

REVIEW

on the article "Analysis of Thyroid Gland Cytological Images Using Computer Vision", submitted for publication to the journal «International Journal of Open Information Technologies»

Article Title: «Analysis of Thyroid Gland Cytological Images Using Computer Vision».

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1. Title of the article. Conformity of the title of the article to the plan of its development: the title of the article corresponds to the subject of scientific developments carried out by the co-authors, the formulated goal of the study corresponds to the tasks of the study. To achieve the set goal, the work solves the problems of preparing the initial cytological data and applying these data in segmentation and classification tasks.

2. Scientific and theoretical level: The scientific article submitted for review is undoubtedly prepared on a relevant and important topic. The relevance is due to the widespread prevalence of thyroid pathologies in the world. At the same time, it is valuable to increase the speed and accuracy of processing diagnostic medical data, reduce the time for making an accurate diagnosis, digitalize the training processes of highly qualified specialists and personalize treatment.

The purpose of this study is to study ensembles of neural network models suitable with modifications for solving problems of diagnosing thyroid diseases using cytological images.

The literature review is rather sparse, which is compensated by multiple references to sources in other sections of the article. In general, the cited sources allow one to understand the complete picture of the state of the problem at the current moment in time. No omissions of significant sources in the field of using neural network models in cytological analysis of thyroid gland preparations were noted.

When presenting materials and methods, the co-authors describe in detail how segmentation and classification problems are solved for individual types of isolated cells and for their clusters. At the same time, they explain the conditions of the problems and the results with well-chosen graphical examples, constructed tables and graphs.

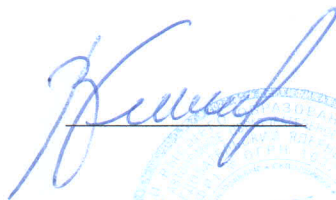
In all sections, the connection between the proposed methods and models and specific medical data is clearly traced.

General conclusion and recommendations. The topic of the article is devoted to a relevant and important problem. The test of the article "Analysis of Thyroid Gland Cytological Images Using Computer Vision" fully satisfies all the requirements for scientific articles, which gives grounds to recommend it for publication in the International Journal of Open Information Technologies.

Reviewer

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