
MAKLUMAT PERDAGANGAN DAN PERNIAGAAN

TRADE AND COMMERCIAL INFORMATION

FIRST e-AUTOMOTIVE AFTERMARKET PARTS SUPPLY

PAC Total Solutions Sdn. Bhd. has teamed up with Oracle Corporation Malaysia Sdn. Bhd. to develop the first e-automotive aftermarket parts supply exchange. The electronic exchange portal will provide a platform for members of the automotive industry to buy and sell parts via the Internet.

JOINT VENTURE COMPANY TO DEVELOP SIMULATION SYSTEMS

PSC-STN Atlas Elektronik (Malaysia) Sdn. Bhd., a joint venture company between PSC Defense Technologies Sdn. Bhd. and German-based STN Atlas Elektronik GmbH, will be developing simulation systems with the involvement of local engineers and Royal Malaysian Navy personnel, sources were quoted. The simulation systems include combat systems, bridge systems and integrated platform management systems. The first six units were valued at RM5.35 billion and deliverable up to 2010. A team of 14 Malaysian engineers have been sent to Hamburg, Germany to be trained for three years in simulation technology know-how. They would form the core team for installing and integrating the various simulators in Lumut. Thereafter, it could be developed further to accommodate the complex needs of other high-tech industries like precision manufacturing, automotive and aeronautics. Syed Saadun Tarek Wafa, the Business Development Director of Penang Shipbuilding and Construction Sdn. Bhd., foresees the prospects of simulation systems being assimilated into the syllabus of local universities such as in engineering studies to aid further the production of local skills and expertise which would reduce the country's high-dependency on foreign skills and expertise. PSC-STN Atlas Elektronik has developed and supplied simulation systems for Star Cruise and the Kapar power plant in Port Dickson.

MALAYSIA'S MARITIME REFERENCE CENTRE

Malaysia will be turned into a regional maritime reference centre once the planned Marine Technology Industrial Park is developed. The centre is being developed in Lumut, Perak to procure merchant and military vessels from other countries as well as train manpower to operate them. The RM200 million park is being built by PSC-Naval Dockyard Sdn. Bhd. (PSC-NDSB). The whole park would serve as a dedicated spares distribution, servicing and product support centre for the new patrol vessels, other Royal Malaysian Navy (RMN) vessels and naval and commercial maritime vessels in South and East Asia, sources were quoted. According to sources, the centre would house the biggest and the most comprehensive sets of simulators in the Southeast Asian region exceeding capabilities of a similar centre in Singapore. Through the use of computer imagery technology, the simulators would develop human skills in machine and systems handling like maritime vessels and its command systems by assimilating real life conditions of war zones and storms.

PENSONIC TO SOURCE PARTS REGIONALLY TO REMAIN COMPETITIVE

Pensonic Holdings Bhd., an electrical and household appliances manufacturer, is "regionalising" its product content to remain competitive in the global market, sources were quoted.

POLYMATE TO MAKE MAINTENANCE-FREE BATTERIES FROM NEXT OCTOBER

Polymate Holdings Bhd., major producer of automotive batteries, will begin commercial production of semi-maintenance and maintenance-free automotive batteries by September or October 2002, sources were quoted. The machinery for making the batteries was expected to arrive by July 2002. The expected annual production for the batteries was about 1.2 million units. The company had invested about RM30 million for the new production facilities in Rawang, Selangor. The new batteries which were mainly targeted for export, would be about 20 to 30 percent more expensive than the present conventional batteries. Polymate's export markets are in Australia, New Zealand and United Kingdom. Locally, Polymate has more than 40 percent of the automotive battery market.

SONY'S PROMOTIONAL TRAIL TO BOOST MALAYSIAN SALES

Sony Corporation has unveiled an aggressive marketing campaign to promote high-tech digital products to boost sales in Malaysia amid economic gloom and forecasted an improvement in 2002. Though sales of

audio-video products had declined in 2001, growth was expected from the digital camera and camcorder category which was fast gaining popularity, sources were quoted. Sony was confident of achieving a 30 percent sales growth in the digital imaging product category which is one of the fastest growing categories. Sony has two plants in Malaysia, one in northern Penang state producing audio video (AV) products and the other in central Selangor manufacturing television sets, mainly for export markets. Sony has embarked on a three-million-ringgit promotional trail, including a television programme and roadshows.

MAKLUMAT PENGELUARAN

PRODUCT INFORMATION

ALLUMINIUM BOTTLES

Daiwa Can of Japan has produced alluminium bottles which are said to be a serious rival to PET plastic bottles. Amongst the advantages of using alluminium bottles are that it has a light-blocking property which prevents oxidation of the contents, easier to recycle and easy for decorating.

FOOD SAFE LIBRICANTS

A type of grease has been developed by Biral in the UK. The grease is safe to use on moulds and machinery producing food containers, closures and bottles. Biral FIG (food industrial grease) comply with FDA regulations for situations where contact between food and lubricant is possible or unavoidable. The product is said to be able to resist water washout, food acids, detergents and cleaning agents. Further information may be obtained from www.hitroute.com

SAFER CAR DOOR LINERS

Alpha Packaging Films of Speke, Liverpool has developed a polyethylene film which it claimed could make cars safer. Known as FRG, it contains a halogenated polyphosphate flame retardant and is intended for use in door liners. More information is available from info@alphapkg.co.uk

ULASAN BUKU

BOOK REVIEWS

CONSTRUCTION scheduling, cost optimization, and management: a new model based on neurocomputing and object technologies. Adeli, Hojjat and Karim, Asim. London: Taylor and Francis, 2001. (TH438.4.A228 2001 Kejuruteraan)

Presents a general mathematical formula for the scheduling of construction projects using a computer model based on neurocomputing and object technologies. Using this formula, repetitive and non-repetitive tasks, work continuity considerations, multiple-crew strategies, and the effects of varying job conditions on the performance of a crew can be modeled. Aims to minimize direct construction cost. The model yields the optimum construction schedule for for minimum cost, for any given project. It provides a practical methodology which will be of great benefit to all those involved in construction scheduling and cost optimization.

CRYSTALLIZATION in foods. Hartel, Richard W. Gaithersburg: Aspen Publishers, 2001. (TP370.5.H328 2001)

Crystallization in Foods reports the latest information on how and why crystals form in foods and shows how this information can be used to control crystallization. Material is organized according to the steps that occur during crystallization. After a brief overview of the nature of crystalline structure in chapter 2, chapter 3 provides an in-depth review measurement and characterization of crystals in foods. In order to understand how crystals form, it is necessary to understand the nature of the liquid state (chapter 4). The mechanisms of nuclei formation are covered in chapter 5, followed by the principles of crystal growth (chapter 6). Although numerous examples are given in previous chapters as the fundamentals are developed, chapter 7 provides specific examples of where controlling crystallization in foods is important. In chapter 8, continued changes in crystal characteristics during storage are covered. It is a must read book for those in the food industries and business.

GENERALIZED harmonic analysis and wavelet packets. Trimeche, Khalifa. Australia: Gordon and Breach Science Publishers, 2001. (QA403.T813 2001)

This book presents a comprehensive treatment of transmutation operators associated with the Bessel operator, and explores many of their properties. They are fundamental in the complete study of Bessel harmonic analysis and Bessel wavelet packets. Many applications of these theories and their generalizations have been injected throughout the text by way of a rich collection of problem and references. The results and methods in this book should be of interest to graduate students and researchers working in special funtions, Fourier analysis, hypergroup and operator theories, differential equations, probability theory and mathematical physics. Background materials are given in adequate detail to enable a graduate student to proceed rapidly from the very basics to the frontier of research in the area of generalized harmonic analysis and wavelets.

GLOBAL information technology outsourcing: in search of business advantage. Lacity, Mary Cecelia and Willcocks, Leslie P. Chichester: J. Wiley, 2001. (HD2365.L139 2001)

A text presenting the theory that organizations must develop a comprehensive outsourcing strategy in order to achieve more than modest improvement of service and cost reduction. Many Fortune 500 companies have taken to outsourcing their information technology expecting to save money while maintaining the strategic advantage enjoyed by firms that keep their Information Technology (IT) inhouse. Most of these companies are still seeking the elusive "added value" they anticipated. Yet some companies are gaining significant competitive advantage through IT outsourcing. The results of case studies of organizations and Chief Information Officers in the United States, the United Kingdom, Australia, Europe, and Japan provided the evidence for the theory.

GROUND-water microbiology and geochemistry. Chapelle, Francis H. 2nd ed. New York: J. Wiley, 2001. (QR105.5.C462 2001)

Ground-Water Microbiology and Geochemistry describes how geologic and microbial processes interact, and offers examples on how water quality problems can be addressed using these principles. The initial

chapters cover the kinds of microorganisms found in subsurface environments, focusing on their growth, metabolism, genetics, and ecology. The second part of the book offers a hydrologic perspective on how microbial processes affect ground-water geochemistry in pristine systems. Readers gain an understanding of biogeochemical cycling in ground-water systems and how ground water chemistry can be used to study microbial processes in aquifer systems. The final section of the book deals with the biodegradation of human-introduced contaminants in ground-water system, with an up-to-date review of the physiology, biochemistry, and redox conditions that favour biodegradation processes. This book is important for geoscientists, hydrologists, and environmental engineers, as well as for water planners and lawyers involved in environmental issues.

A GUIDE to finding quality information on the Internet: selection and evaluation strategies.

Cooke, Alison. *2nd ed.* London: Library Association Publishing, 2001. (ZA3075.C772 2001)

In summary, the book covers: using search facilities effectively to improve information retrieval; assessing the quality of an information source; evaluating particular types of Internet-based sources of information; and using checklists, kitemarks and other indicators of quality. The book is full of useful tips for looking critically at Internet-based information. This book will be invaluable to anybody who uses the Internet, especially librarians and information professionals who constantly warn their users against accepting at face value all they read and see on the Internet.

MARKETING in the new Asia. Siew, Meng Leong, *et al. (Eds).* Singapore: McGraw-Hill, 2001. (HF5415.12.A78M345 2001)

Asia appears to have recovered from the depths of an economic and social crisis in the late 1990s. However, marketing in and to the region remains as challenging as ever. These issues and more are addressed in this book, which consists of published seminal works by leading authorities as well as original pieces written specifically for it. A wide variety of issues are covered, ranging from general business matters to specific marketing strategies, from consumer to industrial buyer behaviour and marketing practices, which are viewed from a pan-regional as well as a country-specific perspective. Collectively, the chapters will provide the requisite insights into how marketing has changed and adapted for business survival and success in post-crisis Asia.

MARKETING management: knowledge and skills. Peter, J. Paul and Donnelly, James H. *6th ed.* Boston: Irwin/McGraw-Hill, 2001. (HF5415.13.P4792 2001)

This text/casebook covers basic marketing principles, marketing problem analysis, and developing original marketing plans, and analyzes marketing management and strategic marketing cases from various industries and time periods. Details essentials of marketing research, consumers and organizational buyers behaviour, new product planning, distribution and pricing, and international marketing. There are over 40 cases and more than 50% of them are new to this edition. Several of the cases feature technology companies and highlight exciting new examples.

RHEOLOGY in plastics quality control. Dealy, John M and Saucier, Peter C. Munich: Hanser, 2000. (TA1122.D279 2000 Kejuruteraan)

It has been found that the results of rheological tests are useful indicators of resin quality. Rheological data are related directly to melt processability and indirectly to final part performance. *Rheology in Plastics Quality Control* successfully merges introductory rheology and measurement methods with standard statistical data treatment methods for quality control. While separate chapters deal with the rheological characterization and with statistics, the two are well integrated to illustrate the application of methods of statistical analysis to using rheological measurements as control tools. Numerous examples show how these methods can be used to solve production problems involving product quality. The CD-ROM that is included provides examples of the application of commercial statistical software to the use of rheology for quality control.

UNDERSTANDING policy-based networking. Kosiur, David R. New York: J. Wiley, 2001. (HD69.58K86 2001)

Understanding Policy-Based Networking gives an overview of all of the fundamental concepts, protocols, and systems needed to fully understand and take advantage of this speedy new network service. This book will sort out the hype from the reality for this important advance in networking. The author provides examples and case studies as well as product roadmaps and suggestions for possible migration paths from the old labour-intensive management to next-generation PBNs (policy-based networks). Readers will learn

more about the first network services set up for policy-based management including Quality of Service (QoS), the Resource Reservation Protocol (RSVP) in Win2000, the LDAP directory technology, and other services nearing standards completion. This is a book that business and IT managers, systems administrators, and network managers should read when they are looking for better ways to manage their networks and tie networks to business uses.

MAKLUMAT PENYELIDIKAN DARI USM

RESEARCH INFORMATION FROM USM

KINETIC STUDY OF THE PLASTIC WASTES PYROLYSIS USING THERMAL GRAVIMETRIC ANALYSIS (TGA)

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ABSTRACT

In this work, a kinetic study on the pyrolysis of mixed polymers, which exists in most plastic wastes, was presented. The thermal degradation of three sample mixtures of equal weight percent: (i) polypropylene (PP) and polystyrene (PS), (ii) PP, PS, and low-density polyethylene (LDPE), and (iii) PP, PS, LDPE, and high-density polyethylene (HDPE), were investigated by thermal gravimetric analysis (TGA) at heating rates of 5, 20, 40°C/min., in nitrogen atmosphere over the temperature range of 30-650°C. The kinetic parameters (activation energy and pre-exponential factor) were determined by using pseudo first-order reaction method. For PP & PS, it was observed that the results conform to the first-order reaction in two regions with activation energies of 79.3 kJ/mol (region I) and 236.9 kJ/mol (region II), separated by a relatively narrow transition region (III). For PP, PS, & LDPE, two reaction zones were present and fit a first-order reaction. The first reaction zone was similar to PP & PS, and the second reaction zone (region IV) had an average activation energy of 410.9 kJ/mol. It was also found that three reaction zones are present for PP, PS, LDPE, & HDPE with average activation energies of 94.9, 151.9 and 359.2 kJ/mol, respectively.

PERKHIDMATAN KESEDARAN KEMASKINI

CURRENT AWARENESS SERVICE

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AGRICULTURE

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AQUACULTURE

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BIOTECHNOLOGY

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