OPINION

by Assoc. Prof. Plamen Mihaylov Manev, PhD, Eng.,
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on the materials submitted for participation in the competition for holding the academic position "Associate Professor", in the field of higher education – 5. "Technical Sciences", in professional field – 5.13 "General Engineering", specialty – "Engineering Physics".

In the competition for holding the academic position "Associate Professor", announced in the State Gazette, Issue № 53 of 09.06.2026 and on the website of the Technical University of Gabrovo, for the needs of Department "Mathematics, Informatics and Natural Sciences" at the Faculty of Economics, Principal Assistant Daniela Gospodinova Nedeva, PhD participates as a candidate for this academic position.

1. Overview of the content and results in the presented publications

The candidate, Principal Assistant Daniela Gospodinova Nedeva, PhD, participates in the competition for holding the academic position "Associate Professor" with the following research publications:

- A habilitation thesis:
- A monograph – sole author;
- Textbooks and teaching aids:
- One textbook – co-authored, with the candidate as lead author;
- One teaching aid (guidebook) – co-authored, with the candidate as lead author;
- Research publications:
- In peer-reviewed and indexed publications in internationally recognised databases – one (1) single-authored publication and three (3) co-authored publications;
- In non-referenced issues that are scientifically peer-reviewed or are published in collective volumes – a total of thirty (30), as follows:
  - three (3) single-authored publications;
  - three (3) co-authored publications with one co-author (in two of which the candidate is the lead author);
  - five (5) co-authored publications with two co-authors (in two of which the candidate is the lead author);
  - six (6) co-authored publications with three co-authors;
  - five (5) co-authored publications with four co-authors;
  - five (5) co-authored publications with five co-authors;
  - three (3) co-authored publications with six co-authors.

The publications submitted for participation in the competition are relevant and completely align with the specialty of the announced procedure. The research papers are allocated into three theoretical domains. I consider them to be appropriately allocated and precisely formatted. I believe that they satisfy the eligibility criteria for the candidate in accordance with the requirements of the normative documents that are currently in force in Bulgaria (the Act for the Development of Academic Staff in Bulgaria and the Statute for the Implementation of the Act for the Development of Academic Staff in Bulgaria). I did not encounter any administrative or procedural violations while I was carefully reviewing the submitted documents. It has to be noted that these research publications to not repeat the publications presented in the procedure for obtaining a PhD (doctorate) degree, nor do they overlap with the additionally submitted publications of a methodological nature and materials from participation in student research sessions (which are not included in the scientometric reports).

2. General characteristics of the candidate's activity

2.1. Educational and pedagogical activity (work with bachelor, master and doctoral students)

The solid teaching experience of Principal Assistant Daniela Gospodinova Nedeva, PhD, is supported by teaching (lectures, exercises) students from a number of bachelor's, professional bachelor's and master's degree courses at the Technical University of Gabrovo. The disciplines taught by her are as follows:

- Physics – Bachelor's, Professional Bachelor's and Master's degree programmes;
- Vibration Analysis and Noise Protection – Bachelor's degree programme;
- Air Purification Techniques – Master's degree programme;
- Management of Specific Waste Streams – Master's degree programme;
- Radiological Environmental Monitoring – Master's degree programme.

Further evidence of her professional competence and expertise in a specialised scientific field such as Engineering Physics is the fact that Chief Assistant Professor Daniela Nedeva, PhD, has been invited as a guest lecturer at Konstantin Preslavsky University of Shumen. There, she delivers lectures and conducts laboratory classes in the course "Applied Physics" for students enrolled in the "Engineering Logistics" and "Pedagogy of Teaching Technology and Engineering" programmes.

She has successfully mentored both scientifically and methodically the theses of master's degree students.

2.2. Research, scientific and applied activity

The candidate, Principal Assistant Daniela Gospodinova Nedeva, PhD, participates in the competition with 35 research publications that include one monograph and thirty-four (34) research papers. Four of the submitted publications are in English and are published in volumes that are referenced and indexed in renowned global databases of research information.

She is the author of a textbook and a teaching aid. Since 2010, she has been a member of research teams implementing project activities at the Technical University of Gabrovo and Konstantin Preslavsky University of Shumen, funded under national and international operational programmes. During the period 2010–2012, she participated in numerous summer schools and projects aimed at facilitating student mobility under the Erasmus Programme. She also participated in a contract funded by the South Korean company BIZON. She demonstrates an active civic commitment through her involvement in a joint project with Gabrovo Municipality addressing adaptation to climate change in European mountain regions.

Her substantial project management capacity is clearly demonstrated by her leadership of the following projects at the Technical University of Gabrovo: "Modern Engineering Solutions for Environmental Management and Protection – Phase III" (2024); "Intelligent, Environmentally Friendly and Energy-Efficient Technologies in Modern Industry and Practice – Phase 1" (2025); and the ongoing project "An Integrated Approach to Sustainable Industry through Intelligent and Innovative Technologies" (2026).

She is also the author of the curricula for the above-mentioned courses offered within the Bachelor's, Professional Bachelor's and Master's degree programmes.

3. Contributions (scientific, scientific and applied, applied)**. Significance of contributions for research and practice**

I acknowledge the contributions declared by Principal Assistant Daniela Gospodinova Nedeva, PhD, and consider that they are justified as they enrich the existing knowledge and research with applications in science and implementations in practice. I think that the contributions can be classified as scientific and applied or applied. I consider them in accordance with the four thematic areas into which the candidate has classified and presented her work: "Radioecological Monitoring of Natural Environments and Biological Objects: Distribution, Accumulation and Transfer of Radionuclides"; "High-Intensity Energy Fluxes: Physical Principles, Materials Processing and Applications"; "Thermomechanical Modification and Calorimetric Characterisation of Polymer Materials"; and "Thermoluminescent Materials for UV and Radiation Dosimetry".

Among the more significant applied scientific contributions in the first research area, I would highlight the systematisation and analysis of the patterns governing the distribution of natural and

anthropogenic radionuclides in plants, soils, sands and water, as well as the selective accumulation of radionuclides in plants. A comprehensive approach to radioecological assessment is also proposed. In the second research area, I would emphasise the theoretical physical and engineering analysis of the main factors determining the laser conduction welding process of electrical steel lamination stacks. In the third research area, a correlation has been established between temperature and the degree of elongation of PET fibres, as well as between the proportions of amorphous, intermediate and crystalline regions in their structure. The fourth research area examines the influence of lithium component content on the thermoluminescent properties of certain materials.

Among the contributions of a purely practical nature, I would highlight the practical guidelines for incorporating soils, plants, sands and water into comprehensive radioecological monitoring programmes, as well as the use of spatial maps to identify areas with elevated specific activity. Also noteworthy are the practical possibilities for using modified titanium surfaces in machine components, tools, sliding and contact-loaded elements, transport components and products operating under abrasive wear conditions.

4. Assessment of the candidate's personal contribution

Taking into account the combination of independent research works and balanced participation in co-authored publications submitted for the competition, I consider that the contributions declared by Chief Assistant Professor Daniela Gospodinova Nedeva, PhD, are to a considerable extent the result of her own work. Her publications address current research issues and stand out for their ability to reflect real-world challenges in four areas of this specialised scientific field. Her participation in research teams implementing projects at national and international levels provides further evidence of her professional expertise.

5. Critical remarks and recommendations

In principle, I do not have any critical remarks in relation to the materials presented for the competition. They are very well systematized thematically, formatted and prepared in a manner that significantly facilitates the review process of the scientific jury.

I recommend that the candidate attempts to increase her publication activity, preferably in indexed journals, and to participate in more scientific conferences abroad so that her research activity gets wider recognition and promotion.

6. Personal impressions

I have no direct personal impressions and I do not personally know the candidate. My conclusions are based solely on the research works submitted for participation in the competition.

7. Conclusion

Upon a detailed examination of the materials submitted for review it can be observed that the research indicators of the scientific production of the candidate Principal Assistant Daniela Gospodinova Nedeva, PhD., exceed the minimum national requirements as well as the additional research requirements of the Technical University of Gabrovo for the academic position “Associate Professor”. The declared research and applied contributions of the submitted research work, and the significant academic experience of the candidate enable me to give a justified positive overall grade.

Considering the abovementioned facts and data I propose that Principal Assistant Daniela Gospodinova Nedeva, PhD, is elected an “Associate Professor” in the field of higher education – 5. “Technical Sciences”, in professional field – 5.13 “General Engineering”, specialty – “Engineering Physics”.

29.10.2026 Member of the scientific jury: ……

/Assoc. Prof. Plamen Manev, PhD, Eng./