali Yazici**, full professor at the Department of Software Engineering at Faculty of Engineering of Atilim University (Turkey): – field: Computer Sciences & Software Engineering (chairman),
- 2. Prof. Dr. Ensar Gül**, full professor at the Department of Computer Science and Engineering at Faculty of Engineering of Istanbul Sehir University (Turkey) – field: Computer Sciences (member)
- 3. Prof. Dr. Sehabeddin Taha Imeci**, full professor at the Faculty of Engineering and Natural Sciences – field: Electrical Engineering (member).

Evaluated application of Dr. Sherzod Turaev for the appointment into position of Associate Professor in the field of Computer Sciences upon public vacancy announcement published in newspaper "Dnevni list" and web page on February 3, 2018, and submits the following

**REPORT
(detailed)****Applicant's name: SHERZOD TURAEV per his application for appointment into academic title of Associate Professor**

Dr. Sherzod Turaev was born in Tashkent, Uzbekistan in 1973. Dr. Almisreb graduated from Tashkent State University, Faculty of Mathematics – Department of Optimal Control in 1994. He continued education at postgraduate program in Mathematical Cybernetics at the same university, which he successfully completed in 1997. Then, he has completed Advanced Studies Diploma Program at Faculty of Arts of University Rovira i Virgili in Spain. Dr. Turaev received two PhD degrees. Firstly, in 2001, he received PhD in Mathematics from Faculty of Mathematics and Mechanics of the National University of Uzbekistan and thereafter a PhD in Computer Science from Faculty of Arts of the University Rovira i Virgili (Spain) in 2010. Dr. Turaev held different academic titles during his work at National University of Uzbekistan and International Islamic University Malaysia. Currently, he has been working as Assistant Professor at Department of Computer Science at Faculty of Information and Communication Technology of the International Islamic University Malaysia.

KOMISIJA ZA PRIPREMANJE PRIJEDLOGA ZA IZBOR U AKADEMSKO NASTAVNO ZVANJE ZA NAUČNU OBLAST „RAČUNARSKE NAUKE“

VIJEĆU FAKULTETA PRIRODNIH I TEHNIČKIH NAUKA

Na osnovu člana 107., stav (3) Zakona o visokom obrazovanju („Službene novine Kantona Sarajevo“ 33/17), postupajući na osnovu Odluke Vijeća Fakulteta prirodnih i tehničkih nauka, broj: IUS-FENS 06-562/18 od 28.02.2018. godine i Potvrde Stručne službe broj IUS-FENS 06-395-1/18, Komisija za pripremanje prijedloga za izbor u akademska zvanja za naučnu oblast „Računarske nauke“, u sastavu:

- 1. Prof. dr Ali Yazici**, redovni profesor na Odsjeku za softverski inženjering na Tehničkom fakultetu Atilim univerziteta u Turskoj - naučna oblast računarske nauke i softverski inženjering (predsjednik);
- 2. Prof dr Ensar Gül**, redovni profesor na Odsjeku za računarsku nauku na Tehničkom fakultetu Istanbul Sehir univerziteta u Turskoj - naučna oblast računarske nauke (član);
- 3. Prof. dr Sehabeddin Taha Imeci**, redovni profesor na Fakultetu prirodnih i tehničkih nauka Internacionalnog univerziteta u Sarajevu, izabrana za naučnu oblast “Elektrotehnika” (član).

Nakon izvršene analize prijave za zvanje vanredni profesor, podnesene po javnom konkursu od 03.02.2018. godine u dnevnim novinama „Dnevni list“ i internet stranici Internacionalnog univerziteta u Sarajevu, od strane aplikanta Dr. Sherzod Turaeva, Komisija podnosi sljedeći:

IZVJEŠTAJ
(s detaljima)

Kandidat: DR. SHERZOD TURAEV, postupajući po prijavi za zvanje VANREDNOG PROFESORA

Dr. Sherzod Turaev je rođen 1973. godine u Taškentu u Uzbekistanu. Svoje univerzitetsko obrazovanje započeo je na Odsjeku za optimalno upravljanje na Fakultetu za matematiku Državnog univerziteta Taškent u Uzbekistanu. Obrazovanje je nastavio na postdiplomskom studiju iz oblasti matematičke kibernetike na istom univerzitetu, koji je uspješno okončao 1997. godine. Nakon toga, uspješno je završio i diplomski program za napredne studije na Fakultetu umjetnosti na Univerzitetu Rovira i Virgili u Španiji. Dr. Turaev je stekao dva doktorata. Najprije, 2001. godine stekao je zvanje doktora nauka iz oblasti marematike na Fakultetu za matematiku i mehaniku na Državnom univerzitetu u Uzbekistanu, a nakon toka, zvanje doktora nauka iz oblasti računarske nauke na Fakultetu umjetnosti na Univerzitetu Rovira i Virgili u Španiji stekao je 2010. godine.

Dr. Turaev je tokom akademskog rada na visokoškolskim ustanovama Državnog univerziteta u Uzbekistanu i Internacionalnog islamskog univerziteta u maleziji bio biran u više akademskih zvanja. Trenutno radi kao docent na Odsjeku za računarsku nauku na Fakultetu za informacione i komunikacijske tehnologije na Internacionalnom islamskom fakultetu u Maleziji.

A. EDUCATION/OBRAZOVANJE

| | | |
|--|--|------|
| PhD | Faculty of Arts, University Rovira i Virgili, Tarragona, Spain | 2010 |
| PhD | Faculty of Mathematics and Mechanics, National University of Uzbekistan | 2001 |
| Advanced Studies Diploma Program / Program naprednog studija | Faculty of Arts, University Rovira i Virgili, Tarragona, Spain | 2007 |
| Postgraduate program / Postdiplomski studij | Department of Optimal Control, Faculty of Mathematics and Mechanics, Tashkent State University, Uzbekistan | 1997 |
| Bachelor of Science / Dodiplomski studij | Department of Optimal Control, Faculty of Mathematics and Mechanics, Tashkent State University, Uzbekistan | 1994 |

B. ACADEMIC APPOINTMENT RECORDS / IZBORI U ZVANJA

| | |
|------------|---|
| 2012 - ... | Assistant Professor, Department of Computer Science, Faculty of Information and Communication Technology, International Islamic University Malaysia |
| 2002-2005 | Senior Lecturer, Department of Computational Linguistics, Faculty of Uzbek Philology, National University of Uzbekistan |
| 2000-2002 | Senior Lecturer, Department of Optimal Control, Faculty of Computer Science, National University of Uzbekistan |

C. LIST OF SCIENTIFIC AND OTHIS PUBLICATIONS PUBLISHED AFTER THE APPOINTMENT TO ACADEMIC TITLE OF ASSISTANT PROFESSOR / PREGLED NAUČNIH I DRUGIH RADOVA OBJAVLJENIH NAKON IZBORA U ZVANJE DOCENTA

C. 1. JOURNAL PUBLICATIONS SUBMITTED WITH APPLICATION TO VACANCY / NAUČNI RADOVI OBJAVLJENI U NAUČNIM ČASOPISIMA DOSTAVLJENI UZ PRIJAVU NA KONKURS

1. On bonded Indian and Uniformly Parallel Insertion Systems and Their Generative Power. Malaysian Journal of Fundamental and Applied Sciences 13(4), 2017 (with A.F. Yosman, M. Holzer, B. Truthe, F.W. Heng) Web of Science Emerging Sources Citation Index, etc.
2. State machine of place-labelled petri net controlled grammars. Malaysian Journal of Fundamental and Applied Sciences 13(4), 2017 (with N.M. Jan, W.H. Fong, N.H. Sarmin) Web of Science Emerging Sources Citation Index, etc.

3. Consensus of Fractional Nonlinear Dynamics Stochastic Operators for Multi-Agent Systems. *Information Fusion*, 44, 2018, pp. 1-21. (with R. Abdulghafor)
4. A Symmetric Cryptosystem Based on Nondeterministic Finite Automata. *Journal of Theoretical and Applied Information Technology* 95(10), 2017, pp. 1489-1498. (with G. Khaleel, I. Al-Shaikhli, M.I. Mohd Tamrin, T. Zhukabayeva) WoS Emerging Sources Citation Index, SCOPUS, etc.
5. Variants of Weighted Sticker Systems with Different Weighting Spaces. *ScienceAsia*, 43S, 2017, pp. 43-51. (W.H. Fong, Y.S. Gan, N.H. Sarmin)
6. Generative Capacity of Sticker Systems with the Presence of Weights. *ScienceAsia*, 43S, 2017, pp. 35-42. (W.H. Fong, Y.S. Gan, N.H. Sarmin)
7. Multiset Controlled Grammars. *Journal of Theoretical and Applied Information Technology*, 2017. (accepted; with S. Ashaari, A. Okhunov, M.I. Mohd Tamrin, T. Zhukabayeva) WoS Emerging Sources Citation Index, SCOPUS, etc.
8. Context-Free Petri Net Controlled Grammars under Parallel Firing Strategy. *Applied Mathematics and Information Systems*, 10(5), 2016, pp. 1757-1762. (with G. Mavlankulov, L. Zhumabayeva, M. Othman, T. Zhukabayeva, M. H. Selamat) ISI, SCOPUS, etc.
9. Performance and Security Improvements of Döomösi's Cryptosystem. *International Journal of Applied Mathematics and Statistics*, 55(2), 2016, pp. 32-45. (with G. Khaleel, M.I.M. Tamrin, I.F. Al-Shaikhli) WoS Emerging Sources Citation Index, etc.
10. k-Watson-Crick Petri Net Controlled Grammars. *International Journal of Applied Mathematics and Statistics*, 53(3), 2015, pp. 99-106. (with N. Mohamad Jan, W.H. Fong, N.H. Sarmin) WoS Emerging Sources Citation Index, etc.
11. Computational Power of Probabilistic Bidirectional Sticker Systems in DNA Computing. *Journal of Applied Mathematics and Statistics*, 53(3), 2015, pp. 66-72. (with M. Selvarajoo, W.H. Fong, N.H. Sarmin) WoS Emerging Sources Citation Index, etc.
12. The Generative Capacity of Probabilistic Splicing Systems. *Applied Mathematics & Information Sciences*, 9(3), 2015, pp. 1191-1198. (with M. Selvarajoo, W.H. Fong, N.H. Sarmin) ISI, IF: 1.232 (2014), SCOPUS, etc.
13. Languages of Watson-Crick Petri Nets. *Jurnal Teknologi (Sciences & Engineering)*, 70(5), 2014, pp. 97-101 (with N. Mohamad Jan, W.H. Fong, N.H. Sarmin) WoS Emerging Sources Citation Index, SCOPUS, etc.
14. Some Properties of Probabilistic One-Sided Sticker Systems. *Advances in Environmental Biology*, 8(3), 2014, pp. 717-724. (with M. Selvarajoo, W.H. Fong, N.H. Sarmin) ISI, SCOPUS, etc.

15. Some Properties and Variants of Weighted Sticker Systems. International Journal of Applied Mathematics and Statistics, 45(15), 2013, pp. 367-375. (with Y.S. Gan, W.H. Fong, N.H. Sarmin) Mathematical Reviews, MathSciNet, Zentralblatt MATH, SCOPUS, etc.
16. Probabilistic Semi-Simple Splicing System and Its Characteristics. Jurnal Teknologi, 62(3), 2013, pp. 21-26. (with M. Selvarajoo, W.H. Fong, N.H. Sarmin) WoS Emerging Sources Citation Index, SCOPUS, etc.
17. Sticker Systems over Permutation Groups. World Applied Sciences Journal, 21, 2013, pp. 119-126. (with N.A. Mohd Sebry, N.H. Sarmin, W.H. Fong) SCOPUS, etc.

C. 2. CONFERENCE PAPERS / NAUČNI RADOVI OBJAVLJENI U ZBORNICIMA SA KONFERENCIJA

1. Probabilistic simple sticker systems. AIP Conference Proceedings 1830, 020057, 2017 (with M. Selvarajoo, W.H. Fong, N.H. Sarmin) SCOPUS, etc.
2. Computational Properties of Watson-Crick Context-free Grammars. In: Proceedings of International Conference on Advanced Computer Science Applications and Technologies - ACSAT 2015, pp. 186-191. (with L. Zulku i, M.I.M. Tamrin, I.F. Al-Shaikhli) IEEE, SCOPUS
3. The Extreme Doubly Stochastic Quadratic Operators on Two Dimensional Simplex. In: Proceedings of International Conference on Advanced Computer Science Applications and Technologies - ACSAT 2015, pp. 192-197. (with R. Abdulghafor, F. Shahidi, A. Zeki) IEEE, SCOPUS
4. A performance improvement of D_{om}osi's cryptosystem. AIP Conference Proceedings 1705, 2016, pp. 020007 (with Gh. Khaleel, M. I. Mohd Tamrin, I. F. Al-Shaikhli) Thomson ISI Proceedings, SCOPUS, etc.
5. Closure Properties of Watson-Crick Grammars. The 2nd Innovation and Analytics Conference & Exhibition, AIP Conference Proceedings 1691, 29 September - 1 October 2015, Kedah, Malaysia, pp. 040032 (with N.L.M. Zulku i, M.I. Mohd Tamrin, M. Azeddine)
6. Parallel firing strategy on Petri nets: A review. AIP Conference Proceedings 1660, 2015, pp. 050080. (with G. Mavlankulov, L. Zhumabaeva, T. Zhukabayeva)
7. A new variant of Petri net controlled grammars. AIP Conference Proceedings 1682, 2015, pp. 040015. (with N.M. Jan, W.H. Fong, N.H. Sarmin)
8. The Properties of Probabilistic Simple Regular Sticker Systems. AIP Conference Proceedings 1682, 2015, pp. 020047. (with M. Selvarajoo, W.H. Fong, N.H. Sarmin)
9. Weighted Watson-Crick Automata. AIP Conference Proceedings 1605, 2014, pp. 302{306. (with M.I. Mohd Tamrin, T.M. Tengku Sembok) Thomson ISI Proceedings, SCOPUS, etc.

10. Watson-Crick Petri net languages: The effect of labeling strategies. AIP Conference Proceedings 1605, 2014, pp. 690-695. (with N.M. Jan, W.H. Fong, N.H. Sarmin) Thomson ISI Proceedings, SCOPUS, etc.
11. Probabilistic Simple Splicing Systems. AIP Conference Proceedings 1602, 2014, pp. 760-766. (with M. Selvarajoo, W.H. Fong, N.H. Sarmin) Thomson ISI Proceedings, SCOPUS, etc.
12. Watson-Crick Petri net languages with finite sets of final markings. AIP Conference Proceedings 1602, 2014, pp. 876-880. (with N.M. Jan, N.H. Sarmin, W.H. Fong) Thomson ISI Proceedings, SCOPUS, etc.
13. Some Characteristics of Probabilistic One-Sided Splicing Systems. AIP Conference Proceedings 1522. The 20th National Symposium on Mathematical Sciences, 18-20 December 2012, Putrajaya, Malaysia, pp. 967-975. (with M. Selvarajoo, W.H. Fong, N.H. Sarmin) Thomson ISI Proceedings, SCOPUS, etc.
14. Automata Representation for Abelian Groups. AIP Conference Proceedings 1522. The 20th National Symposium on Mathematical Sciences, 18-20 December 2012, Putrajaya, Malaysia, pp. 875-882. (with W.H. Fong, Y.S. Gan, N.H. Sarmin) Thomson ISI Proceedings, SCOPUS, etc.

C. 3. BOOK CHAPTERS / POGLAVLJA U KNJIGAMA

1. The Computational Power of Watson-Crick Grammars: Revisited. Bioinspired Computing - Theories and Applications. Communications in Computer and Information Science, 681, 2016, pp. 215-225 (with N.L.M. Zulku i, M. I.M. Tamrin, A. Messikh) Thomson ISI Proceedings, SCOPUS, ACM, etc.
2. Dynamics Classifications of Extreme Doubly Stochastic Quadratic Operators on 2D Simplex. In: H.A. Sulaiman, M.A. Othman, M.F.I. Othman, Y. Abd Rahim, N.C. Pee (Eds.), Advanced Computer and Communication Engineering Technology, LNEE 362, Springer International Publishing, 2016, pp. 323-335. (with R. Abdulghafor, F. Shahidi, A. Zeki) Thomson ISI Proceedings, SCOPUS, ACM, etc.
3. Fuzzy splicing systems. In: D. Hwang et al. (Eds.), ICCCI 2014, Lecture Notes in Artificial Intelligence, 8733, Springer International Publishing Switzerland, 2014, pp. 20-29. (with F. Karimi, N.H. Sarmin, W.H. Fong) Thomson ISI Proceedings, SCOPUS, ACM, etc.
4. Probabilistic splicing systems. In: W.H. Fong, Y. Yaacob (Eds.) Recent Advances in DNA Splicing System, Universiti Teknologi Malaysia, 2014, pp. 15-26. (with M. Selvarajoo, W.H. Fong)
5. Nonterminal complexity of weakly conditional grammars. In: N.T. Nguyen et al. (Eds.), ACIIDS 2014, Part I, Lecture Notes in Artificial Intelligence, 8397, Springer International Publishing Switzerland, 2014, pp. 53-62. (with M.I. Mohd Tamrin, Norsaremah Salleh) Thomson ISI Proceedings, SCOPUS, ACM, etc.

6. Concurrent Context-free Grammars. In: H. Tutut, D.M. Mat, A. Jemal (Eds.), DaEng - 2013, Lecture Notes in Electrical Engineering, 285, Springer-Verlag, Berlin, 2014, pp. 521-528. (with G. Mavlankulov, M. Othman, M.H. Selamat) Thomson ISI Proceedings, SCOPUS, ACM

C. 4. BOOKS / KNJIGE

The candidate for appointment to academic title of associate professor does not have published book. Yet, he has published numerous scientific articles therefore a requirement of published book for position of associate professor may be replaced with three additional scientific papers, over the legal requirement. / Kandidat za izbor u zvanje vanrednog profesora nema objavljenu knjigu. Ipak, objavio je veći broj naučnih radova te se stoga uslov objavljene knjige za zvanje vanrednog profesora može zamijeniti sa tri dodatna načna rada kja su obajavljena preko zakonskom minimuma za izbor u zvanje vanrednog profesora.

D. PROJECTS / PROJEKTI

07/2013 - 02/2016 Project Leader,

Department of Computer Science, Faculty of Information and Communication Technology, International Islamic UniversityMalaysia, Kuala Lumpur, Malaysia

Research project: EDW B13-053-0938, University Research Endowment Fund Type B

Project title: Grammars Controlled by Petri Nets under Maximal Firing Strategy

12/2013 - 11/2016 Project Leader,

Department of Computer Science, Faculty of Information and Communication Technology, International Islamic UniversityMalaysia, Kuala Lumpur, Malaysia

Research project: FRGS13-066-0307, Fundamental Research Grant Scheme, Ministry of Education of Malaysia

Project title: Regulated Splicing Systems and Formal Models for Food Authentication

E. MENTORSHIPS / MENTORSTVA

SUCCESSFUL MENTORSHIP OF PHD CANDIDATES / USPJEŠNA MENTORSTVA PHD KANDIDATA

1. "Nonlinear Stochastic Operators to Control the Consensus Problem in Multi-Agent Systems", Rawad Abdulhaleq Abdulmolla Abdulghafor, Faculty of Information and Communication Technology, International Islamic University Malaysia. September 2017.
2. "Symmetric Cryptosystems Based on Finite Automata", Ghassan Khaleel Salloom Al-Salloom, Faculty of Information and Communication Technology, International Islamic University Malaysia. July 2017.
3. "Formal Models and Algorithms for DNA Data Analysis Using Watson-Crick Grammars",

Nurul Liyana Binti Mohamad Zulkufli, Faculty of Information and Communication Technology, International Islamic University Malaysia. December 2017.

F. INTRODUCTORY LECTURE

Dr. Sherzod Tuaraev does not need to deliver introductory lecture since he actively participated in the realization of the lecturing process at higher education institutions

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Dr. Sherzod Tuaraev ne treba održati pristupno predavanje jer već posjeduje iskustvo predavača na visokoškolskim ustanovama.

G - PROPOSAL AND RATIONALE

Based on the scientific work, in accordance with the Law on Higher Education of Sarajevo Canton ("Official Gazette of Sarajevo Canton" No: 33/17), we are pleased to propose to the Council of the Faculty of Engineering and Natural Sciences to appoint Dr. Sherzod Turaev to the academic title of ASSOCIATE PROFESSOR in the scientific field of "Computer Sciences", at the Faculty of Engineering and Natural Sciences of the International University of Sarajevo.

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Na osnovu naučnog rada, u skladu sa odredbama Zakona o visokom obrazovanju Kantona Sarajevo ("Službene novine Kantona Sarajevo" br: 33/17), sa zadovoljstvom predlažemo Vijeću Fakulteta prirodnih i tehničkih nauka Internacionalnog univerziteta u Sarajevu da se dr. Sherzod Turaev izabere za nastavnika u naučno-nastavnom zvanju VANREDNOG PROFESORA na naučnoj oblasti "Računarske nauke", na Fakultetu prirodnih i tehničkih nauka Internacionalnog univerziteta u Sarajevu.

COMMITTEE / KOMISIJA

1. **Prof. Dr. Ali Yazici** (chairman/predsjednik)

2. **Prof. Dr. Ensar Gül** (member/član)

3. **Prof. Dr. Sehabeddin Taha Imeci** (member/član)
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