Designing physically realizable state observer for estimating the kinematic parameters of the road train

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Abstract

© Published under licence by IOP Publishing Ltd. In this paper the observability of state variables of the linear dynamic system, describing truck and semitrailer lateral motion on a high constant longitudinal velocity and minor rotation angles of steered wheels, is analyzed. The synthesis of a physically implementable reduced state observer for estimation of immeasurable state variables on the lateral displacement magnitude of the vehicle's frontal part is realized.

References

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