#### **OPINION**

on the competition for the academic position "Associate Professor" in the Professional direction 5.5 "Transport, Shipping and Aviation", scientific specialty "Electric equipment of the ship",

Announced in the SG, issue № 13/07.02.2023, for the needs of TU-Varna,
Department of "Electrical Supply and Electrical Equipment"
with a candidate: Ginka Hristova Ivanova, PhD Eng., chief assistant professor, TU- Varna

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

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

The presented list of publications shows a wide range of topics on which the candidate has scientific research and scientific-applied activity. According to the documents, the applicant works in 7 areas - ship electrical equipment, ship energy efficiency, ship lighting, ship ventilation systems, vector control of asynchronous motors, hybrid power systems SAVE Cube Ship, energy balance and electricity consumption on board luxury yachts. After examining the summaries of the submitted publications, it can be confirmed that the candidate is developing successfully, both in research work and in the field of scientific and applied activities.

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

In addition to his results as a scientist, the candidate is a teacher in the "Department of Electrical Supply and Electrical Equipment" with nearly 10 years of experience. The large list of disciplines in which the candidate prepares and gives lectures to students at TU-Varna shows a high potential for development – creation of teaching aids, continuous renewal, and creation of new disciplines. The candidate participates in the preparation of project proposals, leads or is part of the team of scientific and scientific applied projects. Participates in the renewal of the department's material and technical base and accreditation procedures. Work with students - graduates, participants in projects, etc. is also recommended. The candidate's activity and accumulated experience as a teacher is visible.

## 3. Basic scientific and scientific-applied contributions

The candidate's contributions are divided into three groups - scientific contributions, scientific applied contributions and applied and methodical contributions. The first group lists five scientific contributions classified as "Formulation or substantiation of a new theory or hypothesis", "Proof by new means of substantial new aspects of already existing scientific fields, problems, theories, hypotheses" and "Creation of new classifications, methods, constructions, technologies. As evidence they are listed Γ.7-1; Γ.7-2; Β.4-2; Β.4-6; Γ.7-3. In the second group, 13 contributions are listed as "Proof by new means of substantial new aspects of already existing scientific fields, problems, theories, hypotheses", "Creating new classifications, methods, constructions, technologies" and "Obtaining corroborating facts". As evidence are indicated B.4-10; B.4-9; B.4-3; Γ.7-4; Γ.7-5; B.4-8; B.4-7; Γ.8-2; Γ.8-3; Γ.8-4; Γ.8-5; Γ.8-8; Γ.8-9. In the third group, five applied and methodological contributions are listed as "Proof by new means of substantial new aspects of already existing scientific fields, problems, theories, hypotheses", "Obtaining corroborating facts". As evidence are indicated B.4-1; B.4-4; Γ.8-6; Γ.8-7; B.4-6.

Ten publications are presented equivalent to habilitation work (B.4. Regulations for the Implementation of the Law on the Development of the Academic Staff in the Republic of Bulgaria and Regulations on the Terms and Conditions for occupying Academic Position in TU-Varna) All are indexed in Scopus, two are also indexed in Web of Science. The applicant submits contributions in all as described above. All ten publications are at internationally recognized conferences with sufficient representativeness. The candidate does not present an independent article, in four articles he is the first

co-author, in four he is the second co-author, in one publication he is in third place and in one he is the fifth co-author.

According to  $\Gamma$ .7 according to Regulations for the Implementation of the Law on the Development of the Academic Staff in the Republic of Bulgaria and Regulations on the Terms and Conditions for occupying Academic Position in TU-Varna, 5 publications indexed in SCOPUS are presented, three are also indexed in Web of Science, and under  $\Gamma$ .8, 9 publications in non-refereed editions are presented. The candidate submits four independent papers, three of which are first co-author, three of which are second co-author, three of which are third co-author, and one of which are fourth co-author.

Knowing the candidate, I can confirm that the contributions in all publications are largely his own work. Regarding citations in Web of Science databases, 5 citations are available for one of the single publications (Γ.7-3). Five of them are also visible in Scopus plus one more citation. A total of 12 citations are available in Scopus, in addition to the already mentioned two on B.4-4, one on B.4-3, two on B.4-1 and one on Γ.7-1. The total number of publications in SCOPUS is 15, the earliest being from 2020, that is, on average, there are 4 citations per year by scientists in Bulgaria and abroad. As a summary, it can be said that the candidate is gaining fame among scientific circles around the world. According to Д.12 according to Regulations for the Implementation of the Law on the Development of the Academic Staff in the Republic of Bulgaria and Regulations on the Terms and Conditions for occupying Academic Position in TU-Varna seven citations are presented. According to Д.13 5 citations in non-refereed peer-reviewed collective volumes are presented. According to Ж.29 according to the Regulations on the Terms and Conditions for occupying Academic Position in TU-Varna "Horarium of lectures held at TU-Varna for the last three years", the candidate repeatedly fulfills the additional condition set by TU-Varna.

### 4. Significance of contributions to science and practice

All the candidate's publications are related to solving specific scientific and/or scientific-applied problems and tasks, which speaks of the importance of the authors' work. It is also necessary to emphasize the existing interest of scholars and researchers in the candidate's work, which can be understood from the additional number of citations in Google Scholar and Research Gate.

#### 5. Critical notes and recommendations

I have no significant objections to the application documents submitted to me for an opinion on AP" Associate Professor". I can recommend the candidate not to slow down the pace of his research work and try to publish his results in publications placed in one of the quartiles of the ranking of scientific publications.

Regarding the submitted documents related to the minimum requirements, it is necessary to note some small gaps that do not affect the candidate's readiness for habilitation:

- 1. Citations to publication  $\Pi$  13-1 and  $\Pi$  13-3 are likely to need to be transferred to  $\Pi$ .14 when processing for inclusion in the National Center for Information and Documentation.
- 2. All citations in non-refereed editions must be accompanied by an ISBN or ISSN, as well as a page in the publication on which the citation is made
- 3. Publications  $\Gamma.8-1$ ,  $\Gamma.8-2$ ,  $\Gamma.8-4$  and  $\Gamma.8-5$  are also included in the list of publications submitted to the competition for "Chief Assistant Professor". This omission in no way creates a problem for meeting the minimum requirements, moreover, according to Regulations for the Implementation of the Law on the Development of the Academic Staff in the Republic of Bulgaria, no publications are required for a competition for "Chief Assistant Professor".

### **CONCLUSION**

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

Based on familiarization with the presented scientific works, their significance, the scientific, scientific-applied, and applied contributions contained in them, I find it reasonable to propose Ch. assistant Ph.D. Eng. Ginka Hristova Ivanova to take the academic position "Associate Professor" in the professional field 5.5 "Transport, Shipping and Aviation", scientific specialty "Flectric equipment of the ship".

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Jury member: .
/ Assoc. pr

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