

## SCIENTIFIC OPINION

Regarding a Competition for an Academic Position "PROFESSOR" in Professional field 5.2 Electrical engineering, electronics and automation, Scientific specialty: "Electronics" at the Department EME at the Faculty of Information Technologies and Automation (FITA) of the Technical University of Varna (TU-Varna), Announced in State Newspaper No. 38, 10th of May 2019, With the candidate: Assoc. Prof. Dr. Eng. Anton Slavchev Georgiev Member of the Scientific Jury: Prof. Dr. Eng. Vencislav Cekov Valchev

### **1. General characteristics of the candidate's scientific research and implementation activities.**

The candidate graduated specialty "Communication equipment" (CE) of HMEI-Varna. He acquires his high education degree in 1986 as an "Electrical engineer" at "Electronics" Faculty. In the period of 1988-2004 he is consecutively assistant, senior assistant and chief assistant at "Electronics" Faculty of TU-Varna. In 1999 he transfers from CE department to Electronic Equipment and Microelectronics (EEM) department.

The candidate is awarded with his Educational Scientific Degree (ESD) "Doctor" in 1994 in the scientific specialty "Communication nets and systems" at TU-Sofia. On 08.02.2016 he acquires Scientific Degree "Doctor of the technical sciences" with a dissertation work "Development, research and analysis of the new possibilities of increasing the operational reliability of electronic systems", at TU-Varna.

Assoc. Prof. Georgiev has a significant in its volume scientific output (156 publications), which are in the field of: Constructing and Technology of electronic appliances, Passive elements and integrated circuits, Reliability of electronic and communication appliances. In the competition for the Academic Position "Professor" he participates with the monograph and 54 publications. One duplicate was found: publication №7 of the list for AP "Professor" (SCORPUS) is used in the competition for acquiring of SD "Doctor of science" under №51.

In the period 1988-2019 Assoc. Prof. Georgiev has worked on a variety of scientific projects, some of which are international. In the latest years Assoc. Prof. Georgiev has participated in over 30 organized events and forums: scientific juries, program and scientific organizational boards of scientific conferences and publishing boards of scientific journals.

### **Some specifics (concerning some groups of indicators only) regarding the minimal national requirements towards the candidates for AP "Professor":**

**Indicator A:** Presence of dissertation work for acquiring the ESD "Doctor".

**Indicator C:** There is presented habilitating work - monograph on the subject "Reliability of electronic products".

**Indicator D:** There is a book presented titled: "New concept for increasing the operational reliability of electronic systems".

**Indicator E: Quotations.** In this section I have a non-positive opinion of a large part of the citations of the candidate (in indexed, as well as non-indexed publications). It makes

impression that a large number (over 60%) of the citations are made by PhD students of the candidate and colleagues of TU-Varna. There are publications of one of his PhD students, in which he is quoted multiple times. In one of the publications of his PhD student, Assoc. Prof. Georgiev is been cited 13 times!?! Also quotations are presented to patents in a different field than the candidate's one. It is not clear if these quotations are his own or of his name-mate (there is a difference only in the middle name). There are also reviews presented, made by the candidate, but they do not score any points in this group of indicators.

**Indicator F:** Acquired scientific degree "Doctor of technical science", Mentoring of one successfully finished PhD student.

**Conclusion:** The candidate covers all groups of indicators for AP "Professor".

## **2. Assessment of the candidate's pedagogical preparation and activity.**

I have direct observations on the pedagogical activity of the candidate, as we have been in one department for the last 20 years. In recent years, Assoc. Prof. Anton Georgiev has lectured in more than 10 disciplines at EQD Bachelor. He deals well with the duties of a lecturer.

He has supervised 5 PhD students in the professional field 5.2. "Electrical Engineering, Electronics and Automation". At the moment, one PhD student has successfully passed the defense of the thesis.

## **3. Basic scientific and implementation contributions**

I accept the contributions presented by the candidate to the groups of publications related to indicators **C** and **D**. I accept that the publications presented in the competition are the result of a sufficient volume of scientific research. In summary, the candidate's contributions are in two directions:

1. Design of electronic and communication equipment: the design parameters, affecting the operating modes, the functional features and the electrical parameters of the electronic equipment have been studied and analyzed. Methods for improving of these relations are proposed.
2. Reliability of electronic and communication equipment: new possibilities for increasing operational reliability; proposed and substantiated methodologies.

Knowing the author and the teams he works with, I believe that formulated contributions are mainly his work.

In terms of citations - the number of citations meets the requirements for AP "Professor".

## **4. Significance of contributions to science and practice.**

The importance of contributions to science can be judged by the number of publications in the SCOPUS database (13 publications by 01.10.2019), as well as the H-index in SCOPUS (excluding self-quotations h-index = 3 by 01.10.2019), and the total number of independent citations.

It is noteworthy that a large number of views on the author's work have been registered in Research Gate, but there are few citations.

The quantitative indicators of the national minimal criteria for the occupation of the AD "Professor" in the Technical Sciences have been met.

## 5. Critical notes and recommendations

Regarding the materials presented to me I have comments and recommendations.

1. A large number (over 60%) of the citations are made by PhD students of the candidate and colleagues at TU Varna. There are publications of his doctoral students, in which he is cited many times (for example, a publication of his PhD student with more than ten citations).

This fact is not positive.

2. I recommend that Assoc. Prof. Eng. Anton Georgiev publishes in valuable scientific journals (with an impact factor). This will provide him with necessary good citations.
3. I recommend the applicant to clarify and resolve the issue of duplication with another researcher (with the same name and surname) in the international databases.

## CONCLUSION

Scientific production proposed and formating of the documents are in accordance with the Law on the Development of Academic Staff in the Republic of Bulgaria (LDASRB), the Regulations for its implementation and the Rules on the terms and conditions for occupying academic positions at the Technical University - Varna in the part for AP "Professor".

Based on my acquaintance with the submitted scientific papers (summaries), the submitted scientific and applied contributions and the fulfillment of the minimal national requirements, I find it reasonable **to propose** Assoc. Prof. Anton Slavchev Georgiev to occupy an academic position of 'Professor' in the professional field 5.2 Electrical engineering, electronics and automation, scientific specialty: "Electronics" at the department EME at FITA of the Technical University of Varna.

01.10.2019

TU – Varna

Member of the Scientific Jury:

/ Prof. Dr. Eng. Ventsislav Tsekov Valchev /