

Research Progress on Dynamic Positioning Offshore Platform-Riser Rigid-Flexible Multibody Systems: Postprint

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Abstract

This paper provides a comprehensive overview of the research status in the field of dynamic positioning marine platform-riser rigid-flexible multibody systems, with emphasis on analyzing core aspects such as system design, control algorithms, rigid-flexible multibody systems, and engineering applications. It introduces the system design of dynamic positioning marine platform-riser rigid-flexible multibody systems, explores the application of various control algorithms in such systems, and examines the specific implementation of rigid-flexible multibody systems in engineering fields. The paper comprehensively analyzes the important achievements obtained in these key areas in recent years, and conducts in-depth discussions on technological development, system design, and control algorithms. It identifies the highlights of current research in the field and existing problems in system design and control algorithms, while also prospecting future development directions, thereby providing valuable references and guidance for the future development of dynamic positioning marine platform-riser rigid-flexible multibody systems.

Full Text

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