МІНІСТЕРСТВО ОСВІТИ І НАУКИ УКРАЇНИ

ОДЕСЬКА НАЦІОНАЛЬНА АКАДЕМІЯ ХАРЧОВИХ ТЕХНОЛОГІЙ

XI МІЖНАРОДНА НАУКОВО-ПРАКТИЧНА КОНФЕРЕНЦІЯ

ІНФОРМАЦІЙНІ ТЕХНОЛОГІЇ І АВТОМАТИЗАЦІЯ – 2018

Збірник доповідей

Частина II

Одеса,
4-5 жовтня 2018

ЗМІСТ

UDC 621.865.8

YEHOROV V.B., POHLEBINA N.O.
ONAFT (Ukraine)

RECOGNITION OF OBJECTS AND SCOPE OF APPLICATION

The main algorithms of pattern recognition, their application and the possibility of implementation. Methods and methods of application, areas in which there is an urgent need for applications of this technology.

The 21st century is the century of technological progress, the beginning of a new industrial revolution in industry and robotics. The main problem for today is the training of the system and the very recognition itself. It is that machine intelligence without learning can not distinguish any object, it must be trained, given the necessary knowledge and information. The problem of learning the recognition of images is interesting not only from the applied side, but also from the fundamental point of view. From an applied point of view, the solution to this problem is important primarily because it opens the possibility of automating many processes that until now have been associated only with the activity of the living brain. The fundamental importance of the problem is closely connected with the question that increasingly arises in connection with the development of the ideas of cybernetics: what can and what the machine can not fundamentally do? To what extent can the capabilities of the machine be approximated to the capabilities of the living brain? In particular, can a machine develop the ability to learn from a person the ability to perform certain actions depending on the situations that arise in the environment? [1]

As a result of the research the following tasks are solved:

- Analysis of existing methods of creating software tools and selecting the most appropriate ones, evaluating the advantages and disadvantages of each methodology;
- Conduct research on the subject area and choose design technology;
- Develop a software tool for pattern recognition.

The range of tasks that can be solved with the help of recognition systems is extremely wide.

This includes not only the recognition of visual and auditory images, but also the task of recognizing complex processes and phenomena that arise, for example, when choosing the appropriate actions by the head of the enterprise or choosing the optimal management of technological, economic, transport or military operations. In each of these problems, some phenomena, processes, states of the external world are analyzed [2].

The essence of the research is to train the warehouse robot to recognize the details and boxes to speed up the process of issuing the goods to the client at the specialized points of issue of the goods. That will reduce the waiting time for the client, reduce the cost of maintaining staff and will increase the productivity of issuing goods, especially on holidays.

Conclusion. Summing up, we can say that before you start analyzing an object, you need to get a certain information about it in some way or other. Such information is a characteristic of objects, their display on the set of perceiving organs of the recognition system. It is also necessary to take into account external factors that can affect the result of recognition, namely: illumination, the quality of the perception of the camera and of course the complexity of the part.

Literature:

1. Scientific and technological development perspectives of the nearest future – URL: http://iissiidiology.net/en/publications/212-scientific-and-technological-development-perspectives-of-the-nearest-future.

2. What's the Difference Between Artificial Intelligence, Machine Learning, and Deep Learning? URL:https://blogs.nvidia.com/blog/2016/07/29/whats-difference-artificial-intelligence-machine-learning-deep-learning-ai/.

3. Цветков А. А., Шорох Д. К., Зубарева М. Г., Юрсков С. В., Шуклин А. В., Хамуш А. Л., Ануфриев И. Б. Алгоритмы распознавания объектов [Текст] // Технические науки: проблемы и перспективы: материалы IV Междунар. науч. конф. (г. Санкт-Петербург, июль 2016 г.). — СПб.: Свое издательство, 2016. — С. 20-28. — URL https://moluch.ru/conf/tech/archive/166/10825/

4. Теория распознавания образов – URL: ttps://ru.wikipedia.org/wiki/Теория_распознавания_образов

XI МІЖНАРОДНА НАУКОВО-ПРАКТИЧНА КОНФЕРЕНЦІЯ

ІНФОРМАЦІЙНІ ТЕХНОЛОГІЇ І АВТОМАТИЗАЦІЯ – 2018

ОДЕСА
4 – 5 ЖОВТНЯ, 2018

Збірник включає доповіді учасників XI Міжнародної науково-практичної конференції «Інформаційні технології і автоматизація – 2018»

Редакційна колегія: Котлик С.В., Хобін В.А.

Комп'ютерний набір і верстка: Шамрай О.А.

Відповідальний за випуск: Котлик С.В.

ДЛЯ НОТАТОК