

REVIEW

by Assoc. Prof. Tihomir Spirdonov Trifonov PhD

Department of Communication and Computer Technologies, Faculty of
Technical Sciences, University of Shumen "Bishop Konstantin Preslavsky",
member of the scientific jury, approved by Order of the Rector of UTP №3-256
/ 20.12.2021,

in a competition for the academic position of "Associate Professor"

in the field of higher education 5. Technical sciences, professional field 5.3
Communication and Computer Technologies, scientific specialty "Integrated
information systems with micro services"

In the competition for the academic position of "Associate Professor",
announced in the State Gazette, issue 91 / 02.11.2021 and on the website of the
University of Telecommunications and Posts - Sofia for the needs of the
Department of Information Technologies, Faculty of Telecommunications and
Management, as the only candidate is Assistant Professor Egnar Ibrahimova
Özdikililer PhD.

1. Brief Biographical Data

Assistant Professor Egnar Özdikililer was born in 1978. She graduated
with a Bachelor's degree in Computer Engineering from the University of
Selcuk - Konya, Turkey and a Master's degree in the same specialty from the
Trakya University - Edirne, R. Turkey. In 2017 she acquired the PhD degree in
"Satellite Communications and Remote Monitoring" at the Technical University
- Istanbul, Turkey. By a decision of the Academic Council №11 / 15.09.2020,
UTP - Sofia admitted the PhD degree acquired by Egnar Özdikililer in the
Republic of Turkey in Professional Field 5.3. Communication and computer
Technologies.

From 09.2018 to 02.2019 Egnar Özdikililer held the position of "guest
lecturer", and from 02.2019 until now she holds the academic position of
"Assistant Professor" at the University of Telecommunications and Posts (UTP)
- Sofia. Since 04.2018 she has been working at the Technical University -
Istanbul, Republic of Turkey as a lecturer.

The candidate for the academic position of "Associate Professor" Assistant Professor Egnar Özdikililer PhD meets the requirements of Art. 24, para. 1 and 2 of the Law for development of academic staff in Republic of Bulgaria (LDASRB), as she has held the position of "assistant" for more than 2 years and holds a PhD diploma.

2. Description of the presented materials

For participation in the competition for "Associate Professor" Assistant Professor Egnar Özdikililer PhD has presented: a monograph in English on "Design and Development of a Micro service Management Model For Distributed And Integrated Systems" and 15 publications. Other documents are also presented: Information on citations, Information on the implementation of the minimum scientometric requirements set by the Regulations for application of the LDASRB, Information on scientific contributions, Information on hours taught, Information on participation in projects, information on activities and work with students, copies of diplomas, certificates, etc.

The presented 15 publications can be classified on various grounds as follows:

- According to the number of co-authors: 5 publications are independent (1, 4, 5, 6 and 12), 9 are with one co-author (2, 3, 7, 8, 10, 11, 13, 14 and 15) and one is with four co-authors (9);

- According to the language of writing: 11 are in English (1, 2, 3, 4, 5, 6, 8, 9, 10, 13 and 15), 3 are in Bulgarian (7, 11 and 12) and one in Turkish (14);

- According to the type of publication: one is in a journal, referenced and indexed in world databases with scientific information (1), 5 are in non-referenced journals with scientific review (7, 8, 10, 13 and 14), 7 are in proceedings of scientific conferences (2, 3, 4, 5, 6, 9 and 15) and two are in the yearbooks (11 and 12);

- Three of the publications are in foreign editions (1, 14 and 15), the other 12 are in Bulgarian editions.

The candidate meets the minimum scientometric indicators for holding the academic position of "Associate Professor" for Professional Field 5.3. Communication and computer technologies, defined in the Regulations for implementation of the Law for the development of the academic staff in the Republic of Bulgaria. The number of points by indicators is as follows: Group A (PhD Degree) - 50 points, Group B (monograph) - 100 points, Group D (publications) - 214 points and Group D (citations) - 58 points. A total of 422

points. Two of the citations are respectively in doctoral dissertation and master's thesis and do not carry points, ie. the number of points for Group E should be reduced by 4. On the other hand, some citations can be attributed to the group "Citations in monographs and collective volumes with scientific review", which instead of 2, carry 3 points.

It is noteworthy that most of the publications, including the monograph, are written in English with excellent command of terminology.

3. Reflection of the candidate's scientific publications in the literature

Twelve of the publications of Assistant Professor Egnar Özdikililer PhD are cited in a total of 23 publications by various authors. One of the publications is cited in an article in a journal, referenced and indexed in world databases. Four publications are cited in a monograph by a Bulgarian author. Most of the other citations are in publications of Bulgarian authors. It is noteworthy that many of the citations are in publications from the same conference, internal to the Higher School of Telecommunications and Post (TIEM 2021).

4. General characteristics of the candidate's activity

Assistant Professor Egnar Özdikililer is an established specialist in the field of information technology, with solid experience in the design, development and administration of databases. The CV provided shows that during most of her career she has held positions related to database administration and programming. As an Assistant Professor, Egnar Özdikililer has conducted classes in disciplines such as: "Databases", "Database Workshop", "Oracle Databases", "Oracle Database Administration", "Object-Oriented Programming Workshop", "Algorithms and data structures", etc. The disciplines taught by the candidate are very close to her research interests, which means that students receive in-depth and up-to-date knowledge.

Egnar Özdikililer has actively participated in the management of semester projects and diploma theses, as well as in the review of theses. In the last 3 years she has supervised 7 graduates, reviewed 4 diploma theses and supervised 14 students for the preparation of semester projects. She has led students to participate in a student research session, participated in joint publications with students and led a student group to participate in a competition on Spatial Databases and their visualization.

She has developed a curriculum on Database Management Systems. A second curriculum in Geostatistics is under development.

Egnar Özdikililer has participated in an internal university project: № 30-137 # 1 / 26.04.2021. Renovation and expansion of technological base and research infrastructure at UTP - UNICLOUD 2021.

5. Scientific and applied scientific contributions

In scientific terms, the candidate's work is concentrated in several main areas: Databases, Programming, Information systems with micro services, Geographic information systems.

The scientific, scientific-applied and applied contributions in the monographic work and in the publications are described in the attached reference and can be summarized as follows:

Scientific contribution (from the monograph): a container management model based on micro services has been developed. An algorithm has been created, implemented in a software environment for solving model problems. The algorithm protects the principles of interoperability, is based on a hybrid structure, accommodates multiple systems and allows multifaceted data flow, providing integration through web services.

Scientific and applied contributions (from the monograph): The data on micro services with Docker are analyzed, a new model of development of an integrated information system with micro services, called DockMan, based on Docker micro service architecture, is proposed and an improved structure of information protection mechanisms is proposed.

Applied contributions (from the monograph): a modern interface has been created that improves and speeds up the work process. It is based on its own framework "xElis". The created system is open source and can be easily developed and adapted.

Applied contributions (from publications): can be summarized in the creation of software solutions to solve specific problems in web systems and databases.

6. Assessment of the personal contribution of the candidate

From the presented materials it can be seen that the candidate is a specialist with knowledge and experience in information technology and databases. There she is also a researcher and a lecturer. Although most of the

publications presented are co-authored, they show the leading contribution of Assistant Professor Egnar Özdikililer PhD in writing them. Elements of plagiarism in the monograph and in the publications have not been identified. All publications and the monograph have been successfully tested for non-plagiarism with specialized anti-plagiarism software.

7. Critical remarks

My first remark is related to the way of filling in the Report on the implementation of the minimum scientometric indicators. The table should be filled in according to the sections of the individual groups of indicators, as in the appendix to the Regulations for the implementation of the law for the development of the academic staff in the Republic of Bulgaria.

My second remark is related to the way in which the contributions from the monograph and from the publications are formulated. For example, according to the report, the contributions from the publications are only two, but in reality they are more.

I recommend the candidate to develop more independent publications in the future and to publish them in issues, referenced and indexed in world databases. In addition, I recommend the candidate to develop and publish teaching aids that will help students in the respective disciplines.

8. Personal impressions

I do not know Assistant Professor Egnar Özdikililer PhD and my impressions of her and her work are based only on the set of documents I received.

9. Conclusion

Based on the above, I believe that Assistant Professor Egnar Özdikililer PhD is a researcher and lecturer with proven qualities and many years of experience in the field of information technology and in particular in database administration and programming. She meets all the requirements of the Law for the Development of the Academic Staff in the Republic of Bulgaria for holding the academic position of "Associate Professor" in the professional field of the competition. I express my **positive** opinion on the election of Assistant Professor Özdikililer PhD to the academic position of "Associate Professor".

I propose that Assistant Professor Egnar Ibrahimova Özdikililer be elected to the academic position of "Associate Professor" in the field of higher education 5. Technical sciences, professional field 5.3 Communication and computer technologies, scientific specialty "Integrated information systems with micro services".

Date: 19.04.2022 г.

Shumen

Reviewer

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