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**INFORMATION TECHNOLOGY AND IMAGE FORMING  
AND PROCESSING IN OUTPUT PUBLISHING SYSTEMS**

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***Research methodology.*** *An image is described by the matrix of values of brightness of discrete elements in a spatial area, and its presentation in area of spatial frequencies will be the matrix got by decomposition of initial matrix of image after a select base. Processing of images is used by the method of decomposition of them in the row of the separate harmonious constituents got with the use of transformation of Fourier.*

***Results.*** *Visualization of Fourier characters of the simplest images in space can report something about an original document, and here the visualization of characters of Fourier of the real images of can be only at certain terms and corresponding choice of parameters of visualization.*

*The comparative analysis of spectrums of images of the looked after objects and structure of background allows to conduct the operation of filtration in a frequency area for moving away of noises in the publishing deferent systems of laser type, and also to the moire with the loss of working out in detail of image.*

***Novelty.*** *We have researched the transformation of binary image in a frequency area by the methods of transformation of Fourier and analyzed the possibility of the automatic updating of sharpness and noises initial images. The general brightness of image diminishes at the filtering-off of overhead spatial frequencies and conduces to the decline of clearness perception of shallow details that gives an opportunity of the automatic updating of image in the laser systems of output.*

***Practical significance.*** *The image sampling will be realized in accordance with the theorem of Nyquist, and the periodic spectrum got after discretization passes through a filter with a rectangular gain-frequency characteristic. The got results of such transformation are the spectrum of the digitized image. An image can be worked over by a method decomposition of them in the row of the separate harmonious constituents got with the use of Fourier transform. The discrete value of spectrum of the digitized image is got as a result.*

*Proceeding in an image comes true from his spectrum by the use of reverse transformation of Fourier.*

*As a result of the DFT calculation for the considered images and calculating the corresponding amplitude spectra, the biggest value of the amplitude belongs to the zero spectral component (constant value). Linear contrast of the amplitude spectrum at getting its picture made up of 256 gradations of brightness leads to the fact that non-zero frequency components that correspond to abrupt changes in brightness, fine detail are poorly visible.*