### REVIEW

of the scientific works of Dr. Yosif Avramov Avramov

for participation in a competition for the academic position of "Associate Professor"

professional field 5.3. Communication and computer equipment

announced by NBU in State Gazette No. 54 / 16.06.2020

for the needs of the Faculty of FDENO, Department of Telecommunications,

Grounds: Order of the Rector of NBU No 3-PK-260 / 21.07.2020

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#### I. General characteristics of the candidate's works

A list of publications of the candidate Dr. Yosif Avramov is attached to the materials of the competition for "Associate Professor" as follows:

- Habilitation thesis monograph: Banking Control / Yosif Avramov. 2. add. and rework. ed. -Sofia: Нова New Star, 2002, ISBN 954-8981-39-4;
- Published monograph, which is not presented as a major habilitation thesis: The Euro our tomorrow's money / Joseph Avramov. - Sofia: Univ. ed. St. Kliment Ohridski, 2006. - 97 pp. ISBN 954-07-2232-2
- Scientific book based on a defended dissertation: Functional specifications of electronic platforms for stock exchange trading in securities and innovative products, Publishing House "For the letters - About writing", 2015, Joseph Avramov, ISBN 978-954-92601-4-4
- Published chapter of a collective monograph: Bulgaria's accession to the Eurozone., Yosif Avramov, Chavzar Nikolov, Gancho Ganchev, ISBN 978-954-92601-4-4
- · Papers and articles in conference proceedings 10;
- Citation in referenced editions 2:
- Citation in unreferred editions 15 (Note: № 5 is an auto-citation);
- Management of doctoral students 1;
- Participation in national projects 3;
- Membership in national organizations 3, BTIB, UBJ, Union of Scientists

In the monograph "Banking Control" (796 pages) the author reviews the banking supervision at home and abroad. The need for banking supervision and internal banking control, which are both sides of banking control, is considered, as well as its role and importance. Some current trends in banking control are also considered, incl. and its influence on bank insolvency, as well as the possibilities for implementation of some control methods and forms of bank control through specialized financial software, such as scoring methods, etc.

The monograph "The Euro - Our Tomorrow's Money" (98 pages) discusses the main advantages of the introduction of the euro for any country wishing to join the Eurozone. A detailed analysis has also been made in a separate chapter of the types of security mechanisms for euro banknotes that the European Central Bank has applied for their issuance. The main contribution of the author is the formulation of proposals for the national side of the eight denominations of the future Bulgarian euro coins.

The book "Functional specifications of electronic platforms for stock exchange trading in innovative products" provides basic knowledge for investment intermediaries, brokers, software specialists and consultants in the field of securities trading. The second part refers to the electronic information and trading platform "Innovation Exchange".

Of the publications more important for the topic of the competition are:

In "The role of the Innovation Council at BTIB for the development of Fintech companies and blockchain technologies in Bulgaria" the author makes a number of proposals to improve the activities of fintech companies in our country.

"The Information System for Management and Monitoring of the EU Structural Instruments in Bulgaria (ISUN)" is considered in some Problems in the Functioning of ISUN in the Management of EU Funds for Modernization and Innovation for Industry under OP Competitiveness".

"The Problems in the Development of the E-Government Project and the Use of EU Funds" discuss the work on the construction of modules of the E-Government project and the upgrading of the information system for management and monitoring of the EU structural instruments in Bulgaria.

In "Innovation Exchange Platform and Virtual Office for Technology Transfer: Two Projects of the Council for Innovation and Technology Development at BTIB and IICT at BAS - a bridge between science, education and business" is presented a new avant-garde project of the Innovation Council at BCCI and website www.inovacii.eu as a virtual platform.

I believe that the monograph, books, publications and citations presented in this way meet the requirements for holding the academic position of "Associate Professor at NBU.

# II. General characteristics of the research, scientific-applied and pedagogical activity of the candidate

The main thematic areas in which the candidate conducts research are as follows:

- Functional specifications of electronic platforms for stock exchange trading in securities and innovative products;
- 2. Implementation of E-Government and impact on financing through EU funds;
- Financial engineering in corporate finance for small and medium business;
- Financial engineering in the public-private partnership, in the banking sphere and in the theory
  of money circulation;
- 5. The electronic system in the tax and customs administration;
- Construction of technology transfer centers and start-up hubs for development of innovation infrastructure
- 7. Development of Fin Tech companies and blockchain technologies

The candidate's dissertation is on Problems of budget control in the Republic of Bulgaria. Various aspects of these problems are discussed in over 25 articles in Bulgarian specialized periodicals and are the basis of three textbooks for higher and vocational education. Dr. Avramov's research activity is in the field of Financial Engineering and the use of ICT and computer systems in economics and finance.

# III. Evaluation of the scientific and applied activity of the candidate

The documents for Dr. Avramov's participation in the competition characterize him as a researcher (publications), pedagogue (textbooks), implementer (projects), popularizer (editorial boards) and organizer (committees).

## IV. Pedagogical preparation and activity of the candidate

Dr. Yosif Avramov has taught as a part-time lecturer and associate professor at UNIBIT. He has led courses in lectures and exercises in the specialties "Information Technology", "Information Brokerage", "Information Security", "Computer Science", "International Finance" and "European Integration". He has taught three courses in the Master's program: "Stock Exchanges and Securities", "Cooperative Finance" and "European Funds and Financial Engineering - Jeremy and Jessica". At the same university he was the head of the master's theses of four students.

The candidate has taught at the Department of Economics, Industrial Engineering and Management at the Faculty of Economics, Technical University - Sofia in the following disciplines: "Taxes and structure of the tax and social security administration", "Customs duties and structure of the customs administration", "Methodology of customs control". He was the supervisor of 1 master's thesis.

## V. Scientific and applied scientific contributions

The scientific and applied contributions of the candidate are grouped as follows:

- 1. Creation of new methods:
- A new approach in the analysis of the impact of the future E-government and in particular of the ISUN and SIBILA systems on the public and corporate beneficiaries of EU funds in the Republic of Bulgaria;
- Proposal for development of new ways for financing the small and medium business in our country as a result of research of ICT and financial engineering in the field of corporate finance, respectively in the financing of small and medium business;
- Creation of new constructions: Characteristics and analysis of functional specification of a
  completely new platform for electronic exchange (stock exchange trading) of innovations for
  the Republic of Bulgaria and for the other countries of Central and Eastern Europe.
- Obtaining confirmatory facts: Analysis of modern concepts for the application of ICT and financial engineering in the banking sector and the theory of money circulation.
- 4. Contributions to the implementation of methods:
- Proposal for improvement of the legal framework in the field of public-private partnership (PPP)
   for the purpose of application of ICT and financial engineering in PPP;
- The electronic system in the tax and customs administration;
- Building funds for the development of innovation infrastructure;
- Development of new financial and blockchain technologies.

The listed scientific and applied contributions are important for the implementation of new approaches in the fields of innovation and financial engineering in various spheres of economic and social life based on the use of ICT and computer systems and are entirely the work of the applicant or in partnership with ICT specialists.

#### VI. Personal impressions

I have known Dr. Avramov for a long time, mainly through my contacts and interaction

with the BTIB Management Board in connection with some innovative projects.

Dr. Avramov is a member of the Management Board of the BTIB, co-chairman of the Council for Innovation and Energy Efficiency at the BTIB, Deputy Chairman of the National Chamber of Entrepreneurship and Crafts, member of the Monitoring Committee of OP "Innovation and Competitiveness", member of the editorial board of Novo Vreme magazine, a member of the Union of Bulgarian Journalists.

The candidate emerges mainly as an implementer, organizer, pedagogue and promoter. His practical and organizational experience and his business contacts would be very useful for establishing a good interaction between education and business - a task of great importance. His teaching would help to raise the financial culture and eradicate financial illiteracy - also an extremely important task.

#### VII. Conclusion

I evaluate the submitted scientific works of the participant in the competition, his scientific and applied contributions, pedagogical activity and professional development positively. All requirements of Academic Staff Development Act in RB and the Regulations for its implementation are fulfilled. This gives me reason to propose to the Honored Scientific Jury to vote unanimously in favor of the election of Dr. Joseph Avramov Avramov for the academic position of "Associate Professor" in the professional field 5.3. "Communication and Computer Engineering".

September 14th 2020 r.

Sofia

Reviewer:

(Prof. Dr. Dimitar Karastoyanov)