

■■■平成25年度 第1回統合知能メカトロシステム研究委員会■■■

開催日：平成25年7月5日（金）13：00－14：00

会場：岐阜大学工学部201番教室

<http://www.gifu-u.ac.jp/view.rbz?cd=393>

<http://www.gifu-u.ac.jp/view.rbz?cd=1360>

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題目：ON THE SYNTHESIS OF HYPERBOLOID GEAR DRIVES AND TECHNICAL APPLICATION

参加費：無料

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概要：Hyperboloid drives (spatial skew-axes gears) are used to transform rotation between shafts with non-parallel and non-intersecting axes. In this paper the principles of mathematical modelling of a tooth contact synthesis for this common gearing case are discussed. The presented research shows that synthesis of hyperboloid gear drives can be achieved by application of mathematical model upon a pitch contact point. This approach is applied to the synthesis of spatial gear sets of Spiroid and Helicon types.

In many countries, including Japan, in the last years active researches dedicated to the robot's design have been accomplished. Basic elements of the robot constructions are the actuators. These days, the actuators that consist of an electromotor and reductor drive are widely applied.

The current joint project between Gifu University - Japan and Institute of Mechanics - Bulgarian Academy of Sciences aims to realize an experiment, where a hyperboloid gear drive of type Helicon is incorporated into high-powered robotic hand.