

OPINION

by Assoc. Prof. Delyan Georgiev Genkov, PhD from Technical University –
Gabrovo

for dissertation
of eng. Dimitar Nikolov Todorov
on the subject:

“Methods and Tools for Load Balancing and QoS Enhancement in SDN-
Based Networks”

for the awarding of the educational and scientific degree "doctor"
doctoral program „System programming“
in Research area 5.3. Communication and computer technology

1. Problem actuality

Software-defined networks are an important development of traditional computer networks. They are increasingly widespread in the modern world of information and communication technologies.

Improving the quality of services and balancing the load in computer networks has always been an important task that increases productivity and allows for more efficient use of network resources.

The problem of the dissertation work is relevant and provides prospects for scientific research.

2. Contributions of the dissertation

The abstract formulates a total of six contributions, two of which are classified as scientific, three as applied scientific and one as applied. Based on the content of the abstract, it is not possible to assess in full, but if a new routing algorithm has indeed been developed, giving better results than traditional ones, this claim should be much more clearly defined in the contributions and research in this direction should be continued.

3. Publications

Five publications are presented with the dissertation, four of which are indexed in the global database Scopus. One of the publications is an article in a journal, the rest are reports from international conferences. One of the publications is in Bulgarian, the rest are in English. One of the publications is independent, in the rest the candidate is listed first in the list of authors, which gives grounds to establish the significant contribution of the author to the scientific works. Information is presented on 27 citations of the works, and although this is not a requirement for obtaining the educational and scientific degree "Doctor", it further emphasizes the depth of the research conducted and the value of the results obtained. Publication activity is sufficient and all publications are directly related

to the topic and content of the dissertation.

4. Usability of the results in practice

I believe that the results obtained can be used in practical developments for more efficient use of resources in software-defined networks.

5. Critical notes and recommendations

I have no significant comments or recommendations regarding the presented abstract of the dissertation.

6. Заключение

I believe that the dissertation submitted for review meets the requirements and I give it an overall positive rating.

I propose that doctoral student **Dimitar Nikolov Todorov** be awarded the educational and scientific degree "Doctor" in the scientific specialty 5.3. Communication and Computer Engineering, doctoral program **System programming**.

09.01.2026 г.

Reviewer:

/assoc. prof. D. Genkov,
PhD/