

STATEMENT

on competition for academic position "professor" in professional field "5.3 Communication and computer technique", specialty "Artificial Intelligence", announced in State Gazette 38/10.05.2019

candidate: **Assoc. Prof. Todor Dimitrov Ganchev, PhD**

Scientific jury member: Ivaylo Ivanov Atanasov, Prof., DSc

1. General characteristics of scientific and applied research and activities

In the frame of competition for academic position "professor" in professional field "5.3 Communication and computer technique", announced by department "Computer science and technologies", there are documents applied by one candidate, namely assoc. prof. Todor Dimitrov Ganchev, PhD. The set of documents is complete and the attached lists of works for awarding PhD and AP 'assoc. prof.' show that there is neither reuse nor duplications of works, which give me the right to accept all the works for consideration in preparing the statement.

Within the total number of the 50 works included, 13 are grouped as equivalent to monography and 22 of the rest are indexed in Scopus/Web of Science. The articles published in scientific journals are 14 and 9 of them are indexed in Scopus, while the aggregated Impact Factor (Thomson Reuters IF) of the 7 articles indexed in Web of Science is over 8. Conference papers amount to 36 where 26 of them are indexed in Scopus. The scientific works are over a span of more than 15 years which is evidence for sustainable research interest of the candidate.

The presented documents witness for 17 international and 9 national scientific and educational projects where the candidate has had leading functions in 10 and these facts show that there are capabilities for both team work and leadership.

The comparison of quantitative and qualitative characteristics of the candidate's scientific and applied activities with the minimal state requirements (Annex 1 of Rules for Act on Development of Academic Staff in Republic of Bulgaria RADASRB, Section 5.3 Communication and Computer Technique), and with the minimal requirements of Technical University of Varna (Annex 1 of Rules and Conditions for Academic Positions Awards RCAPA) shows considerable aggregated overfulfilment (over 4 times) for the indicators groups.

2. Assessment of pedagogical background and activities

The assessment of the candidate's pedagogical background and activities can be based on the fact that for only 15 years of teaching he has managed to establish his leading role in a wide range of Bachelor courses - from Microprocessors to Artificial Intelligence. These broad competences are very indicative and the amount of lectures, which in the last 3 years are threefold more than the required, is self-explanatory.

The manual presented in the documents, together with the management of Faculty-level laboratory "Applied Signal Processing" once again reconfirm the opinion for very active pedagogical work.

Last but not least, the candidate's supervision of PhD student can be easily called fruitful as far as there have been already defended 2 PhD theses and another one is on the way.

3. Key scientific and applied contributions

The presented publications as equivalent to monography are 13, entitled "New methods for emotional perceptions by the machines", and semantically grouped as follows: methods for recognition of the human emotions basic types [B4.1-4, B4.6-7, B4.11, B4.13]; methods for speech recognition and interpretation [B4.8-9, B4.12]; voice and multi-modal control dialog systems [B4.9-10, B4.12, B4.13]; methods and systems with biofeedback [B4.9-10, B4.12]; resources provisioning of the methods for emotional perceptions [B4.5, B4.8]. The contributions might be qualified as scientific and scientifically applied, and classified as new methods and systems.

All the publications are indexed in Web of Science and/or Scopus, while three of the articles feature an aggregated Impact Factor over 3.7 and in 70% of the publications the candidate is at the leading two position.

The full compliance with the competition topic, the proper title, the prestigious level of the publications, and the high level of personal involvement give me the right to admit the presented works as totally equivalent to monography.

4. Significance of the contributions in science and practice

The contributions significance is considerable, with respect to the quantity requirements for citing works, as far as the documents unveil 152 citations that form a H-index of 6 and i10-index of 3. These facts for recognition among the scientific community give rate of over 1500 points in the respective group of indicators while the minimal requirement is only 100.

A simple crosscheck in Web of Science/Scopus shows that the candidate is quite humble by being unspoken about his manyfold higher values. It seems that this is the explanation about the numerous, over 30, participations of the candidate in scientific organizations, technical program committees, editorial boards, etc.

5. Critical remarks and recommendations

I have no substantial critical remarks. The only recommendation I give, despite of candidate being busy with pedagogical, scientific, and organization activities, is to consider writing of a textbook, named "Artificial Intelligence", in bulgarian.

CONCLUSION

The applied documents by the candidate to this competition for academic position "Professor" fully comply with the requirements of ADASRB, the Rules for ADASRB, and the Rules of Technical University of Varna.

On the basis of the aforesaid, and of the significance of the scientific contributions, I find myself in right to **propose assoc. prof. Todor Dimitrov Ganchev to be awarded** the academic position Professor in professional field "5.3 Communication and computer technique", specialty "Artificial Intelligence", within the department "Computer science and technologies" at Technical University of Varna.

Date: 23.09.2019

Jury member:

/Prof. I. Atanasov/