

# OPINION

by Dr. Eng. Veselin Gerov Nachev,

Associate Professor at the

Department of Electrical engineering, electronics and automation, Technical Faculty,

University of Food Technologies – Plovdiv

Regarding the materials submitted for participation in a competition for the academic position of

**Associate Professor at Plovdiv University “Paisii Hilendarski”,**

in the field of higher education 5. Technical Sciences,

professional field **5.2. Electrical engineering, electronics and automation** (Theoretical electro-technics)

In the competition for the academic position of **Associate Professor**, announced in the State Gazette, Issue No. 34 of April 7, 2026, and published on the official website of Plovdiv University “Paisii Hilendarski”, for the needs of the „Department of Electrical Power Engineering and Communications“ at the Faculty of Physics and Technology. The applicant is **Chief Assistant Professor Velislava Hristova Raydovska PhD** from Plovdiv University “Paisii Hilendarski”.

## 1. General Overview of the Procedure and the Candidate

By Order No. PD-1116 dated June 5, 2026, issued by the Rector of Plovdiv University “Paisii Hilendarski”, I was appointed as a member of the Scientific Jury for the competition for the academic position of Associate Professor in the field of higher education 5. Technical Sciences, professional field 5.2. Electrical engineering, electronics and automation (Theoretical electrotechnics), with candidate Chief Assistant Professor Dr. Eng. Velislava Hristova Raydovska.

The submitted set of documents is in accordance with the requirements of the Law on the Development of Academic Staff in the Republic of Bulgaria, the Regulations for its implementation and the Regulations for the development of the academic staff of the University of Plovdiv. All required documents are available - CV, diplomas for the "Master" and "Doctor" qualifications, list and copies of publications, reference for the minimum national requirements, self-assessment of contributions, list of citations, documents for educational and research activities, declaration of originality and authenticity of the attached documents, etc.

The candidate is a Master of Engineering in "Electronics and Automation" (1993). In 2015, he acquired the "Doctor" qualification in the professional field 5.2. Electrical Engineering, Electronics and Automation (scientific specialty "Electrotechnical Materials and Cable Technology") at Plovdiv University.

Chief Asst. Prof. Dr. Velislava Raydovska is a long-time lecturer (26 years) at the Technical College - Smolyan at Plovdiv University "Paisiy Hilendarski". Since 2017, he has been a chief assistant.

## 2. General Characteristics of the Candidate's Academic Activity

### *Educational and pedagogical activity.*

According to the attached reference, the candidate has conducted significant in variety and total number of hours of lectures and exercises in special and specializing disciplines from the professional field of the competition. In direct connection are the participation in the development and updating of educational programs - a total of 7 pcs., as well as educational curriculums.

Two author's study guides for exercises and two co-authored ones are presented, which provide disciplines from the taught specialties. Activities related to the learning process can be listed as: the part of the candidate's project activity related to the construction of automated (virtual) laboratories for engineering education, extracurricular activities with a student media team and improving their competencies through trainings in which Dr. Velislava Raydovska participated.

#### ***Scientific and applied scientific activity.***

For evaluation in the procedure, the candidate presents the monograph "Opportunities for training students through simulation research in electrical engineering in pandemic conditions" and 29 publications. Of these, 5 scientific publications, referenced and indexed in world databases with scientific information and 24 in non-refereed journals with scientific review.

The main thematic areas are: the development of modern virtual environments for engineering training [B3, G7.1, G7.2, G7.3, G7.4, etc.] and the use of computer-based methods for modeling, design, research and analysis in scientific and applied tasks [G8.1, G8.3, G8.3, G8.4, G8.6, G8.9, G8.10, G8.11, G8.14, etc.]. The diversity of these tasks in different elements and functional devices is evident: generators; amplifiers; dielectric materials; inductive coils; insulating structures; transmitters of digital communication systems, etc.

As separate areas, the following can also be distinguished: automotive electronics [G8.1, G7.5, G7.4, etc.] and development of functional devices using open source microprocessor devices [G8.13, G8.19, G8.21, etc.].

#### ***Contributions (scientific, applied science, applied) and citations.***

The monographic work of Ch. Prof. Dr. Velislava Raydovska can be assessed as complementing, developing and improving the applied and methodological base in building programming environments and their integration into virtual laboratories used in engineering education. The monograph contains a number of scientific, applied and methodological contributions in the field of modern methods, improving the quality and intensification of training in electrical engineering and electronics. More specific contributions are the following: a conceptual model for integrating simulation research has been developed; methodologies for training in electrical engineering using virtual laboratories and simulation environments have been developed; simulation models and algorithms for analyzing electrical circuits have been created, etc.

In the following scientific areas, including sets of thematically related publications, the most significant results with a scientifically applied contribution can be highlighted: equivalent models of polarizable dielectrics and inductive elements have been developed; approaches for diagnostics and operational control of electrical insulation systems have been proposed using equivalent models and analysis of diagnostic parameters; the environmental and energy characteristics of DC-DC converters in hybrid electric vehicles have been analyzed, etc.

Laboratory stands and real educational platforms have led to a number of applied contributions.

The established 12 citations (refereed and indexed in world-renowned databases) and 18 in non-refereed journals with scientific review are positive and prove that the scientific works published in national, international journals and collections, as well as specialized web portals have become known to the scientific community. As a drawback, I note the proportion of citations from authors from the candidate's internal team, which can be explained by the specificity of the topic.

#### ***Implementation activity.***

No documents related to implementations have been presented, but a significant part of the publication activity is related to the solution and use of educational and methodological tasks, including during the epidemiological situation several years ago, during which they were developed and can be accepted as implemented in training.

#### ***Assessment of the candidate's personal contribution.***

I accept the candidate's contributions as personal work, their formulation and the relevant content in the submitted materials. The approach to presenting the developments demonstrates expert knowledge and high competence in the areas in which Senior Asst. Prof. Dr. Velislava Raydovska has scientific interests.

### 3. Critical Remarks and Recommendations

I have no significant critical remarks. I recommend that the candidate, in order to complete and increase the significance of the contributions in the developments from group „G“, seek opportunities for quantitative expression of the achieved results in the training.

### CONCLUSION

The documents and materials submitted by Chief Assistant Professor Dr. Eng. Velislava Raydovska comply with the requirements of the Academic Staff Development Act in the Republic of Bulgaria, the Regulations for the Implementation of the Academic Staff Development Act, and the respective Regulations of Plovdiv University “Paisii Hilendarski.”

The results achieved in academic and research activities lead to the fulfillment and exceeding of the minimum national and university requirements.

The scientific works contain original scientific-applied and applied contributions with a practical focus and significance for the educational process and engineering practice. The candidate's educational and scientific activities fully correspond to the profile of the competition.

Based on the above, I give my **positive assessment** and recommend to the Scientific Jury to prepare a report-proposal to the Faculty Council of the Faculty of Physics and Technology for the election of **Chief Assistant Professor Dr. Velislava Raydovska** to the academic position of "Associate Professor" in the professional field professional field 5.2. Electrical Engineering, Electronics and Automation (Theoretical electrotechnics).

August 2, 2026

**Prepared by:**.....

Assoc. Prof. Dr. Eng. Veselin Nachev