

## REVIEW

by Assoc. Prof. Dr. Eng. Hristo Atanasov Krachunov from Technical University - Varna

of a competition for the obtaining of the academic position “Professor” in higher education field: 5. Technical sciences, professional field 5.13. General engineering (Engineering logistics) at the Department of “Engineering logistics”, Faculty of Technical Sciences at “Konstantin Preslavsky” University of Shumen, announced in State Gazette, issue 63 from 17 July 2020

**Candidate:** Assoc. Prof. Dr. Sc. Eng. **Plamen Borisov Dyankov**

**Grounds:** Order № RD16-105/09.10.2020 by the Rector of “Konstantin Preslavsky” University of Shumen

### 1. Biographical data

**Assoc. Prof. Dr. Sc. Eng. Plamen Borisov Dyankov** obtained a Master’s Degree in the specialty of “Engineering logistics” at “Konstantin Preslavsky” University of Shumen in 2011. In 2014 he successfully defended a dissertation for the obtaining of the educational scientific degree “Doctor”, titled “Network-centric approach to the management and organization of logistics” at the Institute for Research and Training of Doctoral Students at UniBIT (University of Library Studies and Information Technologies) in professional field: 3.5. Public communications and information sciences. In 2016 he obtained a second Doctoral Degree with a dissertation titled “Optimization of multimodal transport systems” in professional field: 5.3. Communication and computer technology at the Faculty of Technical Sciences of “Konstantin Preslavsky” University of Shumen. In 2017 he earned the scientific degree “Doctor of Sciences” in “Organization and management of information processes” with a dissertation titled “Functional model for the optimization of transport systems in logistics” at the Institute for Research and Training of Doctoral Students at UniBIT.

From 2012 to 2016 he held the position “Assistant Professor” at the Department “Engineering logistics” of “Konstantin Preslavsky” University of Shumen. In 2016 he won the competition for the position “Chief Assistant Professor” in the same department and in 2018 he was elected “Associate Professor” after a competition. It is evident that the candidate possesses desire to improve his scientific qualification while at the same time he has gained professional experience in the respective educational field which represents an advantage for his future career development.

### 2. Pedagogical preparation and activity of the candidate

#### 2.1. Classroom and extracurricular activities – development of lecture courses, innovations in teaching methodology, provision of classes in a practical environment outside the University or scientific organization

According to the submitted reference under Art. 61 of RIADASRB (Regulations for the Implementation of the Act for the Development of the Academic Staff in the Republic of Bulgaria) for additional indicators for participation in the competition the candidate conducts lectures and seminars in 14 disciplines: “Materials Science”, “Transport systems in logistics”, “Logistic complexes”, “Production technologies”, as well as methodology for the conducting of classes and evaluation of students in the disciplines: “Production practice – Part I” and “Production Practice – Part II”. The classes in the last two disciplines are held in a practical environment on the territories of production companies and logistic structures. Another aspect of providing activities for students in a real production environment is their participation in Project BG05M2OP001-2.013-0001 of the Ministry of Education and Science “Student Internships - Phase 2”, funded by Operational Programme Science and Education for Smart Growth, in which the candidate is an academic mentor.

#### 2.2. Activities with students, including PhD students

Assoc. Prof. Plamen Dyankov was the thesis supervisor of 9 students, a reviewer of 8 diploma theses, which were successfully defended before the State Examination Commission. He is currently the research supervisor of two doctoral students in the doctoral program “Engineering Logistics” in the field of higher education: 5. Technical sciences, professional field 5.13. General engineering and presents 10 joint publications with students.

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

#### **Academic textbooks and teaching aids**

In the documents submitted under the announced competition for the academic position “Professor” the candidate Plamen Borisov Dyankov has presented three academic textbooks, one of them as an independent author and the other two co-authored, as well as three academic teaching aids, one of them as an independent author and the other two co-authored. They are designed to train students in the specialty “Engineering logistics”, as well as other specialties at the Faculty of Technical Sciences of Shumen University.

#### **Publications**

I accept the monograph titled “Process management by choosing an alternative to influence the elements of supply chains”, Konstantin Preslavsky Publishing House, ISBN 978-619-201-383-7 on the grounds of the acknowledged scientometric requirements for the academic position “Professor”. The monograph represents research methodology wherein the interdisciplinary character of the study is taken into account thus determining the use of a diverse set of methods and tools for analysis and observation.

According to the submitted documents relevant to the competition for the academic position of “Professor”, the candidate Plamen Borisov Dyankov participates with 17 journal articles and academic papers presented at scientific conferences, in 10 as an independent author and 7 co-authored. The subject area of these publications for the obtaining of the academic position of “Professor” corresponds to a sufficient degree to professional field 5.13. General Engineering (Engineering Logistics).

#### **Participation in projects**

According to the submitted documents, the candidate participates in 11 scientific research projects, of which 1 international, 3 national and 7 university projects.

#### **Citations**

The submitted reference indicates 43 citations of Assoc. Prof. Dyankov’s works, as well as a review of a monograph authored by Stefan Kazakov, PhD.

#### **Scientific contributions to the competition**

The candidate Assoc. Prof. Dyankov, according to the author’s reference, has defined his contributions in three directions:

##### **1. Organization and management of supply chains**

In the publications the candidate presents tools for analysis of the processes in the management of the supply chain, the vertical integration of different logistic structures for achieving compatibility and synchronization between them is substantiated and it is deduced that modern production systems are important for the development of society and economy, further evidence is provided that logistic complexes meet the trends for integrated logistic structures in supply chains, as well as the synergy, which is a factor in the management of cybernetic systems.

##### **1.1. Publications with scientific contributions to the specified field**

❖ Plamen Dyankov, **Integrated and quantitative limits for monitoring in logistics**, International scientific refereed online journal with impact factor Ltd., Bulgaria, Issue 41, January 2018, ISSN 2367-5721 c. 342-358;

❖ Svetlozar Stoyanov, Plamen Dyankov, **Marketing brief historical overview of the definition**, International scientific refereed online journal with impact factor Ltd., Bulgaria, Issue 41, January 2018, ISSN 2367-5721, c. 389-393;

❖ Plamen Dyankov, **Management of complex dynamic systems**, International scientific refereed online journal with impact factor Ltd., Bulgaria, Issue 41, January 2018, ISSN 2367-5721, c. 359-364;

❖ Plamen Dyankov, **Trends in the development of the metalworking industry**, International scientific refereed online journal with impact factor, Issue 69, May 2020, ISSN 2367-5721, c.37-40;

❖ Plamen Dyankov, Nurdzhan Mustafafova, **Freight villages as a logistics complex**, International scientific refereed online journal with impact factor, Issue 70, June 2020, ISSN 2367-5721, c.127-138;

❖ Plamen Dyankov, Svetlozar Stoynoav, **Notes on the nature and structure of the organization management information system**, International scientific refereed online journal with impact factor, Issue 70, June 2020, ISSN 2367-5721, c.139-144.

## **2. Standardized approaches for building and developing of information flows in logistics**

In the publications the author states that the immediate benefits for logistics from the implementation of cloud technologies is the elimination of investment in an IT structure of one's own, the gaining of access to many new services managing logistic processes in the system, integration of different partners, collaboration through online social networks. The dominant role of the systems for global radionavigation positioning in the railway transport system is substantiated. The stages in terms of building integrated production systems are systematized. Further proof is given that via the use of information systems rational management of the production cycle is achieved, and that via the use of the global Internet network new opportunities for information flow management are created.

### **2.1 Publications with scientific contributions to the specified field**

❖ Plamen Dyankov, Oktai Hussein, Application software technologies in the management of supply chain, International scientific refereed online journal publisher: "Smart ideas – wise decisions" Ltd., Bulgaria, Issue 35, July 2017, ISSN 2367-5721, c.138-143;

❖ Plamen Dyankov, Emil Zechev, **Integrating intelligent monitoring systems in rail transport**, International scientific refereed online journal with impact factor, Issue 59, July 2019, ISSN 2367-5721, p.44-51/ IF/;

❖ Plamen Dyankov, **Modern requirements for education in frame for the intelligent productions**, International scientific refereed online journal with impact factor SocioBrains, Issue 62, October 2019, ISSN 2367-5721, c.45-49;

❖ Lubka Gospodinova, Plamen Dyankov, Mariela Velikova, **Intelligent manufacturing systems in engineering**, International scientific refereed online journal with impact factor SocioBrains, Issue 63, November 2019, ISSN 2367-5721, c.1-9;

❖ Plamen Dyankov, **Administration of logistic structures**, International scientific refereed online journal with impact factor, Issue 67, March 2020, ISSN 2367-5721, c.81-90.

## **3. Possible directions for the development of management processes in transport**

In the publications intermodal transport is presented as a highly efficient technology, ensuring optimal use of the advantages of the types of conventional transport with a proven economic and environmental effect. The importance of engineering logistics for reducing costs, using the value concept of business enterprises is substantiated since it is on this basis that it is possible to build a fully integrated business management system based on a clear hierarchical structure using basic approaches. The priority for development of the Trans-European network through the territory of Bulgaria is substantiated, as well as the need for development of the providers of 3PL and 4PL services, in relation to the conditions of the global market. The candidate offers a solution to transport problems based on a modified simplex method for linear optimization. Different technologies for road traffic management are presented via the making of

flexible decisions in assessing the effectiveness of different transport projects. Logistic systems with a high level of service and different options for their management are presented

### **3.1. Publications with scientific contributions to the specified field**

❖ Пламен Дянков, „Управление на процесите чрез избор на алтернатива за въздействие върху елементите на вериги за доставки“, УИ „Епископ Константин Преславски“, ISBN 978-619-201-383-7, 2020

❖ Plamen Dyankov, Petar Enev, **Risks and losses in the organization of transport production**, International scientific refereed online journal with impact factor, Issue 37, September 2017, ISSN 2367-5721, c.51-60;

❖ Plamen Dyankov, Svetlozar Stoyanov, **Trends for the future development of the transport in Bulgaria**, International scientific refereed online journal with impact factor Ltd., Bulgaria, Issue 41, January 2018, ISSN 2367-5721, c. 368-378;

❖ Plamen Dyankov - **Economic impact of logistics in transport**, International scientific refereed online journal with impact factor Ltd., Bulgaria, Issue 41, January 2018, ISSN 2367-5721, c. 335-341;

❖ Plamen Dqnikov, Stefan Kazakov, **Synthesis of solitions in transport testing in MatLab software environment**, 54th International scientific conference on information, communication and energy systems and technologies (ICEST 2019) Ohrid, North Macedonia, June 27-29, 2019, Issue 1, ISSN 2603-3267 /online/ p.p. 401-403;

❖ Plamen Dyankov, Plamen Petrov, **Intelligent systems in car transport**, International scientific refereed online journal with impact factor, SocioBrains, Issue 62, October 2019, ISSN 2367-5721, c.36-44;

❖ Plamen Dyankov, **Transport as an element in international distribution**, International scientific refereed online journal with impact factor, Issue 68, April 2020, ISSN 2367-5721, c. 85-92.

According to the submitted Reference for Implementation of the Minimum National Requirements under Art. 2b, para. 2 and 3 of ADASRB (Act for the Development of the Academic Staff in the Republic of Bulgaria) for *professional field 5.13. General Engineering*, when comparing the minimum requirements by groups of indicators the following results are shown: group A – 100 p. – educational and scientific degree “Doctor” – the minimum requirements have been fulfilled twofold; group B – 100 p. – a monograph; group Г7 and Г8- academic publications – 236,7 p. – about 15% above the required minimum; group Д – citations – 115 p., about 15% above the required minimum; group E – 183.33 p. while the required minimum is 150 p., or about 20% about above the required minimum. The candidate is the lead author of 16 publications, the independent author of 8 publications, the author of 6 publications abroad. My general impression is of a certain overfulfillment above the minimum requirements. In total, Assoc. Prof. Dyankov has achieved 735.03 points with a required minimum of 600 points and having in mind the materials presented in the announced competition, I **accept** the scientific research papers proposed for review, as they correspond sufficiently to the content and subject area of the competition and reflect to the necessary extent the creative and pedagogical activity of Assoc. Prof. Dyankov.

### **4. Contributions (scientific, applied scientific, applied). Significance of the contributions to science and practice**

I accept that the scientific, applied scientific and applied contributions are personal work of the candidate and they consist of:

1. Formulation or substantiation of new theories or hypotheses;
2. Proving with new instruments of essential new aspects of known scientific fields, problems, theories, hypotheses;
3. Implementation of modern innovative, technology-based solutions in transport, business and industry, as well as models and processes with effective use of information technology.

### **5. Critical remarks and recommendations**

I have no critical remarks. At the same time, I have several recommendations for the future development of the candidate:

1. To look for opportunities for consolidation of the applied scientific fields in order to multiply effects and benefits and achieve more synergy and added value.

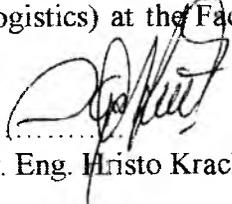
2. To look for references to the green economy, the circular economy, the social sphere, health and safety at work and environmentally friendly industry and transport.

3. I recommend Assoc. Prof. Plamen Dyankov to focus his efforts on increasing his foreign language training, which is a prerequisite for more effective participation in the “Erasmus +” program in order to promote international exchange, and publications in more prestigious editions, for which the candidate obviously has the potential.

## **6. Conclusion**

The presented academic works demonstrate a high theoretical level and meet the requirements of the regulatory documents. On the basis of my acquaintance with the presented scientific works, their significance and the scientific contributions contained in them, I find it reasonable to propose Assoc. Prof. Dr. Sc. Eng. Plamen Borisov Dyankov to be elected to acquire the academic position of “Professor” in the field of higher education: 5. Technical sciences, professional field 5.13. General Engineering (Engineering Logistics) at the Faculty of Technical Sciences of “Konstantin Preslavsky”.

03 November 2020

Reviewer:   
/Assoc. Prof. Dr. Eng. Hristo Krachunov/