

## OPINION

on the competition for the academic position "Associate Professor" in the professional field  
5.4. Power engineering, with a scientific specialty in "Electrotechnical materials and cable technology",  
announced in SG no. 4/13.01.2023 for the needs of TU-Varna,  
Department of Power Engineering with candidate:  
Milena Dimitrova Ivanova, PhD, Chief Assistant, TU-Varna

The opinion was prepared by: Yulian Emilov Rangelov, Assoc. Prof. Dr. Eng., TU-Varna

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

The presented list of publications shows a wide range of topics on which the candidate has research and applied research activities. According to the documents, the candidate works in 5 areas - electrical materials, cable technology, monitoring, verification, and management of indicators for the quality of electrical energy, technical safety and modern approaches for conducting the educational process. After reviewing the summaries of the presented publications, it can be confidently stated that the candidate is developing successfully both in research work and in the field of applied research activities.

### **2. Evaluation of the pedagogical preparation and activity of the candidate**

In addition to his achievements as a scientist, his scientifically based approach to teaching activities, which is a guarantee for his development as a teacher, cannot be ignored. The large list of disciplines in which the candidate prepares and leads students at TU-Varna shows high potential for development - creation of textbooks, continuous updating and creation of new disciplines. The candidate participates in the preparation of project proposals, leads or is part of the team of many scientific and applied research projects. He participates in updating the material and technical base of the department and the accreditation procedures.

### **3. Basic scientific and scientific-applied contributions**

The contributions of the candidate are divided into three groups - scientific contributions, applied scientific contributions and applied and methodological contributions. The first group lists three scientific contributions classified as "Formulation or justification of a new theory or hypothesis", "Proving with new means of essential new aspects of already existing scientific fields", "Problems, theories, hypotheses" and "Creation of new classifications, methods, constructions, technologies. As evidence are indicated D.7-5; C.4-7; D.7-8. In the second group are listed 17 contributions classified as "Proving with new means of essential new aspects of already existing scientific fields, problems, theories, hypotheses", "Creation of new classifications, methods, constructions, technologies, obtaining confirmatory facts". As evidence are indicated C.4-2; C.4-9; C.4-10; C.4-3; D.8-10; C.4-5; C.4-8; D.8-11; D.8-1; D.7-7; D.7-9; D.8-4; D.8-8; D.8-3; D.7-6; D.7-1; D.7-2; D.7-4. In the third group are listed nine applied and methodological contributions classified as "Proving with new means of essential new aspects of already existing scientific fields, problems, theories, hypotheses"; "Creation of new classifications, methods, constructions, technologies"; "Obtaining confirmatory facts" As evidence are indicated D.8-5; D.8-9; D.8-12; C.4-4; D.7-3; C.4-1; D.8-6; D.8-7; C.4-6; D.8-2.

Ten publications (C.4 PPZRASRB and PURZAD) equivalent to a habilitation thesis are presented All are indexed in Scopus, three are indexed in Web of Science as well. The candidate presents contributions in all of them as described above. Nine of the publications are at internationally recognized conferences with sufficient representation and one is an article in a journal that in the year of publication



is in the fourth quartile. The candidate presents one independent article, one in which he is the first co-author, three in which he is the second co-author, four in which he is in fourth place and one in which he is fifth co-author.

According to D.7 according to PPZRASRB and PURZAD 9 publications indexed in SCOPUS are presented and according to D.8 12 publications in non-referenced editions are presented The candidate presents one independent article six in which he is the first co-author six in which he is the second co-author five in which he is in third place and three in which he is fourth co-author.

Knowing closely the work of the candidate I can confidently claim that the contributions in all publications are largely his personal work Regarding citations in Scopus databases there are 72 citations The total number of publications in SCOPUS is 27 of which 12 are cited After deducting the self-citations of all co-authors the number of citations becomes 43 After deducting the citations from authors who have worked at the university in the last 5 years the number of citations becomes 23 The first citations in SCOPUS are registered in 2017 i.e on average per year fall by 4 citations from scientists who the candidate is more likely not to know As a summary it can be said that the candidate gains fame among scientific circles around the world According to E.12 according to PPZRASRB and PURZAD six citations are presented. According to G.29 according to PURZAD "Honorarium for lectures conducted at TU-Varna for the last three years" the candidate overfulfills many times the additional condition set by TU-Varna.

#### **4. Significance of the contributions for science and practice**

All publications of the candidate are related to solving specific scientific and/or applied research problems and tasks, which speaks for the significance of the work of the authors. It is necessary to also emphasize the increased interest of scientists and researchers in the work of the candidate, which can be understood from the high Research Interest Score (Research Gate) and the number of citations in Google Scholar.

#### **5. Critical notes and recommendations**

I have no significant comments on the documents presented to me for opinion for applying for AD "Associate Professor". I can recommend to the candidate not to reduce the pace of his research work and to try publishing his results in publications placed in the first and second quartile of the ranking of scientific publications.

### **CONCLUSION**

The content of the presented materials, the volume of scientific research and contributions show a significant over-fulfillment of the requirements of the Law on Development of Academic Staff in the Republic of Bulgaria (LDASRB), the Regulation for its implementation and the internal Regulation for the conditions and procedure for occupying academic positions at TU-Varna.

Based on the acquaintance with the presented scientific works, their significance, the scientific, applied scientific and applied contributions contained in them, I find it reasonable to propose ch. asst. Dr. Eng. Milena Dimitrova Ivanova to occupy the academic position "Associate Professor" in the professional field 5.4 Power engineering by scientific specialty "Electrical materials and cable technology".

**Date: 11.06.2023**

**Jury member: ...**  
/ Asso

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