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Proceedings of the 2021 IEEE 5th Colombian Conference on Automatic Control, CCAC 2021 • Pages 163 - 168 • 2021 • 5th IEEE Colombian Conference on Automatic Control, CCAC 2021 • Ibague • 19 October 2021 through 22 October 2021 • Code 175521

Document type

Conference Paper

Source type

Conference Proceedings

ISBN

978-166541883-6

DOI




10.1109/CCAC51819.2021.9633325

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Design, Assembly and Working Modes of Spherical 3-RRR Coaxial Parallel Robot

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Infinite torsional motion generation of a spherical parallel manipulator with coaxial input axes

Tursynbek, I. , Shintemirov, A. (2020) IEEE/ASME International Conference on Advanced Intelligent Mechatronics, AIM

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Design , configuration and operation modes of spherical 3-RRR coaxial parallel robot were performed. A mathematical analysis of the robot was made, which consists of inverse and forward kinematic using geometric and numerical methods respectively, using MATLAB environment. Based on the above, eight possible operation and configuration modes were derived. The proposed approach demonstrates that a unique solution for the specific configuration and operation mode of a coaxial