



STANDPOINT

on the procedure for obtaining of the academic position "Associate Professor" in the Professional field 5.3 "Communication and Computer technology", announced in the Bulgarian State Gazette no. 21 from the 15.03.2022 for the needs of the Sofia University "St. Kliment Ohridski" (SU), Faculty of Physics

This standpoint was prepared by Assoc. Prof. Dr. Eng. Georgi Valentinov Hristov, PhD, Head of the Department of Telecommunications, Faculty of Electrical Engineering, Electronics and Automation, University of Ruse "Angel Kanchev", in his capacity as a member of the scientific jury in the procedure according to Order № RD-38-198 / 27.04.2022 of the Rector of Sofia University

I. General description of the presented materials

1. Details about the application

The procedure was announced in the Bulgarian State Gazette, issue 21 from the 15.03.2022, for the needs of the Sofia University "St. Kliment Ohridski" (SU), Faculty of Physics. The only candidate is Sen. Assist. Prof. Dr. Hristomir Hristov Yordanov, PhD. As a member of the Scientific Jury, appointed by order № RD-38-198/27.04.2022 of the Rector of Sofia University, on the grounds of Art. 4 and Art. 25 of the Law for the development of the academic staff in the Republic of Bulgaria (ZRASRB), art. 57 para. (1) and para. (2) of the Regulations for application of ZRASRB, art. 108 para. (1) and para. (3) of the Regulations for the terms and conditions for acquisition of scientific degrees and for holding of academic positions at the Sofia University "St. Kliment Ohridski" and based on decision of the Faculty Council of the Faculty of Physics, protocol № 7 from 12.04.2022, I have received a full set of documents that are corresponding to the requirements for the obtaining of the academic position of "Associate Professor".

According to the national requirements, the candidates for the academic position "Associate Professor" in the scientific field "Technical Sciences" and in the professional field 5.3 Communication and computer technology must have scientometric indicators exceeding the following minimal requirements: for the B group of indicators - 100 points and minimum of 10 publications in proceedings or journals that are referenced and indexed in Scopus or WoS; for the G group of indicators - 200 points; for the D group of indicators - 50 points.

The points calculated by the candidate for all indicators, which I accept are: for the B group of indicators - 135.57 points, as well as 10 publications in proceedings or journals that are referenced and indexed in Scopus or WoS; for the G group of indicators - 215.71 points and for the D group of indicators - 60 points. The candidate meets the formal requirements by covering the quantitative criteria of all indicator groups.

2. Brief biographical information about the candidate

Sen. Assist. Prof. Dr. Hristomir Hristov Yordanov has graduated the Technical University - Sofia in 2002, with professional qualification degree Bachelor in "Radiocommunications". In



July 2002 he obtained his Master degree in "Microwave Technology" at the Technical University of Munich.

In February 2011 he defended his doctoral thesis at the Technical University of Munich, on the topic: "Wireless and cable communication in and between integrated circuits". At the end of 2014, he entered the Technical University of Sofia, Faculty of Telecommunications, as Assistant Professor and since March 2017 he held the position of Senior Assistant Professor in the Department "Technology and Management of Communication Systems" (Technical University of Sofia). Between October 2019 and March 2020, he was visiting researcher under the Fulbright programme at the Berkley Wireless Research Center. From the beginning of 2017 until now he has held the position of Assistant Dean for Scientific Activities at the Faculty of German Engineering Training and Industrial Management.

3. General characteristics of the scientific works and the achievements of the candidate

The scientific activity of the candidate corresponds to the scientific scope of the procedure. For participation in the procedure, Sen. Assist. Prof. Dr. Hristomir Hristov Yordanov has presented 22 scientific publications, which are distributed accordingly in the transcript of the procedure for obtaining of the academic position "Associate Professor", as laid down in Law for the development of the academic staff in the Republic of Bulgaria (ZRASRB), the Regulations for application of ZRASRB and the Regulations of the SU "St. Kliment Ohridski", and it can be seen that the criteria are met by: the B group of indicators - 10 scientific publications in proceedings that are referenced and indexed in world-famous databases with scientific publications (Web of Science and/or Scopus), and the h-index of the candidate in Scopus has a value of 8; the G group of indicators - 12 scientific publications in non-refereed journals with scientific reviewing, with the publications being available on the Internet through the databases of Google Scholar, Index Copernicus, EBSCO, ResearchGate, with four of these scientific publications being referenced in publications indexed in world-famous databases data with scientific information (WoS and/or Scopus).

The scientific contributions presented in this procedure cover several different topics, on which the candidate works, from the period of the defence of his Master degree thesis in 2006 to the present. The contributions can be systematized in the following main areas: Numerical methods for modelling of electromagnetic fields and their use in optimization problems, optimization of the communication in and between integrated circuits, development of models and prototypes of integrated antennas and methods and algorithms for calibration of measurement systems.

The scientific publications fully meet the minimal national requirements (under Art. 2b, para. 2 and 3 of ZRASRB) for holding the academic position "Associate Professor" in the scientific domain and professional area of the procedure. On the basis of the presented materials, I am motivated to conclude that the scientific publications submitted by the candidate do not repeat those of previous procedures for acquisition of scientific titles or for holding of academic positions. There are no traces of legally proven plagiarism in the scientific publications that were presented in the procedure. The candidate also demonstrates his active involvement in national and international research projects.

4. Characteristics and evaluation of the teaching background of the candidate

Based on the report about the teaching activities of Sen. Assist. Prof. Dr. Hristomir Hristov Yordanov, presented by the Faculty of Telecommunications, Dept. Technologies and



management of communication systems for the month of April of the 2021/2022 academic year, it can be noted that the teaching activity of the candidate is extremely extensive. It includes lectures and laboratory exercises in two specialties. All classes lectured by the candidate are in German.

5. Detailed analysis on the scientific and applied achievements of the candidate as presented in the materials under the procedure

The scientific activity of the candidate fully corresponds to the scope of the procedure. The main area of research is the study of communication buses in integrated circuits. Algorithms for calculation of the parasitic parameters of an integrated bus have been developed and the methods for coding against errors have been optimized. Tests of antennas that are integrated in a chip were performed for the purposes of wireless communication between integrated circuits. The main contribution is the use of metal structures, which are already present in the chip, as radiating elements. Such structures are the wiring lines used to distribute the power on the chip.

The obtained scientific results and contributions are mainly in the field of the integrated antennas. The contributing nature is presented in the enrichment of the existing knowledge and in the obtaining of new results and methods for the production of antennas on high-impedance silicon pads to reduce losses in the substrate. Sen. Assist. Prof. Dr. Hristomir Hristov Yordanov is the first author in a significant number of publications that were presented under the procedure, it is also correctly stated, in which publications he has had the leading role in the studies, original and scientifically significant results have been obtained. The scientific achievements of the candidate have been presented in front of the international scientific community and have received high marks and recognition, as they are highly cited.

6. Critical remarks and recommendations

The presented materials are corresponding to the required volume and quality and are accompanied by a number of evidences - references, certificates, diplomas, etc. No significant deficiencies in the presented materials or in relation to the scientometric requirements have been detected. I have no critical remarks for the candidate or for the materials presented by him.

7. Personal impressions about the candidate

I do not have any personal impressions about Dr. Hristomir Hristov Yordanov, but from the presented documents and the public information about the candidate, I can say that he is a motivated and thorough scientist and a dedicated lecturer.

8. Conclusion about the application

After I have got acquainted with the materials and scientific works presented in the procedure and on the basis of the analysis of their significance and the scientific and applied contributions contained in them, I confirm that the scientific achievements meet the requirements of ZRASRB, the Regulations for its application and the respective Regulations of the Sofia University "St. Kliment Ohridski" for the holding by the candidate of the academic position "Associate Professor" in the scientific field and the professional area of the procedure. In particular, the candidate meets the minimal national requirements in the




professional area and no plagiarism has been detected in the scientific papers submitted for participation in the procedure.

I give my positive assessment of the application made by Dr. Hristomir Hristov Yordanov.

II. OVERALL CONCLUSION

Based on the above, I recommend the scientific jury to propose to the competent evaluation authority of the Faculty of Physics at the Sofia University "St. Kliment Ohridski" to appoint Dr. Hristomir Hristov Yordanov in the academic position "Associate Professor" in the professional field 5.3 "Communication and Computer technology".

27 June 2022, Ruse

Member of the Scientific Jury: 
/Assoc. Prof. Dr. Eng. Georgi Hristov, PhD/

