

Chapter 14 Controlled Environments Experimental Research

This book is dedicated to Prof. Peter Young on his 70th birthday. Professor Young has been a pioneer in systems and control, and over the past 45 years he has influenced many developments in this field. This volume comprises a collection of contributions by leading experts in system identification, time-series analysis, environmetric modelling and control system design – modern research in topics that reflect important areas of interest in Professor Young's research career. Recent theoretical developments in and relevant applications of these areas are explored treating the various subjects broadly and in depth. The authoritative and up-to-date research presented here will be of interest to academic researcher in control and disciplines related to environmental research, particularly those to with water systems. The tutorial style in which many of the contributions are composed also makes the book suitable as a source of study material for graduate students in those areas.

The Third Edition of Counseling and Educational Research: Evaluation and Application emphasizes the importance of being a good consumer of research and teaches readers how to conduct research in practice. Written in an engaging, conversational tone, the book uses concrete examples from professional literature to demonstrate how to effectively evaluate and interpret research articles—without relying on discipline-specific jargon. The Third Edition features new examples, updated research, a new chapter on single-subject research, a new chapter on the use of technology and research, and much more.

For over 20 years, HEALTH PSYCHOLOGY: AN INTRODUCTION TO BEHAVIOR AND HEALTH has remained a leader in the field for its scholarship, strong and current research base, and balanced coverage of the cognitive, behavioral, and biological approaches to health psychology. Appreciated by instructors -- and accessible and appealing to a wide-range of students, including non-majors -- this classic text features a concise writing style, ample pedagogy, and numerous visuals. This edition is updated to reflect the latest developments in the field, and includes many new real-world examples selected for their interest and relevance to today's students. Important Notice: Media content referenced within the product description or the product text may not be available in the ebook version.

Set includes revised editions of some issues.

Research Methods is an essential guide to carrying out a research project. Each of the focused chapters introduces and explains an aspect of social research to readers who may have no experience or knowledge of this subject. The emphasis is on 'how to do' various different methods, how to decide which is the most appropriate, and how to analyse the data. The book also includes examples of good practice from a range of social science disciplines.

A fresh approach to bridging research design with statistical analysis While good social science requires both research design and statistical analysis, most books treat these two areas separately.

Understanding and Applying Research Design introduces an accessible approach to integrating design and statistics, focusing on the processes of posing, testing, and interpreting research questions in the social sciences. The authors analyze real-world data using SPSS software, guiding readers on the overall process of science, focusing on premises, procedures, and designs of social scientific research.

Three clearly organized sections move seamlessly from theoretical topics to statistical techniques at the heart of research procedures, and finally, to practical application of research design: Premises of Research introduces the research process and the capabilities of SPSS, with coverage of ethics, Empirical Generalization, and Chi Square and Contingency Table Analysis Procedures of Research explores key quantitative methods in research design including measurement, correlation, regression, and causation Designs of Research outlines various design frameworks, with discussion of survey research, aggregate research, and experiments Throughout the book, SPSS software is used to showcase the discussed techniques, and detailed appendices provide guidance on key statistical procedures and tips for data management. Numerous exercises allow readers to test their comprehension of the presented material, and a related website features additional data sets and SPSS code. Understanding and Applying Research Design is an excellent book for social sciences and education courses on research methods at the upper-undergraduate level. The book is also an insightful reference for professionals who would like to learn how to pose, test, and interpret research questions with confidence.

The combined challenges of health, comfort, climate change and energy security cross the boundaries of traditional building disciplines. This authoritative collection, focusing mostly on energy and ventilation, provides the current and next generation of building engineering professionals with what they need to work closely with many disciplines to meet these challenges. A Handbook of Sustainable Building Engineering covers: how to design, engineer and monitor a building in a manner that minimises the emissions of greenhouse gases; how to adapt the environment, fabric and services of existing and new buildings to climate change; how to improve the environment in and around buildings to provide better health, comfort, security and productivity; and provides crucial expertise on monitoring the performance of buildings once they are occupied. The authors explain the principles behind built environment engineering, and offer practical guidance through international case studies.

This title was first published in 2003. Over the decades, experiential methods have become an established research tool in environmental economics. Economists working in this area have realised that experimental methods from economics and other disciplines such as psychology and decision theory can be applied to gain insight into the behavioral underpinnings of environmental policy. Economic experiments, in the lab and field, are an attractive tool to address the incentive and contextual questions that arise in environmental policy. Experiments have been and continue to be designed to capture the key elements of market and non-market choices to test theory, for pattern recognition, to testbed new institutions, and to value public goods, including environmental protection. This volume collects the most significant papers in the literature that identify the underpinnings of experimental approaches are complemented by works that specifically address the use of experimental economics to identify choice under risk, conflict, cooperation, environmental policy instruments, and environmental valuation

This volume offers a comprehensive review of experimental methods in economics. Its 21 chapters cover theoretical and practical issues such as incentives, theory and policy development, data analysis, recruitment, software and laboratory organization. The Handbook includes separate parts on procedures, field experiments and neuroeconomics, and provides the first methodological overview of replication studies and a novel set-valued equilibrium concept. As a whole, the combination of basic methods and current developments will aid both beginners and advanced experimental economists.

Collection of selected, peer reviewed papers from the 2014 2nd International Conference on Advances in Energy and Environmental Science (ICAEES 2014), June 21-22, 2014, Guangzhou, China. The 398 papers are grouped as follows: Chapter 1: Environmental Chemistry and Biology, Chapter 2: Environmental Materials, Chapter 3: Environmental Safety and Health, Chapter 4: Environmental Planning and Assessment, Chapter 5: Environmental Analysis and Monitoring, Chapter 6: Environmental Restoration Engineering, Chapter 7: Environmental Protection and Ecological Environment Construction, Chapter 8: Pollution Control Engineering, Chapter 9: Waste Disposal and Recycling, Chapter 10: Water Supply and Drainage, Chapter 11: Hydrology and Water Resources Engineering, Chapter 12: Soil and Water Conservation and Desertification Control, Chapter 13: Forest Cultivation, Protection and Plant Protection, Chapter 14: Geographic Information Science and Remote Sensing, Chapter 15: Land Resources Environment and Urban Planning, Chapter 16: Mineral Prospecting and Exploration, Chapter 17: Mining Engineering, Chapter 18: Mineral Processing Engineering, Chapter 19: Oil and Gas Well Development Projects, Chapter 20: Storage and Processing of Agricultural Products, Chapter 21: Energy Saving, Environmental Protection, Low Carbon Ideas, Chapter 22: Environmental Protection and Economic Development, Chapter 23: Eco-Economy, Circular Economy, Low Carbon Economy

In The Development Of Agricultural Science In The Erstwhile Soviet Russia, The Academician, T D Lysenko Is Regarded As A Pillar. This Great Scientist Of The Bygone Days Was Deeply Concerned With The Agricultural Problems Particularly Associated With The Then Ussr And Took Up Researches In That Country To Find Practical Solutions. Bringing Forward The Concept Of Growth And Development In Plants, He Could Be Able To Establish Clearly The Specific Environmental Need In These Physiological Processes. Development Of The Practical Procedure To Shorten The Time Of Flowering In Winter Type Of Cereal Crops Grown In That Country By Artificial Exposure To Cold, Otherwise Termed In Plant Physiology As Vernalization Is A Notable Achievement Of Him. Among Other Versatile Researches Taken Up By Him In The Area Of Agricultural Science, Mention May Be Made To His Study Of Genetics And Plant Breeding From A Critical Angle. In The Present Voluminous Title Authored By Him, The Said Scientist Has Brought To Light The Pertinence Of His Researches And Conclusions While Citation Of The Related Studies That Had Been Undertaken By The Contemporary And Earlier Scientists. Contents Chapter 1: The Theoretical Principles Of Vernalization; Chapter 2: Plant Breeding And The Theory Of Phasic Development Of Plants; Chapter 3: The Reorganization Of Seed Growing; Chapter 4: The Intravarietal Crossing Of Self-Pollinating Plants; Chapter 5: Two Trends In Genetics; Chapter 6: Collective Farm Laboratories And Agronomic Science; Chapter 7: Intravarietal Crossing And Mendel S So Called Law Of Segregation; Chapter 8: The Mentor: A Powerful Means Of Plant Breeding; Chapter 9: Seed Growing Must Be Based On Michurin S Theory; Chapter 10: The Creator Of Soviet Agrobiolgy; Chapter 11: Michurin S Theory At The All-Union Agricultural Exhibition; Chapter 12: Ways Of Controlling Plant Organisms; Chapter 13: New Achievements In Controlling The Nature Of Plants; Chapter 14: Organisms And Environment; Chapter 15: Engles And Certain Problems Of Darwinism; Chapter 16: What Is Michurin Genetics? Chapter 17: K A Timiryazev And The Tasks Of Our Agrobiolgy; Chapter 18: Heredity And Its Variability; Chapter 19: Natural Selection And Intraspecific Competition; Chapter 20: Genetics; Chapter 21: The Tasks Of The Lenin Academy Of Agricultural Sciences Of The Ussr; Chapter 22: Why Bourgeois Science Is Up In Arms Against The Works Of Soviet Scientists; Chapter 23: The Situation In Biological Science; Chapter 24: Experimental Hill Sowing Of Forest Belts; Chapter 25: New Developments In The Science Of Biological Species; Chapter 26: Vitality Of Plant And Animal Organisms; Chapter 27: The Conversion Of Nonwintering Spring Varieties Into Winter Hardy Winter Varieties.

Advances in Medical Oncology, Research and Education, Volume II: Cancer Control covers the proceedings of the 12th International Cancer Congress, held in Buenos Aires in 1978. The text aims to present concerns related to cancer and its prevention and patient rehabilitation. The book first discusses cancer education, including the rationale of educating people about cancer; teaching materials and its development and evaluation; oncology teaching; evaluation of cancer education; and the role of mass communication media. The second part of the book explains the cancer campaign. This part emphasizes the need to reach the unreachable audience who are in need of cancer awareness. The text then goes on discussing cancer diagnosis and impact. The last part is devoted to monitoring cancer, including how to process data gathered in studying cancer. The selection will be invaluable to medicine and biology students, specializing in the study and treatment of cancer. Medical practitioners and researchers interested in cancer study will also benefit from the book. The text also caters communication specialists, as the book gives practical insights into the use of media in educating people.

This volume includes measures of control of aquatic vegetation that harms human health, since water-related diseases exist in this environment. Although malaria has receded internationally due to the combined chemotherapeutic-insecticidal programs, recently it has resisted both medicines and insecticide control. Active malaria cases in the U.S. were fewer than a dozen before the Vietnam War, but in 1973 the figure was about 700, almost all traceable to returning military personnel. The disease could again become prevalent. Other diseases exist whose transmission is indirectly affected by aquatic weed conditions including filariasis, and various trematodiasis, especially from the schistosomes, Chinese liver fluke, cattle liver fluke, Guinea worm, giant intestinal fluke, Asiatic lung fluke, and broad tapeworm. Waterweeds also support disease-pest arthropods, i.e., snipe flies, tabanids (horse, gad, deer, and greenheads), Clear Lake gnats, Mayflies, black flies, sandflies, and sewage flies. Ecosystem studies of impounded water research and development of herbivorous fish, and utilization of herbivorous fish in China, are also included in this volume.

Fatigue of structures and materials covers a wide scope of different topics. The purpose of the present book is to explain these topics, to indicate how they can be analyzed, and how this can contribute to the designing of fatigue resistant structures and to prevent structural fatigue problems in service. Chapter 1 gives a general survey of the topic with brief comments on the significance of the aspects involved. This serves as a kind of a program for the following chapters. The central issues in this book are predictions of fatigue properties and designing against fatigue. These objectives cannot be realized without a physical and mechanical understanding of all relevant conditions. In Chapter 2 the book starts with basic concepts of what happens in the material of a structure under cyclic loads. It illustrates the large number of variables which can affect fatigue properties and it provides the essential background knowledge for subsequent chapters. Different subjects are presented in the following main parts: • Basic chapters on fatigue properties and predictions (Chapters 2–8) • Load spectra and fatigue under variable-amplitude loading (Chapters 9–11) • Fatigue tests and scatter (Chapters 12 and 13) • Special fatigue conditions (Chapters 14–17) • Fatigue of joints and structures (Chapters 18–20) • Fiber-metal laminates (Chapter 21) Each chapter presents a discussion of a specific subject.

Controlled Environment Guidelines for Plant Research contains the proceedings of the Controlled Environments Working Conference held in Madison, Wisconsin, on March 12-14, 1979. The papers propose guidelines for measuring and reporting environmental conditions in controlled environment facilities that affect plant growth, including temperature, radiation, carbon dioxide, soil moisture, atmospheric moisture, and air movement. They also suggest how to perform measurements accurately and in ways that can be repeated by other investigators. Organized into 34 chapters, this volume begins with an overview of measurement, instrumentation, and procedures for growing plants in controlled environments. It then turns to a discussion of radiation measurements for plant growth studies in controlled environments; principles of heat transfer; plant response to increased humidity; humidification and dehumidification; carbon dioxide variations within plant growth chambers; and watering of plants in controlled environments. The reader is also introduced to precision and replication of measurements, along with interactions among environmental factors such as water, light intensity, mineral supply, temperature, air pollution, and nutritional preconditioning. Biologists and engineers, as well as plant physiologists and physicists, will find this book extremely useful.

Capacity management is a core activity when designing and operating distributed software systems. Particularly, enterprise application systems are exposed to highly varying workloads. Employing static capacity management, this leads to unnecessarily high total cost of ownership due to poor resource usage efficiency. This thesis introduces a model-driven online capacity management approach for distributed component-based software systems, called SLAstatic. The core contributions of this approach are a) modeling languages to capture relevant architectural information about a controlled software system, b) an architecture-based online capacity management framework based on the common MAPE-K control loop architecture, c) model-driven techniques supporting the automation of the approach, d) architectural runtime reconfiguration operations for controlling a system's capacity, as well as e) an integration of the Palladio Component Model. A qualitative and quantitative evaluation of the approach is performed by case studies, lab experiments, and simulation.

"Insects are the most species-rich and important organisms on earth, and that's why there are many university courses dedicated to the topic of Insects and Society. But, surprisingly, this is the first textbook specifically created for those courses. The content in this textbook is not only ideal for introductory courses, but it also is great for K12 instructors, insatiably curious children, and indeed anyone fascinated by insects and their impact on people." – Robert K. D. Peterson, Ph.D., Professor of Entomology, Montana State University and Past President, Entomological Society of America "Society is undervaluing the role of insects as pivotal drivers of ecosystem functioning and services. Addressing this deficit is a major merit of this book." – Teja Tscharntke, Professor and Head of the Agroecology Research Group at the

University of Göttingen, Germany Insects are all around us, outweighing humanity by 17 times. Many are nuisances; they compete with us for food and carry some of our most devastating diseases. Many common pests have been transported worldwide by humans. Yet, some recent reports suggest dramatic declines in some important groups, such as pollinators and detritivores. Should we care? Yes, we should. Without insect pollinators we'd lose 35% of our global food production; without detritivores, we would be buried in un-decayed refuse. Insects are also critical sources for nutritional, medical and industrial products. A world without insects would seem a very different and unpleasant place. So why do insects inspire such fear and loathing? This concise, full-color text challenges many entrenched perceptions about insect effects on our lives. Beginning with a summary of insect biology and ecology that affect their interactions with other organisms, it goes on to describe the various positive and negative ways in which insects and humans interact. The final chapters describe factors that affect insect abundance and approaches to managing insects that balance their impacts. The first textbook to cater directly to those studying Insect and Society or Insect Ecology modules, this book will also be fascinating reading for anyone interested in learning how insects affect human affairs and in applying more sustainable approaches to "managing" insects. This includes K-12 teachers, undergraduate students, amateur entomologists, conservation practitioners, environmentalists, as well as natural resource managers, land use planners and environmental policy makers.

Strongly grounded in the scientific method and evidence, this work examines the effects of technology use and the unprecedented economic growth and development that has tipped the natural balance of the environment, resulting in serious local, regional, and global environmental problems.

The approach to psychology advocated by the radical behaviourists was often misunderstood and frequently gave rise to controversy. Originally published in 1974, this book introduced current research in operant conditioning and explains the attempt to understand behaviour inherent in such experiments at the time. After considering the philosophical context in which behaviouristic psychology developed, the author outlines the basic characteristics of operant research by reviewing single experiments on the effects of reinforcement on behaviour. Chapters on schedules of intermittent reinforcement extend this approach to more complex situations and emphasize that behaviour can be maintained and controlled in many different ways by environmental events. The author then discusses recent work on conditional reinforcement and on the discriminative control of behaviour and shows how operant research has changed our understanding of these important concepts in psychology. Subsequent chapters review research within the operant paradigm on the effects on behaviour of punishment, anxiety, aversive stimuli and drugs, again by emphasising the special contribution to these topics made by operant conditioning techniques and methodology. The final chapters consider the general implications of operant research for educational practice and for clinical psychology, and place this approach within the context of psychology as a whole. Dr Blackman argues that it should be recognized as one important attempt to further the scientific analysis of behaviour. This book, filled a long recognized need for an undergraduate text in this area at the time, and helped students form their own evaluation. Now it should be read in its historical context.

Most routine motor tasks are complex, involving load transmission through out the body, intricate balance, and eye-head-shoulder-hand-torso-leg coordination. The quest toward understanding how we perform such tasks with skill and grace, often in the presence of unpredictable perturbations, has a long history. This book arose from the Ninth Engineering Foundation Conference on Biomechanics and Neural Control of Movement, held in Deer Creek, Ohio, in June 1996. This unique conference, which has met every 2 to 4 years since the late 1960s, is well known for its informal format that promotes high-level, up-to-date discussions on the key issues in the field. The intent is to capture the high quality of the knowledge and discourse that is an integral part of this conference series. The book is organized into ten sections. Section I provides a brief introduction to the terminology and conceptual foundations of the field of movement science; it is intended primarily for students. All but two of the remaining nine sections share a common format: (1) a designated section editor; (2) an introductory didactic chapter, solicited from recognized leaders; and (3) three to six state-of-the-art perspective chapters. Some perspective chapters are followed by commentaries by selected experts that provide balance and insight. Section VI is the largest section, and it consists of nine perspective chapters without commentaries. The Gram-positive and spore-forming Bacilli are the most dominant group of bacteria that exist in various ecological niches on the earth. They represent one of the most important unmapped pools of biodiversity with immense potential of applications in agriculture, environment, and industry. As these bacteria are highly tolerant to stressful environment and enhance plant tolerance to harsh environment such as salinity, drought, and heavy metal toxicity, plant-associated Bacilli have high potential for promoting sustainable crop production. Many species of Bacilli are being commercially used as phytostimulator and biofertilizer. Some of them are applied as biopesticide for protecting crop plants from phytopathogens and insect pests. The Bacillus-based products are becoming popular in ecologically sound and climate resilient agricultural production system. In fact, Bacillus and allied species based formulations are already dominating the biopesticides market, although, to compete with other formulations and chemical alternatives, the biology of Bacillus had to be understood from perspective of such applications. Our understanding of the biology and molecular-basis of the beneficial effects of plant-associated Bacilli has greatly been progressed in recent years through genomics, metagenomics, post-genomics and metabolomics studies. The volume two of the series Bacilli and Agrobiotechnology comprehensively reviews and updates current knowledge of Bacilli as phytostimulant and biological control of plant pests. Better understanding the biology, ecology and mechanism of action of the beneficial strains of Bacilli will play a role in the development of products to support green biotechnology in agriculture and industries.

A textbook for communications students that integrates the basic rules of science with the research procedures that follow those rules. Suitable for undergraduates and as a first research methods text for graduate students. Annotation copyright Book News, Inc. Portland, Or.

A vital resource for pilots, instructors, and students, from the most trusted source of aeronautic information.

Neuroscience is, by definition, a multidisciplinary field: some scientists study genes and proteins at the molecular level while others study neural circuitry using electrophysiology and high-resolution optics. A single topic can be studied using techniques from genetics, imaging, biochemistry, or electrophysiology. Therefore, it can be daunting for young scientists or anyone new to neuroscience to learn how to read the primary literature and develop their own experiments. This volume addresses that gap, gathering multidisciplinary knowledge and providing tools for understanding the neuroscience techniques that are essential to the field, and allowing the reader to design experiments in a variety of neuroscience disciplines. Written to provide a "hands-on" approach for graduate students, postdocs, or anyone new to the neurosciences Techniques within one field are compared, allowing readers to select the best techniques for their own work Includes key articles, books, and protocols for additional detailed study Data analysis boxes in each chapter help with data interpretation and offer guidelines on how best to represent results Walk-through boxes guide readers step-by-step through experiments

This guidance will assist processors of fish and fishery products in the development of their Hazard Analysis Critical Control Point (HACCP) plans. Processors of fish and fishery products will find info. that will help them identify hazards that are associated with their products, and help them formulate control strategies. It will help consumers understand

commercial seafood safety in terms of hazards and their controls. It does not specifically address safe handling practices by consumers or by retail estab., although the concepts contained in this guidance are applicable to both. This guidance will serve as a tool to be used by fed. and state regulatory officials in the evaluation of HACCP plans for fish and fishery products. Illustrations. This is a print on demand report.

Studies on robotics applications have grown substantially in recent years, with swarm robotics being a relatively new area of research. Inspired by studies in swarm intelligence and robotics, swarm robotics facilitates interactions between robots as well as their interactions with the environment. The Handbook of Research on Design, Control, and Modeling of Swarm Robotics is a collection of the most important research achievements in swarm robotics thus far, covering the growing areas of design, control, and modeling of swarm robotics. This handbook serves as an essential resource for researchers, engineers, graduates, and senior undergraduates with interests in swarm robotics and its applications.

The inception of this volume can be traced to a series of Environmental Psychology Colloquia presented at the University of California, Irvine, during the spring of 1974. These colloquia were held in conjunction with Social Ecology 252, a graduate seminar on Man and the Environment. Although the eight colloquia covered a wide range of topics and exemplified a diversity of research techniques, they seemed to converge on some common theoretical and methodological assumptions about the nature of environment-behavioral research. The apparent continuities among these colloquia suggested the utility of developing a manuscript that would provide a historical overview of research on environment and behavior, a representation of its major concerns, and an analysis of its conceptual and empirical trends. Thus, expanded versions of the initial presentations were integrated with a supplemental set of invited manuscripts to yield the present volume of original contributions by leading researchers in the areas of ecological and environmental psychology.

The rapid growth of the world population - nearly six-fold over the last hundred years - combined with the rising number of technical installations especially in the industrialized countries has led to ever tighter and more strained living spaces on our planet. Because of the inevitable processes of life, man was at first an exploiter rather than a careful preserver of the environment. Environmental awareness with the intention to conserve the environment has grown only in the last few decades. Environmental standards have been defined and limit values have been set largely guided, however, by scientific and medical data on single exposures, while public opinion, on the other hand, now increasingly calls for a stronger consideration of the more complex situations following combined exposures. Furthermore, it turned out that environmental standards, while necessarily based on scientific data, must also take into account ethical, legal, economic, and sociological aspects. A task of such complexity can only be dealt with appropriately in the framework of an interdisciplinary group.

A respected resource for decades, the Guide for the Care and Use of Laboratory Animals has been updated by a committee of experts, taking into consideration input from the scientific and laboratory animal communities and the public at large. The Guide incorporates new scientific information on common laboratory animals, including aquatic species, and includes extensive references. It is organized around major components of animal use: Key concepts of animal care and use. The Guide sets the framework for the humane care and use of laboratory animals. Animal care and use program. The Guide discusses the concept of a broad Program of Animal Care and Use, including roles and responsibilities of the Institutional Official, Attending Veterinarian and the Institutional Animal Care and Use Committee. Animal environment, husbandry, and management. A chapter on this topic is now divided into sections on terrestrial and aquatic animals and provides recommendations for housing and environment, husbandry, behavioral and population management, and more. Veterinary care. The Guide discusses veterinary care and the responsibilities of the Attending Veterinarian. It includes recommendations on animal procurement and transportation, preventive medicine (including animal biosecurity), and clinical care and management. The Guide addresses distress and pain recognition and relief, and issues surrounding euthanasia. Physical plant. The Guide identifies design issues, providing construction guidelines for functional areas; considerations such as drainage, vibration and noise control, and environmental monitoring; and specialized facilities for animal housing and research needs. The Guide for the Care and Use of Laboratory Animals provides a framework for the judgments required in the management of animal facilities. This updated and expanded resource of proven value will be important to scientists and researchers, veterinarians, animal care personnel, facilities managers, institutional administrators, policy makers involved in research issues, and animal welfare advocates.

The cell cycle in plants consists of an ordered set of events, including DNA replication and mitosis, that culminates in cell division. As cell division is a fundamental part of a plant's existence and the basis for tissue repair, development and growth, a full understanding of all aspects of this process is of pivotal importance. Cell Cycle Control and Plant Development commences with an introductory chapter and is broadly divided into two parts. Part 1 details the basic cell machinery, with chapters covering cyclin-dependent kinases (CDKs), cyclins, CDK inhibitors, proteolysis, CDK phosphorylation, and E2F/DP transcription factors. Part 2, which describes the cell cycle and plant development, covers cell cycle activation, cell cycle control during leaf development, endoreduplication, the cell cycle and trichome, fruit and endosperm development, the hormonal control of cell division and environmental stress, and cell cycle exit. The editor of this important book, Professor Dirk Inzé, well known and respected internationally, has brought together an impressive team of contributing authors, providing an excellent new volume in Blackwell Publishing's Annual Plant Reviews Series. The book is an essential purchase for research teams working in the areas of plant sciences and molecular, cell and developmental biology. All libraries in universities and research establishments where biological sciences are studied and taught should have copies of this essential and timely volume.

Research Methods in Human-Computer Interaction is a comprehensive guide to performing research and is essential reading for both quantitative and qualitative methods. Since the first edition was published in 2009, the book has been adopted for use at leading universities around the world, including Harvard University, Carnegie-Mellon University, the University of Washington, the University of Toronto, HiOA (Norway), KTH (Sweden), Tel Aviv University (Israel), and many others. Chapters cover a broad range of topics relevant to the collection and analysis of HCI data, going beyond experimental design and surveys, to cover ethnography, diaries, physiological measurements, case studies, crowdsourcing, and other essential elements in the well-informed HCI researcher's toolkit. Continual technological evolution has led to an explosion of new techniques and a need for this updated 2nd edition, to reflect the most recent research in the field and newer trends in research methodology. This

Research Methods in HCI revision contains updates throughout, including more detail on statistical tests, coding qualitative data, and data collection via mobile devices and sensors. Other new material covers performing research with children, older adults, and people with cognitive impairments. Comprehensive and updated guide to the latest research methodologies and approaches, and now available in EPUB3 format (choose any of the ePub or Mobi formats after purchase of the eBook). Expanded discussions of online datasets, crowdsourcing, statistical tests, coding qualitative data, laws and regulations relating to the use of human participants, and data collection via mobile devices and sensors New material on performing research with children, older adults, and people with cognitive impairments, two new case studies from Google and Yahoo!, and techniques for expanding the influence of your research to reach non-researcher audiences, including software developers and policymakers

Collection of selected, peer reviewed papers from the 2014 2nd International Conference on Renewable Energy and Environmental Technology (REET 2014), August 19-20, 2014, Dalian, China. Volume is indexed by Thomson Reuters CPCI-S (WoS). The 373 papers are grouped as follows: Chapter 1: Materials and Processing Technology; Chapter 2: Environmental Chemistry and Microbiology in Environmental Engineering; Chapter 3: Environmental Safety and Health; Chapter 4: Environmental Analysis and Monitoring; Chapter 5: Environmental Restoration Engineering; Chapter 6: Pollution Control Engineering; Chapter 7: Waste Disposal and Recycling; Chapter 8: Hydrology, Water Resources Engineering, Soil and Water Conservation; Chapter 9: Water Supply and Drainage, Filtration; Chapter 10: Ecological Environment and Architectural Environment Protection; Chapter 11: Forest Cultivation, Protection and Plant Engineering; Chapter 12: Geographic Information Science and Remote Sensing; Chapter 13: Urban and Regional Planning, Land Resources Planning; Chapter 14: Mineral Prospecting and Exploration; Chapter 15: Mining Engineering, Mineral Processing and Metallurgical Engineering; Chapter 16: Oil and Gas Well Development Projects; Chapter 17: Agricultural Products Processing and Biological Pharmaceutical; Chapter 18: Environmental Energy Saving, Low Carbon Economy and Sustainable Ideas; Chapter 19: Environmental Protection and Economic Development, Circular Economy and Ecology; Chapter 20: Global Climate Change and Carbon Emissions

Smart Wheelchairs and Brain-Computer Interfaces: Mobile Assistive Technologies combines the fields of neuroscience, rehabilitation and robotics via contributions from experts in their field to help readers develop new mobile assistive technologies. It provides information on robotics, control algorithm design for mobile robotics systems, ultrasonic and laser sensors for measurement and trajectory planning, and is ideal for researchers in BCI. A full view of this new field is presented, giving readers the current research in the field of smart wheelchairs, potential control mechanisms and human interfaces that covers mobility, particularly powered mobility, smart wheelchairs, particularly sensors, control mechanisms, and human interfaces. Presents the first book that combines BCI and mobile robotics Focuses on fundamentals and developments in assistive robotic devices which are commanded by alternative ways, such as the brain Provides an overview of the technologies that are already available to support research and the development of new products

Collection of selected, peer reviewed papers from the 2014 International Conference on Energy and Environmental Protection (ICEEP 2014), April 26-28, 2014, Xi'an, China. The 805 papers are grouped as follows: Chapter 1: Environmental Materials and Processes, Chapter 2: Environmental Chemistry and Technology, Chapter 3: Environmental Bioresearch, Chapter 4: Sound, Noise and Vibration Control, Chapter 5: Environmental Safety and Health, Chapter 6: Environmental Analysis, Modeling and Monitoring, Chapter 7: Environmental Planning and Assessment, Chapter 8: Disaster Prevention and Mitigation, Chapter 9: Environmental Restoration Project, Chapter 10: Pollution Control Project, Removal and Treatment Technologies, Chapter 11: Waste Disposal and Recycling, Chapter 12: Hydrology and Water Resources Research, Chapter 13: Water Supply and Drainage Engineering, Chapter 14: Forest Cultivation, Soil and Water Conservation and Desertification Control, Chapter 15: Geographic Information Science, Chapter 16: Cleaner Production Processes and Water Purification, Chapter 17: Land Resources, Environment and Urban Planning, Chapter 18: Architectural Environment, Environment and Eco-Planning

The Handbook of Translation and Cognition is a pioneering, state-of-the-art investigation of cognitive approaches to translation and interpreting studies (TIS). Offers timely and cutting-edge coverage of the most important theoretical frameworks and methodological innovations Contains original contributions from a global group of leading researchers from 18 countries Explores topics related to translator and workplace characteristics including machine translation, creativity, ergonomic perspectives, and cognitive effort, and competence, training, and interpreting such as multimodal processing, neurocognitive optimization, process-oriented pedagogies, and conceptual change Maps out future directions for cognition and translation studies, as well as areas in need of more research within this dynamic field

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