

Pec Recognized Engineering Universities In Pakistan 2018

With the help of artificial intelligence, machine learning, and big data analytics, the internet of things (IoT) is creating partnerships within industry where machines, processes, and humans communicate with one another. As this radically changes traditional industrial operations, this results in the rapid design, cheap manufacture, and effective customization of products. Answering the growing demand of customers and their preferences has become a challenge for such partnerships. Industrial Internet of Things and Cyber-Physical Systems: Transforming the Conventional to Digital is a collection of innovative research that discusses development, implementation, and business impacts of IoT technologies on sustainable societal development and improved life quality. Highlighting a wide range of topics such as green technologies, wireless networks, and IoT policy, this book is ideally designed for technology developers, entrepreneurs, industrialists, programmers, engineers, technicians, researchers, academicians, and students.

This book is about the Relationship between Mixing Time and Compressive Strength of Concrete. It involves the study of variations of compressive strength of concrete with mixing time at different ages like 7, 14 and 28 days. For this purpose three mixes, 1:2:4, 1:2:4 with plasticizer and 1:4:8, having total 90 cubes of 4 inch (30 cubes for each Batch) were cast having different mixing times varying from 3 minutes to 5 minutes with the difference in mixing time interval of 30 seconds. The cubes were placed under normal conditions for the purpose of curing and testing. The testing was done on Denison Compression Testing Machine. The failure load was worked out and then the compressive strength of concrete was calculated in 'Psi' by dividing the failure load by cross-sectional area of the concrete cube. Graphs displaying the variations of strength of concrete with different mixing time intervals were plotted for all the three mixes and from these graphs, the conclusions were drawn. It was observed that the compressive strength of concrete increases with increase in mixing time but with the increase in mixing time after a certain time of mixing, the concrete strength tends to decline. The time at which the strength of concrete is maximum, is the optimum time for which the concrete should be mixed thoroughly to achieve maximum strength. This time was found out to be between 4 minutes to 4.5 minutes for different mixes used in the experiment. Thus we may conclude from this research work that concrete should be mixed for at least 4 minutes but not more than 4.5 minutes to achieve maximum compressive strength.

Dowling's Engineering Your Future: An Australasian Guide, Fourth Edition is used for first year, core subjects across all Engineering disciplines. Building on the previous editions, this text has been updated with new references, while still maintaining a strong and practical emphasis on skills that are essential for problem solving and design. Numerous topical and locally focused examples of projects across engineering disciplines help demonstrate the role and responsibilities of a professional engineer. Themes of sustainability, ethical practice and effective communication are a constant throughout the text. This full-coloured print with interactive e-text resource has a variety of digital media embedded at the point of learning such as videos and knowledge-check questions to engage students and to help consolidate their learning.

Availability of and adequate accessibility to freshwater and energy are two key technological and scientific problems of global significance. At the end of the 20th century, the deficit of water for human consumption and economic application forced us to focus on rational use of resources. Increasing the use of renewable energy sources and improving energy efficiency is a challenge for the 21st century. Geothermal energy is heat energy generated and stored in the Earth, accumulated in hydrothermal systems or in dry rocks within the Earth's crust, in

amounts which constitute the energy resources. The sustainable management of geothermal energy resources should be geared towards optimization of energy recovery, but also towards rational management of water resources since geothermal water serves both as energy carrier and also as valuable raw material. Geothermal waters, depending on their hydrogeothermal characteristics, the lithology of the rocks involved, the depth at which the resources occur and the sources of water supply, may be characterized by very diverse physicochemical parameters. This factor largely determines the technology to be used in their exploitation and the way the geothermal water can be used. This book is focused on the effective use of geothermal water and renewable energy for future needs in order to promote modern, sustainable and effective management of water resources. The research field includes crucial new areas of study: • an improvement in the management of freshwater resources through the use of residual geothermal water; • a review of the technologies available in the field of geothermal water treatment for its (re)use for energetic purposes and freshwater production, and • the development of balneotherapy. The book is aimed at professionals, academics and decision makers worldwide, water sector representatives and administrators, business enterprises specializing in renewable energy management and water treatment, working in the areas of geothermal energy usage, water resources, water supply and energy planning. This book has the potential to become a standard text used by educational institutions and research & development establishments involved in the geothermal water management.

Heat resistant layers are meant to withstand high temperatures while also protecting against all types of corrosion and oxidation. Therefore, the micro-structure and behavior of such layers is essential in understanding the functionality of these materials in order to make improvements. Production, Properties, and Applications of High Temperature Coatings is a critical academic publication which examines the methods of creation, characteristics, and behavior of materials used in heat resistant layers. Featuring coverage on a wide range of topics such as, thermal spray methods, sol-gel coatings, and surface nanoengineering, this book is geared toward students, academicians, engineers, and researchers seeking relevant research on the methodology and materials for producing effective heat resistant layers.

Thermal energy storage technologies are gaining attention nowadays for uninterrupted supply of solar power in off-sunshine hours. An indigenized solar phase change material (PCM) system was developed and performance evaluated in the current study to efficiently store solar thermal power using a latent heat storage approach, which can be utilized in any subsequent decentralized food processing application. A 2.5 m² laying Scheffler reflector is used to precisely focus the incoming direct normal irradiance (DNI) on a casted aluminum heat receiver (220 mm diameter) from where this concentrated heat energy is absorbed and conducted to the PCM unit by the flow of thermal oil (Fragoltherm-32 thermo-oil). During the circulation around PCM pipes inside the PCM unit, thermal oil discharges heat energy to the PCM, which undergoes change of phase from solid to liquid. Computational fluid dynamics (CFD) analysis of the PCM unit were also performed according to the actual boundary conditions, which gave satisfactory results in terms of temperature and velocity distribution. With an average DNI of 781 W/m², the highest temperature of the

receiver surface during the trials was observed at about 155 C that produces thermal oil at 110°C inside the receiver and around 48°C of PCM in the PCM unit. The heat energy losses per unit time (W) due to the lack of reflectivity from the Scheffler reflector, out-of-focus radiations at the targeted area, absorptivity of heat receiver, piping system losses, and cylinder losses (in the form of conduction, convection, and radiations using 50 mm insulation thickness) were found to be 110 W (10 %), 99 W (9 %), 89 W (8 %), 128 W (12 %), 161 W (15 %), and 89 W (8 %), respectively. These findings of CFD analysis and mathematical modeling were also consistent with real-time data, which was logged through an online Control and Monitoring Interface portal. The final energy available to the PCM was 414W with an overall system efficiency of 38 %, which can be improved by decreasing thermal losses of the system and using other PCM materials.

The service industry is continually improving, forcing service-oriented engineering to improve alongside it. In a digitalized world, technology within the service industry has adapted to support interactions between users and organizations. By identifying key problems and features, service providers can help increase facilitator profitability and user satisfaction. *Multidisciplinary Approaches to Service-Oriented Engineering* is a well-rounded collection of research that examines methods of providing optimal system design for service systems and applications engineering. While exploring topics such as cloud ecosystems, interface localization, and requirement prioritization, this publication provides information about the approaches and development of software architectures to improve service quality. This book is a vital resource for engineers, theoreticians, educators, developers, IT consultants, researchers, practitioners, and professionals.

The book reveals how green buildings are currently being adapted and applied in developing countries. It includes the major developing countries such as China, Indonesia, Malaysia, Thailand, Pakistan, Cambodia, Ghana, Nigeria and countries from the Middle East and gathers the insights of respected green building researchers from these areas to map out the developing world's green building revolution. The book highlights these countries' contribution to tackling climate change, emphasising the green building benefits and the research behind them. The contributing authors explore how the green building revolution has spread to developing countries and how national governments have initiated their own green building policies and agendas. They also explore how the market has echoed the green building policy, and how a business case for green buildings has been established. In turn, they show how an international set of green building standards, in the form of various techniques and tools, has been incorporated into local building and construction practices. In closing, they demonstrate how the developing world is emerging as a key player for addressing the energy and environmental problems currently facing the world. The book helps developers, designers and policy-makers in governments and

green building stakeholders to make better decisions on the basis of global and local conditions. It is also of interest to engineers, designers, facility managers and researchers, as it provides a holistic picture of how the industry is responding to the worldwide call for greener and more sustainable buildings.

In order to deal with the societal challenges novel technology plays an important role. For the advancement of technology, Department of Industrial and Production Engineering under the aegis of NIT Jalandhar is organizing an “International Conference on Industrial and Manufacturing Systems” (CIMS-2020) from 26th -28th June, 2020. The present conference aims at providing a leading forum for sharing original research contributions and real-world developments in the field of Industrial and Manufacturing Systems so as to contribute its share for technological advancements. This volume encloses various manuscripts having its roots in the core of industrial and production engineering. Globalization provides all around development and this development is impossible without technological contributions. CIMS-2020, gathered the spirits of various academicians, researchers, scientists and practitioners, answering the vivid issues related to optimisation in the various problems of industrial and manufacturing systems.

This book discusses the concept and practice of a smart metropolitan region, and how smart cities promote healthy economic and spatial development. It highlights how smart metropolitan regional development can energize, reorganize and transform the legacy economy into a smart economy; how it can help embrace Information and Communications Technology (ICT); and how it can foster a shared economy. In addition, it outlines how the five pillars of the third industrial revolution can be achieved by smart communities. In addition, the book draws on 16 in-depth city case studies from ten countries to explore the state of the art regarding the smart economy in smart cities – and to apply the lessons learned to shape smart metropolitan economic and spatial development.

In the 1960s and 1970s, John Deere’s tractors evolved dramatically from small machines into large, powerful tractors with modern advances and muscular engines; it was a period of the greatest changes since the 1920s. Deere christened these tractors the New Generation. This book in the Tractor Legacy series examines these Big Green machines in detail, with archival and current photography of restored tractors, a thorough historical text, and details of model specifications and variations.

While online courses are said to be beneficial and many reputable brick and mortar higher education institutions are now offering undergraduate and graduate programs online, there is still ongoing debate on issues related to credibility and acceptability. There is some reluctance to teach online and to admit and hire students who have enrolled in online programs. Given these concerns, it is essential that educators in online communities continue to share the significant learning experiences and outcomes that occur in online classrooms and highlight pedagogical practices used by online instructors to make their courses and

programs comparable to those offered face-to-face. The Handbook of Research on Creating Meaningful Experiences in Online Courses is a comprehensive research book that examines the quality of courses in higher education that are offered exclusively online and details strategies and practices used by online instructors to create meaningful teaching and learning experiences in online courses. Featuring a range of topics such as gamification, professional development, and learning outcomes, this book is ideal for academicians, researchers, educators, administrators, instructional designers, curriculum developers, higher education faculty, and students.

Wireless sensor networks have become an intricate and necessary addition to daily life by providing an energy efficient way to collect and monitor data while rerouting the information to a centralized location. As the application of these networks becomes more common, it becomes imperative to evaluate their effectiveness, as well as other opportunities for possible implementation in the future. The Handbook of Research on Wireless Sensor Network Trends, Technologies, and Applications provides inclusive coverage on the processing and applications of wireless communication, sensor networks, and mobile computing. Investigating emergent research and theoretical concepts in the area of wireless sensors and their applications to daily life, this handbook of research is a critical reference source for students, researchers, engineers, scientists, and working professionals.

This book is purposefully styled as an introductory textbook on circular economy (CE) for the benefit of educators and students of universities. It provides comprehensive knowledge exemplified by practices from policy, education, R&D, innovation, design, production, waste management, business and financing around the world. The book covers sectors such as agriculture/food, packaging materials, build environment, textile, energy, and mobility to inspire the growth of circular business transformation. It aims to stimulate action among different stakeholders to drive CE transformation. It elaborates critical driving forces of CE including digital technologies; restorative innovations; business opportunities & sustainable business model; financing instruments, regulation & assessment and experiential education programs. It connects a CE transformation for reaching the SDGs2030 and highlights youth leadership and entrepreneurship at all levels in driving the sustainability transformation.

This book details the key concepts, objectives and processes relating to the professional accreditation of engineering bachelor (honours) degrees. The contemporary context of accreditation is examined in terms of the globalised nature of both the engineering profession and higher education. Examples of the processes relating to single and dual accreditation are provided, with examination of the Washington Accord and the requirements of the European Network for Accreditation of Engineering Education. Details are also provided as to how learning outcomes can be structured to demonstrate compliance with accreditation criteria. The final chapters deal briefly with quality assurance

processes used in education and the current international quality ranking systems which exist. This book will provide the reader with a detailed examination of outcome based education within the context of Bachelor of Engineering (honours) degrees. A key feature of this book is the side-by-side comparison of different accreditation criteria and a thorough discussion of the relatively new phenomenon of dual accreditation. The book seeks to provide a very clear explanation and exploration of accreditation within the context of engineering education and will benefit those practitioners involved in the accreditation process.

Although sociologists have written extensively on the broad subject of occupational careers, generally they have referred only incidentally to organizational careers within work organizations. In this pioneering sourcebook, now considered a classic, Glaser gathered from the literature of occupational sociology those studies that bear most directly on organizational careers. His objective was to provide the first survey of the substantial body of data on the subject and to place this data in a framework that illustrates its significance for the development of theory. In an extensive introduction, the editor explains the several purposes of the book and describes in detail the process of comparative analysis through which sociological theory on organizational careers can be generated. Organized around general themes such as recruitment, motivation, commitment, mobility, and succession, the writings of prominent sociologists--including Riesman, Caplow, Hughes, Becker, and Wilensky--form the content of the book and systematically cover every important facet of organizational careers. The editor's introductions to each section of the book alert the reader to the general phenomena--such as processes, conditions, categories, hypotheses, and properties--that crosscut and are generally relevant to all organizational careers and are, therefore, the raw material of theory. These introductions also suggest questions and problems for further analysis and research. This book as a whole stands as a demonstration of the contributors' method of how the sociologist, working from the data of research, can generate grounded, formal theory on this or any social phenomenon. This book also presents a vital body of data on organizational careers and a guide to further research that will be of great use both to occupational sociologists and to all those involved in the study of organizations.

Air Force Civil Engineer
The Michigan Professional Engineer
John Deere New Generation and Generation II Tractors
History, Models, Variations & Specifications
1960s-1970s
Voyageur Press

Technological advancements in the last few decades have significantly revolutionized the healthcare industry, resulting in life expectancy improvement in human beings. The use of automated machines in healthcare has reduced human errors and has notably improved disease diagnosis efficiency. Design and Development of Affordable Healthcare Technologies provides emerging research on biomedical instrumentation, bio-signal processing, and device development within the healthcare industry. This

book provides insight into various subjects including patient monitoring, medical imaging, and disease classification. This book is a vital reference source for medical professionals, biomedical engineers, scientists, researchers, and medical students interested in the comprehensive research on the advancements in healthcare technologies.

Many streams of research in organization and management have criticized the mainstream view of organizations as decision-making and information-processing structures, controlled through rational representations (substantive or procedural rationality). In spite of their differences, these streams of research share some key theoretical principles: Their processual view of organizing as 'becoming', their emphasis on the key role of action and action meaning; their interest in the agential power of artefacts and objects; the exploratory and inquiring nature of organizing. This book argues that Pragmatist thought can contribute to those approaches offering some theoretical argument, both as a general intellectual orientation and as a conceptual toolbox. As a general attitude, Pragmatism develops a radical critique of all the dualisms which often hinder organization studies: Thought and action, design and utilization, decision and execution, reality and representation, to name a few. As a conceptual toolbox, Pragmatism can contribute and clarify key concepts for organization and management studies, such as inquiry, semiotic mediation, habit, abduction, trans-action, and valuation. However, Pragmatist thought is still little known by organization and management scholars and by reflexive managers. The proposed book aims at making pragmatist key notions accessible to them and applicable to theorize organizations and transform managerial practices.

Includes list of the Alumni.

[Copyright: 2c4bbadd9d611466f8d75065bbb69e54](https://www.dreamtore.com/2018/05/2c4bbadd9d611466f8d75065bbb69e54.html)