

## STATEMENT

on concourse for gaining academic degree "Associate Professor"  
Educational area: 5. Technical sciences,  
Professional division: 5.2 Electrical engineering, Electronic and Automation,  
Scientific discipline: Robots and manipulators  
Published in ДВ # 41 from 21.05.2019 for the needs of section „Embedded inteligent  
technologies“  
in Institute of information and communication technologies —BAS  
candidate: eng. Nayden Nedkov Shivarov, PhD

Jury member: prof. Ivo Krastev Malakov, PhD,  
Automation of descrete production, TU-Sofia

### 1. Overall characterisation of the provided materials.

Accordant to art. 9. (1) of the Rules for specific conditions in gaining scientific title and for academic positions of IICT-BAS, the only candidate in the concourse for gaining academic degree "Associate Professor" who presented all necessary documents: CV in EU standart, PhD diplom copy, work experience documentation, list of scientific publications, list of inventions and other scientifically-applied contributions, list with quotations, resume of application publications on English and Bulgarian, copies of the publications, reference for the fulfillment of the minimum national requirements under Art. 2b, para. 2 and 3 and the requirements of the IICT under Art. 2b, para. 5, drawn up on the basis of documents submitted for the competition; reference to original scientific and scientifically-applied contributions; a declaration that they have not been proven by law to plagiarize scientific works, is Naiden Shivarov, PhD.

The refference requirements for gaining "Associate Professor" title in IICT-BAS shows that all requirements in the specific groups are fullfiled: group A - 50 points; group B - 106 points; group C - 224,4 points; group D - 62 pints и от group E - 50 points.

The analysis of the provided materials shows, that all requirements of ЗРАСРБ, ППЗРАС, and the Rules for specific conditions in gaining scientific title and for academic positions of IICT-BAS are fullfiled.

### 2. Evaluation of the scientific work.

D-r. eng. Nayden Nedkov Shivarov participate in the concourse with 42 scientific publications, outside other procedures. Most of his work is published in famous international organisations - IEEE/RSJ International Conference on Intelligent Robots and Systems, IFAC Papers-Online, IEEE International Conference on Robotics etc. We should point out that 13 of the publications are submitted and referred in Scopus science database.

The presented publications are in actual field — managing of service robots and manipulators, authonomic mobile robots, remote controlled robots, educational robots etc. For solving some of the problems and tasks in these areas, the candidate uses modern

method and means. The results undoubtedly shows that d-r. Shivarov has high professional qualification, deep knowledge and experience in the field of robotics.

### **3. Quotations evaluation.**

All quotations in candidates application – 7 in total, are mentioned in foreign author's work in prestigious publications. Most of them (6) are referred in Scopus science database. Thus eng. Shivarov is known to the international scientific audience and his work has been interesting for researches and scientists in the robotics field.

### **4. Main scientifically-applied contributions**

Candidate's work has many important scientificall-applied and scientific contributions. They relate to the scientific discipline " Robots and manipulators' and include developing and research of "Robco" service robots prototypes, modules and software for intelligent robot control, web-based user interface for control and maintenance of robotic platforms etc.

The gained results have significant importance in the development and enriching the theory and the practice of robotics and automation of discrete production and are highly applicable. These contributions can be added to the following groups: proving new significant sides of already examined scientific areas, problems, theories, hypothesis; discovering new classifications, methods, constructions, technologies and achieving solid factors.

### **5. Candidate's work overview and data**

The candidate d-r Shivarov has 17 years work experience, gained thru chief assistant and Associate Professor for 2 years and 8 months. Durring this time he has worked as supervisor of division " Robotics and mechatronics" in Code Assistance Ltd., science asscoicate in CLMP-BAS Associated Professor in IR-BAS and Associate Professor in research laboratory in EPU — Pernik. In IR-BAS he was a leader and participant in a team in service robotics. He was an expert and manager in the field of information and communication politics in healthcare as government expert of Healthcare Ministry. Eng. Shivarov has worked over national and international projects, financially supported by different organisations. All developments are from the nomenclature scientific specialty of the announced competition. As leader of a research laboratory in EPU he was a supervisor of PhD and Associate Professor candidates. He has teaching experience with the students of Faculty of Mechanical Engineering at the Technical University - Sofia. Candidate's pedagogical work and abilities to teach are appropriate for the desired acientific title.

I think, that the volume and the quality of the candidate's scientific, scientifically-applied, pedagogical work allignes with the requirements of 3PACPE and the manual of its application.

### **6. Crutial notes and recommendations**

I don't have crutial notes over the presented work of the candidate.

The contributions are not well formed according to the commonly accepted and approved standards. The candidate presented them as object-oriented results. In some of the publications the current field situation analysis is missing and in others the evaluation of the results is missing.

I recommend that the candidate should publish books and educational literature and also to put into practice the results of his research activities.

## CONCLUSION

Based on the concourse materials, the actuality and the importance of the gained scientifically-applied and application contributions and the positive evaluation of the candidate's overall work, I find appropriate to propose to the honorable jury to vote on the Scientific meeting of IICT-BAS, that d-r Nayden Shivarov gains academic title " Associate Professor" in professional division: 5.2 Electrical engineering, Electronic and Automation, scientific discipline "Robots and manipulators" for the needs of section "Embedded intelligent technologies" in IICT-BAS.

22.08.2019  
Sofia

JURY MEMBER:

(prof. d-r. Ivo Malakov)

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