

The proposed discrete correcting device can be used for correcting dynamic characteristics of automatic control systems, radio engineering systems, and computing devices. The proposed method is based on the presentation of the response of the system element by an operational fractional rational transfer function:

$$W(p) = b_0/(a_0 + a_1 p).$$

The method is distinctive by subtracting the preceding value of the output signal of the element, which is presented by the output signal of an operational amplifier with transfer ratio  $a_0$ , from the input signal of the element, which is presented as the output signal of an operational amplifier with transfer ratio  $b_0$ , multiplying the resulting value by sampling interval  $h$ , which is divided by coefficient  $a_1$  using an operational amplifier with transfer ratio  $h/a_1$ , and adding the multiplication result to the output signal of a memory cell designed for storing the preceding value of signal. The proposed device is distinctive by its versatility, which provides a possibility to synthesize system elements with arbitrary coefficients of the transfer function of the element within a wide range.