SOLVING THE INVERSE KINEMATICAL PROBLEM OF A ROBOT ARM BY USING GROEBNER BASIS

Title	SOLVING THE INVERSE KINEMATICAL PROBLEM OF A ROBOT ARM BY USING GROEBNER BASIS
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Abstract	ABSTRACT. The inverse kinematical problem of a robot arm is a problem to find some appropriate joint configurations for a pair of position and direction of a robot hand which is represented by a polynomial equations system. The system is solved by employing Groebner basis notion. Here, the appropriate joint configurations for a pair of position and direction of the hand of a robot with three segments are obtained.Keywords: inverse kinematical problem, robort am, Groebner basis. ABSTRAK. Masalah kinematika invers lengan robot adalah suatu masalah menentukan konfigurasi bersama yang sesuai untuk pasangan posisi dan arah tangan robot yang dinyatakan oleh suatu sistem polynomial. Sistem ini diselesaikan dengan menggunakan konsep basis Groebner. Di sini, konfigurasi bersama yang sesuai untuk pasangan posisi dan arah tangan robot dengan tiga segmen diperoleh.Kata kunci: masalah kinematika inverse, lengan robot, basis Groebner
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