

OPINION

by competition for the academic position "Associate Professor"
by professional direction 5.4. Energy, scientific specialty "Electrotechnical materials and cable technology", announced in GN no. 4/13.01.2023 for the needs of TU-Varna, Department of "Electrical power"

with candidate: **Milena Dimitrova Ivanova**, doctor, chief assistant, TU-Varna
Member of the scientific jury: **Prof. PhD Eng. Valentin Genov Kolev**, TU-Sofia

Ch. Milena Dimitrova Ivanova, assistant professor, Ph.D., majored in "Communications engineering and technologies", OKS bachelor and master at TU-Varna (2005 and 2007). In 2016, he acquired a doctorate from the National Academy of Sciences in the field of: Transport, Shipping and Aviation National Academy of Sciences: Power supply and electrical equipment by branch (of the ship), subject of the DT "Electrical processes in circuits for generating a high-voltage discharge pulse in a liquid medium". From 2007 to 2017, he worked as AD assistant to cat. "Electricity", and from 2017 - ch. assistant.

1. General characteristics of the candidate's research and scientific-applied activity.

For participation in the competition ch. Assistant Professor Milena Dimitrova Ivanova, PhD, presents **31 scientific papers**, which are outside the dissertation and are counted in the final evaluation, of which **1 no.** in a scientific journal, **28 no.** at scientific conferences and **1 pc.** in the Yearbook of TU - Varna. Of the scientific articles and reports submitted for participation in the competition, **19 no.** are indexed in the Scopus database, **28** are in English and **3** in Bulgarian.

Among the papers in the current procedure, Habilitation thesis - scientific publications (not less than 10) in publications that are referenced and indexed in world-famous databases with scientific information, according to indicator B4 - (indicator B4 - 232 items - **min. 100 items**), 21 publications (**indicator D - 226.44 items - min. 200 items**) and 9 of the publications (**indicator D7 - 123.1 items**) are referenced in the scientific databases Web of Science and/or Scopus and 12 scientific publications (**indicator D8 - 103.34 items**) in non-refereed editions with scientific review (in co-authorship). There are a total of 9 citations for the contest (**indicator D - 60 items - min. 50 items**), all of which are in scientific publications, referenced and indexed in world-renowned databases with scientific information. The educational activity of the candidate according to **indicator Z - 692 points - min. 30 points**.

The works submitted are directly related to the current competition for employment at JSC "Docent" and are in the professional direction 5.4. "Energy", scientific specialty "Electrotechnical materials and cable technology". The evaluation of the submitted references for the contributions in the candidate's publications and the participation in scientific projects proves that Senior Assistant Dr. Milena Ivanova is a very good specialist with potential for development.

The Scientometric indicators shown according to the Regulations for the application of the RASRB and the minimum requirements from the Regulations for the terms and conditions for occupying academic positions in TU - Varna show that the minimum national requirements for occupying JSC "Docent" have been met. I believe that the submitted materials for the competition exceed the minimum national requirements for holding the academic position of **associate professor** and are at a high scientific, technical and professional level. The research and scientific-applied activity of ch. Assistant Professor Milena Dimitrova Ivanova is in the field of electrotechnical materials and cable technology and power engineering.

2. Assessment of the candidate's pedagogical training and activity.

The candidate in the competition has 15 years of teaching experience in the "EE" department. As can be seen from the attached report on the horary of lectures held at TU-Varna for the last three years, the candidate was a leading teacher in the disciplines: "**Electrotechnical materials**" - for the Bachelor's degree program, "**Technical safety**" - Bachelor's degree program, "**Coordination and diagnostics of**

electrical insulation systems" - OCS "bachelor", "*Management of working conditions and production risk"* - EQD "bachelor" and "*Diagnostics of cable power lines"* - EQD "bachelor" with a total schedule of 692 study hours. Ch. Milena Dimitrova Ivanova, assistant professor, Ph.D., is the supervisor of 11 graduate students studying at the "Bachelor" and "Master" universities. She is the co-author of 2 textbooks

This gives me the reason to determine *Ch. Assistant Professor Milena Dimitrova Ivanova, PhD*, as a well-established teacher with high professional and engineering-technical qualities.

3. Basic scientific and scientific-applied contributions.

The candidate's scientific interests are in the field of *electrotechnical materials and cable technology and power engineering*. Contributions n a are the candidates r a shared in three groups: **scientific** (In 4 - 7, D7 - 5, D7 - 8), **scientific - applied** (B4 - 2, In 4 - 3, C.4 - 5, B4 - 8, B4-9, At 4 - 10, G7 - 1, G7 - 2, D7 - 4, D.7 - 6, D7 - 7, D7 - 9, D8 - 1, D8 - 3, D. _ 8 - 4, D8 - 8, G8 - 10, D8 - 11) and **annexes** (D.8-5, D.8-9, D.8-12, D.7-3, D.8-6, D.8-7, **D.8-2**, C. 4-6, C.4-1, C.4-4).

In reality, contributions are properly categorized into the following four groups:

- "*formulating or justifying a hypothesis*",
- "*proving by new means substantial new aspects of already existing problems and hypotheses*",
- "*create methods*" and
- "*obtaining corroborating facts*".

I accept the claims in full. I also accept the distribution of the contributions in the main areas of scientific research, referred to the scientific specialty of the competition, and indicated in the document "Reference of the contributions of Ch. Milena Dimitrova Ivanova, PhD, Eng." for participation in the competition.

4. Significance of contributions to science and practice.

I define the candidate's contributions to science and engineering practice as significant and representing a good basis for further in-depth scientific research and achievements in the scientific field of the competition. The candidate has published a significant number of scientific works with scientific and scientific-applied contributions to science, innovation and education. Participates in prestigious international and national scientific forums with international participation and the scientific publications referenced and indexed in the world-famous databases with scientific information - Scopus and Web of Science

It has participated in a relatively large number of scientific research and scientific applied projects and implementation contracts, with which it also became well known to the professional and scientific community in the country. This is a convincing proof of recognition of her scientific achievements by a large professional community in the country.

She participated in the writing of teaching aids - a manual for laboratory exercises on electrotechnical materials. Her achievements have become known to the professional and scientific community at home and abroad.

The minimum quantitative indicators for holding AP "associate professor", for all groups, are fulfilled, in accordance with Art. 1, para. 3 and Appendix 1 from PUZAD in TU-Varna, for the accredited professional direction 5.4. "Energy", as groups B, D and Z are overfilled.

5. Critical notes and recommendations.

I have no critical remarks about the candidate. The documents for the competition are well-formed and arranged, and are accompanied by the necessary evidentiary material. It is clear that the candidate has covered several important scientific areas. I recommend *Ch. Assistant Professor Milena Dimitrova Ivanova, Ph.D.*, to focus her efforts on concrete applications in practice.

CONCLUSION

The scientific works presented in the competition contain significant results, for which I give a positive assessment. Sufficient scientific, scientific-applied and applied contributions have been received. The minimum requirements have been met, the scientific -metric indicators have been met, and based on this, I find it reasonable to propose *ch. Milena Dimitrova Ivanova, assistant professor, Ph.D to occupy the academic position of "ASSOCIATE PROFESSOR"* by professional direction 5.4. "Energy", scientific specialty: "Electrotechnical materials and cable technology", at the " Electroenergetics " department of the Faculty of Electrical Engineering at the Technical University - Varna.

Date:
10.06.2023

JURY MEMBER:

Prof. PhD. Eng. Valentin Kolev