

O P I N I O N

by competition for the academic position of "Associate Professor"
professional direction 5.2. Electrical engineering, electronics and automation,
for the needs of the "Intelligent Systems" department,
announced in SG No. 90/11-11-2022,
with candidate Dr. Tatiana Radeva Radeva-Stoilova
Member of the Scientific Jury: Prof. Dr. Dimitar Nedelchev Karastoyanov

1. General and biographical data

By order of the Director of IICT-BAS No 10/10.01.2023, I have been appointed as a member of the Scientific Jury in the competition for the academic position of "associate professor", announced in SG No. 90/11-11-2022. The competition involved one candidate - Dr. Tatyana Radeva Radeva-Stoilova. The candidate was a full-time lecturer at the Electrical Faculty of TU Sofia. In November 2015, she acquired the educational and scientific degree "Doctor" in professional direction 5.2 Electrical engineering, electronics and automation with the thesis topic "Research of electrodynamic forces in the bus system of a substation". Since April 2016, she has been Assistant Prof. in professional direction 5.2 Electrical engineering, electronics and automation, specialty "Power plants and substations".

2. General description of the presented materials

For participation in the competition Assistant Professor Dr. Tatyana Radeva Radeva-Stoilova presents the following documents:

- CV,
- criminal record certificate,
- medical certificate,
- diploma for acquired educational and scientific degree "doctor",
- certificate of fulfillment of the minimum requirements of IICT for "associate professor",
- list of scientific works for participation in the competition,
- author reference for the scientific contributions of the works for participation in the competition,
- list of citations,
- references for lectures held at TU - Sofia,
- references for participation in scientific research projects,
- copies of works for participation in the competition,
- a document certifying the occupation of the academic position of Assistant Prof.,
- reference list,
- other documents.

Assistant Professor Dr. Tatyana Radeva Radeva-Stoilova provides a monographic work entitled Radeva T.R., "Measures for energy efficiency of buildings", TU-Sofia, ISBN: 978-619-167-498-5, 135 pages, 2022., 2 Guides as well as 21 publications. Referred and indexed in Scopus and/or Web of Science are 2 publications. The remaining 19 are publications in non-refereed journals. Of the publications presented, 10 are in Bulgarian.

The documents submitted by the candidate for review are in accordance with the terms and conditions for holding academic positions in the Law and the Regulations and meet the minimum requirements for holding the academic position "Associate Professor" at IICT - BAS.

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

Most of the publications that reflect the candidate's research and applied scientific activity are devoted to scientific and applied problems in the field of the announced competition, which gives me reason to believe that she has lasting interests in the field of electrical engineering, electronics and automation.

The monographic study examines energy efficiency measures for buildings by applying hybrid wind-solar systems.

In the two refereed publications, photovoltaic systems in a public building and thermal action from a short circuit in busbars are investigated.

The unrefereed publications examine models of power plants, street lighting, building installations, microgrids, devices for receiving and measuring energy.

The two Guides are devoted to elements of Electrical Networks and Systems.

Data are presented for 11 citations in refereed publications and 3 in non-refereed publications.

Dr. Tatiana Radeva Radeva-Stoilova, assistant professor, was a member of the collectives of 2 scientific projects in the field of Braille screens, joint between IICT-BAS and TU-Sofia.

4. Evaluation of the candidate's pedagogical activity

The candidate in the competition for the last 3 years has a total horary of lectures conducted at TU-Sofia 216 hours, which is a good certificate for occupying the academic position of "associate professor" at BAS.

She is the co-author of two Guides and leads exercises in a number of disciplines.

5. Basic scientific and scientific-applied contributions

Summarized the contributions of the candidate for the academic position "associate professor" - Assistant Professor Dr. Tatiana Radeva Radeva-Stoilova can be qualified as a systematization and enrichment of existing knowledge in the announced specific area of the competition. They have a basic scientific-applied nature and can be grouped into the following two areas:

- Energy efficiency: mathematical models for microgrids and energy efficiency assessment systems, were developed, thermal effects from short circuits were studied.
- Optimization of energy objects: numerical examples of an optimization model and energy-saving measures for street lighting were developed, practical tasks were solved.

6. Significance of contributions for science and practice

The candidate has been actively working in recent years on the problems related to the theme of the competition and I am convinced that they are significant enough for science and practice. The scientific contributions have become available to a wide range of specialists thanks to the participation in international or national conferences, for which the testimonies are the sufficient number of citations.

7. Critical notes and recommendations

I have no critical comments on a large part of the scientific publications presented to me for review for the competition and the other materials of Assistant Professor Dr. Tatyana Radeva Radeva-Stoilova.

I do not accept the last 3 of the unreferenced publications as being on the contest topic. With the remaining publications, the candidate exceeds the minimum requirements.

8. Personal impressions and opinion of the reviewer

I know Assistant Professor Dr. Tatyana Radeva Radeva-Stoilova from scientific forums and participation in general scientific projects. The candidate gave a good impression of a thorough and competent scientist in the field of electrical engineering, electronics and automation.

I believe that she has the necessary research potential for habilitation in the field of competition.

CONCLUSION

After my acquaintance with the submitted documents and scientific works for participation in the competition and after the positive assessment of their relevance and significance, as well as from the analysis of the educational and scientific research work of the candidate, I consider that the requirements of the Law and the Regulations on the terms and conditions of occupying academic positions, as well as the Regulations of IICT-BAS are fulfilled and I have full reason to propose Assistant Professor Dr. Tatyana Radeva Radeva-Stoilova to take the academic position of "Associate Professor" in the professional direction 5.2. Electrical engineering, electronics and automation.

27.2.2023

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