

# STANDPOINT

By DSc Nikolay Dimitrov Menkov,

Professor at the Technical Faculty of the University of Food Technology, Plovdiv  
on the materials submitted for participation in a competition for the occupation of  
the academic position "Associate Professor" at the University of Plovdiv „Paisii Hilendarski“, Plovdiv  
in the field of higher education 5. Technical sciences, professional field 5.1. Mechanical Engineering,  
scientific specialty "Mechanical Engineering Technology"

The competition for associate professor for the needs of the Department of Mechanical Engineering and Transport, Faculty of Physics and Technology of University of Plovdiv (UP) "Paisii Hilendarski" was announced in the State Gazette, № 57/26.06.2020, on the website of UP and in the section "Competitions" of the Register of the academic staff and dissertations of the National Center for Information and Documentation (NCID).

The only candidate for the associate professor's competition is Ch. Assistant Professor Dr. Eng. Velko Slavchev Rupetsov from the same department. The evaluation was performed on the basis of the materials and publications submitted by the applicant.

## **1. General presentation of the procedure and of the applicant.**

By order № P33-4124/24.08.2020 of the Rector of the UP "Paisii Hilendarski" I was appointed a member of the scientific jury of a competition for the academic position "Associate Professor" in UP in the field of higher education 5. Technical sciences, professional field 5.1 Mechanical engineering, scientific specialty "Mechanical Engineering Technology", announced for the needs of the Department of Mechanical Engineering and Transport of the Faculty of Physics and Technology.

For participation in the announced competition has submitted documents only candidate Ch. Assistant Professor Dr. Velko Slavchev Rupetsov from UP.

The materials of the competition are presented to me in electronic format. The candidate has submitted 27 scientific publications (apart from those published in the dissertation for degree PhD), one monograph, one book (published on the basis of a defended dissertation), one textbook, three manuals (including electronic), a list for participation in five national research projects, documents certifying 4 implementations in the practice. I accept for review all scientific papers that I consider to be in the field of competition. I do not accept for review the book published on the basis of a defended dissertation (with ISBN and reviewers). The scientific papers are published mainly as proceedings of scientific conferences and in scientific journals (conferences and journals are in areas similar to the field of the competition).

The candidate Dr. Rupetsov defended in 2015 the degree PhD in the scientific specialty "Machinery and apparatus in food industry" at University of Food Technologies. He has over 25 years of research and teaching experience and over 30 years of experience in the specialty at the Institute of Mechanical Engineering and the University of Plovdiv.

Personal impressions: I know Dr. Rupetsov as a member of the team of Professor Georgi Mishev and as a successful PhD student at the University of Food Technologies.

## **2. General characteristics of the candidate's activity**

### **Assessment of educational and pedagogical activity.**

According to the information provided, the candidate has conducted eight lecture courses (six for a bachelor's degree and two for a master's degree), as well as laboratory and seminar exercises in a significant number of disciplines in the field of the competition. He is a co-author of a textbook and manual for laboratory exercises intended for students in the speciality "Mechanical Engineering and Technology", as well as two other manuals (one electronic), designed for a wider range of professionals. Ch. Assistant Professor Rupetsov is the author and co-author of 28 curricula for bachelor's and master's degrees. He has supervised more than 30 successful graduates. There are published studies co-authored by students. Some of his scientific works are included in the educational work. Particularly impressive is the fact that the candidate is a participant in teacher mobility under the Erasmus+ program, is a faculty coordinator for the same program and has been an academic mentor on a European project "Student Internships". I appreciate the excellent relationships established with local manufacturing companies in order to improve the practical training of students and the practical implementation of research results. Important for every higher education institution nowadays is the active participation in conducting candidate student campaigns and accreditations.

### **Evaluation of the scientific and scientific-applied activity.**

In general, the research is dedicated to topical scientific problems of the practice. The presented scientific production of 27 scientific papers includes 21 papers published in proceedings from scientific conferences and 6 articles published in scientific journals. 10 of the works are in Bulgarian and 17 in foreign languages (16 in English, 1 in Russian). 7 of the papers are in editions, referenced and indexed in Scopus and/or WoS databases. The candidate is the only one author of 4 scientific papers, and in 9 he is the first co-author. The latter gives me reason to believe that Dr. Rupetsov is a major initiator or active participant in published research. The reference of the candidate contains 21 citations of his scientific works. I found 2 citations in publications indexed in Scopus and 1 citation in a publication, indexed in WoS ( $h = 1$  index). The total number of citations gives grounds to believe that the candidate's research is recognizable to the scientific community.

The monograph included in the competition documents is dedicated to the problem of increasing the resource of tools and parts by applying hard, wear-resistant nanocoatings. An analysis of modern multilayer and nanocomposite coatings is made, PVD methods and installations for their deposition are described. The monograph has a volume of 128 pages, contains extensive content, a comprehensive bibliography, and the text contains references to other scientific papers. I consider especially valuable the presented results from research of different coatings and the recommendations for the practice made on their basis. The work has all the necessary attributes (publisher, publisher number, reviewers) to meet the requirements for a monograph. However, I believe that the own research included in the monograph does not correspond in weight to the 10 publications included in the Scopus and WoS databases. But the latter is rather a weakness in the Law for the Development of the Academic Staff, which the candidate rightly uses.

I accept the scientific-applied and applied contributions described by the candidate in the "Self-assessment of scientific contributions" almost entirely (with a few exceptions, which I consider rather as findings). I would like to highlight as more significant scientific and applied contributions the creation of new innovative nanolaminate hard coatings that can find application in practice as coatings for cutting tools.

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

The analysis of the publications indexed and referenced in the Scopus and WoS databases shows that in all publications there are more than four co-authors. I consider this more as a dignity of the works, as valuable modern research is carried out by teams composed of different experts. The candidate's participation in the creation of experimental stands convinces me of his indisputable personal contribution to the published research on physico-mechanical and tribological properties, as well as to the assessment of the applicability of the obtained results for practice.

### **3. Critical remarks and recommendations**

I consider that the reference for fulfillment of the minimum national requirements is not filled in precisely enough. Duplicate posts in different sections are allowed.

For the most part, the publications referenced in the Scopus and WoS databases are from materials at reputable scientific conferences. This is on the one hand positive, as the research is presented to experts in the field. On the other hand, however, it reduces their visibility by a wider range of specialists, as evidenced by the low number of citations in publications in the same databases. In this regard, I would recommend looking for an opportunity to publish in prestigious journals, which would lead to greater recognition by the international scientific community.

The NCID register does not include any information (publications, participation in projects) about the candidate, which I consider to be an unfulfilled responsibility of the university as well.

### **CONCLUSION**

The documents and materials submitted by the candidate Dr. Velko Rupetsov meet the requirements of the Law for the Development of the Academic Staff in the Republic of Bulgaria, the Regulations for implementation of the same law and the respective Regulations of UP "Paisii Hilendarski".

The candidate in the competition has submitted a sufficient number of scientific papers published outside the materials used in the defense of degree PhD. In the works of the candidate there are original scientific and applied contributions, which have been tested at many prestigious scientific forums. Experimental research solves practical problems of industry. There is no doubt about the teaching qualification and competence of the candidate.

After getting acquainted with the materials and scientific papers presented in the competition, assessing their significance and the applied scientific and applied contributions contained in them, I give my positive assessment of the candidate and recommend the Scientific Jury to prepare a report-proposal to the Faculty Council of the Faculty of Physics and Technology to select Ch. Assistant Professor Dr. Velko Slavchev Rupetsov to the academic position of 'Associate Professor' at the University of Plovdiv "Paisii Hilendarski" by professional field 5.1. "Mechanical engineering", scientific specialty "Technology of mechanical engineering".

14.10.2020

Prepared the standpoint: .....

(Prof. Dr. Nikolay Dimitrov Menkov)