Robot Analysis And Control

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Introduces the basic concepts of robot manipulation—the fundamental kinematic and dynamic analysis of manipulator arms, and the key techniques for trajectory control and compliant motion control. Material is supported with abundant examples adapted from successful industrial practice or advanced research topics. Includes carefully devised conceptual diagrams, discussion of current research topics with references to the latest publications, and end-of-book problem sets.

Appendixes. Bibliography.

This is the book nicely describing kinematics, statics, and dynamics of manipulators. There is a strong mathematics tool used but very understandable. I recommend the books to students or teachers of kinematics for its nice mathematical description. I wish to find the books of the same clarity for other topics I teach.

I used this to review my Lagrangian dynamics for a SCARA robot. It has very clear walkthroughs of Newtonian and Lagrangian analysis of SCARA robots. That is good, but what makes this book great is that it takes the time to spell out, in English, the differences between the two methods and goes so far as to show what elements of the the kinematic equations represent what physical phenomenon.

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