

UNIVERSITY OF SHUMEN
"BISHOP KONSTANTIN PRES LAVSKI"

REVIEW

by Prof. D.Sc. eng. Nikolay Litchkov Gueorguiev,

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on competition for the academic position "Associate Professor" in the field of
higher education: 5. Technical sciences, Professional field 5.13. General
Engineering (Engineering Logistics) in the Department of Engineering Logistics,
Faculty of Technical Sciences, University of Shumen "Bishop Konstantin
Preslavski", announced in SG, issue 12 / 12.02.2021

Candidate: Assistant Professor, eng. Stefan Marinov Kazakov, Ph.D.

Grounds: Order № RD-16-037 / 06.04.2021. of the Rector of the University of Shumen "Bishop Konstantin Preslavski".

1. General information about the candidate

I do not know the candidate in the competition personally, but judging by the documents attached to the competition, it is clear that Assistant Professor, eng. Stefan Marinov Kazakov, PhD, has the following professional qualification:

- in 2011 has obtained a master's degree in "Communication and Information Systems" at University of Shumen;
- in 2017 has acquired scientific and educational degree "Doctor" in professional field 5.3. Communication and computer technology with the topic of the dissertation: "Study of the efficiency of data traffic in LAN";
- in the period from 2016 to 2017 he held the position of "assistant" in the Department of Engineering Logistics at the University of Shumen "Bishop Konstantin Preslavski";
- in 2017 he held the academic position of "Assistant Professor" in the Department of Engineering Logistics at the University of Shumen "Bishop Konstantin Preslavski";
- His pedagogical activity is related to conducting lectures and seminars in 4 disciplines, including by engaging students in a real production environment

through their participation in Project of the Ministry of Education and Science BG05M2OP001-2.013-0001 "Student Internships - Phase 2".

2. General characteristics of the research and scientific-applied activity of the candidate

According to the requirements of Law on the development of the academic composition in the republic of Bulgaria and the Regulations for its implementation, the candidate in the competition - Assistant Professor Stefan Marinov Kazakov presented a monograph entitled "Network approach to systematization of information flows in logistics" in a volume of 132 pages. In it he presents the basic standards for building IEEE 802.3 Ethernet LAN and the types of topologies of computer networks, methods and means for monitoring local networks, substantiates the procedure for data transmission in a free environment and analyzes the errors in data transmission in the LAN system.

In addition, to participate in the announced competition, the candidate participates with 14 articles and reports, of which 6 are co-authored and 8 are independent. The subject area of the publications fully covers the professional field 5.13 General Engineering (Engineering Logistics).

3. Citation

The presented reference contains 18 citations of works of the candidate, which prove their relevance and meet the requirements for holding an academic position "ASSOCIATE PROFESSOR" in the specified scientific field.

4. Participation in projects

From the submitted documents, the candidate participates with 4 research projects, of which 1 at national and 3 at university level.

5. Scientific contributions to the competition

Taking into account the author's reference and the presented materials, the contributions can be summarized in the following four directions:

5.1. Standards for LAN construction

The specifics and applicability of the basic standards and procedures used in a local computer network (LAN) for high-speed exchange of information between multiple computers, using common information and hardware resources, are systematized and analyzed.

Publications with scientific contributions in this field:

- Network approach in systematization of information flows in logistics, US, 2020, ISBN 978-619-201-384-4, 2020;
- Stefan Kazakov, Tihomir Trifonov, Ivan Tzonev – Probabilistic-temporal characteristics in a three-level centralized computer structure, International Conference Bionics and Prosthetics, Biomechanics and Robotics, Liepaya, Latvia, 2014, Vol.10, ISBN 978-9934-10-573-9, c.129-132;
- Stefan Kazakov, Resources and organization of processes in logistics engineering, International scientific refereed online journal with impact factor, ISSUE 69, MAY 2020, ISSN 2367-5721,c. 54-59

5.2. Analysis of LAN structures

The publications present a classification of the means for monitoring and analysis of information flows in the communication network of the LAN and of the arising adverse events (conflicts, collisions) between the computers at simultaneous access to the communication channel. A collision handling algorithm is presented, which is tested by a software product.

Publications with scientific contributions in this field:

- Network approach in systematization of information flows in logistics, US, 2020, ISBN 978-619-201-384-4, 2020;
- Stefan Kazakov, General Mathematical Concepts Used in Logistics Operations Management, University of Shumen "Bishop Konstantin Preslavski", Scientific Conference with International Participation MATTECH 2020, ISSN 1314-3921, pp. 335 -340;
- Stefan, Kazakov, Approaches and principles for building information systems for logistics management, University of Shumen "Bishop Konstantin Preslavski", Scientific conference with international participation MATTECH 2020, ISSN 1314-3921, pp. 341 -345;
- Stefan, Kazakov, Purpose and classification of logistics information systems, University of Shumen "Bishop Konstantin Preslavski", Scientific conference with international participation MATTECH 2020, ISSN 1314-3921, pp. 346 -354;
- Plamen Dqnikov, Stefan Kazakov, Synthesis of solitons in transport testing in MatLab software environment, 54th International scientific conference on information, communication and energy systems and technologies (ICEST 2019) Ohrid, North Macedonia, June 27-29, 2019, Issue 1, ISSN 2603-3267, p. 401-403 /online/;

- Stefan Kazakov, Systematization of information flows in logistics, Annual University Scientific Conference, Vasil Levski National University, Veliko Tarnovo, 2020, ISSN 2367-7481, p.1721 -1729.

5.3. Research and analysis of errors and collisions in systematization of information flows in logistics

The approaches in the construction of the logistic information systems which to ensure their effective functioning are analyzed, taking into account the requirements of their users and the specific conditions of their operation. The conducted theoretical analysis proves that with the increase of the number of communicating computers and with the development of the structure on several levels of the local network the probability of collisions between the communicating computers increases and the time for transmission of the information flow increases.

Publications with scientific contributions in this field:

- Network approach in systematization of information flows in logistics, US, 2020, ISBN 978-619-201-384-4, 2020;
- Stefan Kazakov, Analysis of logistic efficiency, Journal scientific and applied research, USA, Vol. 18, 2020r., ISSN 1314-6289, c. 41-47
- Stefan, Kazakov, Purpose and classification of logistics information systems, University of Shumen "Bishop Konstantin Preslavski", Scientific conference with international participation MATTECH 2020, ISSN 1314-3921, pp. 346 -354;
- Stefan, Kazakov, Approaches and principles for building information systems for logistics management, University of Shumen "Bishop Konstantin Preslavski", Scientific conference with international participation MATTECH 2020, ISSN 1314-3921, pp. 341 -345;
- Stefan Kazakov, General Mathematical Concepts Used in Logistics Operations Management, University of Shumen "Bishop Konstantin Preslavski", Scientific Conference with International Participation MATTECH 2020, ISSN 1314-3921, pp. 335 -340;
- Stefan Kazakov, Anton Antonov, Reliability techniques for RFID, Journal scientific and applied research, USA, Vol. 12, 2017, ISSN 1314-6289, pp.27-39;
- Stefan Kazakov, Yordanka Yordanova, Typology of risks in RFID, Journal scientific and applied research, USA, Vol. 12, 2017, ISSN 1314-6289, pp.40-52;
- Stefan Kazakov - Analysis of RFID Generation 2 security, University of Shumen "Bishop Konstantin Preslavski", Scientific conference with

international participation MATTECH 2018, ISSN 1314-3921, p.194-202

5.4 Methodological applied contributions

I evaluate these contributions as related to systematization and presentation of information in a way aimed at conducting the educational process and research by students and doctoral students at the University of Shumen "Bishop Konstantin Preslavski".

The publications in this field are:

- Anton Antonov, Yordanka Yankova-Yordanova, Stefan Kazakov, Structural and Methodological Complex for Training with Anylogic, University of Shumen "Bishop Konstantin Preslavski", Scientific Conference with International Participation MATTECH 2016, ISSN 1314-3921, p.209-212;
- Stefan Kazakov, Yordanka Yankova-Yordanova, Review of Anylogic software for design of complex logistics systems, University of Shumen "Bishop Konstantin Preslavski" Scientific conference with international participation, MATTECH 2016, ISSN 1314-3921, p.204-208;
- Stefan Kazakov, ERP systems in logistics and transportation, International scientific refereed online journal with impact factor, ISSUE 69, May 2020, ISSN 2367-5721, pp. 49-53;

6. General assessment of scientometric indicators

According to the presented Information, Assistant Professor Stefan Kazakov has achieved 414.34 points with the required 400 points, and satisfies the requirements in each area. I accept the works proposed for review, as they correspond to the content and subject area of the competition and reflect to the necessary extent the creative and pedagogical activity of the candidate.

7. Critical remarks and recommendations

I recommend the candidate to direct his publishing activity in referenced and indexed scientific publications noted in Scopus and Web of Science. In addition, it is not appropriate to use both Bulgarian and English in the description of a publication.

8. Conclusion

Based on the above, I give a positive assessment of the provided materials and propose, **Assistant Professor Dr. Eng. Stefan Marinov Kazakov, to be elected to the academic position of "Associate Professor" in the field of higher**

education: 5. Technical Sciences, Professional field 5.13. General Engineering (Engineering Logistics) at the Faculty of Technical Sciences of the University of Shumen "Bishop Konstantin Preslavski".

07.05.2021г.

Reviewer:.....
(Prof. eng. Nikolay Litchkov Gueorguiev, D.Sc.)