Университет
"Проф. Д-р Асен Златаров"
8010 Бургас, бул. "Проф. Якимов" №1

## OPINION

## from Assoc. Prof. Neli Atanasova Simeonova

The member of the scientific jury in competition for academic positions "Associate Professor" scientific field 5. Technical sciences, professional field 5.2. Electrical engineering, electronics and automation, scientific specialty "Elements and Devices of Automation and Computer Engineering (Sensors and Sensor Devices)", published in the State Gazette, issue 93 / 26.11.2019 for needs of the University "Prof. Dr. Assen Zlatarov "-Burgas.

Candidate: Main Assist. PhD Ivaylo Raychev Belovski

The only candidate in the competition is main assist. Dr. Ivaylo Raychev Belovski. He requires of the minimum national requirements for scientific and teaching activities in scientific fields and professional areas for occupation of academic position of "Associate Professor", according to the indicators of Art. 2b, §2 of the Law for the development of academic staff in the Republic of Bulgaria (LDASRB) and the requirements under Art. 67, §1 of the Rules for the Terms and Conditions for Acquisition of Academic Degrees and Occupation of Academic Positions at the University "Prof. Dr. Assen Zlatarov"- Burgas.

Main Assist. PhD Ivaylo Belovski graduated from the Technical University of Varna in 1998 with a Master's Degree in Radio and Television Engineering. From 1998 to 2012 he consistently worked at various companies, among them BTC (Vivacom), SD "ELTA-R", Nexcom-Bulgaria EAD. Since 2012 he is an assistant at the University of "Prof. Dr. Assen Zlatarov" - Burgas, Technical Faculty, Department EEM. He defended his doctoral thesis at the Technical University of Gabrovo in 2016 and since the same year he has been assistant at the University "Prof. Assen Zlatarov" - Burgas.

He presented documents for teaching at the University "Prof. Dr. Assen Zlatarov" from the last 3 years, which undoubtedly prove his rich teaching experience. The main assist. PhD Ivaylo Belovski's teaching activity consists in conducting lectures and seminars for students in degree "Professional Bachelor", "Bachelor" and "Master" mainly in professional fields: 5.2. Electrical engineering, electronics, automation and 5.3. Computer systems and technology. He co-authored seven curricula in the following disciplines: "Introduction to the Specialty", "Technology Practicum", "Manufacturing Practice", "Sensors and Sensor Devices", "Electronics Measurements", "Undergraduate Practice", "Materials and Components in Electronics". He is co-author in the publication of three manuals for laboratory exercises in the subjects taught by him end of one as a sole author. My assessment of the candidate's pedagogical preparation and activity is high.

I find it reasonable, justified and confirmed by the scientific papers (articles and reports), as well as submitted projects by which the applicant participated in the competition for "Associate Professor" several groups of contributions in various fields.

The contributions with are partially scientific and mainly scientific and applied and can be grouped in four main areas:

- Investigation and optimization of the characteristics of thermoelectric modules and systems: A large number of thermoelectric modules have been studied in their main operating modes cooling mode and thermoelectric power generation mode. Based on the results obtained, options are proposed to optimize them;
- Process modeling in thermoelectric modules and systems: Processes in thermoelectric modules and systems were modeled using analytical and statistical methods finite difference method, regression analysis method;
- Application of neural networks and intuitionistic fuzzy sets in thermoelectric systems: Generalized network models of neural networks and algorithms for their training have been developed. Various neural networks have been used to predict the reactions of thermoelectric cooling and generator modules and systems;
- Application sensor systems and process management: Technical solutions of several application sensor systems and models for process management are proposed.

I appreciate the contributions of the candidate positive and consistent with the requirements of normative documents on this point.

Main Assist. PhD Ivaylo Raychev Belovski participates in the competition for "Associate Professor" with one monograph, published after the dissertation defense and with a list of 28 publications. Of these, in 5 he is the sole author and in 23 - co-author as follows: Of these, 5 are separate articles, 23 are co-authored.

- Articles in SCOPUS and Web of Science 7;
- Articles in Bulgarian and foreign peer-reviewed scientific journals 21.

A list of participating papers at 8 scientific conferences has been presented - 3 abroad and 5 in the country with international participation. All submitted publications fit the profile of the announced competition.

No documents were presented for protection of intellectual property rights, implementation or economic impact.

The structure of scientific publications gives rise to the following conclusions:

- Scientific works presented in the competition meet the requirements of the law;
- The submitted works are devoted to problems in the field of competition;
- There is a balance of independently written and co-authored scientific works.

A list of a total of 12 citations is presented, which shows that the applicant's scientific results are discovered and cited by authors working in similar research fields. There were 10 citations of scientific publications in international databases SCOPUS and Web of Science and 2 - in national journals and foreign refereed editions. Therefore, it can be considered that Dr. Belovski's contributions have received the necessary renown and recognition from the scientific community at home and abroad.

The applicant has also submitted a list of 14 contracts and won competitive projects with his participation (8 - scientific ones at SRA, 6 of them at the University "Prof. Dr. Assen Zlatarov" - Burgas and 2 at the Technical University - Gabrovo, 1- international in ERASMUS + program, 1 - to the Research Fund with a beneficiary BAS and 3 - under operational programs of the Ministry of Education.

The applicant has submitted a report on the fulfillment of the minimum requirements under the Regulations at the University Prof. Dr. Assen Zlatarov", which shows that he requires the state requirements of the LDASRB of the Republic of Bulgaria and the Regulations of the University for all groups of indicators.

I know PhD Belovski and have personal impressions of his qualities. My impression of the candidate in the "Associate Professor" competition is definitely positive because he is a thorough and precise scientific researcher, competent and responsible organizer and lecturer with proven capabilities. He has the skills to work in a team, to create a creative environment to convey the accumulated experience and knowledge. All this creates good preconditions for his future work.

On the basis of the facts presented, I believe that in terms of volume and quality, the applicant's research and application activities satisfy the requirements of the LDASRB. The quantitative indicators of the "Prof. Dr. Assen Zlatarov" University regulations for the occupation of the academic position "Associate Professor" are covered.

It gives me reason and conviction to suggest to the Honorable Members of the Scientific Jury to vote unanimously positive for the award to Main Assist. PhD Belovski to the academic position of "Associate Professor" in the specialty "Elements and Devices of Automation and Computer Engineering (Sensors and Sensor Devices)" in professional field 5.2. Electrical engineering, electronics and automation.

16.03.2020 Burgas

(Assoc. Prof. Neli Simeonova)