

OPINION

by Prof. Dr. Vasil Dimitrov
Todor Kableshkov University of Transport - Sofia, Bulgaria

of the materials submitted for participation in the competition for the academic position of "Associate Professor" in the field of higher education: 5. Technical Sciences, professional direction: 5.2. Electrical Engineering, Electronics and Automation, specialty "Electric Power Supply and Equipment " (Electrical machines I).

In the competition for the position of "Associate Professor", which has been announced in The State Gazette, issue 55 from 27.06.2023 and also on the website of the Technical University of Gabrovo, as a candidate for the needs of the Department of Electric Power Supply and Equipment at the Faculty of Electrical Engineering and Electronics participates Chief Assist. Prof. Eng. Dimitrina Yordanova Koeva, PhD.

1. General overview of the submitted materials

The candidate has submitted a total of 44 scientific publications to the current competition, 3 textbooks, Recognized utility model application. I have no publications in collaboration with the candidate. 3 documents (in the form of service notes) on implemented developments have been submitted.

According to the REGULATION for the Acquisition of Scientific Degrees and Academic Positions at the Technical University of Gabrovo (PPNS and ZAD) for holding the position of Associate Professor in the field 5. Technical sciences, it is necessary to meet the requirements for Groups of indicators: A (50 points), B (100 points), G (200 points) and D (50 points). The total number of publications should be greater than 15, with at least 4 nos. to be independent, 1 pc. with IF (WoS)/ SJR (Scopus). A published book and textbook are also required.

After a thorough review of the competition documents, it can be concluded that these requirements are met and the candidate's research activity is entirely in the specialty of the competition:

Indicator A - 50 points: the candidate holds an educational and scientific degree "PhD" for a developed and defended dissertation on the topic "Automated system for control, monitoring and diagnostics of wind generators", Diploma No. TYC-ИПФ45-НС1-021 / 30.04.2014. A list of dissertation publications is included with the documents for the current competition.

Indicator B: the candidate has submitted **11 scientific publications** in journals refereed and indexed in world-renowned databases with scientific information Scopus - Indicator **B.4:** 2 independent and 9 co-authored publications: 1 publication with 2 authors, 5 - with 3 authors, 3 - with 4 authors (in 2 of the publications the candidate is the first author) - **a total of 295 points**, which significantly exceeds the requirements. 4 papers were presented abroad - at the *EEPES* scientific conference in Kavala (Greece) and at the *ISFEE and EV* international symposia in Bucharest (Romania), as well as at the international scientific conferences in Bulgaria *SIELA*, *BuleF*, *LIGHTING*, *EEPES* and *CIEES*, published in the platforms of *IEEE Xplore Digital Library*, *E3S*, etc.

3 of the publications have SJR (Scopus) impact rank.

Indicator G - the candidate has submitted **34 scientific publications**, 4 of them are independent, 5 - abroad. They can be assigned to Indicator **G.8** - Scientific publications in non-refereed peer-reviewed journals or in edited collective proceedings (IOP Conference Series: Materials Science and Engineering; International International Conferences *Ecological Truth* - Serbia, International Scientific Conference „*Contemporary Materials*“ - Bosnia and Herzegovina, Scientific Conferences „*Industry 4.0*“, „*Machines, Technologies, Materials*“, „*Energy Forum*“, „*UNITECH*“, Journal of the Technical University of Gabrovo, Technical University of Sofia Yearbook, Energy Journal, Journal of CIEES и др.) - a total of 281,73 points, which significantly exceeds the requirements of the the Law on the Development of the Academic Staff in the Republic of Bulgaria and the Regulation of the Gabrovo Technical University for holding the position of Associate Professor.

Indicator D - for participation in the competition the candidate has submitted 15 citations of his publications in editions, refereed and indexed in world-known databases with scientific information: Indicator **D.12 - 150 pts**. *6 of the citations are by foreign authors.*

The candidate has submitted author's reference for participation in 6 scientific research contracts and projects, 1 of which she is the head. Three textbooks are also presented: Rachev, D. Koeva, *Drive Technology*, ISBN 978-954-683-545-1, Univ. The book is published by. "Vasil Aprilov", Gabrovo, 2015; S. Rachev, D. Koeva, *Energy technologies and ecology*, ISBN 978-954-683-560-4, Univ. Ed. "Vasil Aprilov", Gabrovo, 2016; S. Rachev, D. Koeva, L. Dimitrov, *Electrical Equipment*, ISBN 978-954-683-673-1, Univ. Ed. "Vasil Aprilov", Gabrovo, 2022.

In conclusion, I consider that the materials submitted for the competition fully satisfy the minimum national requirements and those of the Technical University of Gabrovo for the academic position of Associate Professor.

2. General characteristics of the candidate`s performance

2.1. Teaching practice (work with undergraduate and postgraduate students)

Dimitrina Koeva was employed as a chief assistant at the Technical University of Gabrovo in 2015. A reference of the candidate's academic employment in the last five academic years is presented. She has given lectures on the subjects "Electromechanical devices", "Electrical machines I", "Energy technologies and ecology", "Optimal design of electrical machines", "Electrical equipment of industrial machines and processes", etc. She has participated in the development of 10 educational programs. She has supervised 80 graduate students. It can be concluded that the candidate's pedagogical training and teaching activities are at a high professional level.

2.2. Scientific and scientific-applied activities

The candidate's active research and scientific-applied activity is mainly focused in the following thematic areas:

- Analytical and experimental studies of electrical machines (induction motors, power transformers and electric drives for industrial applications);
- Renewable energies - energy forecasting models, electricity prices and markets, energy and industrial sustainability;
- Research and analysis of electrical loads (losses, harmonics, energy and resource efficiency in industry, etc.);
- Electric vehicles, charging infrastructure.

2.3. Deployments activities

Chief Asist. Dimitrina Koeva has a Utility Model Patent for Galvanic Current Separated Sensor (Certificate No. 218/ 30.03.1999). A notification from "Dinamo"JSC - Sliven about the participation of the candidate in the development activity of the enterprise is presented. A reference from EnCoRA Ltd. shows that the Ch. Asist. Dimitrina Koeva participated as a consultant in the preparation of energy efficiency audit reports for seven industrial facilities.

All these activities of the candidate prove her abilities for conducting scientific research and applied research activities and show her teamwork skills.

3. Contributions (scientific, scientifically-applied, applied). Significance of contributions to science and practice

I agree in substance with the contributions proposed by the candidate. They are summarized mutually on the basis of the achievements in the submitted publications under Indicators B.4, G.7 and G.8. They are basically scientifically-applied and applied. They can be classified as *Creation of new models, methods, constructions, technologies; Proof by new means of significant new aspects of already existing scientific problems; Obtaining confirmatory facts.*

4. Evaluation of the personal contribution of the candidate

The contributions are the personal work of the candidate, which is evident from the large number of scientific papers published in Scopus-indexed journals, from the participation in a large number of research and business projects, from the numerous citations of the scientific papers in representative foreign journals.

5. Critical notes and recommendations

I have no significant comments on the presented scientific production. The papers are organized and described precisely, professionally and at a high level.

6. Personal impressions

I do not know personally the Ch. Asist. Eng. Dimitrina Koeva, PhD. When referring to the world-renowned database of scientific information Scopus, is visible h-index = 3 for the candidate (when excluding self-citations), which is a high evaluation of the achieved reputation in scientific circles (25 citations in 19 publications).

Koeva, Dimitrina Yordanova
Technical University of Gabrovo, Gabrovo, Bulgaria
Author ID:55359594700

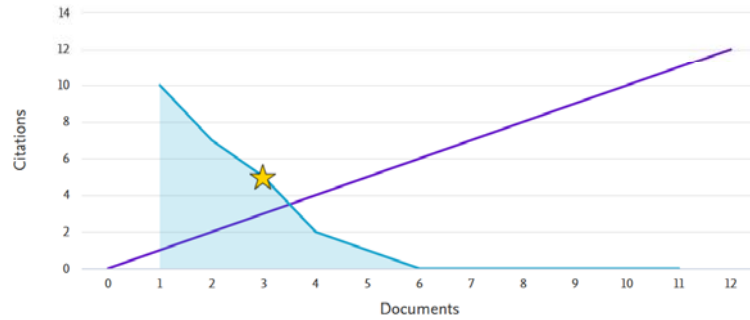
Analyze documents published between: 2007 to 2023
 Exclude self citations Exclude citations from books [Update Graph](#)

Documents ↓	Citations ↓	Title ↓
1	10	Electromechanical m...
2	7	Electromechanical m...
3	5	Evaluation of Electric...
4	2	Vector Control of Pu...
5	1	Energy and Resource...
6	0	Energy efficiency Ind...
7	0	Energy Efficient Solu...
8	0	Current Status, Featu...

This author's *h*-index

3

The *h*-index is based upon the number of documents and number of citations.



7. Conclusion:

Taking into account the above, I propose that Ch. Asist. Prof. Eng. Dimitrina Yordanova Koeva, PhD, to be elected as "Associate Professor" in the field of higher education: 5. Technical Sciences, professional direction: 5.2. Electrical Engineering, Electronics and Automation, speciality "Electric Power Supply and Equipment " (Electrical machines I).

09.11.2023

Member of the jury: /signature/
/Prof. Dr. Vasil Dimitrov/