

Attitude of Reviewer

by: PENCHO GENOV MARINOV, Assoc. Prof., ICT - BAS
(Institute of Information and Communication Technologies)
Section "Parallel Algorithms"

in: the competition for academic appointment "Professor",
Field of Higher Education 4. "Natural Sciences, Mathematics and Informatics"
Professional field 4.5 "Mathematics", Scientific Specialty 01.01.09
"Computational Mathematics (High Performance Computing)"

for: needs of the section "Grid Technologies and Applications" (now
"High Performance Systems, Networks and Algorithms", ICT - BAS

the competition was announced in the
Newspaper of State, No.41 / 21.05.2019, page 69.

with the sole candidate associate professor, Dr. EMANOUIL JORDANOV ATANASSOV,
section "High Performance Systems, Networks and Algorithms", ICT-BAS

1. Grounds and general description of the materials presented

By Order No.177 / 19.07.2019 of the Director of "Institute of Information and Communication Technologies" at Bulgarian Academy of Sciences, Prof. Galia Angelova, pursuant to Article 4, Paragraph 2 of the "Law on the Development of Academic Staff in the Republic of Bulgaria" and Decision of the Scientific Council of ICT-BAS (Protocol No.7 / 10.7.2019) I have been appointed a member of the Scientific Jury under procedure described above. As a member of the Scientific Jury on 24.07.2019 I received on CD all the documents described at the end of the applicant's request to the Director of ICT-BAS: (1) Curriculum Vitae in European format; (2) Copy of the diploma for the educational and scientific degree "Doctor"; (3) A copy of the certificate for the scientific title "Senior Associate of the second degree"(equivalent of "Associate Professor"); (4) Certificate of Internship in the specialty; (5) List of scientific publications for the competition which do not include those for the acquisition of the educational one and a PhD degree and to hold the academic position of Associate Professor; (6) List of citations; (7) Abstracts of the scientific publications for participation in the competition - in Bulgarian; (8) Abstracts of the scientific publications for participation in the competition - English; (9) Information for the fulfillment of the minimum requirements of ICT - BAS; (10) Reference to original scientific and applied scientific contributions; (11) Declaration on the absence of duly proven plagiarism in scientific works; (12) Assurances (Declarations) from Project Managers to Project Manager / Contractor; (13) List of projects; (14) Copies of scientific publications for participation in the competition; (15) Seven discs containing files of all the documents described.

According to the normative documents: Law on the Development of Academic Staff in the Republic of Bulgaria (LDASRB), Rules for the implementation of the LDASRB, Rules for the conditions and procedures for obtaining degrees and loans of academic positions at BAS, also Rules on the specific conditions for obtaining academic degrees and for the occupation of academic positions at ICT-BAS, the candidates for the occupation of the academic position "Professor" must meet the following conditions: (1) have obtained

a doctorate degree in education and science (PhD degree), which for the specialty in the regulated professions must be of the same specialty; (2) have held the academic position of "Associate Professor" at the same or another higher education institution or scientific organization not less than two academic years or not less than five years: a) they were teachers, including part-time students, or members of a research team in the same or at another higher education institution or scientific organization, or (b) have pursued an artistic endeavor, or c) have been practitioners and have proven track record in their field; (3) have submitted published monographs or equivalent publications in specialized scientific fields publications or evidence of relevant artistic achievement in the field of the arts, not repeating the "doctorate" submitted for the degree, the degree of Doctor of Science and the occupation of the academic position of Associate Professor; (4) have submitted other original research papers, publications, inventions and other scientific and applied developments or artistic achievements that are evaluated in aggregate; (5) meet the minimum national requirements under Art. 2b, para. 2 and 3, respectively, of the requirements of art. 2b, para. 5; (6) not to be legally plagiarized in scientific works.

According to the submitted documents, it is evident that Associate Professor Emanouil Atanassov:

- Has a PhD thesis – dissertation for a doctoral degree (Diploma No.28303 / 02.09.2003, by the Higher Administrative Court (HAC) at the Council of Ministers, Commission No.1, Protocol No.9 / 29.11.2002) on "Monte Carlo and Quasi Monte Carlo Methods for Calculating Integrals with Increased Convergence Rate".
- Takes the academic position of Associate Professor ("Senior Associate in Second Degree") - The HAC certificate is No.23515 / 01.03.2006, Commission 1, Protocol No.8 / 16.12.2005. The Service Note (Ex. No.607 / 02.07.2019) shows that he has a total of 23 years of service, of which as research associate III-I degrees and associate professor 17 years.
- 21 publications were submitted to the competition (list, their abstracts in Bulgarian and in English, the posts themselves in a separate directory). Presented are: a list of 46 citations to 10 of publications, additionally referenced by Scopus for citations of 70 papers and h-index for years 2007–2015 and for all years.
- Participates in and / or is a leader in numerous national and international projects, such as submit a list of projects and relevant evidence - assurances from project managers, in which the applicant is a participant and a statement of the projects in which the associate professor E. Atanassov is the head.

2. Assessment of papers and other activities, taking into account the fulfillment of minimum requirements of the IICT – BAS.

We limit ourselves to the requirements of IICT (according to Art. 2-b, para 5 of ZRARB), because the national requirements (from the previous para 2 and para 3) and those of BAS are not stronger.

2.1 Indicators (3-4 and 5-10) of publications (Groups C and D respectively)

For publications equivalent to monograph work the requirement is 100. Of the 5 publications submitted 160 points are scored: 2 are IF - one of quart Q1 (x 50p), the other of Q3 (x 30p); 4 are with SJR (x 20p), i.e. $1 * 50 + 1 * 30 + 4 * 20 = 160$.

For publications outside the equivalent of monograph work, the requirement is 260. Of the 16 publications submitted 302 points were collected according to the candidate (292 points according to the initial check of the writer of this opinion). The reason for the 10 point difference is in publication 17 of the list (or 11 of this group) since 2008. In the first two areas of the "Applied Mathematica Modeling" magazine, the quartile is Q2 only in 2009, in the following years it is Q1, and in previous years it is Q3, but taking into account the following two areas, we get what the candidate gives us - Q2 (from 2005 to 2008 is so much Q2, and after then it's Q1). The account is: $1 * 50 [Q1] + 1 * 40 [Q2] + 2 * 24 [Q4] + 7 * 12 [SJR] = 302$.

2.2 For the quotation indicator (11) the requirement is at least 140 points. Of the 46 citations presented visible in Scopus of 10 candidate publications accumulated 276 points ($46 * 6$). The author of this opinion looked at what he was giving the reference in Scopus for the author E. Atanassov and for the citations of 70 articles (excluding autocitations) was published by h-index 6, citations a total of 116, and after 2007 - 105. These numbers differ from those given by the applicant, but are not required in the other. The documents merely show that Assoc. Prof. Emanouil Atanassov significantly exceeds the minimum requirements, incl. what it is submitted for the competition.

2.3 For activity indicators (12-20), the requirement is at least 150 points. The candidate has submitted for the competition information and evidence on activities on indicators 14-18, where the points are 510, which is more than three times higher minimum requirements. From the CV it can be seen that there are two PhD students on indicator 13. In indicator 19 it becomes we are talking about project financing points and international ones are large sums - we can see that from the attached list incl. the projects of which Assistant Professor E. Atanasov is the Head / Coordinator. The score for these indicators is: $6 * 10 (14) + 8 * 20 (15) + 2 * 20 (16) + 5 * 50 (18) = 510$ points.

3. Analysis of contributions.

I fully agree with the candidate's achievements.

- Theoretical Development, Software Implementation, and Class Studies algorithms using fine levels of concurrency and heterogeneous computations systems.
- Optimization of high performance calculations for the purposes of modeling and applications.
- Algorithms for efficient generation of low-discrepancy series.
- Schemes and services for efficient use of distributed computing environments.
- As the leader of the Bulgarian team in the EGEE project series, EGI-InSPIRE, EGI-Engage and Package and Task Manager for other international projects, the candidate has a significant role in the construction and maintenance of the Bulgarian language national grid infrastructure.

The latter contribution is scientifically applied, while the previous contributions are mostly scientific.

4. Critical notes, praise and recommendations.

Not all cited publications of which the quotes for the procedure are in the list of publications for this procedure. For the entry in NACID - "Register of Academic Staff" must be added. The above mentions some minor inaccuracies in the documents presented, but rather for proof that the reviewer has read the material in detail. I have no critical

remarks, which would call into question the contributions of the applicant and which would influence my positive assessment at the end of my review.

For praise is the good design and presentation of the competition documents. Taking into account the excellent science-metrics seen in SCOPUS / WoS, beyond those presented for this procedure, there is also a recommendation to the applicant to devote time and effort to do a thesis for "Doctor of Science".

5. Personal impressions for the candidate and other data not mentioned in the previous points.

I have known candidate Emanuil Atanassov for about 20 years. I have witnessed his growth as a scientist. I have excellent impressions of his competence and his skills to work in a team and to transfer to others the experience and knowledge gained.

The preceding points do not provide some information about the applicant, so here I will mention: in addition to English, he is fluent in foreign languages Spanish, Russian, French; his abilities have been noted and he has been awarded numerous times: Special Award from the International Mathematics Olympiad in Australia, 1988; Diploma "John Atanasov" for contribution in the field of Information Technology, 2004. MIPRO Conference Best Article Award 2007; EGI UF Best Poster Award, 2011, Vilnius, Latvia.

6. Conclusion.

Considering that: the applicant has sufficient scientific and applied contributions; the achievements are publicized in sufficient and high quality publications among the scientific community, there are sufficient citations, including in Impact Magazines and specialized international publications; impressive participation and leadership in national and international research projects - and all the requirements are met, conditions and criteria under: *Law on Academic Staff Development in the Republic of Bulgaria, Rules for the Implementation of the LDASRB, Rules of Procedure for the Acquisition of Degrees and Lending of academic positions at BAS, also Rules for the specific conditions for acquiring degrees and loans of academic posts in ICTT.*

This leads me to the following conclusion:

I give a positive assessment of the materials with which the applicant participates in the competition for professor. I recommend the members of the Scientific Jury, and then to the Scientific Council at IICT-BAS to select associate professor Dr. Emanouil Jordanov Atanassov to take the academic position "professor", Area in higher education 4. "Natural sciences, mathematics and informatics", professional field 4.5. "Mathematics", specialty "Computational Mathematics (High Performance Computing)" for the needs of the Grid Technologies and Applications section (now High Performance Systems, Networks and Algorithms).

13.09.2019

Sofia



/ Pencho Marinov /