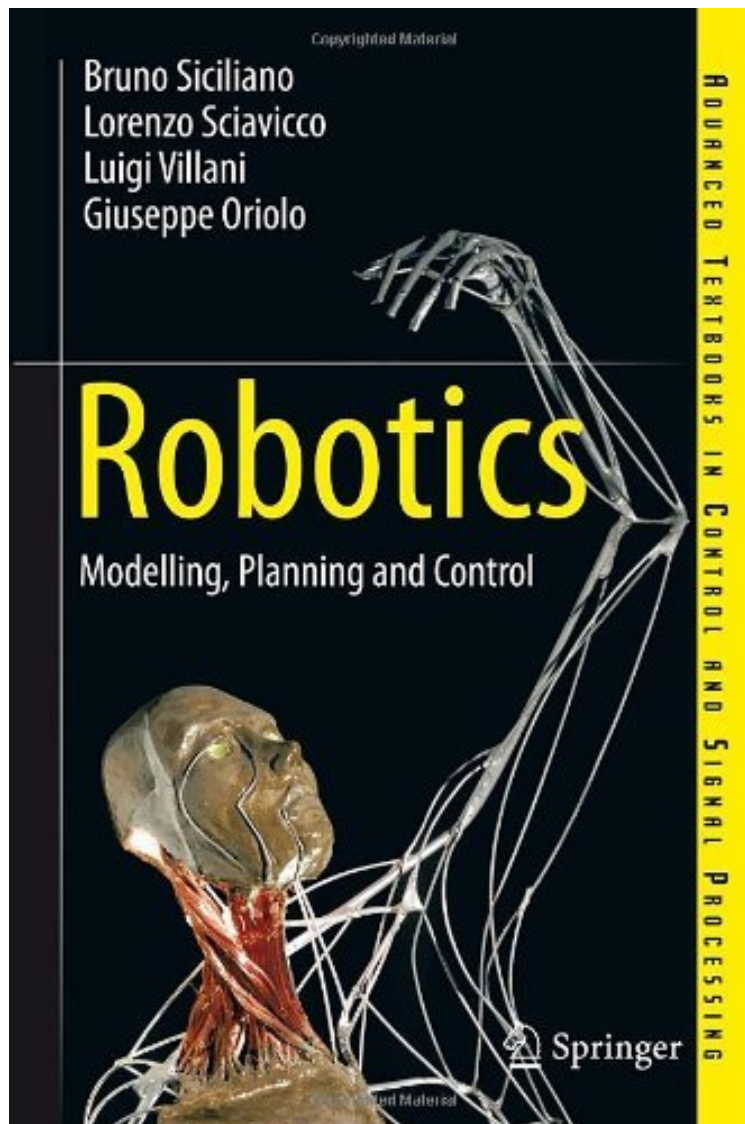


(Mobile ebook) Robotics: Modelling, Planning and Control (Advanced Textbooks in Control and Signal Processing)

Robotics: Modelling, Planning and Control (Advanced Textbooks in Control and Signal Processing)

Von Bruno Siciliano, Lorenzo Sciavicco, Luigi Villani, Giuseppe Oriolo
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Von Bruno Siciliano, Lorenzo Sciavicco, Luigi Villani, Giuseppe Oriolo : Robotics: Modelling, Planning and Control (Advanced Textbooks in Control and Signal Processing) before purchasing it in order to gage whether or not it would be worth my time, and all praised Robotics: Modelling, Planning and Control (Advanced Textbooks in Control and Signal Processing):

Kundenrezensionen
Hilfreichste Kundenrezensionen
1 von 1 Kunden fanden die folgende Rezension hilfreich.
Breitgefchert, tiefgehend, umfangreich
Von Ingeniarius K. Ich benutze dieses Buch als Ergänzung zu dem Standardwerk "Robot Modeling and Control" von Mark W. Spong. Ich würde dieses Werk weder als genial gegliedert, noch als schnrkellos und super verständlich bezeichnen. Dennoch bekommt es 5 Sterne von mir, denn: - Man findet alle Themen, alle Aspekte der einzelnen Problemstellungen, und alle geeigneten Methoden der Robotik. - Die Mathematik dieses Buches ist umfangreich, tiefgehend, korrekt und genau. - Das Werk ist eine hervorragende Alternative zu dem sehr teuren "Handbook of Robotics" desselben Verfassers. - Wer ohnehin fundierte Kenntnisse im Ingenieurwesen hat, kommt mit dem Umfang, mit der Komplexität und auch mit der "Unübersichtlichkeit" klarkommen.

Kurzbeschreibung
Based on the successful Modelling and Control of Robot Manipulators by Sciavicco and Siciliano (Springer, 2000), Robotics provides the basic know-how on the foundations of robotics: modelling, planning and control. It has been expanded to include coverage of mobile robots, visual control and motion planning. A variety of problems is raised throughout, and the proper tools to find engineering-oriented solutions are introduced and explained. The text includes coverage of fundamental topics like kinematics, and trajectory planning and related technological aspects including actuators and sensors. To impart practical skill, examples and case studies are carefully worked out and interwoven through the text, with frequent resort to simulation.

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Robotics: Modelling, Planning and Control is a book that comprehensively covers all aspects of robotic fundamentals. It is particularly an excellent text for graduate educators, as it covers the fundamentals of the field with a rigorous formalism that is well blended with the technological aspects of robotics. The text covers in detail the theory of manipulators and wheeled robots starting with kinematics, dynamics and motion control, as well interaction with the environment through perception - force and vision sensors. The book is written by technical authorities in the field, and will be in invaluable addition to graduate education as well as a useful guide for industrial practitioners.

Alexander Zelinsky, CSIRO, Australia
Robotics is a diverse field bringing together disparate areas from computer science, electrical engineering and mechanical engineering. This book is an integrative but rigorous treatment of all the relevant concepts, with an eye toward modern, practical applications making it an excellent choice for a first year graduate course in robotics.

Vijay Kumar, University of Pennsylvania
This book provides rock-solid foundations for the study of classical mechanics and control of robots, with the authoritative character of a reference where you can surely find the correct expression and the rigorous derivation of the results you need. On top of this, new chapters on motion planning, visual servoing, and mobile robot control provide support to teaching wider and more interdisciplinary aspects of robotics, and open up vistas that will certainly inspire a new generation of scholars to embrace this incredibly rich and fertile research field.

Antonio Bicchi, University of Pisa, Italy
This book offers a well-balanced and intellectually satisfying treatment of robot mechanics, planning, and control from the choice and sequence of topics, to the level of detail in the analysis, and the clear connections made between the latest technologies and the theoretical foundations of robotics, this book is an essential element in the library of every aspiring young robotics researcher.

Frank Chongwoo Park, Seoul National University
Robotics: Modeling, Planning and Control is a historiography from the materialistic view of robotics. Authors clearly explain physical and mathematical foundation to understand the most up-to-date robotics, so faithfully to bibliography and terminology in robotics. Unquestionably, the best textbook for senior students and graduate students and the closest reference book for engineers and scientists!

Yoshihiko Nakamura, University of Tokyo
Exceptional! A text with such a span of robotics fundamentals and advanced research in both manipulation and mobility, and a treatment that creatively balances mathematical depth and physical intuition a fresh and certainly unique reference for researchers and engineers in the field of robotics.

Oussama Khatib, Stanford University
Certainly because of its youth, robotics is not always considered as a discipline as such. It is often introduced as a technological "area" integrating various aspects of mechanics, automatic control and computer science. Such a dispersed view is prejudicial for students. The book by Siciliano et al. achieves the introduction of the basic concepts in a coherent, self-contained and didactic way. In that sense, when reading Robotics: Modelling, Planning and Control the reader from the undergraduate student to the researcher understands that a new discipline is born, with its own foundations.

Jean-Paul Laumond, LAAS-CNRS
Kurzbeschreibung
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