

The synthesis of four-bar guidance mechanisms

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ABSTRACT

The paper presents a synthesis method of the four-bar guidance mechanism for path generation, based on the complex representation of the coupler joint position vector using the Fourier transformations. The method originated on one used for analysis of linkages, which is extended to the synthesis of mechanisms. Based on four specified positions of the coupler point, the algorithm to be followed in synthesis of a four-bar mechanism is presented.

Keywords: synthesis of mechanisms, Fourier transformations

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