

OPINION

By corresponding member **Prof. Andon Radev Kossev, DSc** – IBPhBME - BAS in connection with the competition for the position of an Associated Professor – area of higher education 5. “Technical Sciences”, professional field 5.2. “Electrical engineering, electronics and automation” (Application of the principles and methods of cybernetics in different fields of science (biomedicine)) announced in State Gazette 69/16.08.2024 for the needs of the Department “Analysis and Processing of Biomedical Signals and Data Analysis and Processing of Biomedical Signals and Data” – IBPhBME – BAS.

Only one candidate is taking part in the competition – Todor Venkov Stoyanov. The candidate received his PhD in 2005 with a thesis entitled “*Computer processing and analysis of electrocardiograms*”

He is applying in the competition with a list of 36 scientific papers. Eight of the papers are published in journals with impact factor (IF) (Total IF = 25.29) and 13 are published in journals with scientific journal rang (SJR). Some of the well-known journals are *Medical & Biological Engineering & Computing*, *Physiological Measurement*, *Mathematics* and *Computing in Cardiology*. The rest of the papers are published in other professional journals or proceedings – the majority of them are published in English. Dr. Stoyanov is the only author in 2 papers, the first author in 1 paper and the last author in 5 papers.

The papers are well cited – over 300 citations (h-index = 8).

I believe that the scientific work has the necessary scientific value and meets the requirements of the Act on the Development of the Academic Staff in the Republic of Bulgaria and the Regulations of IBPhBME.

The main scientific achievements are in the following fields:

- equipment for registration and calibration of ECG signals;
- methods of filtration of ECG signals;
- detections of P-waves and segmentation of heart cycles;
- detection of heart anomalies;
- development of software for annotation of ECG signals;
- intuitionistic fuzzy sets, intercriteria analysis and generalized nets – theory and applications in medicine.

In principle, I accept the scientific and applied achievements as they are formulated by Dr. Stoyanov.

The candidate is actively working on external projects – 5 with financial support of the Bulgarian National Science Fond (one of the projects is current); a bilateral project with China and since 2005 – one with Schiller AG – Switzerland. He has 6 innovation certificates from Schiller AG.

On the ground of all said above, I propose to the members of the scientific jury to give a positive assessment of the candidate and to vote in favor of Dr. Todor Venkov Stoyanov to be appointed on the position of Associated Professor.

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Sofia

Opinion prepared by:



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