

## REVIEW

**in a competition for the academic position of " Associate professor  
professional field 5. 5. Transport, navigation and aviation,  
study discipline "Testing and control of transport vehicles",  
announced in SG No. 31/19.04.2022  
with candidate Assist. Prof. Dr. Eng. Veselin Todorov Mihaylov,  
reviewer: Prof. Dr. Eng. Emil Marinov Ivanov**



### **1. General information and biographical data**

Assist. Prof. Dr. Eng. Veselin Mihaylov was born on 07.08.1980 in the town of General Toshevo. In 1999, he graduated from the "Geo Milev" language high school in the city of Dobrich, specialty English language. In the period 2000-2005, he studied at the Technical University of Varna, majoring in Transport Engineering and Technologies. In 2007, he graduated from TU-Varna with a master's degree in Transport Engineering and Technologies - specialization Internal Combustion Engines. A year later he was appointed to the position of "Assistant professor" at the Department of Transport Engineering and Technologies, TU - Varna. In 2016, he defended his doctoral degree.

The competition for the academic position "Associate professor" was announced by decisions of the Department council, Faculty Council, Academic Council and was published in SG No. 31 of 19/04/2022, as well as on the university's website. One candidate appears.

Before entering the university, the candidate worked as diagnostic technician of gasoline engines at a Car-diagnostic Center in Varna. He currently works as a senior assistant professor in dept. Transport engineering and technologies at Technical University of Varna.

The candidate has good computer and organizational skills. He participates in various scientific events, is the head supervisor of the Student Club "TU - Varna Motorsport". He is a member of the Varna Scientific and Technical Unions (VSTU).

## **2. General description of the submitted materials**

The submitted materials related to the competition can be grouped into:

- List of scientific works related to the competition (presented in a separate appendix - folder No. 2);
- Reference to the main scientific and applied contributions;
- Abstracts of scientific works;
- Documents proving the candidate's scientific, teaching and implementation activities;
- Documents related to international mobility (Erasmus +);
- Documents related to the candidate's contribution to the dept.'s material and technical base;
- Declarations about the credibility of the information, originality and lack of plagiarism;
- Reference, according to Law on Academic Staff Development in Bulgaria and Regulations for Holding Academic Positions at TU-Varna (Art. 26 from ZRABS; Art. 60, para. 3 of PPZRASRB and art. 1, para. 2 of PURZAD in TU – Varna).

According to the attached list of scientific works submitted for review, there are a total of 35 publications, of which:

- Scientific works in a foreign language - 21;
- Scientific works indexed in SCOPUS – 13.

A list of research projects is also presented.

The scientific works are divided into three groups in accordance with the indicators B.4, Г.7 and Г.8 according to document No 5. To meet the requirements according to the normative documents, the presented 35 publications are distributed as follows:

- 13 publications in Scopus or Web of Science, covering indicators:
  - B.4 – habilitation work – 10 papers;
  - Г.7 – scientific publications in issues, referenced and indexed in world-renowned databases with scientific information” – 3 papers;
- 22 publications in non-refereed peer-reviewed journals or in edited collective volumes - indicator Г.8.

The presented publications are in the field of environmental characteristics of ICE, NVH, fuels, exhaust gas recirculation, fuel injection system, and fatigue engine parts study.

The scientific reports are presented at international scientific conferences, reviewed and accepted by scientific specialists, after which they are published.

### **3. General characteristics of the research and applied activities of the candidate**

The candidate's research activity has developed in several directions:

- Participation in national scientific research projects - 2;
- Participation in projects from the internal competitions of TU - Varna - 19;
- Reporting and popularizing the results of the research done in the development of scientific research projects;
- Analysis of the obtained results and synthesis of scientific contributions;
- Implementation in order to improve the material and technical base of dept.

TTT.

Mihaylov's work in these directions has allowed him to obtain significant scientific and technical results. The funds received were used to develop student activities and to improve the material and technical base of the TTT department.

The significant number of ERASMUS mobilities carried out at universities in Portugal, Poland and Romania, as well as his specializations at the Wroclaw University of Science and Technology (Poland) and Tokai University (Japan) are important for increasing scientific and pedagogical qualifications.

#### **4. Assessment of the pedagogical preparation and activity of the candidate**

Mihaylov has given lectures and led lab exercises in more than 7 academic disciplines in the specialties TTT, AT, etc., and for the last three years he has had an annual auditorium load of about 570 hours. A detailed reference by disciplines for the winter and summer semester is presented in an appendix. It is obvious that the disciplines and the auditorium load are sufficient for the announcement of a full-time position for an associate professor.

In his teaching activity, the candidate adapted and enriched his lectures for the academic disciplines he led.

Over the years, Mihaylov has supervised the master's thesis of 17 graduate students. He also had joint scientific activity with students and graduates in four research projects.

#### **5. Main scientific and applied contributions**

I accept in full the applicant's contributions so presented. Nine scientific-applied contributions are listed, distributed in four thematic areas, indicating where and in which groups they are contained.

It was desirable to list the contributions in the following groups: new scientific field or problem; a new theory or hypothesis; new methods, constructions, etc.

In the given reference for citations in scientific publications, referenced and indexed in world-renowned databases with scientific information (reference Д.12), are indicated 7 papers, referenced in SCOPUS.

Specialized test-benches have been developed and adapted, which have enriched the department's laboratory base.

Attached are declarations that the information provided by the candidate is reliable and there is no plagiarism.

## **6. Significance of the contributions to the science and practice**

The contributions formulated by the author as a result of his scientific activity provide opportunities, approaches, methodologies and methods for the study of internal combustion engines in the field of fuels, fuel systems and environmental characteristics.

The quantitative indicators of the criteria for occupying the academic position "Associate Professor" according to the national regulations have been met.

<b>№</b>	<b>Group of indicators</b>	<b>Number of points</b>
<b>1.</b>	Indicators of category A – min. 50	<b>50</b>
<b>2.</b>	Indicators of category B – min. 100	<b>126.5</b>
<b>3.</b>	Indicators of category Г – min. 200	<b>201.33</b>
<b>4.</b>	Indicators of category Д – min. 50	<b>80</b>
<b>5.</b>	Indicators of category Ж – min. 30	<b>506</b>

The candidate Mihaylov is a well-known and respected young scientist from the scientific community in the field of internal combustion engines.

## **7. Critical remarks and recommendations**

I have no critical remarks about the candidate. I would recommend more active work with students and PhD students, as well as outside regulated activities

(graduate students, PhD students and research projects). Regardless of the recommendations I have made, it can be stated that his activity as a whole can serve as an example for students and young scientific personnel.

I recommend that Mihaylov become a member of the Union of Scientists.

### **8. Personal impressions and opinion of the reviewer**

I am well aware of the academic and scientific work of the candidate. Mihaylov is a built young scientist - ambitious and with good scientific training. Actively participates in all scientific activities of the department. He enjoys the respect of his fellow ICE specialists.

### **CONCLUSION**

On the basis of the analysis of presented documents and scientific works, the conclusion can be made about the achieved high scientific and applied contributions of the candidate Mihaylov. His activity as a scientist and teacher meets the requirements of the Regulations for Holding Academic Positions at TU-Varna and those according to Law on Academic Staff Development in Bulgaria. .

I consider it reasonable to propose assist. prof. dr. eng. **Veselin Todorov Mihaylov** to hold the academic position "Associate professor" in the professional field 5.5. Transport, navigation and aviation, study discipline "Testing and control of transport vehicles".

26.08.2022 г.

Заличена информация  
по Регламент (ЕС)  
2016/679

**(Prof. Dr. Eng. Veselin Mihaylov)**