ERRATA CORRIGE

Feasible Command Strategies for the Control of Motion of a Simple Mobile Robot

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Communicated by C. T. Leondes

Abstract. An error in the model of the disk–rod system of Ref. 1 is corrected.

Key Words. Feasible command strategies, rolling disk, controlled pivoted slender rod, nonholonomic constraints, path controllability.

In the above-mentioned paper (Ref. 1), an error has been found in the model of the disk–rod system. Thus, the following corrections have to be made.

- (1) On page 671 (Abstract), page 671 (beginning of Section 1), and page 674 (beginning of Section 2), the phrase “and a controlled slender rod that is pivoted through its endpoint about the disk center” should be replaced by: “and a controlled slender rod that is pivoted through its center of mass about the disk center;” see Fig. 1.
- (2) On page 675, the term $-m_R g(L/2) \sin \theta \sin \psi_2$ should be omitted from Eq. (14).
- (3) On page 675 (end), the phrase “ L is the length of the rod” should be replaced by: “ L is the length of the rod, $L = L_1 + L_2$, see Fig. 1.”
- (4) On page 676, line 5, the expressions for I_{R1} and I_{R3} should be replaced by (see Fig. 1)

$$I_{R1} = I_{R3} = (m_{R1}L_1^2 + m_{R2}L_2^2)/3.$$

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Fig. 1. The disk-rod system.

- (5) On page 676, the term $-m_R g(L/2) \sin \theta \sin \psi_2$ should be omitted from Eq. (15).
- (6) On page 691, the term $+m_R g(L/2) \cos \theta \sin \psi_2$ should be omitted from Eq. (78).
- (7) On page 692, the term $+m_R g(L/2) \sin \theta \cos \psi_2$ should be omitted from Eq. (81).

The feasible command strategies have been computed again using the corrected model. The numerical results showed that the only significant changes were in Figs. 7 and 9–11. The plots of the new figures are omitted here and can be obtained by request from the authors.

References

1. YAVIN, Y., and FRANGOS, C., *Feasible Command Strategies for the Control of Motion of a Simple Mobile Robot*, Journal of Optimization Theory and Applications, Vol. 90, No. 3, pp. 671–692, 1996.