International Journal Of Engineering Management And Economics

Welcome to the proceedings of the Sixth International Conference on Management Science and Engineering Management (ICMSEM2012) held from November 11 to 14, 2012 at Quaid-i-Azam University, Islamabad, Pakistan and supported by Sichuan University (Chengdu, China), Quaid-i-Azam University (Islamabad, Pakistan) and The National Natural Science Foundation of China. The International Conference on Management Science and Engineering Management is the annual conference organized by the International Society of Management Science and Engineering Management. The goals of the Conference are to foster international research collaborations in Management Science and Engineering Management as well as to provide a forum to present current research results. The papers are classified into 8 sections: Computer and Networks, Information Technology, Decision Support System, Industrial Engineering, Supply Chain Management, Project Management, Manufacturing and Ecological Engineering. The key issues of the sixth ICMSEM cover various areas in MSEM, such as Decision Support System, Computational Mathematics, Information Systems, Logistics and Supply Chain Management, Relationship Management, Scheduling and Control, Data Warehousing and Data Mining, Electronic Commerce, Neural Networks, Stochastic models and Simulation, Heuristics Algorithms, Risk Control, and Carbon Credits.

The Engineering Management book synthesises the engineering principles with business practice, i.e. the book provides an interface between the main disciplines of engineering/technology and the organizational, administrative, and planning abilities of management. It is complementary to other sub-disciplines such as economics, finance, marketing, decision and risk analysis, etc. This book is intended for engineers, economics and researchers who are developing new advances in engineering management, or who employ the engineering management discipline as part of their work. The authors of this volume describe their pioneering work in the area or provide material for case studies successfully applying the engineering management discipline in real life cases.

As advancements in technology continue to influence all facets of society, its aspects have been utilized in order to find solutions to emerging ecological issues. Creating a Sustainable Ecology Using Technology-Driven Solutions highlights matters that relate to technology driven solutions towards the combination of social ecology and sustainable development. This publication addresses the issues of development in advancing and transitioning economies through creating new ideas and solutions; making it useful for researchers, practitioners, and policy makers in the socioeconomic sectors.

This book consists of select proceedings of the International Conference on Functional Material, Manufacturing and Performances (ICFMMP) 2019, and presents latest research on using the combined intelligence of people, processes, and machines to impact the overall economics of manufacturing. The book focuses on optimizing manufacturing resources, improving business value and safety, and reducing waste – both on the floor and in back-office operations. It highlights the applications of the latest manufacturing execution system (MES), intelligent devices, machine-to-machine communication, and data analysis for the production lines and facilities. This book will be useful to manufacturers of finished goods and of sub-assemblies in the automotive, agriculture, and construction equipment sector. It will also provide solutions to make production strategies exceptional and can be a useful reference for beginners, researchers, and professionals interested in intelligent manufacturing technologies.

Proceedings of the 20th CIRP Design Conference, Ecole Centrale de Nantes, Nantes, France, 19th-21st April 2010

NEW BUSINESS MODELS AND SUSTAINABLE COMPETITIVENESS

Global Product Development

RSM: A Key to Optimize Machining: Multi-Response Optimization of CNC Turning with Al-7020 Alloy

Perspectives from Scientific Journal Reports

Advances in Engineering & Management

Parametric optimization, especially in machining of non-ferrous alloys seems to be quite rare and needs an immediate attention because of its associated downstream financial and non-financial losses. This book tries to fill the gap and presents an optimization problem of commonly used Al-7020 Alloy. Principles of Response Surface Methodology (RSM) have been implemented through Minitab software to bring necessary multi-response optimization, while turning on a CNC turner. The present study focuses on to enhance Material Removal Rate (MRR) while simultaneously reducing the Surface Roughness (Ra), during turning of Al-alloy. Such opposite natured response optimization is much difficult to achieve, particularly when uncoated carbide tip has been used as a cutting tool. Intensive literature survey helps to pin point parameters like; Cutting Speed, Feed Rate and Depth of Cut as a most critical to machining parameters, as far as effective and efficient optimization of selected responses are concerned. All these control-parameters are directly or inversely related to each other. If the depth of cut is increased MRR increases at the same time we get poor surface finish. Increase in the cutting speed has positive impact on both material removal rate and surface finish. Shortlisted parameters are conflicting, so we have to optimize these for further enhancement of the overall turning performance. At last, the optimized results are verified by using ANOVA as a statistical tool. This book provides quite rare Case-study of multi-response optimization (while non-ferrous CNC turning) to practioners, machinists and SME owners appropriately.

This book is a guide for students, researchers, and practitioners to the latest developments in fuzzy hybrid computing in construction engineering and management. It discusses basic theory related to fuzzy logic and fuzzy hybrid computing, their application in a range of practical construction problems, and emerging and future research trends.

In this issue of journal International Journal of Engineering Research in Africa are collected articles which describe the results of engineering solutions of actual problems in mechanical engineering and processing technologies, researching and designing of machines, in the practice the designing of the communication systems and construction and engineering management of modern production. Published articles will be useful for professionals from field of mechanical engineering, students and academic teachers of the related specialties

"Understanding the technology dynamics is a required capability in today's technology driven industries. This volume focuses on three areas: technology assessment, technology forecasting and technology diffusion. It shows: an introduction to different types of assessment methods and applications from different sectors including energy, healthcare and communications; technology forecasting and foresight and a review of conventional and emerging methods; and the diffusion of technologies by exploring adoption of products and services from different sectors."--Back cover.

Quantitative Tools and Applications

Developing Managerial Skills in Engineers and Scientists

Foundations of Airline Finance

Business Strategies and Approaches for Effective Engineering Management

Proceedings of the Sixth International Conference on Management Science and Engineering Management

Leading Continuous Improvement Projects

Being the premier forum for the presentation of new advances and research results in the fields of Industrial Engineering, IEEM 2015 aims to provide a high-level international forum for experts, scholars and entrepreneurs at home and abroad to present the recent advances, new techniques and applications face and face, to promote discussion and interaction among academics, researchers and professionals to promote the developments and applications of the related theories and technologies in universities and enterprises, and to establish business or research relations to find global partners for future collaboration in the field of Industrial Engineering. All the goals of the international conference are to fulfill the mission of the series conference which is to review, exchange, summarize and promote the latest achievements in the field of industrial engineering and engineering management over the past year, and to propose prospects and vision for the further development. This volume is the first of the two proceedings volumes from this conference.

This book outlining the latest developments in engineering digital transformation gathers a selection of the best papers presented at the 11th International Conference on Industrial Engineering and Industrial Management (CIO 2017), held in Valencia, Spain, from July 5th to 6th, 2017. The papers discuss topics in the following areas: strategy and entrepreneurship, OR, modelling and simulation, production, logistics and supply chain management, information systems, quality and product management, knowledge and project management, service systems, and education.

International Transaction Journal of Engineering, Management, & Applied Sciences & Technologies publishes a wide spectrum of research and technical articles as well as reviews, experiments, experiences, modelings, simulations, designs, and innovations from engineering, sciences, life sciences, and related disciplines as well as interdisciplinary/cross-disciplinary/multidisciplinary subjects. Original work is required. Article submitted must not be under consideration of other publishers for publications.

The Proceedings of the International Conference on Information Engineering, Management and Security 2014 which happened at Christu Jyoti Institute of Technology.

ICIEMS 2015

INTERNATIONAL JOURNAL OF ENGINEERING RESEARCH IN AFRICA.

ICIEMS 2014

Proceedings of the 11th International Conference on Construction in the 21st Century, London 2019

Proceedings of the 11th International Conference on Industrial Engineering and Industrial Management

ICIE 2018

We are glad to present the 34th volume of International Journal of Engineering Research in Africa to our readers. This volume contains articles describing the research results in the fields of materials science in the mechanical engineering, construction materials, technological processes in the chemical production, power distribution, communication engineering and engineering management. The articles will be useful for many engineers as well as for academic teachers and students majoring in these fields of engineering science.

In recent years the airline industry has experienced severe volatility in earnings, with airlines recording periods of substantial profits that are closely followed by periods of financial distress. This trend has continued into the new millennium, with numerous examples of airlines across the globe entering bankruptcy protection or liquidating. The text provides an introduction to both the basics of finance and the particular intricacies of airline finance where there can be significant fluctuations in both revenues and costs. This new edition also includes: capital budgeting management of current assets financial risk analysis fuel hedging aircraft leasing This textbook contains chapters that cover unique aspects of the aviation financial decision-making process. These include a rigorous and structured presentation of the buy versus lease decision that is prevalent in the industry, a valuation process for aviation assets, the recent trend toward privatization and the difficulty inherent in the valuation of a publicly-owned or semi-publicly owned asset. The Foundations of Airline Finance, now in its second edition, is an introductory text that can be used either as a general financial text or in a specialized class that deals with aviation finance in particular.

Being the premier forum for the presentation of new advances and research results in the fields of Industrial Engineering, IEEM 2014 aims to provide a high-level international forum for experts, scholars and entrepreneurs at home and abroad to present the recent advances, new techniques and applications face and face, to promote discussion and interaction among academics, researchers and professionals to promote the developments and applications of the related theories and technologies in universities and enterprises and to establish business or research relations to find global partners for future collaboration in the field of Industrial Engineering. All the goals of the international conference are to fulfill the mission of the series conference which is to review, exchange, summarize and promote the latest achievements in the field of industrial engineering and engineering management over the past year and to propose prospects and vision for the further development.

This book of proceedings is the synthesis of all the papers, including keynotes presented during the 20th CIRP Design conference. The book is structured with respect to several topics, in fact the main topics that serve at structuring the program. For each of them, high quality papers are provided. The main topic of the conference was Global Product Development. This includes technical, organizational, informational, theoretical, environmental, performance evaluation, knowledge management, and collaborative aspects. Special sessions were related to innovation, in particular extraction of knowledge from patents.

Collaboration and Integration in Construction, Engineering, Management and Technology

Developments in Management Science in Engineering 2017

Proceedings of the Fourth World Congress on Engineering Asset Management (WCEAM) 2009

Cases on Engineering Management Education in Practice

Fuzzy Hybrid Computing in Construction Engineering and Management

Papers in ITJEMAST 11(11) 2020

Collection of selected, peer reviewed papers from the 3rd International Conference Advances in Engineering and Management (ADEM 2014), September 11-12, 2014, Drobeta Turnu-Severin, Romania. The 55 papers are grouped as follows: Chapter 1: Advanced Materials and Processing Technologies; Chapter 2: Engineering Decisions and Investigations for Mechanical Engineering; Chapter 3: Environmental Engineering and Safety at Work; Chapter 4: Navigation and Maritime and Inland Transport Systems; Chapter 5: Management and Industrial Engineering

In this volume of journal "International Journal of Engineering Research in Africa" are collected articles which describe the results of engineering solutions of actual problems in mechanical engineering, materials processing technologies and chemical technologies, researching and designing of machines, in the designing of control systems for technological processes and engineering management of modern production. Published articles will be useful for professionals from field of mechanical engineering, chemical engineering, engineering management and for students and academic teachers of the related specialties.

Management science in engineering (MSE) is playing an increasingly important role in modern society. In particular, the development of efficient and innovative managerial tools has significantly influenced the research progress of management science. As research is vital for the propagation of leading-edge methods, journal evaluation and classification are critical for scientists, researchers, engineers, practitioners, and graduate students. This book identifies the main research categories of MSE, and evaluates and classifies each MSE journal. It represents the outcome of joint efforts from scientific board members, research fellows, and members of various professional societies. It is ideal for scientists, researchers, practitioners, engineers, graduate students and upper-level undergraduates in engineering management, civil engineering, industrial engineering, environmental engineering, energy engineering, information engineering, and agricultural engineering.

This book presents the proceedings of the Seventh International Conference on Management Science and Engineering Management (ICMSEM2013) held from November 7 to 9, 2013 at Drexel University, Philadelphia, Pennsylvania, USA and organized by the International Society of Management Science and Engineering Management, Sichuan University (Chengdu, China) and Drexel University (Philadelphia, Pennsylvania, USA). The goals of the Conference are to foster international research collaborations in Management Science and Engineering Management as well as to provide a forum to present current research findings. The selected papers cover various areas in management science and engineering management, such as Decision Support Systems, Multi-Objective Decisions, Uncertain Decisions, Computational Mathematics, Information Systems, Logistics and Supply Chain Management, Relationship Management, Scheduling and Control, Data Warehousing and Data Mining, Electronic Commerce, Neural Networks, Stochastic Models and Simulation, Fuzzy Programming, Heuristics Algorithms, Risk Control, Organizational Behavior, Green Supply Chains, and Carbon Credits. The proceedings introduce readers to novel ideas on and different problem-solving methods in Management Science and Engineering Management. We selected excellent papers from all over the world, integrating their expertise and ideas in order to improve research on Management Science and Engineering Management.

Engineering Management

Proceedings of the 21st International Conference on Industrial Engineering and Engineering Management 2014

Focused on Electrical and Information Technology Volume II

PROCEEDINGS OF THE XIV INTERNATIONAL SYMPOSIUM SYMORG 2014

Knowledge Ecology in Global Business: Managing Intellectual Capital

Creating a Sustainable Social Ecology Using Technology-driven Solutions

ICIEMS 2015 is the conference aim is to provide a platform for researchers, engineers, academicians as well as industrial professionals from all over the world to present their research results and development activities in Engineering Technology, Industrial Engineering, Application Level Security and Management Science. This conference provides opportunities for the delegates to exchange new ideas and application experiences face to face, to establish business or research relations and to find global partners for future collaboration.

This book focuses on the analytic principles of business practice and big data. Specifically, it provides an interface between the main disciplines of engineering/technology and the organizational and administrative aspects of management, serving as a complement to books in other disciplines such as economics, finance, marketing and risk analysis. The contributors present their areas of expertise, together with essential case studies that illustrate the successful application of engineering management theories in real-life examples.

An incredible volume of data is generated at a very high speed within the supply chain and it is necessary to understand, use and effectively apply the knowledge learned from analyzing data using intelligent business models. However, practitioners and students in the field of supply chain management face a number of challenges when dealing with business models and mathematical modelling. Supply Chain Analytics and Modelling presents a range of business analytics models used within the supply chain to help readers develop knowledge on a variety of topics to overcome common issues. Supply Chain Analytics and Modelling covers areas including supply chain planning, single and multi-objective optimization, demand forecasting, product allocations, end-to-end supply chain simulation, vehicle routing and scheduling models. Learning is supported by case studies of specialist software packages for each example. Readers will also be provided with a critical view on how supply chain management performance measurement systems have been developed and supported by reliable and accurate data available in the supply chain. Online resources including lecturer slides are available.

Information granules are fundamental conceptual entities facilitating perception of complex phenomena and contributing to the enhancement of human centricity in intelligent systems. The formal frameworks of information granules and information granulation comprise fuzzy sets, interval analysis, probability, rough sets, and shadowed sets, to name only a few representatives. Among current developments of Granular Computing, interesting options concern information granules of higher order and of higher type. The higher order information granularity is concerned with an effective formation of information granules over the space being originally constructed by information granules of lower order. This construct is directly associated with the concept of hierarchy of systems composed of successive processing layers characterized by the increasing levels of abstraction. This idea of layered, hierarchical realization of models of complex systems has gained a significant level of visibility in fuzzy modeling with the well-established concept of hierarchical fuzzy models where one strives to achieve a sound tradeoff between accuracy and a level of detail captured by the model and its level of interpretability. Higher type information granules emerge when the information granules themselves cannot be fully characterized in a purely numerical fashion but instead it becomes convenient to exploit their realization in the form of other types of information granules such as type-2 fuzzy sets, interval-valued fuzzy sets, or probabilistic fuzzy sets. Higher order and higher type of information granules constitute the focus of the studies on Granular Computing presented in this study. The book elaborates on sound methodologies of Granular Computing, algorithmic pursuits and an array of diverse applications and case studies in environmental studies, option price forecasting, and power engineering.

Proceedings of the Seventh International Conference on Management Science and Engineering Management

Proceedings of Education and Learning Issues in Entrepreneurship Workshop

Core Theory and Applications of Industrial Engineering (Volume 1)

Industrial Engineering, Management Science and Applications 2015

Engineering Asset Management

Supply Chain Analytics and Modelling

This book is a reference for continuous improvement project (CIP) leaders/facilitators in manufacturing and service organizations, students (undergraduate and graduate), academics responsible for managing senior projects (Capstone Projects) and teaching quality courses, and researchers interested in how organizations could produce more effective and efficient continuous improvement initiatives and projects. The authors collected and analyzed information and results from CIPs they facilitated or co-advised, such as the improvement of the service level in a bottle manufacturing organization, reduction of changeover in a brewery manufacturing organization, reduction of ambulance response time, and reduction of scrap in a steel transformation manufacturing organization. Many of the CIPs were previously part of award-winning white papers documenting critical improvements. Throughout this book, readers will learn: different types of CIPs metrics to identify successful CIPs the 53 factors related to CIPs success how to manage CIPs behaviors to achieve outstanding results from CIPs. Three of the chapters are supplemented with three or more case studies. In addition, the final chapter includes a list of behaviors expected from directors, continuous improvement managers, CIP leaders/facilitators, and CIP team members to obtain the major benefits from CIPs.

This book gathers papers presented at the 11th International Conference on Construction in the 21st Century, held in London in 2019. Bringing together a diverse group of government agencies, academics, professionals, and students, the book addresses issues related to construction safety, innovative technologies, lean and sustainable construction, international construction, improving quality and productivity, and innovative materials in the construction industry. In addition, it highlights international collaborations between various disciplines in the areas of construction, engineering, management, and technology. The book demonstrates that, as the industry moves forward in an ever-complex global economy, multi-national collaboration is crucial, and its future growth will undoubtedly depend on international teamwork and alliances.

Engineering Asset Management discusses state-of-the-art trends and developments in the emerging field of engineering asset management as presented at the Fourth World Congress on Engineering Asset Management (WCEAM). It is an excellent reference for practitioners, researchers and students in the multidisciplinary field of asset management, covering such topics as asset condition monitoring and intelligent maintenance; asset data warehousing, data mining and fusion; asset performance and level-of-service models; design and life-cycle integrity of physical assets; deterioration and preservation models for assets; education and training in asset management; engineering standards in asset management; fault diagnosis and prognostics; financial analysis methods for physical assets; human dimensions in integrated asset management; information quality management; information systems and knowledge management; intelligent sensors and devices; maintenance strategies in asset management; optimisation decisions in asset management; risk management in asset management; strategic asset management; and sustainability in asset management.

Successful engineering projects require a clear vision and long term strategy. Therefore, effective business initiatives have been applied to the engineering environment in order to enhance its management perspectives. Business Strategies and Approaches for Effective Engineering Management brings together the latest methodologies, principles, practices, and tools for engineering management. By providing theoretical analysis and practical applications, this book is a useful reference for industry experts, researchers, and academicians regarding progressive

strategies for successful management.
Managing Intellectual Capital
Advances in Intelligent Manufacturing
Proceedings of the 22nd International Conference on Industrial Engineering and Engineering Management 2015
New Trends and Developments in Automotive Industry
Theory and Applications
Methodology and Practice

Provides ideas on how intellectual capital through emerging technologies can support business performance. Covers topics such as competitive strategy, human resource management, and organizational learning.

These proceedings represent the work of researchers participating in the 6th International Conference on Innovation and Entrepreneurship (ICIE 2018) which is being co-hosted by Georgetown University and George Washington University and is being held at The University of the District of Columbia (UDC) on 5-6 March 2018.

If you're an engineer or scientist who has suddenly been thrust into the world of management, you may find yourself thinking that managing people is more of a challenge than your former highly technical job. Veteran management consultant Michael K. Badawy couldn't agree more. He says, "The primary problems of engineering and R&D management are not technical—they are human." Badawy offers real help for the human side of technical management in his classic Developing Managerial Skills in Engineers and Scientists. Since 1982, thousands of technical executives, supervisors, managers, and students have turned to this classic for hands-on management techniques. This thoroughly revised second edition hones in on issues facing today's technical manager: Total Quality Management Technological entrepreneurship Cross-functional teams Success requirement for project management Interdepartmental interfacing Educating technologists in managing technology As a 21st century technical manager, you hold the reins to a corporation's most powerful resource—technology, the key to profitability and growth in an increasingly technological era. Using the tools in this practical management reference, you can become the kind of manager whom corporations will be battling for: an excellent manager who understands people, administrations, and technology. You'll learn how to organize, coordinate, and allocate resources while setting goals and troubleshooting. Instructive case studies of both successful and struggling technical managers clearly illustrate management do's and don'ts. You'll also find immediately applicable techniques and tips for managerial success. Badawy focuses on the technical manager in action with concrete approaches that always address the specific needs of the manager. Among the topics covered are preventing managerial failure; practical mechanisms that strengthen technologists' management skills; issues in career planning and development, decision making and evaluation of engineering and R&D efforts; and strategic thinking and planning skills. Badawy's down-to-earth language and practical examples bridge the gap between theory and practice, making it a snap for both the novice and the initiated to translate theory into everyday solutions. Plus, you'll find career guidance as well as up-to-the-minute coverage of current managerial training programs. A bounty of tables, charts, and diagrams further enhance Developing Managerial Skills in Engineers and Scientists, making this volume indispensable to all those technical professionals interested in becoming 21st century managers.

The International Journal of Service Science, Management, Engineering, and Technology (IJSSMET) is a multidisciplinary journal that publishes high-quality and significant research in all fields of computer science, information technology, software engineering, soft computing, computational intelligence, operations research, management science, marketing, applied mathematics, statistics, policy analysis, economics, natural sciences, medicine, and psychology, among others. This journal publishes original articles, reviews, technical reports, patent alerts, and case studies on the latest innovative findings of new methodologies and techniques.

Succeeding as a Technical Manager

International Journal of Engineering Research in Africa
International Journal of Information Technologies and Systems Approach
Granular Computing and Intelligent Systems
Design with Information Granules of Higher Order and Higher Type

This volume provides a complete record of presentations made at Industrial Engineering, Management Science and Applications 2015 (ICIMSA 2015), and provides the reader with a snapshot of current knowledge and state-of-the-art results in industrial engineering, management science and applications. The goal of ICIMSA is to provide an excellent international forum for researchers and practitioners from both academia and industry to share cutting-edge developments in the field and to exchange and distribute the latest research and theories from the international community. The conference is held every year, making it an ideal platform for people to share their views and experiences in industrial engineering, management science and applications related fields.

The continuously growing list of technological, economic, and social challenges in today's world has made it imperative for higher educational institutions to equip students with the necessary knowledge, skills, and competences to seek employment and work in such a challenging global context. Specifically, within the engineering field, today's businesses now seek innovative engineer-managers who can design engineering systems and also handle projects/design and development; create strategic plans; handle financing; and recognize, engage with, and evaluate market opportunities. This has created a need for current research on effective engineering management education that focuses on technical people, projects, and organizations and prepares engineer and science graduates to become future industry leaders and be successful long term. Cases on Engineering Management Education in Practice explores the crucial role of innovative and effective education that helps graduates develop critical leadership, negotiation, and communication skills in specific engineering disciplines. It presents the latest scholarly information on curriculum development, instructional design, and pedagogies of engineering management learning initiatives focusing on a range of topics that fall under the scope of engineering management education practices including management, marketing, finance, law, leadership, organizational behaviors, and human resources and statistics. While highlighting topics such as curriculum reform, student motivation and engagement, and innovative learning and education practices, this book is ideal for teachers, administrators, instructional designers, researchers, practitioners, stakeholders, academicians, and students who are interested in the management of engineering education practices.

This book is divided in five main parts (production technology, system production, machinery, design and materials) and tries to show emerging solutions in automotive industry fields related to OEMs and no-OEMs sectors in order to show the vitality of this leading industry for worldwide economies and related important impacts on other industrial sectors and their environmental sub-products.

Select Proceedings of ICFMMP 2019
Engineering Digital Transformation
International Journal of Service Science, Management, Engineering, and Technology
The Proceedings of the International Conference on Information Engineering, Management and Security 2014
Lessons from Successful, Less Successful, and Unsuccessful Continuous Improvement Case Studies
Focused on Electrical and Information Technology