

System Analysis Design 4th Edition

The 4th edition of this book has been updated to meet the new requirements of the students, professors, and practitioners.

This is an enhanced version of the earlier editions. To update and enhance the coverage of the book, many chapters have been restructured, and some new content/chapters have also been added. In addition, to have better engagement and learning outcomes for the reader, certain new pedagogical features have also been added. NEW IN THIS EDITION • A new chapter on ‘Ethical and Social Issues’ • Applications using MS-Access in the upgraded Chapter 5 – Data Resource Management • Concepts on organisations in Chapter 2 – Information, Systems and Organisation Concepts • Concepts of e-Governance in chapter 7 – e-Commerce, e-Business and e-Governance • Some latest trends and concepts in Chapter 4 – IT Infrastructure • Concepts on Project Management in chapter 12 – IS development and Project Management KEY FEATURES • Some new cases have been added, and various case studies from the earlier edition have been updated • New pedagogical elements, such as Objective-type Questions, True/False Questions, Review Questions and Assignments have been added in chapters • Glossary has also been incorporated to get a quick understanding of the terms used in the book • Instructor support has been added on the web through Online Resources

This is the eagerly-anticipated revision to one of the seminal books in the field of software architecture which clearly defines and explains the topic.

The Latest Resource for the Study of Antenna Theory! In a discipline that has experienced vast technological changes,

*this text offers the most recent look at all the necessary topics. Highlights include: * New coverage of microstrip antennas provides information essential to a wide variety of practical designs of rectangular and circular patches, including computer programs. * Applications of Fourier transform (spectral) method to antenna radiation. * Updated material on moment methods, radar cross section, mutual impedances, aperture and horn antennas, compact range designs, and antenna measurements. A New Emphasis on Design! Balanis features a tremendous increase in design procedures and equations. This presents a solid solution to the challenge of meeting real-life situations faced by engineers. Computer programs contained in the book-and accompanying software-have been developed to help engineers analyze, design, and visualize the radiation characteristics of antennas. The leading text in the field explains step by step how to write software that responds in real time From power plants to medicine to avionics, the world increasingly depends on computer systems that can compute and respond to various excitations in real time. The Fourth Edition of Real-Time Systems Design and Analysis gives software designers the knowledge and the tools needed to create real-time software using a holistic, systems-based approach. The text covers computer architecture and organization, operating systems, software engineering, programming languages, and compiler theory, all from the perspective of real-time systems design. The Fourth Edition of this renowned text brings it thoroughly up to date with the latest technological advances and applications. This fully updated edition includes coverage of the following concepts: Multidisciplinary design challenges Time-triggered architectures Architectural advancements*

Automatic code generation Peripheral interfacing Life-cycle processes The final chapter of the text offers an expert perspective on the future of real-time systems and their applications. The text is self-contained, enabling instructors and readers to focus on the material that is most important to their needs and interests. Suggestions for additional readings guide readers to more in-depth discussions on each individual topic. In addition, each chapter features exercises ranging from simple to challenging to help readers progressively build and fine-tune their ability to design their own real-time software programs. Now fully up to date with the latest technological advances and applications in the field, Real-Time Systems Design and Analysis remains the top choice for students and software engineers who want to design better and faster real-time systems at minimum cost.

Systems Analysis and Design

Linear System Theory and Design

INCOSE Systems Engineering Handbook

An Engineer's Handbook

Software Architecture in Practice

The fourth edition of Object- Oriented Systems Analysis and Design has been revised and updated to reflect the most up-to-date approaches to information systems development. Still a best-seller in its field, Bennett's, McRobb's and Farmer's text remains a key teaching resource for Systems Analysis and Design courses at both undergraduate and postgraduate level. The book provides a clear, practical framework for development that uses all the major techniques from UML 2.2. It follows an iterative and incremental approach based on the

industry-standard Unified Process, placing systems analysis and design in the context of the whole systems lifestyle. Structured in four parts, the first provides the background to information systems analysis and design and to object-orientation. The second part focuses on the activities of requirements gathering and systems analysis, as well as the basic notation of UML. Part three covers the activities of systems architecture and design, and UML notation for object design, and the book concludes with the implementation of systems and the issues of how the systems life cycle is organized and how reusable components can be developed.

eBook: Object-Oriented Systems Analysis 4e Systems Analysis and Design, Video Enganced International Edition offers a practical, visually appealing approach to information systems development.

This textbook gives a hands-on, practical approach to system analysis and design within the framework of the systems development life cycle. The fifth edition now includes an additional CD-ROM.

Preparing for Success in Healthcare Information and Management Systems
Systems Analysis and Design in a Changing World Using UML

Accounting Information Systems
Systems Analysis and Design, 4th Edition

A detailed and thorough reference on the

discipline and practice of systems engineering
The objective of the International Council on Systems Engineering (INCOSE) Systems Engineering Handbook is to describe key process activities performed by systems engineers and other engineering professionals throughout the life cycle of a system. The book covers a wide range of fundamental system concepts that broaden the thinking of the systems engineering practitioner, such as system thinking, system science, life cycle management, specialty engineering, system of systems, and agile and iterative methods. This book also defines the discipline and practice of systems engineering for students and practicing professionals alike, providing an authoritative reference that is acknowledged worldwide. The latest edition of the INCOSE Systems Engineering Handbook: Is consistent with ISO/IEC/IEEE 15288:2015 Systems and software engineering—System life cycle processes and the Guide to the Systems Engineering Body of Knowledge (SEBoK) Has been updated to include the latest concepts of the INCOSE working groups Is the body of knowledge for the INCOSE Certification Process This book is ideal for any engineering professional who has an interest in or needs to apply systems engineering practices. This includes the experienced systems engineer who needs a convenient reference, a product engineer or engineer in another discipline who needs to perform systems engineering, a new systems engineer, or anyone interested in

learning more about systems engineering. Striking a balance between theory and applications, Linear System Theory and Design, International Fourth Edition, uses simple and efficient methods to develop results and design procedures that students can readily employ. Ideal for advanced undergraduate courses and first-year graduate courses in linear systems and multivariable system design, it is also a helpful resource for practicing engineers. In any software design project, the analysis of stage documenting and designing of technical requirements for the needs of users is vital to the success of the project. This book provides a thorough introduction and survey on all aspects of analysis, including design of E-commerce systems, and how it fits into the software engineering process. The material is based on successful professional courses offered at Columbia University to a diverse audience of advanced students and professionals. An emphasis is placed on the stages of analysis and the presentation of many alternative modeling tools that an analyst can utilise. Particular attention is paid to interviews, modeling tools, and approaches used in building effective web-based E-commerce systems.

The 4th edition of Systems Analysis and Design continues to offer a hands-on approach to SA&D while focusing on the core set of skills that all analysts must possess. Building on their experience as professional systems analysts and award-winning teachers, authors Dennis,

Wixom, and Roth capture the experience of developing and analyzing systems in a way that students can understand and apply. With Systems Analysis and Design, 4th edition, students will leave the course with experience that is a rich foundation for further work as a systems analyst.

**Object-oriented Systems Analysis and Design
Concepts, Principles, and Practices
Analysis and Design
Facilities Design
Computer Systems**

For courses in Systems Analysis and Design, Structured A clear presentation of information, organised around the systems development life cycle model This briefer version of the authors' highly successful Modern System Analysis and Design is a clear presentation of information, organised around the systems development life cycle model. Designed for courses needing a streamlined approach to the material due to course duration, lab assignments, or special projects, it emphasises current changes in systems analysis and design, and shows the concepts in action through illustrative fictional cases. The full text downloaded to your computer With eBooks you can: search for key concepts, words and phrases make highlights and notes as you study share your notes with friends eBooks are downloaded to your computer and accessible either offline through the Bookshelf (available as a free download), available online and also via the iPad and Android apps. Upon purchase, you'll gain instant access to this eBook. Time limit The eBooks products do not have an expiry date. You will continue to access your digital ebook products whilst you have your Bookshelf installed.

Praise for the first edition: "This excellent text will be useful to every system engineer (SE) regardless of the domain. It covers ALL relevant SE material and does so in a very clear,

methodical fashion. The breadth and depth of the author's presentation of SE principles and practices is outstanding.”
–Philip Allen *This textbook presents a comprehensive, step-by-step guide to System Engineering analysis, design, and development via an integrated set of concepts, principles, practices, and methodologies. The methods presented in this text apply to any type of human system -- small, medium, and large organizational systems and system development projects delivering engineered systems or services across multiple business sectors such as medical, transportation, financial, educational, governmental, aerospace and defense, utilities, political, and charity, among others. Provides a common focal point for “bridging the gap” between and unifying System Users, System Acquirers, multi-discipline System Engineering, and Project, Functional, and Executive Management education, knowledge, and decision-making for developing systems, products, or services Each chapter provides definitions of key terms, guiding principles, examples, author’s notes, real-world examples, and exercises, which highlight and reinforce key SE&D concepts and practices*
Addresses concepts employed in Model-Based Systems Engineering (MBSE), Model-Driven Design (MDD), Unified Modeling Language (UMLTM) / Systems Modeling Language (SysMLTM), and Agile/Spiral/V-Model Development such as user needs, stories, and use cases analysis; specification development; system architecture development; User-Centric System Design (UCSD); interface definition & control; system integration & test; and Verification & Validation (V&V)
Highlights/introduces a new 21st Century Systems Engineering & Development (SE&D) paradigm that is easy to understand and implement. Provides practices that are critical staging points for technical decision making such as Technical Strategy Development; Life Cycle requirements; Phases, Modes, & States; SE Process; Requirements Derivation; System Architecture Development, User-Centric System Design (UCSD);

Engineering Standards, Coordinate Systems, and Conventions; et al. Thoroughly illustrated, with end-of-chapter exercises and numerous case studies and examples, Systems Engineering Analysis, Design, and Development, Second Edition is a primary textbook for multi-discipline, engineering, system analysis, and project management undergraduate/graduate level students and a valuable reference for professionals.

Digital Control System Analysis and Design Systems Analysis and Design John Wiley & Sons

Acknowledgments. Basic Real-Time Concepts. Computer Hardware. Languages Issues. The Software Life Cycle. Real-Time Specification and Design Techniques. Real-Time Kernels. Intertask Communication and Synchronization. Real-Time Memory Management. System Performance Analysis and Optimization. Queuing Models. Reliability, Testing, and Fault Tolerance. Multiprocessing Systems. Hardware/Software Integration. Real-Time Applications. Glossary. Bibliography. Index.

Management Information Systems: Managerial Perspectives, 4th Edition

Analysis and Design of Information Systems

System Engineering Analysis, Design, and Development Controls and Processes

Essentials of Systems Analysis and Design, Global Edition

An updated guide to GNSS, and INS, and solutions to real-world GNSS/INS problems with Kalman filtering Written by recognized authorities in the field, this third edition of a landmark work provides engineers, computer scientists, and others with a working familiarity of the theory and contemporary applications of Global Navigation Satellite Systems (GNSS), Inertial Navigational Systems, and Kalman filters. Throughout, the focus is on solving real-world problems, with an emphasis on the effective use of

state-of-the-art integration techniques for those systems, especially the application of Kalman filtering. To that end, the authors explore the various subtleties, common failures, and inherent limitations of the theory as it applies to real-world situations, and provide numerous detailed application examples and practice problems, including GNSS-aided INS (tightly and loosely coupled), modeling of gyros and accelerometers, and SBAS and GBAS. Drawing upon their many years of experience with GNSS, INS, and the Kalman filter, the authors present numerous design and implementation techniques not found in other professional references. The Third Edition includes:

- Updates on the upgrades in existing GNSS and other systems currently under development**
- Expanded coverage of basic principles of antenna design and practical antenna design solutions**
- Expanded coverage of basic principles of receiver design and an update of the foundations for code and carrier acquisition and tracking within a GNSS receiver**
- Expanded coverage of inertial navigation, its history, its technology, and the mathematical models and methods used in its implementation**
- Derivations of dynamic models for the propagation of inertial navigation errors, including the effects of drifting sensor compensation parameters**
- Greatly expanded coverage of GNSS/INS integration, including derivation of a unified GNSS/INS integration model, its MATLAB® implementations, and performance evaluation under simulated dynamic conditions**

The companion website includes updated background material; additional MATLAB scripts for simulating GNSS-only and integrated GNSS/INS navigation; satellite position

determination; calculation of ionosphere delays; and dilution of precision.

Following on from the hugely successful previous editions, the third edition of Spacecraft Systems Engineering incorporates the most recent technological advances in spacecraft and satellite engineering. With emphasis on recent developments in space activities, this new edition has been completely revised. Every chapter has been updated and rewritten by an expert engineer in the field, with emphasis on the bus rather than the payload.

Encompassing the fundamentals of spacecraft engineering, the book begins with front-end system-level issues, such as environment, mission analysis and system engineering, and progresses to a detailed examination of subsystem elements which represent the core of spacecraft design - mechanical, electrical, propulsion, thermal, control etc.

This quantitative treatment is supplemented by an appreciation of the interactions between the elements, which deeply influence the process of spacecraft systems design. In particular the revised text includes * A new chapter on small satellites engineering and applications which has been contributed by two internationally-recognised experts, with insights into small satellite systems engineering. * Additions to the mission analysis chapter, treating issues of aero-manoeuvring, constellation design and small body missions. In summary, this is an outstanding textbook for aerospace engineering and design students, and offers essential reading for spacecraft engineers, designers and research scientists. The comprehensive approach provides an invaluable resource to spacecraft manufacturers and agencies across the world.

**There is no shortage of lens optimization software on the market to deal with today's complex optical systems for all sorts of custom and standardized applications. But all of these software packages share one critical flaw: you still have to design a starting solution. Continuing the bestselling tradition of the author's previous books, Lens Design, Fourth Edition is still the most complete and reliable guide for detailed design information and procedures for a wide range of optical systems. Milton Laikin draws on his varied and extensive experience, ranging from innovative cinematographic and special-effects optical systems to infrared and underwater lens systems, to cover a vast range of special-purpose optical systems and their detailed design and analysis. This edition has been updated to replace obsolete glass types and now includes several new designs and sections on stabilized systems, the human eye, spectrographic systems, and diffractive systems. A new CD-ROM accompanies this edition, offering extensive lens prescription data and executable ZEMAX files corresponding to figures in the text. Filled with sage advice and completely illustrated, Lens Design, Fourth Edition supplies hands-on guidance for the initial design and final optimization for a plethora of commercial, consumer, and specialized optical systems. Computer Architecture/Software Engineering
Quality by Experimental Design
Structured Walkthroughs
eBook: Object-Oriented Systems Analysis 4e
Lens Design**

Power System: Analysis And Design, 4th Edition

The new edition of POWER SYSTEM ANALYSIS AND DESIGN

provides students with an introduction to the basic concepts of power systems along with tools to aid them in applying these skills to real world situations. Physical concepts are highlighted while also giving necessary attention to mathematical techniques. Both theory and modeling are developed from simple beginnings so that they can be readily extended to new and complex situations. The authors incorporate new tools and material to aid students with design issues and reflect recent trends in the field. Important Notice: Media content referenced within the product description or the product text may not be available in the ebook version.

Simulation is integral to the successful design of modern radar systems, and there is arguably no better software for this purpose than MATLAB. But software and the ability to use it does not guarantee success. One must also:

Understand radar operations and design philosophy
Know how to select the radar parameters to meet the design req
Now in Its Fourth Edition: Your Guide to Successful Facility Design
Overcome design and planning problems using the fourth edition of Facilities Design. Dedicated to the proper design, layout, and location of facilities, this definitive guide outlines the main design and operational problems that occur in manufacturing and service systems, explains the significance of facility design and planning problems, and describes how mathematical models can be used to help analyze and solve them. Combining theory with practice, this revised work presents state-of-the-art topics in materials handling, warehousing, and logistics along with real-world examples that emphasize the importance of modeling and analysis when determining a solution to complex facility design problems. What 's New in the Fourth Edition: The latest version introduces new material that includes handling equipment and systems, and presents relevant case studies

in each and every chapter. It also provides access to Layout-iQ software, data files for many of the numerical examples that are contained throughout the book, and PowerPoint files for various chapters. Additionally, the author: Describes tools commonly used for presenting layout designs Presents traditional models for facility layout including the popular systematic layout planning (SLP) model in detail Provides a layout project involving the SLP model Covers group technology and cellular manufacturing at the elementary level Includes a project and case study on machine grouping and layout Considers next-generation factory layouts Discusses analytical queuing and queuing network models, and more Facilities Design, Fourth Edition explains the ins and outs of facility planning and design. A reference for both student and professional, the book addresses facilities design and layout problems in manufacturing systems and covers layout, logistics, supply chain, warehousing, and materials handling. Please visit the author ' s website for ancillary materials: <http://sundere.okstate.edu/downloadable-software-programs-and-data-files>.

Introduction; The mechanic of walkthroughs; The psychology of walkthroughs; Management's role in walkthroughs.

Computer Organization and Design

MATLAB Simulations for Radar Systems Design

The Hardware/Software Interface

Antenna Theory

Solutions Manual

The 4th edition of Systems Analysis and Design continues to offer a hands-on approach to SA & D while focusing on the core set of skills that all analysts must possess. Building on their experience as professional systems analysts and award-winning teachers, authors Dennis, Wixom, and Roth capture

the experience of developing and analyzing systems in a way that students can understand and apply. With Systems Analysis and Design, 4th edition, students will leave the course with experience that is a rich foundation for further work as a systems analyst. Accounting Information Systems provides a comprehensive knowledgebase of the systems that generate, evaluate, summarize, and report accounting information. Balancing technical concepts and student comprehension, this textbook introduces only the most-necessary technology in a clear and accessible style. The text focuses on business processes and accounting and IT controls, and includes discussion of relevant aspects of ethics and corporate governance. Relatable real-world examples and abundant end-of-chapter resources reinforce Accounting Information Systems (AIS) concepts and their use in day-to-day operation. Now in its fourth edition, this popular textbook explains IT controls using the AICPA Trust Services Principles framework—a comprehensive yet easy-to-understand framework of IT controls—and allows for incorporating hands-on learning to complement theoretical concepts. A full set of pedagogical features enables students to easily comprehend the material, understand data flow diagrams and document flowcharts, discuss case studies and examples, and successfully answer end-of-chapter questions. The book's focus on ease of use, and its straightforward presentation of business processes and related controls, make it an ideal primary text for business or accounting students in AIS courses.

Refined and streamlined, SYSTEMS ANALYSIS AND DESIGN IN A CHANGING WORLD, 7E helps students develop the conceptual, technical, and managerial foundations for systems analysis design and implementation as well as project management principles for systems development. Using case driven techniques, the succinct 14-chapter text focuses on content that is key for success in today's market. The authors' highly effective presentation teaches both traditional (structured) and object-oriented (OO) approaches to systems analysis and design. The book highlights use cases, use diagrams, and use case descriptions required for a modeling approach, while demonstrating their application to traditional, web development, object-oriented, and service-oriented architecture approaches. The Seventh Edition's refined sequence of topics makes it easier to read and understand than ever. Regrouped analysis and design chapters provide more flexibility in course organization. Additionally, the text's running cases have been completely updated and now include a stronger focus on connectivity in applications.

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Comprising a compendium of ergonomics methods and techniques, this text covers every aspect of human work. This edition provides a reworking of existing chapters on the framework and context of methodology, the observation of performance, task analysis, experimental and study design, data

collection, product assessment, environmental assessments, measurement of work and the evaluation of work systems. New chapters cover topics including: the human-computer interface; computer-aided design; work stress; psychophysiological function; risk evaluation; fieldwork; and participatory work design.

CPHIMS Review Guide

*A Guide for System Life Cycle Processes and Activities
Systems Analysis and Design with UML*

Spacecraft Systems Engineering

Systems Analysis and Design with UML, 4th Edition

*Achieve Technological Advancements in Applied Science and
Engineering Using Efficient Experiments That Consume the Least
Amount of Resources* Written by longtime experimental design guru

*Thomas B. Barker and experimental development/Six Sigma expert
Andrew Milivojevich, Quality by Experimental Design, Fourth*

*Edition shows how to design and analyze experiments statistically,
drive process and product innovation, and improve productivity.*

*The book presents an approach to experimentation that assesses
many factors, builds predictive models, and verifies the models.*

*New to the Fourth Edition Updated computer programs used to
perform simulations, including the latest version of Minitab® Four*

*new chapters on mixture experiments: Introduction to Mixture
Experiments, The Simplex Lattice Design, The Simplex Centroid*

*Design, and Constrained Mixtures Additional exercises and Minitab
updates A Proven, Practical Guide for Newcomers and Seasoned*

*Practitioners in Engineering, Applied Science, Quality, and Six
Sigma This bestselling, applied text continues to cover a broad*

*range of experimental designs for practical use in applied research,
quality and process engineering, and product development. With its*

*easy-to-read, conversational style, the book is suitable for any
course in applied statistical experimental design or in a Six Sigma*

program.

Discover a practical, streamlined, and updated approach to information systems development with Tilley/Rosenblatt's SYSTEMS ANALYSIS AND DESIGN, 11E. Expanded coverage of emerging technologies, such as agile methods, cloud computing, and mobile applications, complements this book's traditional approaches to systems analysis and design. A wealth of real-world examples emphasizes critical thinking and IT skills in a dynamic, business-related environment. You will find numerous projects, insightful assignments, and helpful end-of-chapter exercises to help you refine the IT skills you need for success in today's intensely competitive business world. Important Notice: Media content referenced within the product description or the product text may not be available in the ebook version.

*Opto-Mechanical Systems Design, Fourth Edition is different in many ways from its three earlier editions: coauthor Daniel Vukobratovich has brought his broad expertise in materials, opto-mechanical design, analysis of optical instruments, large mirrors, and structures to bear throughout the book; Jan Nijenhuis has contributed a comprehensive new chapter on kinematics and applications of flexures; and several other experts in special aspects of opto-mechanics have contributed portions of other chapters. An expanded feature—a total of 110 worked-out design examples—has been added to several chapters to show how the theory, equations, and analytical methods can be applied by the reader. Finally, the extended text, new illustrations, new tables of data, and new references have warranted publication of this work in the form of two separate but closely entwined volumes. This second volume, *Design and Analysis of Large Mirrors and Structures*, concentrates on the design and mounting of significantly larger optics and their structures, including a new and important topic: detailed consideration of factors affecting large mirror performance. The book details how to design and fabricate very large single-substrate, segmented, and lightweight mirrors; describes mountings for large mirrors with their optical axes in*

vertical, horizontal, and variable orientations; indicates how metal and composite mirrors differ from ones made of glass; explains key design aspects of optical instrument structural design; and takes a look at an emerging technology—the evolution and applications of silicon and silicon carbide in mirrors and other types of components for optical applications.

With the overarching goal of preparing the analysts of tomorrow, Systems Analysis and Design offers students a rigorous hands-on introduction to the field with a project-based approach that mirrors the real-world workflow. Core concepts are presented through running cases and examples, bolstered by in-depth explanations and special features that highlight critical points while emphasizing the process of "doing" alongside "learning." As students apply their own work to real-world cases, they develop the essential skills and knowledge base a professional analyst needs while developing an instinct for approach, tools, and methods. Accessible, engaging, and geared toward active learning, this book conveys both essential knowledge and the experience of developing and analyzing systems; with this strong foundation in SAD concepts and applications, students are equipped with a robust and relevant skill set that maps directly to real-world systems analysis projects.

Digital Control System Analysis and Design

Synthesis, Analysis and Design

Tools for the Practitioner

Power System Analysis and Design

Real-Time Systems Design and Analysis

The 4th edition of Dennis/Wixon/Tegarden's Systems Analysis and Design with UML continues to offer a concise, modern and applied introduction to OO SAD. The new edition offers updated material, more hands-on exercises, and more applied examples.

Furthermore a new emphasis on agile methods tackles programming issues and on business process modeling and ethics to add strategic coverage that

appeals to IS majors. Additional coverage of new mobile devices and tablets refresh the content as well as supplementary material, including minicases, coverage of ethics, business process modeling, mobile applications and better illustrations, examples, and exercises.

Whether you're taking the CPHIMS exam, or simply want the most current and comprehensive overview in healthcare information and management systems today - this completely revised and updated third edition has it all. But for those preparing for the CPHIMS exam, this book is an ideal study partner. The content reflects the exam content outline covering healthcare and technology environments; systems analysis, design, selection, implementation, support, maintenance, testing, evaluation, privacy and security; and administration leadership management. Candidates can challenge themselves with the sample multiple choice questions at the end of the book.

"Presents the fundamentals of hardware technologies, assembly language, computer arithmetic, pipelining, memory hierarchies and I/O"--
Evaluation of Human Work, 2nd Edition
Opto-Mechanical Systems Design, Volume 2
Linear Control System Analysis and Design
Product and Process Design Principles
Global Navigation Satellite Systems, Inertial Navigation, and Integration