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Nonlinear control of tracked autonomous vehicles -- 3.2 Nonlinear control of the autonomous articulated fire-truck -- 3.3 Nonlinear control of the truck and N-trailer system -- 3.4 Nonlinear control of the ball-bot autonomous robot -- 3.5 Nonlinear control of the ball-and-plate dynamical system -- 3.6 Nonlinear control of 3-DOF unmanned surface vessels -- 3.7 Nonlinear control of the 3-DOF autonomous underwater vessel -- 3.8 Nonlinear control of the vertical take-off and landing aircraft -- 3.9 Nonlinear control of aerial manipulators -- 3.10 Nonlinear control of the 6-DOF autonomous octocopter.
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6.10 Estimation of PDE dynamics of the highway traffic -- 6.11 Estimation of the PDE dynamics of a cable-suspended bridge -- Epilogue -- Glossary -- References -- Index.

Sommario/riassunto

In this comprehensive reference, the authors present new and innovative control and estimation methods based on dynamical nonlinear and partial differential equation systems, which are used in solving control problems such as stability and robustness issues in robotics, mechatronics, and other engineering applications.