**Abstract:**

It has been emphasizing the importance of wear products identification during the automotive tribotechnical system operation. Some examples and concepts of combining and applying of computer vision, artificial intelligence, and big data techniques to identify the wear products has presented. Several examples of proposed technology for recognizing wear products are presented. The following algorithm was used to obtain the surface shape of the wear particles. On the original image, an area corresponding to the studied object is allocated. In this case, the high reflectivity of wear particles was used compared with the background and the methods of threshold separation. Then a sharp object diagram (on the basis of which a distance map was calculated) was developed. The distance map has constructed in such way that the brighter the pixel of the image, the closer in this place the surface of the object to the observer. For example, the range map contains information on the shape of the surface of the wear particle. The software of the tribotechnical system was written in the Object Pascal programming language in the Delphi visual programming environment. It has been presented some examples and concepts for combining and applying computer vision, artificial intelligence, and big data techniques to identify wearing products. Further development of the industry and modern technologies will promote the introduction and improvement of such expert technology.