

POSITION

On the competition for awarding the academic position “Associate Professor” in professional field 5.2.
 Electrical Engineering, Electronics and Automatics

announced in: State Gazette, issue 90/11.11.2023 for the needs of the department of Intelligent Systems in the Institute of Information and Communication Technologies at the Bulgarian Academy of Sciences

Candidate: engineer Tatyana Radeva Radeva-Stoilova, PhD, chief assistant, TU-Sofia

Member of the scientific jury: Prof. PhD engineer Dimo Georgiev Stoilov: TU-Sofia; INRNE, BAS

1. General characteristics of the applicant’s research, scientific and implementation activities

The only candidate in the above-mentioned competition for awarding of the academic position (AP) “associate professor”, chief assistant PhD Tatyana Radeva has graduated from the Bachelor degree specialty “Electrical engineering” at the TU-Sofia. After that (in year 2005) at the same university she has obtained Master degrees in “Electrical engineering” and in “Public administration”. She has worked consecutively as electrician, electrical engineer, and electrical design engineer in several enterprises. In 2013 she became assistant and in 2016 she was promoted to a chief assistant (and still works in this position) at the Department of Electric Power Systems in the Technical university of Sofia. She has defended a doctoral thesis (PhD) entitled “Study of the electrodynamic forces in the bus-bar systems of substations” (TU-Sofia, 2015).

The research and applied science activities of the candidate are directed mainly in the areas of studies and improvements of methods for assessing energy efficiency, expanding the use of renewable energies (RE), optimal planning of the work (functioning) of the elements and subsystems of the electric power system (EPS).

From the materials presented under the competition, our communication as colleagues through the years, and the opinions I have obtained by other our colleagues, I am convinced that she is an accomplished lecturer (teacher) and researcher in the field of the announced competition.

The table below shows the scientific metrics of the indicators according to the minimum requirements in ICT at BAS (more stringent than the national ones) for occupation of the academic position Associate professor and the quantities achieved by the candidate, i.e. proved by her presented works:

1.	Group of indicators A. At least 50 points	50
2.	Group of indicators B. At least 100 points	100
3.	Group of indicators C. At least 220 points	301
4.	Group of indicators D. At least 60 points	116
5.	Group of indicators E. At least 20 points	66

It is evident that the applicant meets the requirements, and for some groups the requirements are significantly surpassed.

2. Key scientific and applied science contributions

The contributions of the works presented are mainly applied science and applied ones. They are correctly described by the candidate, entirely on the subject of the competition and with an emphasis on practicality. They include improvements and generalizations on existing problems, original solutions regarding tunings in methods used, obtaining of confirmatory facts.

The candidate's overall performance in the competition, reflecting the development of her research ideas and results over the years, gives me reason to believe that the claimed contributions are to a significant extent her personal work and/or were achieved with her decisive participation.

Ch. assistant Radeva presented 14 citations of her works, 11 of which are in referenced and indexed publications in SCOPUS, and 3 of the citations are in peer-reviewed Russian journals and monographs. This shows that the candidate's research is known both at home and abroad.

Among the applied contributions, it should be noted the intensive and fruitful teaching activity of the candidate at TU-Sofia (already lasting more than 10 years). Her pedagogical training is at a high level and her work is highly appreciated by the students. She has supervised the final year theses of 17 successfully graduated Bachelor and Master students. She is responsible (leading lecturer) for three disciplines in Bachelor and Master specialties at the Electrical Engineering and Power Machines Faculties. She is co-author of two university student manuals, as well as author of materials for distance learning in the Moodle environment.

3. Significance of contributions to science and practice

The areas of research in which the candidate works are interesting and the contributions of her works are significant for the practice. Evidence of the practical applicability of her developments present the submitted references and certificates, as well as the listed reports on applied science and practical assignments, with whose realization energy and economic effects were achieved. A lot of contributions have been implemented in the teaching practice of the applicant and her colleagues.

The citations of the works of chief assistant Radeva, as well as the results of her applied science and implementation activities, show that her achievements have become known and have received the recognition of the expert and scientific communities.

The quantitative indicators according to the criteria for awarding the academic position "Associate Professor" are exceeded (see the table in item 1 above).

4. Critical remarks and recommendations

I do not have substantial critical remarks. I recommend that in her future work the candidate should seek a way to publish her results in international editions, especially such with an impact factor/rank.

CONCLUSION

In view of the above characteristics and analyses, I appreciate the results of the applicant's work. I think that the claimed applied science and applied contributions are justified and are sufficient both in volume and in contents, the minimum requirements for scientific metrics indicators being exceeded. Based on my acquaintance with the presented scientific works, their significance, as well as their contributions, I conclude that they fully meet the requirements of the Law for development of the academic staff, the rules of its application and the Internal Regulations of the IICT at BAS. Having in mind the above, **I propose chief assistant PhD engineer Tatyana Radeva to be awarded the academic position "Associate professor"** in the professional field 5.2. Electrical Engineering, Electronics and Automatics, for the needs of the Intelligent systems department in IICT at BAS.

НА ОСНОВАНИЕ
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Date: Feb.11.2023

MEMBER OF THE SCIENTIFIC JURY:

(Prof. PhD Engineer DIMO STOILOV)