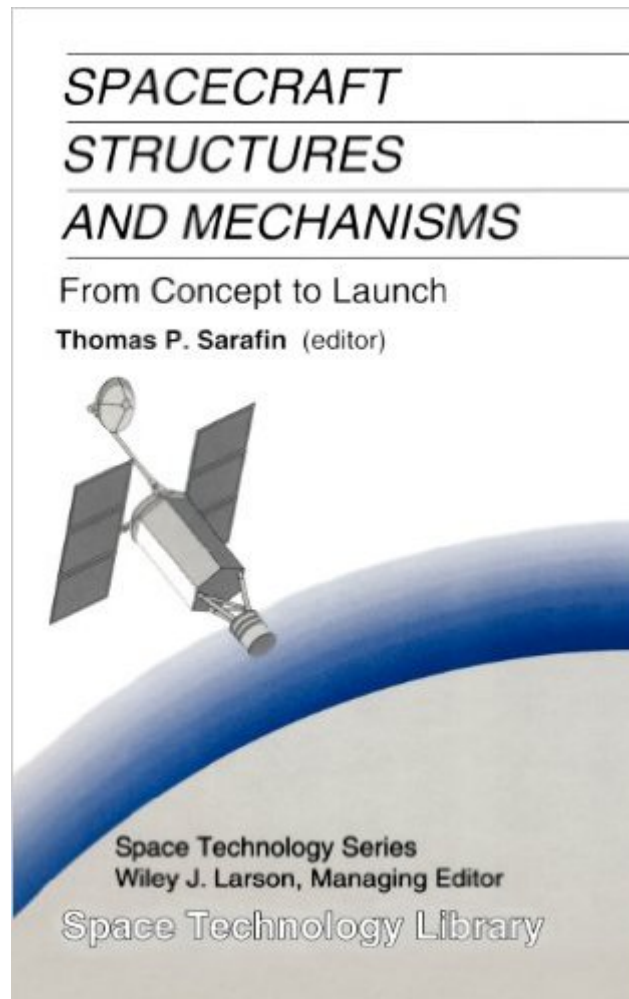


The book was found

Spacecraft Structures And Mechanisms: From Concept To Launch (Space Technology Library)



Synopsis

Spacecraft Structures and Mechanisms describes the integral process of developing cost-effective, reliable structures and mechanical products for space programs. Processes are defined, methods are described and examples are given. It has been written by 24 engineers in the space industry, who cover the themes of (1) ensuring a successful mission, and (2) reducing total cost through good designs and intelligent risk management. Topics include: Introduction and requirements (development process, requirements documentation, requirements definition, space mission environments); Analysis (statics, dynamics and load analysis, fatigue and fracture mechanics, mechanics of materials, strength analysis, heat transfer and thermal effects); Verification and quality assurance (verification planning, structural, mechanical and environmental testing, quality assurance and configuration control, compliance documentation, structural reliability analysis, verification criteria - factors of safety, margins of safety, fracture control, test options); Design (spacecraft configuration development, finite element analysis, mechanism development, designing for producibility, structural design, materials, designing to control loads, load cycles, sensitivity analysis); Final verification (model correlation, risk management, launch readiness reviews). For system engineers, mechanical designers, stress analysts, dynamics and load analysts, technical leads, program managers.

Book Information

Series: Space Technology Library (Book 4)

Hardcover: 850 pages

Publisher: Springer; 1995 edition (May 31, 1995)

Language: English

ISBN-10: 0792334760

ISBN-13: 978-0792334767

Product Dimensions: 6.1 x 1.8 x 9.2 inches

Shipping Weight: 2.8 pounds

Average Customer Review: 5.0 out of 5 stars [See all reviews](#) (2 customer reviews)

Best Sellers Rank: #2,369,664 in Books (See Top 100 in Books) #101 in [Books > Engineering & Transportation > Engineering > Civil & Environmental > Structural Dynamics](#) #216 in [Books > Engineering & Transportation > Engineering > Aerospace > Propulsion Technology](#) #251 in [Books > Engineering & Transportation > Automotive > Repair & Maintenance > Vehicle Design & Construction](#)

Customer Reviews

This book is a must for anyone involved with spacecraft structures and mechanisms engineering. Well written, with plenty of practical, real world spacecraft information, and a good amount of theoretical/analysis info. I think this is the only book of its kind. Written by real experts in the field, who obviously know what they are doing! Explains design, analysis, testing, and even nails down such things acceptance and qualification testing philosophies. The book is biased towards the structures side as this constitutes 3/4 of the text. Congratulations to all who contributed to this classical book!

Chapter 16 is amazing. James D. Christensen is amazing. He must be a genius. It is the best chapter of the book. Everything in this chapter is presented clearly and concisely. Overall the book is very useful, but Chapter 16 stands head and shoulders above the rest

[Download to continue reading...](#)

Spacecraft Structures and Mechanisms from Concept to Launch (The Space Technology Library, Vol. 4) Spacecraft Structures and Mechanisms: From Concept to Launch (Space Technology Library) DIY Instruments for Amateur Space: Inventing Utility for Your Spacecraft Once It Achieves Orbit Space Mission Analysis and Design, 3rd edition (Space Technology Library, Vol. 8) Introduction to Podcast Technology: Discover the essential tools and techniques you need to record, produce and launch your podcast Advanced Organic Chemistry: Part A: Structure and Mechanisms: Structure and Mechanisms Pt. A Percutaneous Absorption: Drugs--Cosmetics--Mechanisms--Methodology: Drugs--Cosmetics--Mechanisms--Methodology, Third Edition, (Drugs and the Pharmaceutical Sciences) Schaechter's Mechanisms of Microbial Disease (Mechanisms of Microbial Disease (Schaechter)) Laser Space Communications (Artech House Space Technology and Applications) National Regulation of Space Activities (Space Regulations Library) Implosion: Lessons from National Security, High Reliability Spacecraft, Electronics, and the Forces Which Changed Them Fun with Spacecraft Stencils (Dover Stencils) Spacecraft Thermal Control Handbook, Volume I: Fundamental Technologies Applied Signal Processing: A MATLABTM-Based Proof of Concept (Signals and Communication Technology (Paperback)) Autonomous Vehicle Technology: A Guide for Policymakers (Transportation, Space, and Technology Program) The Short Screenplay: Your Short Film from Concept to Production (Aspiring Filmmaker's Library) Satellite Communications Fundamentals (Artech House space technology & applications library) Handbook of Geostationary Orbits (Space Technology Library)

Launch: Using Design Thinking to Boost Creativity and Bring Out the Maker in Every Student Web Designer's Guide to WordPress: Plan, Theme, Build, Launch (Voices That Matter)

[Dmca](#)