

## OPINION

on documents submitted for competition for academic position ASSOCIATE PROFESSOR for the need of the Department of Information technologies for sensor information processing, announced by IICT-BAS in State gazette No 68/31.07.2020

The sole candidate in the competition, dr. Dimiter Petkov Prodanov, submitted all documents needed according to the regulations of IICT-BAS for application of the Law for development of the academic staff in Republic of Bulgaria.

From his CV and attached documents it become clear that Dimiter Prodanov achieved MSc degree in medicine from Medical University - Sofia in 1999 and educational and scientific degree Doctor on bioinformatics from University in Twente, Netherlands in 2006. He worked consecutively as young investigator at University of Twente, postdoc at Catholic University of Louvain, Belgium, researcher at University of Liege, Belgium, researcher at IMEC, Louvain, Belgium until now and since 01.10.2019 he is part time (2 hours) programmer at IICT-BAS.

In fulfilment of the minimal requirements of IICT-BAS the candidate submitted evidentiary material and a blank filled with data for all indicators, as follows:

**A** - PhD thesis for obtainment of educational and scientific degree "Doctor", with which he fulfils the demanded 50 points on this indicator.

**Б** - 3 papers in journals with IF; two of them are in Q1 quartile, but the third (numbered P2011B) is wrongly classified as such because the journal where it was published in 2011 achieved IF in 2014. Hence I classify the paper number P2011B as published in journal with SJR rang thus admitting 120 points on this indicator instead of claimed by the candidate 150 points. With this the demanded minimum of 100 points is exceeded.

**Г** - 11 papers referred and indexed in the worldwide famous scientific data bases (1 in Q1; 2 in Q2; 2 in Q3; 1 in Q4; 2 with SJR; 3 referred in Scopus), and three book chapters. Here again are present inexactness in classification of some papers as follows: paper number A2019B is referred in Scopus, but it does not have SJR rank so its score is 12 but not 20 points; the book chapter numbered P2009G is in fact a paper in journal with SJR rank so it belongs to section 7 and gains 20 but not 15 points. Thus I admit 340 points that exceeds the needed minimum of 260 points.

Д - list of citations of 12 publications submitted by the candidate to this competition. Here, although the candidate exceeds many times the needed 70 points, the list of citations includes a number of self-citations. After exclusion of self-citations the candidate gains 780 points instead of claimed 876.

Е - sections from 12 to 20 include candidate's participation in scientific projects. Here again the IBRO Fellowship is incorrectly classified as participation in national project so I do not admit claimed points; the submitted evidence about the project BrainSTaR showed that the candidate is contact person but not the leader of the project so I admit 10 instead of 20 points; in contrast the project FWO-BAS is international and the candidate has a role of leader from Belgium side that gains 50 instead of claimed 30 points. Thus on this indicator the candidate obtains 60 points while the needed minimum is 20 points.

The candidate achieves totally 1270 points that is more than twice above the needed minimum of 500 points.

The candidate submitted also information of his contributions that I accept completely. They are allocated in three groups: neuro-informatics, computational biology and neuro-prosthesis. The candidate's contributions are in the professional area of competition Informatics and computer science. In my opinion they can be summarized as follows:

1. In the PhD thesis of the candidate as well as in his postdoctoral studies neuro-implants for in vivo recording of neural activity and for deep brain stimulation were designed and investigated.
2. Integrated system for storage and analyses of morpho-physiological data (package ImageJ) as well as a methodology for microscopic images segmentation of neural cells was developed.
3. A Clifford algebra package for the aims of bio-physiological investigations was developed.

Dr. Prodanov is first author in six and sole author of two of the papers he submitted for the competition. Thus I consider that he has significant contribution in these works, especially in those in the area of Clifford algebra that are authored by him only.

A check up in Scopus revealed that Dr. Prodanov is author of totally 45 referred and indexed papers that are cited 502 times by the moment, having h factor 12, that is impressive proof of visibility of his works in the world scientific community. Besides, he submitted information about seven brief communications and invited lectures that is yet another proof for expressed interest towards his works in the area of neuro-informatics.

I have critical remarks concerning only concerning arrangement of documents submitted for the competition. Some of the papers and projects are incorrectly classified while the proof materials for citations is arranged in separate pdf files taken directly from Scopus without exclusion of self-citations. Numbering of papers list is hard to follow (combination of letters and numbers) and in some places in the table with minimal demanded indicators the candidate even economized the complete list of citations.

All these do not depreciate candidate's achievements that are undoubtedly proven by his works and their citations.

In conclusion I give **positive** rating of the materials submitted for the competition by Dr. Dimiter Petkov Prodanov.

The candidate fulfils all demands of IICT-BAS as well as national requirements for occupation of teh academic position "Associate Professor" on professional area 4.6 "Informatics and computer sciences".

All these gives me reason to recommend to the respectful members of the Scientific Panel and then to the members of the Scientific Council of IICT-BAS **to vote for awarding to Dr. Dimiter Petkov Prodanov the academic position "Associate Professor" in professional area 4.6 "Informatics and computer sciences".**

Date: 03.11.2020г. Member of the panel:

**NOT FOR  
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(Prof. P. Koprinkova-Hristova)