Control System Engineering By Ramesh Babu

Reconfigurable Embedded Control Systems: Applications for Flexibility and AgilityJournal of the Institution of Electronics and Telecommunication Engineers 2001 IEEE Power Engineering Society Summer Meeting Distributed Computer Control Systems 1994Thermal Power PlantsDistributed Computer Control Systems 1995Digital Signal Processing A Summary of Research 1995Journal of the Institution of Engineers (India). Pipeline Integrity Man-Machine-Environment System EngineeringSmart Grid SystemsDecision Making Applications in Modern Power SystemsD.R.D.A. ReporterApplied Welding EngineeringIFAC International Symposium on Systems Engineering Education in Developing Nations, 4-7 November 1974Fermentation and Biochemical Engineering Handbook, 2nd Ed.Linear Control Systems With Matlab ApplicationsNext Generation Design and Verification Methodologies for Distributed Embedded Control SystemsSafe, Autonomous and Intelligent Vehicles Midwest Symposium on Circuits and SystemsPower System Protection in Smart Grid EnvironmentAutomatic Control Systems in Biomedical EngineeringHandbook of Networked and Embedded Control Systems Distributed Computer Control Systems 1998 (DCCS '98) Rare Earth Materials Distributed Computer Control Systems 1997 (DCCS'97) The CRC Handbook of Mechanical Engineering, Second EditionPower Electronics, Drives, and Advanced ApplicationsMan-Machine-Environment System EngineeringBulletin of the Institution of Engineers (India). Maintenance and Reliability Best Practices Control Systems EngineeringControl Systems EngineeringDistributed Computer Control SystemsCONTROL SYSTEMS ENGINEERING. Embedded Systems DevelopmentDynamic Modeling, Predictive Control and Performance MonitoringRecent Advancements in System Modelling ApplicationsSmart Grid **Systems**

Reconfigurable Embedded Control Systems: Applications for Flexibility and Agility

With distributed generation interconnection power flow becoming bidirectional, culminating in network problems, smart grids aid in electricity generation, transmission, substations, distribution and consumption to achieve a system that is clean, safe (protected), secure, reliable, efficient, and sustainable. This book illustrates fault analysis, fuses, circuit breakers, instrument transformers, relay technology, transmission lines protection setting using DIGsILENT Power Factory. Intended audience is senior undergraduate and graduate students, and researchers in power systems, transmission and distribution, protection system broadly under electrical engineering.

Journal of the Institution of Electronics and Telecommunication Engineers

The book is a collection of peer-reviewed scientific papers submitted by active researchers in the 36th National System Conference (NSC 2012). NSC is an annual event of the Systems Society of India (SSI), primarily oriented to strengthen the systems movement and its applications for the welfare of humanity. A galaxy of academicians, professionals, scientists, statesman and researchers from different $\frac{1}{Page}$

parts of the country and abroad are invited to attend the Conference. The book presents various research articles in the area of system modelling in all disciplines of engineering sciences as well as socio-economic systems. The book can be used as a tool for further research.

2001 IEEE Power Engineering Society Summer Meeting

Distributed Computer Control Systems 1994

Thermal Power Plants

Concern for reliable power supply and energy-efficient system design has led to usage of power electronics-based systems, including efficient electric power conversion and power semiconductor devices. This book provides integration of complete fundamental theory, design, simulation and application of power electronics, and drives covering up-to-date subject components. It contains twentyone chapters arranged in four sections on power semiconductor devices, basic power electronic converters, advanced power electronics converters, power supplies, electrical drives and advanced applications. Aimed at senior undergraduate and graduate students in electrical engineering and power electronics including related professionals, this book • Includes electrical drives such as DC motor, AC motor, special motor, high performance motor drives, solar, electrical/hybrid vehicle and fuel cell drives • Reviews advances in renewable energy technologies (wind, PV, hybrid power systems) and their integration • Explores topics like distributed generation, microgrid, and wireless power transfer system • Includes simulation examples using MATLAB®/Simulink and over four hundred solved, unsolved and review problems

Distributed Computer Control Systems 1995

Recent studies indicate that China accounts for about 96 percent of the world's supply of rare earth materials (REMs). With REMs becoming increasingly important for a growing number of high-tech applications, appropriate action must be taken to mitigate the effects of a shortage of critical REMs in defense systems and components. Bringing together information previously available only from disparate journal articles and databases, Rare Earth Materials: Properties and Applications describes the unique characteristics and applications of 17 REMs. It defines their chemical, electrical, thermal, and optical characteristics. Maintaining a focus on physical and chemical properties, it addresses the history and critical issues pertaining to mining and processing of REMs. In this book, Dr. A.R. Jha continues his distinguished track record of distilling complex theoretical physical concepts into an understandable technical framework that can be extended to practical applications across commercial and industrial frameworks. He summarizes the chemical, optical, electrical, thermal, magnetic, and spectroscopic properties of REMs best suited for next-generation commercial and military systems or equipment. Coverage includes extraction, recycling, refinement, visual inspection, identification of spectroscopic parameters, quality control, element

separation based on specific application, pricing control, and environmental / geo-political considerations. Potential applications are identified with an emphasis on scientific instruments, nuclear resonance imaging equipment, MRI systems, magnetic couplers for uranium enrichment equipment, battery-electrodes, electric motors, electric generators, underwater sensors, and commercial and military sensors. The book describes unique applications of rare earth magnets in all-electric and hybrid electric cars and microwave components. It also considers the use of rare earth magnets in commercial and military systems where weight and size are the critical design requirements. Suitable for both students and design engineers involved in the development of high-technology components or systems, the book concludes by summarizing future applications in electro-optic systems and components, including infrared lasers, diode-pumped solid-state lasers operating at room temperatures, and other sophisticated military and commercial test equipment

Digital Signal Processing

"Applied Welding Engineering: Processes, Codes and Standards is designed to provide a practical in-depth instruction for the selection of the materials incorporated in the joint, joint inspection, and the quality control for the final product. Welding Engineers will also find this book a valuable source for developing new welding processes or procedures for new materials as well as a guide for working closely with design engineers to develop efficient welding designs and fabrication procedures. The author's objective is to keep engineers moored in the theory taught in the university and colleges while exploring the real world of practical welding engineering. The book is designed to support welding and joining operations where engineers pass plans and projects to mid-management personnel who must carry out the planning, organization and delivery of manufacturing projects. In this book, the author places emphasis on developing the skills needed to lead projects and interface with engineering and development teams. In writing this book, the book leaned heavily on the author's own experience as well as the American Society of Mechanical Engineers (www.asme.org), American Welding Society (www.aws.org), American Society of Metals (www.asminternational.org), NACE International (www.nace.org), American Petroleum Institute (www.api.org), etc. Other sources includes The Welding Institute, UK (www.twi.co.uk), and Indian Air force training manuals, ASNT (www.asnt.org), the Canadian Standard Association (www.cas.com) and Canadian General Standard Board (CGSB) (www.tpsgc-pwgsc.gc.ca). Rules for developing efficient welding designs and fabrication procedures; Expert advice for complying with international codes and standards from the American Welding Society, American Society of Mechanical Engineers, and The Welding Institute(UK); Practical in-depth instruction for the selection of the materials incorporated in the joint, joint inspection, and the quality control for the final product."--Publisher's description.

A Summary of Research 1995

Journal of the Institution of Engineers (India).

Electric power systems are being transformed from older grid systems to smart grids across the globe. The goals of this transition are to address today's electric power issues, which include reducing carbon footprints, finding alternate sources of decaying fossil fuels, eradicating losses that occur in the current available systems, and introducing the latest information and communication technologies (ICT) for electric grids. The development of smart grid technology is advancing dramatically along with and in reaction to the continued growth of renewable energy technologies (especially wind and solar power), the growing popularity of electric vehicles, and the continuing huge demand for electricity. Smart Grid Systems: Modeling and Control advances the basic understanding of smart grids and focuses on recent technological advancements in the field. This book provides a comprehensive discussion from a number of experts and practitioners and describes the challenges and the future scope of the technologies related to smart grid. Key features: provides an overview of the smart grid, with its needs, benefits, challenges, existing structure, and possible future technologies discusses solar photovoltaic (PV) system modeling and control along with battery storage, an integral part of smart grids discusses control strategies for renewable energy systems, including solar PV, wind, and hybrid systems describes the inverter topologies adopted for integrating renewable power covers the basics of the energy storage system and the need for micro grids describes forecast techniques for renewable energy systems presents the basics and structure of the energy management system in smart grids, including advanced metering, various communication protocols, and the cyber security challenges explores electric vehicle technology and its interaction with smart grids

Pipeline Integrity

A typical design procedure for model predictive control or control performance monitoring consists of: 1. identification of a parametric or nonparametric model; 2. derivation of the output predictor from the model; 3. design of the control law or calculation of performance indices according to the predictor. Both design problems need an explicit model form and both require this three-step design procedure. Can this design procedure be simplified? Can an explicit model be avoided? With these questions in mind, the authors eliminate the first and second step of the above design procedure, a "data-driven" approach in the sense that no traditional parametric models are used; hence, the intermediate subspace matrices, which are obtained from the process data and otherwise identified as a first step in the subspace identification methods, are used directly for the designs. Without using an explicit model, the design procedure is simplified and the modelling error caused by parameterization is eliminated.

Man-Machine-Environment System Engineering

This book covers the start-of-the-art research and development for the emerging area of autonomous and intelligent systems. In particular, the authors emphasize design and validation methodologies to address the grand challenges related to safety. This book offers a holistic view of a broad range of technical aspects (including perception, localization and navigation, motion control, etc.) and application domains (including automobile, aerospace, etc.), presents major challenges and discusses possible solutions.

Page 4/13

Smart Grid Systems

This is a well-rounded handbook of fermentation and biochemical engineering presenting techniques for the commercial production of chemicals and pharmaceuticals via fermentation. Emphasis is given to unit operations fermentation, separation, purification, and recovery. Principles, process design, and equipment are detailed. Environment aspects are covered. The practical aspects of development, design, and operation are stressed. Theory is included to provide the necessary insight for a particular operation. Problems addressed are the collection of pilot data, choice of scale-up parameters, selection of the right piece of equipment, pinpointing of likely trouble spots, and methods of troubleshooting. The text, written from a practical and operating viewpoint, will assist development, design, engineering and production personnel in the fermentation industry. Contributors were selected based on their industrial background and orientation. The book is illustrated with numerous figures, photographs and schematic diagrams.

Decision Making Applications in Modern Power Systems

D.R.D.A. Reporter

This book offers readers broad coverage of techniques to model, verify and validate the behavior and performance of complex distributed embedded systems. The authors attempt to bridge the gap between the three disciplines of model-based design, real-time analysis and model-driven development, for a better understanding of the ways in which new development flows can be constructed, going from system-level modeling to the correct and predictable generation of a distributed implementation, leveraging current and future research results.

Applied Welding Engineering

IFAC International Symposium on Systems Engineering Education in Developing Nations, 4-7 November 1974

The vast majority of control systems built today are embedded; that is, they rely on built-in, special-purpose digital computers to close their feedback loops. Embedded systems are common in aircraft, factories, chemical processing plants, and even in cars-a single high-end automobile may contain over eighty different computers. The design of embedded controllers and of the intricate, automated communication networks that support them raises many new questions—practical, as well as theoretical—about network protocols, compatibility of operating systems, and ways to maximize the effectiveness of the embedded hardware. This handbook, the first of its kind, provides engineers, computer scientists, mathematicians, and students a broad, comprehensive source of information and technology to address many questions and aspects of embedded and networked control. Separated into six main sections—Fundamentals, Hardware, Software, Theory, Networking, and Applications—this work unifies into a single reference

many scattered articles, websites, and specification sheets. Also included are case studies, experiments, and examples that give a multifaceted view of the subject, encompassing computation and communication considerations.

Fermentation and Biochemical Engineering Handbook, 2nd Ed.

Linear Control Systems With Matlab Applications

Decision Making Applications in Modern Power Systems presents an enhanced decision-making framework for power systems. Designed as an introduction to enhanced electricity system analysis using decision-making tools, it provides an overview of the different elements, levels and actors involved within an integrated framework for decision-making in the power sector. In addition, it presents a stateof-play on current energy systems, strategies, alternatives, viewpoints and priorities in support of decision-making in the electric power sector, including discussions of energy storage and smart grids. As a practical training guide on theoretical developments and the application of advanced methods for practical electrical energy engineering problems, this reference is ideal for use in establishing medium-term and long-term strategic plans for the electric power and energy sectors. Provides panoramic coverage of state-of-the-art energy systems, strategies and priorities in support of electrical power decision-making Introduces innovative research outcomes, programs, algorithms and approaches to address challenges in understanding, creating and managing complex techno-socioeconomic engineering systems Includes practical training on theoretical developments and the application of advanced methods for realistic electrical energy engineering problems

Next Generation Design and Verification Methodologies for Distributed Embedded Control Systems

This volume is the proceedings of a workshop organized by General Motors research and development laboratory in Bangalore, India. It was the first of its kind to be run by an automotive major to bring together the leaders in the field of embedded systems development to present state-of-the-art work, and to discuss future strategies for addressing the increasing complexity of embedded control systems. The workshop consisted of invited talks given by leading experts and researchers from academic and industrial organizations. It covered all areas of embedded systems development.

Safe, Autonomous and Intelligent Vehicles

One of the most important issues in the development of distributed computer control systems is the ability to build software and hardware which is both reliable and time deterministic; this is an area where control engineering and computer science naturally meet. This publication brings together the latest key papers on research and development in this field, allowing cross-fertilization between the two engineering disciplines involved and allowing both academics and industrial practitioners to find new insights and learn from each other's views.

Midwest Symposium on Circuits and Systems

The series of IFAC Workshops on distributed computer control systems (DCCS) provide the opportunity for leading researchers and practitioners in the field to discuss and evaluate recent advances and current issues in theory, applications and technology of DCCS. DCCS'95, the 13th IFAC workshop in the series was held in Toulouse-Blagnac, France. The topics covered at this meeting included: the role of real-time in DCCS specifications; scheduling methods for DCCS; real-time distributed operating systems and databases and industrial applications and experience with DCSS.

Power System Protection in Smart Grid Environment

Computer control systems are increasingly required to be highly dependable and to have deterministic timing properties. Distributed architectures have the potential to meet this challenge. The advantages of distributed computer control systems include the possibility of composing large systems out of pre-tested components with small integration effort, their well-defined fault containment properties and their capacity to make effective use of mass-produced silicon chips. The IFAC Workshop series on Distributed Computer Control Systems (DCCS) highlights and traces the growth of key concepts in this field at their various stages of development. Theoretical and practice-oriented viewpoints receive equal emphasis and there is a creative blending of the disciplines of computer science and control engineering. The 1998 DCCS Workshop was notable for the attention given to true real-time communication networks and protocols. The complexity of the trade-off between services, dependability mechanisms and system-level properties was highlighted, and rigorous modelling and analysis methodologies were discussed. Event-triggered and time-triggered protocols were contrasted. Models for analysing and predicting response times in distributed systems and for predicting the effect of response-time jitter on the performance of feedback control loops were presented. The application of formal methods to the specification and development of safety-critical control software also received much attention. Distributed object methodologies and object request brokers were also highlighted as being promising approaches for the programming of large-scale, heterogeneous distributed systems. Applications reported included control systems for traffic lights, jet engines, automobiles, fully-automatic trains and flexible manufacturing systems.

Automatic Control Systems in Biomedical Engineering

This book presents the fundamental principles and challenges encountered in the control of biomedical systems, providing practical solutions and suggesting alternatives. The perspective of the text is based on the system behaviour in the time domain both linear and non-linear, continuous and discrete, helping the reader to be able to interpret the physical significance of mathematical results during control system analysis and design focusing on biomedical engineering applications. Interactive learning is promoted, endowing students with the ability to change parameters and conditions during the simulation and see the effects of these changes, by using interactive MATLAB and SIMULINK software tools, also

presenting realistic problems in order to analyse, design and develop automatic control systems. The text is also complemented with MATLAB and SIMULINK exercise files solved to aid students to focus on the fundamental concepts treated throughout the book, following a new pedagogical approach distinct from the classical one whereby fundamental control concepts are introduced together with adequate software tools in order to gain insight on the biomedical engineering control problems. The book is suitable for second or third-year undergraduate students who will find the illustrative examples particularly useful to their studies of control system design and implementation. Lecturers in the control field will find the computer aided design approach as an alternative to teaching the fundamental concepts of feedback analogic and digital control.

Handbook of Networked and Embedded Control Systems

The Book Provides An Integrated Treatment Of Continuous-Time And Discrete-Time Systems For Two Courses At Undergraduate Level Or One Course At Postgraduate Level. The Stress Is On The Interdisciplinary Nature Of The Subject And Examples Have Been Drawn From Various Engineering Disciplines To Illustrate The Basic System Concepts. A Strong Emphasis Is Laid On Modeling Of Practical Systems Involving Hardware; Control Components Of A Wide Variety Are Comprehensively Covered. Time And Frequency Domain Techniques Of Analysis And Design Of Control Systems Have Been Exhaustively Treated And Their Interrelationship Established. Adequate Breadth And Depth Is Made Available For A Second Course. The Coverage Includes Digital Control Systems: Analysis, Stability And Classical Design: State Variables For Both Continuous-Time And Discrete-Time Systems: Observers And Pole-Placement Design; Liapunov Stability; Optimal Control; And Recent Advances In Control Systems: Adaptive Control, Fuzzy Logic Control, Neural Network Control Salient Features * State Variables Concept Introduced Early In Chapter 2 * Examples And Problems Around Obsolete Technology Updated. New Examples Added * Robotics Modeling And Control Included * Pid Tuning Procedure Well Explained And Illustrated * Robust Control Introduced In A Simple And Easily Understood Style * State Variable Formulation And Design Simplified And Generalizations Built On Examples * Digital Control; Both Classical And Modern Approaches, Covered In Depth * A Chapter On Adaptive, Fuzzy Logic And Neural Network Control, Amenable To Undergraduate Level Use, Included * An Appendix On Matlab With Examples From Time And Frequency Domain Analysis And Design, Included

Distributed Computer Control Systems 1998 (DCCS '98)

Thermal Power Plants: Modeling, Control, and Efficiency Improvement explains how to solve highly complex industry problems regarding identification, control, and optimization through integrating conventional technologies, such as modern control technology, computational intelligence-based multiobjective identification and optimization, distributed computing, and cloud computing with computational fluid dynamics (CFD) technology. Introducing innovative methods utilized in industrial applications, explored in scientific research, and taught at leading academic universities, this book: Discusses thermal power plant processes and process modeling, energy conservation, performance audits, efficiency improvement modeling, and efficiency optimization supported by high-

performance computing integrated with cloud computing Shows how to simulate fossil fuel power plant real-time processes, including boiler, turbine, and generator systems Provides downloadable source codes for use in CORBA C++, MATLAB®, Simulink®, VisSim, Comsol, ANSYS, and ANSYS Fluent modeling software Although the projects in the text focus on industry automation in electrical power engineering, the methods can be applied in other industries, such as concrete and steel production for real-time process identification, control, and optimization.

Rare Earth Materials

Distributed Computer Control Systems 1997 (DCCS'97)

Pipeline engineers, operators, and plant managers are responsible for the safety of pipelines, facilities, and staying on top of regulatory compliance and maintenance. However, they frequently need reference materials to support their decision, and many new pipeline engineers and plant managers are responsible for major repairs and decisions yet do not have the proper reference to set a holistic integrity plan in place. Pipeline Integrity, 2nd Edition delivers necessary pipeline inspection methods, identification of hazard mechanisms, risk and consequence evaluations, and repair strategies. Covering relevant standards and processes for risk, assessment, and integrity management, this go-to reference provides the principles that guide these concepts enhanced with more critical regulatory information and easier organization betwen liquid and gas pipelines. More detailed information is provided on asset reliability, including risk-based inspection and other inspection prioritizing tools such as value-driven maintenance and evidencebased asset management. Pipeline Integrity, 2nd Edition continues to provide engineers and plants managers a vital resource for keeping their pipelines and facilities safe and efficient. Set an integrity management plan and safe assessment program while properly characterizing impact of risk Get updated with new information on corrosion control, gas and liquid hydrocarbon transportation risk management and asset integrity management Understand and apply all the latest and critical oil and gas pipeline standards, both U.S. and international-based

The CRC Handbook of Mechanical Engineering, Second Edition

Power Electronics, Drives, and Advanced Applications

Man-Machine-Environment System Engineering

Bulletin of the Institution of Engineers (India).

Maintenance and Reliability Best Practices

Control Systems Engineering

Control Systems Engineering

This book presents topics in an easy to understand manner with thorough explanations and detailed illustrations, to enable students to understand the basic underlying concepts. The fundamental concepts, graphs, design and analysis of control systems are presented in an elaborative manner. Throughout the book, carefully chosen examples are given so that the reader will have a clear understanding of the concepts.

Distributed Computer Control Systems

Introduction Vision, Mission and Strategy Maintenance Basics Planning and Scheduling Parts, Materials and Tools Management Reliability Operational Reliability M&R Tools Performance Measure - Metrics Human Side of M&R Best Practices/Benchmarking Maintenance Excellence Appendices

CONTROL SYSTEMS ENGINEERING.

Embedded Systems Development

During the past 20 years, the field of mechanical engineering has undergone enormous changes. These changes have been driven by many factors, including: the development of computer technology worldwide competition in industry improvements in the flow of information satellite communication real time monitoring increased energy efficiency robotics automatic control increased sensitivity to environmental impacts of human activities advances in design and manufacturing methods These developments have put more stress on mechanical engineering education, making it increasingly difficult to cover all the topics that a professional engineer will need in his or her career. As a result of these developments, there has been a growing need for a handbook that can serve the professional community by providing relevant background and current information in the field of mechanical engineering. The CRC Handbook of Mechanical Engineering serves the needs of the professional engineer as a resource of information into the next century.

Dynamic Modeling, Predictive Control and Performance Monitoring

Electric power systems are being transformed from older grid systems to smart grids across the globe. The goals of this transition are to address today's electric power issues, which include reducing carbon footprints, finding alternate sources of decaying fossil fuels, eradicating losses that occur in the current available systems, and introducing the latest information and communication technologies (ICT) for electric grids. The development of smart grid technology is advancing dramatically along with and in reaction to the continued growth of renewable

energy technologies (especially wind and solar power), the growing popularity of electric vehicles, and the continuing huge demand for electricity. Smart Grid Systems: Modeling and Control advances the basic understanding of smart grids and focuses on recent technological advancements in the field. This book provides a comprehensive discussion from a number of experts and practitioners and describes the challenges and the future scope of the technologies related to smart grid. Key features: provides an overview of the smart grid, with its needs, benefits, challenges, existing structure, and possible future technologies discusses solar photovoltaic (PV) system modeling and control along with battery storage, an integral part of smart grids discusses control strategies for renewable energy systems, including solar PV, wind, and hybrid systems describes the inverter topologies adopted for integrating renewable power covers the basics of the energy storage system and the need for micro grids describes forecast techniques for renewable energy systems presents the basics and structure of the energy management system in smart grids, including advanced metering, various communication protocols, and the cyber security challenges explores electric vehicle technology and its interaction with smart grids

Recent Advancements in System Modelling Applications

These proceedings showcase the best papers selected from more than 500 submissions, and introduce readers to the latest research topics and developmental trends in the theory and application of MMESE. The integrated research topic Man-Machine-Environment System Engineering (MMESE) was first established in China by Professor Shengzhao Long in 1981, with direct support from one of the greatest modern Chinese scientists, Xuesen Qian. In a letter to Long from October 22nd, 1993, Qian wrote: "You have created a very important modern science and technology in China!" MMESE studies the optimum combination of man-machine-environment systems. In this system, "man" refers to the people in the workplace (e.g. operators, decision-makers); "machine" is the general name for any object controlled by man (including tools, machinery, computers, systems and technologies), and "environment" describes the specific working conditions under which man and machine interact (e.g. temperature, noise, vibration, hazardous gases, etc.). The three main goals of optimizing man-machine-environment systems are to ensure safety, efficiency and economy. These proceedings present interdisciplinary studies on concepts and methods from physiology, psychology, system engineering, computer science, environmental science, management, education, and other related disciplines. They offer a valuable resource for all researchers and professionals whose work involves interdisciplinary areas touching on MMESE subjects.

Smart Grid Systems

"This book addresses the development of reconfigurable embedded control systems and describes various problems in this important research area, which include static and dynamic (manual or automatic) reconfigurations, multi-agent architectures, modeling and verification, component-based approaches, architecture description languages, distributed reconfigurable architectures, real-time and low power scheduling, execution models, and the implementation of such systems"--



Bookmark File PDF Control System Engineering By Ramesh Babu

ROMANCE ACTION & ADVENTURE MYSTERY & THRILLER BIOGRAPHIES & HISTORY CHILDREN'S YOUNG ADULT FANTASY HISTORICAL FICTION HORROR LITERARY FICTION NON-FICTION SCIENCE FICTION