to a selected criterion, redistributing these bins evenly according to the gray levels and the ungrouping procedure of previously grouped gray levels.

The simulation of the algorithms was performed in Matlab programming environment. The proposed algorithms have low computational complexity and can enhance the quality in 1.5–2.5 times. A comparative analysis of the results of processing the low-contrast noisy images and an efficiency evaluation of the algorithms were conducted. It has been found that the iterative contrast optimization algorithm is the most efficient algorithm for contrast enhancement.

References

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ACTIVE LEARNING FOR TRAINING SPECIALISTS IN THE FIELD OF WEB TECHNOLOGIES PROTECTION
E.S. Belousova, O.V. Boiprav

From a technical view-point, the web is a highly programmable environment that allows mass customization through the immediate deployment of a large and diverse range of applications, to millions of global users. Two important components of a modern website are flexible web browsers and web applications; both available to all and sundry at no expense.

Security assessment is the key for identifying issues with protection of components and spotting potential attack vectors. Penetration testing by modeling what a real attacker would do against the target system offers a powerful way to obtain such information. This approach provides an unbiased look at the true level of protection against attacks and shows whether a company's security solutions are effective in practice. Therefore, it is important to train specialists in the field of web technologies protection. The discipline «Protecting web resources from unauthorized access» is an integral part of master's training in the specialty 1-98 80 01 «Methods and systems of information protection, information security» and refers to the state component of the cycle of special education disciplines. The experts in the field of web resources protection should possess the skills to find vulnerabilities in web system and eliminate them. For example, laboratory work plan on the topic «Vulnerability of connection Client-Server» should include the active learning methods that the teacher can use to develop students' thinking. Methods «Five minute paper» is used for test of the student preparation to perform laboratory work. The teacher can use methods «Ten-Two Strategy» and «Brainstorm» for developing skills of working in a team, showing initiative and creativity in non-standard situations, proposing directions for improving and developing the used technical means and solutions. The main technology, which should use teacher, is virtualization. Virtualization makes it possible to deploy virtual labs without high-end equipment and resources. Thus, the use of all these active teaching methods will improve the quality of training specialists in the field of information systems protection.

FEATURES OF TEACHING THE SUBJECT «INTRODUCTION TO INFORMATION SECURITY» TO INTERNATIONAL STUDENTS
O.V. Boiprav, E.S. Belousova

The subject «Introduction to information security» refers to the component of the higher education institution «Belarusian state university of informatics and radioelectronics», to the cycle of general professional and special subjects. Subject is taught for freshmen students of the specialty 1-98 01 02 Information security in telecommunications.

As a result of studying the subject, the students should obtain the theoretical knowledge about:
– legal support of information security;
– potential and real vulnerabilities of information systems and networks;
– information security threats classification;
– organizational and technical methods to ensure information security;

The authors propose to use the following approaches to organize for freshmen international students the possibility of these knowledge obtaining.