



ISSN: 0125-2563-2005

MIDAS BULLETIN

JILID 34, BIL. 1, JAN - MAC 2006

MAKLUMAT INDUSTRI DAN SAINS

INFORMATION SERVICE FOR COMMERCE & INDUSTRY

KANDUNGAN / CONTENTS

MAKLUMAT PERDAGANGAN DAN PERNIAGAAN/ TRADE AND COMMERCIAL INFORMATION	1
MAKLUMAT PENGELUARAN/ PRODUCT INFORMATION	2 - 4
ULASAN BUKU/ BOOK REVIEWS	5 - 8
MAKLUMAT PENYELIDIKAN DARI USM/ RESEARCH INFORMATION FROM USM	9 - 12
PERKHIDMATAN KESEDARAN KINI/ CURRENT AWARENESS SERVICE	13 - 17

MAKLUMAT PERDAGANGAN DAN PERNIAGAAN/ TRADE AND COMMERCIAL INFORMATION

MALAYSIA PLANS TO DEVELOP GHS

Malaysia hopes to implement the chemical hazard classification and communication system based on the Globally Harmonised System (GHS) by year-end. GSH, a system to define and classify hazards through a uniform hazard information on labels and safety data sheet to be used in worldwide communication, will be implemented in four sectors -- industrial workplace, agriculture, transport and consumer products. The international structure for harmonizing classification and labeling systems for chemicals will have a beneficial impact on chemical trade, the exchange of information related to chemicals, the cost of risk assessment and management of chemicals and ultimately the protection of workers, the general public and the environment. A plan to implement the GHS was adopted at the 2002 UN World Summit on Sustainable Development, held in Johannesburg, South Africa. Countries were encouraged to have the GHS fully operational by 2008. Sources were quoted.

MAKLUMAT PENGELUARAN / PRODUCT INFORMATION

USM INTELLECTUAL PROPERTIES

The USAINS Group is the commercial arm of Universiti Sains Malaysia which is responsible for managing all its commercial activities. USAINS markets and promotes the intellectual properties of the University - such as its innovative products, processes, patents, designs, copyright material and the consultancy services of its highly qualified professional and technical staff.

The following is a part of USM intellectual properties under Medical and Pharmaceutical category offered by USAINS .

For further information, please contact the Marketing Department at:

USAINS Holding Sdn. Bhd.

Kompleks EUREKA, 11800 USM

En. Abd. Hamid Abd. Wahab (04-6583655 ext. 213)

En. Azizi Ibrahim (04-6583655 ext. 212)

Or e-mail your enquiries to:

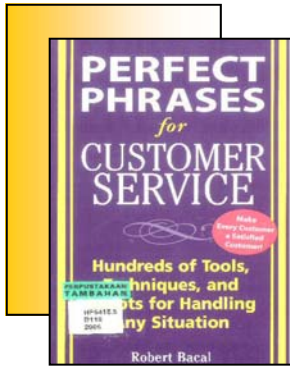
info@usainsgroup.com, hamidwahab@usainsgroup.com, azizi@usainsgroup.com

MEDICAL / PHARMACEUTICAL		
No.	Title	Notes
1.	ABRa 2	A chair design for rehabilitation for the physically disabled child
2.	AiPap System	Software for automatic cervical cancer diagnosis
3.	Allofibular Composites	An ideal reconstruction for bone tumours
4.	Allograft Prosthetic Composite (APC)	A combination of prosthesis and allograft as an alternative to expensive modular megaprosthesis
5.	ALPHa 3	Rehabilitation apparatus to facilitate walking and posture development
6.	EzAmp Octaplex Cholera Kit	A thermostabilized and rapid DNA-based diagnostic kit for the simultaneous detection of serogroups, biotypes, virulent genes and tetracycline resistant gene of <i>Vibrio cholerae</i>

7.	Apparatus for Rehabilitation of Open and Close Fracture/Lower Limb Injuries	Physiotherapeutic apparatus for unsupervised exercise
8.	Brugia RAPID™	A new innovation for diagnosis of filariasis
9.	CeraDent	Locally formulated dental porcelain
10.	Cholera DNA Rapid	Rapid single tube thermostabilised PCR based test for cholera
11.	A Community Friendly Advanced Mobile Dental Clinic	Prototype advanced mobile dental clinic with X-ray facilities built upon a bus chassis
12.	CORAGRAF	Bone graft material crafted from corals
13.	EZDNA Amp	Complete kit with thermostabilized reagents for <i>in vitro</i> amplification of DNA
14.	EZEBV Amp Epstein-Barr	A DNA-based diagnostic kit for detection of Epstein-Barr virus nasopharyngeal carcinoma (NPC)
15.	E-TAC (Early Treatment Avoid Complication)	A low cost but effective pylon to assist amputees
16.	CREST (Cerebral Palsy Rehab. Station)	Low-cost apparatus for assisting rehabilitation of cerebral palsy patients
17.	EZTB Amp PCR Kit	Rapid <i>Mycobacterium tuberculosis</i> (TB) PCR detection kit
18.	NeuralPap System	Pap smear slides can now be screened automatically by computer powered by the NeuralPap algorithms
19.	The Neurojaf 5 th Ventricular Set	An external ventricular drainage especially good for haematomas and tumour debri

20.	NutraSens Disposable Artificial Tongue for <i>Eurycoma longifolia</i> Jack	Handheld electronic device for verification of tongkat ali extracts
21.	Pharmacognosical Evaluation & Standardization of Pegaga (<i>Centella asiatica</i>)	Standardisation data and procedure for testing and analytical purposes
22.	Pharmacognosical, Phytochemical, Antidiabetic, and Cardiovascular Studies of Sambung Nyawa (<i>Gynura procumbens</i>) Leaves	Standardisation data and procedure for testing and analytical purposes
23.	DENTEC	Radio-opaque denture base material derived from ploy(methyl methacrylate)
24.	REKAGRAF Reformulated Calcium for Bone Grafting	A safe effective and readily available material for replacement of diseased bone in humans or animals
25.	Reusable Endosurgical Grasper	Cost-effective instrument for laparoscopic surgical techniques
26.	STAE Seat Confvertor ^R	Portable gadget and accessory for cervical and lumbar support
27.	Standardization, Biopharmaceutics and Bioactivity of Misai Kucing (<i>Orthosiphon stamineus</i> Benth.)	Standardisation data and procedure for testing and analytical purposes
28.	Standardized Herbal Extract for Kidney Stone and Related Disease	Standardisation data and procedure for testing and analytical purposes
29.	Standardizing Sembong (<i>Blumea balsamifera</i>) Extracts for Kidney Stone and Related Diseases Using a Taste Sensor	Standardisation data and procedure for testing and analytical purposes
30.	3-D Craniofacial Surgical Simulator (Surgi-Try)	Rapid prototyping produces exact anatomical models from CT and MRI data
31.	Typhirapid	Rapid IgM test for diagnosis of acute typhoid fever
32.	VCUSM1/2 vaccine	A patented vaccine candidate for O139 cholera

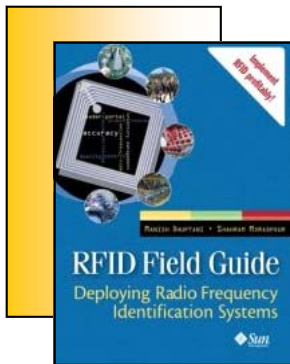
ULASAN BUKU/ BOOK REVIEWS



PERFECT phrases for customer service: hundreds of tools, techniques and scripts for handling any situation.

Bacal, Robert. New York: McGraw-Hill, 2005.
(HF5415.5.B116 2005)

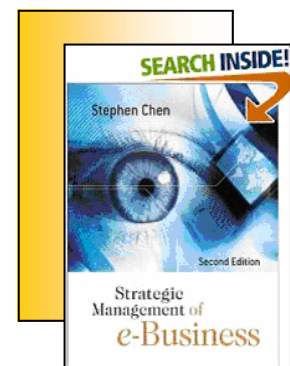
This book gives the tools to interact with customers more effectively. It is not full of principles or platitudes, or handy customer service slogans but focuses on doing things right. What should we do with a customer who is swearing at us? What do we do to prevent customers who have waited a long time from getting really angry? This book will answer these questions, and many others about customer service situations. This book is about solutions.



RFID field guide: deploying radio frequency identification systems

Buptani, Manish & Moradpour, Shahram.
Upper Saddle River, NJ: Sun Microsystems/Prentice Hall PTR, c2005. TS160.B575 2005

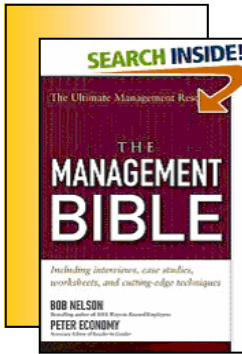
This book is a comprehensive guide to planning, designing, and deploying RFID technology into your business. Two leading RFID experts draw on their extensive experience to cut through the hype associated with RFID technology and present the realities. The authors begin by explaining how RFID works, and identifying mature and emerging RFID applications that can reduce expenses, increase revenue, and drive competitive advantage. Next, they present a complete framework for assessing and deploying RFID from budgeting to team building, standards to security, vendor selection to integration.



STRATEGIC management of e-business.

Chen, Stephen. 2nd ed. Hoboken, N.J.: John Wiley, 2004.
(HF5548.32C518 2004)

This book focuses on strategic implications of e-Business and examines the e-business strategies being employed by firms in a range of different industry sectors. This new edition contains updated and new case studies, as well as recognizing the developments in the field.



THE management bible.

Bob, Nelson & Economy, Peter. Hoboken, N.J.: John Wiley, 2005
(HD38.15.N424 2005)

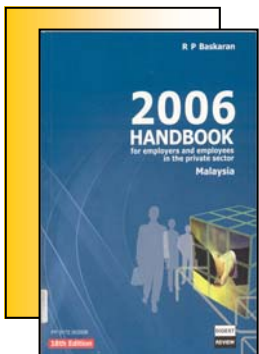
The Management Bible is the most comprehensive book on the topic of management available anywhere. It offers in-depth coverage of the entire range of essential topics for today's managers and supervisors from beginners to seasoned veterans and includes practical, effective solutions for the daily problems every manager faces. In addition to planning, strategy, solutions to common problems, the book also includes proven tips and tactics that help managers into more effective, efficient leaders



PROFIT, growth and risk: an executive guide to modern Purchasing

Gilmour, Iain & Billson, Ian. London: Spiro Press, 2004
(HD39.5.G488 2004)

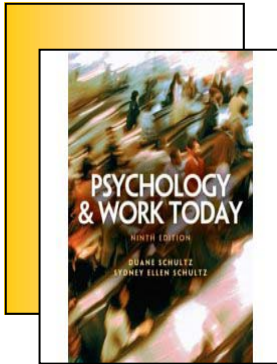
This book presents the need for purchasing to be seen as an underlying business process and not a specific function. The book is divided into three parts, with Part 1 is an overview of the more general theory and strategy considerations that lie behind modern purchasing activity and Part 2 consists of rather more detail covering current professional practice and tools. Finally, Part 3 looks at some areas of interest to those with specific responsibilities.



2006 HANDBOOK for employers and employees in the private sector.

Baskaran, R.P. 18th ed. Sungai Petani, Kedah.: Digest Review, 2006.
(HD6971.B3154 2006)

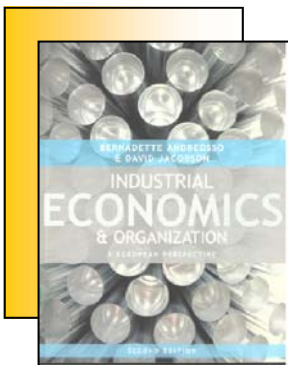
The handbook explains, with examples, in an easy-to-read style and provides practical and effective explanations on the following subject matter relating to human resources management, financial management, and company administration.



PSYCHOLOGY & work today.

Schultz, Duane P. & Schultz, Sydney Allen. 9th ed. Upper Saddle River, N.J.: Pearson Prentice Hall, 2005.
(HF5548.8.S3875 2006)

This book presents preparatory guide for entering today's global business and industrial world. This informative, sophisticated, and entertaining book informs readers about the nature of work in modern society. Focusing on the practical and applied knowledge, it shows how industrial-organizational psychology directly influences our lives as job applicants, trainees, employees, managers, and consumers. Topics include human resource development (employee selection, psychological testing, performance appraisal, and training); leadership, motivation, job satisfaction, and job involvement; working conditions, safety, violence, and health in the workplace; and engineering and consumer psychology. Hot-button issues such as Internet addiction and social isolation, discrimination based on genetic testing, ethnic harassment, and executive coaching are discussed and debated.



INDUSTRIAL economics & organization: a European perspective

Andreosso-O'Callaghan, Bernadette & Jacobson, David.
2nd ed.
London:McGraw-Hill Education, 2005.
(HD2844.A559 2005)

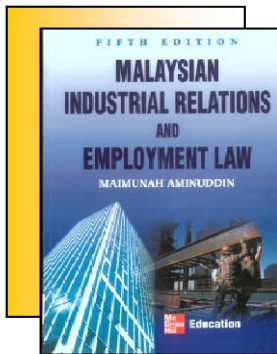
Industrial Economics and Organization: A European perspective, second edition provides an authoritative account of both traditional and current theories in industrial economics. Integrating new material on recent theoretical developments, as well as recent political and economic changes, it draws on European examples to illustrate key concepts to the reader.



INTERNATIONAL conflict and the global economy.

Mansfield, Edward D, ed. Cheltenham, UK: Edward Elgar Publishing, 2004.
(HF1359.I62 2004)

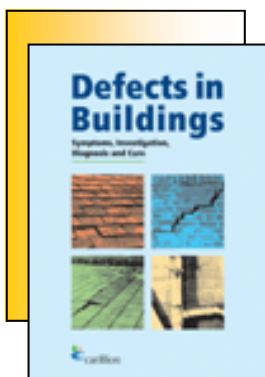
The relationship between the global economy and national security has been an enduring source of interest and debate. This volume contains a set of pioneering studies that paved the way for contemporary work on the political economy of national security as well as some more recent contributions to this literature. These papers address the influence of international economic relations on political conflict, the use and effectiveness of economic statecraft, and the effects of national security concerns on foreign economic relations. The articles contained in this volume will chart a path for research on these topics for years to come.



MALAYSIAN industrial relation and employment law.

Maimunah Aminuddin. 5th ed. Kuala Lumpur: McGraw-Hill, 2006.
(HD8700.6.M554 2006)

This book presents the role of the Malaysian government in industrial relations, trade unions, trade disputes, the Industrial Court, and industrial action. Safety and health issues have been included in this edition and the material on the requirements of the various employment laws has been extended and expanded. Concepts are illuminated with cases, examples and relevant statistics. It also provides an updated and thorough coverage on a subject of importance to students of human resource management, trade union leaders, managers of small firms and workers themselves. The Malaysian system of industrial relations and employment law is described in detail to ensure readers understand these keys areas of concern which affect the well-being of everyone in society today.



DEFECTS in buildings: symptoms, investigation, diagnosis and cure.

London: Stationery Office Books, 2001. (TH441.D314 2001 f)

This book is intended for all those who control the management and repair of buildings. Diagnosing defects in buildings saves time and effort for designers, builders and manufacturers and can reduce correction costs by a factor of five. With a chapter for each building component this revised and illustrated edition uses photographs and diagrams to look at deterioration, the durability of materials, and the principles of diagnosis and investigation.

MAKLUMAT PENYELIDIKAN DARI USM/ RESEARCH INFORMATION FROM USM

IMPROVEMENT OF IMAGE QUALITY BY USING PHYSICAL FILTERS IN NUCLEAR MEDICINE IMAGING

Sayed Inayatullah Shah^a, Ahmad Zakaria^b and Tuhin Haque^b
School of Health Sciences^a and School of Medical Sciences^b
USM Health Campus

ABSTRACT

Single Photon Emission Computed Tomography (SPECT) is one of the diagnostic modality of nuclear medicine technology, which is used as an important tool for diagnosis of diseases in human. The limits of this modality among the others are due to equipment and the gamma photon physics viz., scattering and absorption of gamma photons in the patient's body. Due to the scatter effect, image quality is degraded and the non-linearity in the quantitation of radioactivity uptake is resulted. The work presented here attempts to explore the use of unconventional (material) filters in the Tc-99m SPECT for enhancement of image quality by reducing the effects of scattered gamma photons. Carlson phantom is scanned by mounting the filter (s) on the collimator face with cold and hot region inserts filled with water and Tc-99m radionuclide was uniformly distributed within the phantom. Images of the same phantom are also acquired without material filter (s). Individual studies have been carried out for each material filter by using either LEGP or LEHR collimator. The standard energy window (126-154 keV centered at 140 keV) is chosen for the data acquisition. Results show that the perceived image quality of hot and cold region and also their detectability has been improved when unconventional filters are used. It is concluded that this approach may have important clinical applications.

THE AETIOLOGY AND MOLECULAR CHARACTERIZATION OF COLLETOTRICHUM SPECIES CAUSING POST HARVEST DISEASES OF POST HARVEST CROPS

Maziah Zakaria, Latiffah Zakaria and Baharuddin Salleh
School of Biological Sciences
USM Main Campus

ABSTRACT

Post-harvest losses of many local fruit crops are substantial in Malaysia because of various diseases caused by *Colletotrichum* species. In this study three types of fruit were chosen namely banana, papaya and guava. It was found that the symptomatology of infection by the *Colletotrichum* isolates varies surprisingly little between the different hosts. The disease exhibits the phenomenon of quiescence in which symptoms do not develop until the produce ripens. The study also showed, morphologically the shape and size of conidia and appressoria of the three isolates were not significantly different. The growth rates of their colonies also did not show any significant difference too. Result from DNA analysis showed only slight variations in the banding patterns. Therefore, from the results of morphological studies and DNA analysis it could be concluded that the causal fungal was *C. gloeosporioides*.

USING SOLAR ELECTRICITY TO OPERATE AN ENERGY EFFICIENT FAN GENERATING AIR MOVEMENT FOR THERMAL COMFORT INDOORS AND OUTDOORS

Abdul Malik Abdul Rahman
School of Housing, Building & Planning
USM Main Campus

ABSTRACT

To experience a thermally comfortable natural environment in a hot humid climate, one is to be under shade and experience some ample air movement concurrently. The Malaysian climate lacks the much needed air velocity for comfort and therefore have to rely on mechanical aids that use paid energy. The chlorofluorocarbon (CFC) emitted from air-conditioners is detrimental to the already worrying state of the ozone layer. The power comes from the use of electricity that comes from depleting the fossil fuels. The hypothesis is to create a lot of air movement relying on the electric fan without increasing the energy consumption to cool the building interior and indirectly the building fabric. Between the electric fan and air-conditioning the electric fan is more environmental friendly. This research presents initiatives to design a fan that can produce a wider cone of air movement by its physical and dimensional design and also verified that existing fan designs in Malaysian markets are unsuitable for its climate because they need more electrical energy to generate air movement for a bigger catchment area. Coupled with electrical supply from photovoltaic panels supplying direct current to the already and energy efficient fan, very significant savings are obtained.

PROTEOMICS OF SNAKEHEAD FISH (CHANNA STRIATA) MUSCLE TISSUE

Lay-Harn Gam, Chiuan-Yee Leow and Saringat Baie
School of Pharmaceutical Sciences
USM Main Campus

ABSTRACT

Snakehead fish or also know as 'haruan' is recognized in Asia Pacific countries as a remedy for healing of wounds. The fish enhances dermal wound healing, reduce post-operative pain and discomfort. The efficacy of wild type snakehead fish has made it a common food served to women after childbirth or those who undergo surgical operation. Due to its high demands of snakehead fish farming of Snakehead fish is now carried out commercially, however the cultured fish has been said to produce different texture from the wild type fish. In this study, analysis of protein composition of the fish is carried out. Wild type Snakehead fish of different sizes and caught in different months of the year were compared. The data shows that the smaller fish yielded higher protein content as compared to the bigger fish, however the protein profile of the fishes is similar for all the different months of catching and different sizes of fish. The major group of protein in Snakehead fish is enzymes, followed by structural proteins. The consistent protein profile displayed can be used as a reference for farming and culturing of Snakehead fish.

SUCCESSFUL WOMEN

Intan Osman, Adida Yang Amri, Mahfooz A Ansari, Zainal Ariffin Ahmad, Ummu Kolsome dan Rehana Aafaqi
School of Management
USM Main Campus

ABSTRACT

The study focused on how women define “success” with regards to work and what factors influence or inhibit “success”. Success in this study is measured objectively and subjectively. It showed that respondents perceive themselves as having a need for power an achievement where they seek for something mentally challenging and engaging that can be obtained at the workplace. Support from spouse is perceived as having an edge over support from supervisors a culture that tends to relegate women to the house, enabling women to hold their own in society and at the same time be able to execute the job undertaken. They seemed to likely use rational and self-enhancement tactics to get the boss to agree to their request, preferring to being forthright, open and honest. Work was perceived to interfere more with family rather than family interfering with work perhaps owing to the women having to rely on the extended family or upon good house help in the form of maids explaining why women choose to linger at middle level management as moving further up would be at the expense of spending time with family. It appears that self-efficacy has significant relationship with perceived subjective success. The push wanting to be somewhere, wanting to do something will drive some of them very hard to achieve what they wanted to do. Respondents perceive family involvement as the main hindrance toward success because Malaysian women are generally expected to manage the family even if they are working. Submissiveness, complacency, non-rational and lack of career orientation were argued to be an outcome of being too involved in family affairs. Women may have come to a point that they are not able to reach the highest echelons of management and be involved in family affairs as well. Thus they have decided to choose a path that allows them to achieve what they perceive as a balance.

SOME LABORATORY STUDIES ON THE CARBONISATION OF BRIQUETTED TROPICAL WOOD SAWDUST

K.O. Lim, S.P. Tan and P.L. Chung
School of Physics
USM Main Campus

ABSTRACTS

Commercially produced tropical wood sawdust briquettes were carbonized in laboratory using a muffle furnace. The carbonization was done at different terminal temperatures with different rates of temperature increase. The emissions produced during the carbonization process were also condensed and collected. The results indicate that charcoal, of higher yield, lower moisture and with fewer numbers of cracks appearing on the product, are produced when the rate of heating is slower. Fixed carbon contents (dry basis) as high as 86% can be achieved when the sample is carbonized at a terminal temperature of 650°C. The amount of condensate collected was found to be quite independent of the terminal carbonization temperature when the heating rate was low but decreased as terminal temperature increased when the heating rate was higher. The pH value of all condensates was found to be 3.

PERFORMANCE AND DURABILITY OF UV CURVE SURFACE FINISHED ON PRESERVATIVE TREATED WOOD

Rokiah Hashim, R.N. Kumar and Othman Sulaiman
School of Industrial Technology
USM Main Campus

ABSTRACT

The study investigates the effect of wood preservatives on the curing and performance of ultraviolet (UV) curable coatings. The preservatives used were basileum, boric acid, and borax pentahydrate. The analysis was divided into two parts; first by incorporating the wood preservative (basileum) in the coating material and secondly impregnating the wood with preservatives (basileum, boric acid, borax pentahydrate) and evaluates its effects of application on the curing of UV coating. The results from the pendulum hardness showed that when the concentration of the basileum increased the UV curing would be decreased. This was further confirmed from the FTIR study showing the wavelength of the basileum and the photoinitiator were apparently the same. The study showed that 2% of basileum did not interfere in the UV curing as has been determined from the adhesion, film pencil hardness, and gel content. From the second analysis, the results showed that the mortality and the wood consumption of termites were proportional to the concentration of basileum whereas for wood treated with borax pentahydrate and boric acid showed higher mortality but low in wood consumption. For the soil block test, all the three preservatives showed reduction in wood consumption as the concentration of the preservatives increase. The presence of preservatives showed lower in the adhesion and film hardness on the wood surface. There was no change in the wood coating after 6 cycles of the cold check test.

R_{FACTOR} TO DETERMINE THE REYNOLDS NUMBER OF SATURATED WATER FLOWING IN TUBES

Fauziah Sulaiman¹ and Balbir Singh Mahinder Singh²
School of Physics
USM Main Campus

ABSTRACT

Fluid flowing in a tube is commonly used in practice for heating and cooling applications. The flow in a tube can be laminar or turbulent, entirely depending on the flow conditions. It is therefore, useful to know the nature of the flow, especially in evaluating the Nusselt Number. Osborn Reynolds, in the 1880's, discovered that the flow depends mainly on the mean flow velocity V , inner tube diameter D and the kinematic viscosity ν and this led to the formulation of the Reynolds number, a dimensionless physical quantity. The parameters defining Reynolds number are dependent on temperature, whereby an accurate representation of this number will be critical in the determination of the flow regimes. This problem was solved by obtaining a temperature dependent model, which represented these parameters. The temperature dependent model obtained by using the reciprocal quadratic fit is called the R_{FACTOR} , determined in the temperature range of 0°C to 360°C, and for saturated water.

PERKHIDMATAN KESEDARAN KINI/ CURRENT AWARENESS SERVICE

AGRICULTURE

- 1) Chiu, S. B., & Madsun, B. (2006). *Mucuna bracteata* - biomass, litter and nutrient production. *The planter*, 82(961), 247-254.
- 2) Cooney, C. M. (2006). Sustainable agriculture delivers the crops. *Environmental science & technology*, 40(4), 1091-1092.
- 3) Ottis, B. V., et al. (2005). Rice yield and quality as affected by cultivar and red rice (*Oryza sativa*) density. *Weed science*, 53(4), 499-504.
- 4) Pretty, J. N., et al. (2006). Resource-conserving agriculture increases yields in developing countries. *Environmental science & technology*, 40(4), 1114-1119.
- 5) Renner, R. (2006). Organic vegetables are not pesticide-free. *Environmental science & technology*, 40(4), 1094-1095.
- 6) Whitfield, J. (2006). How green was my subsidy? *Nature*, 439(7079), 908-909.

AQUACULTURE

- 7) Peinado-Guevara, L. I. a., & Lopez-Meyer, M. (2006). Detailed monitoring of white spot syndrome virus (WSSV) in shirmp commercial ponds in Sinaloa, Mexico by nested PCR. *Aquaculture*, 251(1), 33-45.

BIOTECHNOLOGY

- 8) Ngui, C. Y. K. (2005). Continuing the biotech challenge. *Malaysian business* (Nov. 1st.- 5th.), 24-30.
- 9) Rittmann, B. E., et al. (2006). A vista on microbial ecology and environmental biotechnology. *Environmental science & technology*, 40(4), 1096-1103.
- 10) Thwaites, T. (2005). The insider Australia biotechnology: Down under on the up and up. *New scientist*, 188(2527), 54-57.

CHEMICAL & CHEMISTRY

- 11) Liu, Y.-S., et al. (2006). Screening reactive chemical hazards. *Chemical engineering progress*, 102(5), 41-47.

COMPUTERS & ELECTRONICS

- 12) The ten biggest problems in computing and how we'll solve them. (2005). *PC Magazine*, 24(14), 82-88, 90, 94-96, 98-100.
- 13) Akass, C. (2006). Birth of the new book? *Personal computer world*, 29(3), 22.
- 14) Anderson, M. (2005). Internet TV at a crucial fork in the road. *New scientist*, 188(2529), 30-31.
- 15) Bramberger, M., et al. (2006). Distributed embedded smart cameras for surveillance applications. *Computer*, 39(2), 68-75.
- 16) Geiger, J., & Hoffmann, A. (2006). Faster, slimmer, better: Windows XP can put an enormous strain on your PC's rsources, but it doesn't have to. *Personal computer world*, 29(4), 104-110.
- 17) Laing, G. (2006). Viva Viiv - but what is it exactly? *Personal computer world*, 29(4), 31.
- 18) Masiero, M. (2006). Pocket office: USB lash drives have evolved from being simple high-capacity storage media to economical all-purpose tools. *Personal computer world*, 29(4), 112-114, 117.
- 19) Paulson, L. D. (2006). Will we access the Internet via gas pipes? *Computer*, 39(2), 23.

CONSTRUCTION INDUSTRY

- 20) China back on track: The Chinese construction equipment industry nose-dived last summer, following a government-imposed credit squeeze designed to cool the overheating market. (2005). *International construction*, 44(10), 44-45.
- 21) An, Z. G. (2006). Change in China: The equipment market in China may well be one of the world's largest, but competition is tough. *International construction*, 45(1), 15, 17, 19.
- 22) High, R. (2005). Making it big: Large pieces of infrastructure such as runways, dams and bridges require special construction techniques, sophisticated planning tools and some of the biggest construction equipment available today. *International construction*, 44(10), 20-22, 25-26.
- 23) Symes, C. (2005). Fast track construction. *International construction*, 44(10), 12-13.

DAIRY

- 24) Banasiak, K. (2005). Traceability to enhance egg safety. *Food technology*, 59(11), 12.

ENERGY SOURCES

- 25) Cooper, H. W. (2006). Addressing energy supply vulnerabilities. *Chemical engineering progress*, 102(4), 24-32.
- 26) Parkinson, G. (2006). Green hydrogen production: A work in progress. *Chemical engineering progress*, 102(3), 7-11.

ENVIRONMENTAL PROTECTION

- 27) Matthews, D. (2006). Global change: The water cycle freshens up. *Nature*, 439(7078), 793-794.
- 28) Ristovski, Z. D., et al. (2006). Influence of diesel fuel sulfur on nanoparticle emissions from city buses. *Environmental science & technology*, 40(4), 1314-1320.
- 29) Schiermeier, Q. (2006). Methane finding baffles scientist. *Nature*, 439(7073), 128.
- 30) Schiermeier, Q. (2006). A sea change: A collapse in ocean currents triggered by global warming could be catastrophic, but only now is the Atlantic circulation being properly monitored. *Nature*, 439(7074), 256.
- 31) Sklash, M., et al. (2006). Who done it? The ABCs of environmental forensics. *Chemical engineering progress*, 102(3), 40-45.
- 32) Thwaites, T. (2005). Treasure ocean: at the bottom of the sea lies some of the richest mineral wealth in the world. *New scientist*, 188(2530), 40-43.

FOOD - FISH & MARINE PRODUCTS

- 33) Calder, B. L., et al. (2005). Quality of whole lobster (*Homarus americanus*) treated with sodium tripolyphosphate before cooking and frozen storage. *Journal of food science*, 70(9), C523-C528.

FOOD - MEAT PRODUCTS

- 34) Djurdjevic, N., et al. (2005). Quantitative detection of poultry in cooked meat products. *Journal of food science*, 70(9), C586-C593.
- 35) Egbert, R., & Borders, C. (2006). Achieving success with meat analogs. *Food technology*, 60(1), 28-30, 32, 34.
- 36) Grun, I. U. e. a. (2006). Reducing oxidation of meat: use of natural antioxidant systems is a viable approach to reducing oxidative deterioration and warmed-over flavor development in meat products. *Food technology*, 60(1), 36-38, 40-43.

FOOD INDUSTRY

- 37) New product innovation in 2005(2005). *Food technology*, 59(12), 36.
- 38) Banasiak, K. (2005). McDonald's plans nutrition labeling. *Food technology*, 59(12), 12.
- 39) Brandsma, I. (2006). Reducing sodium - a European perspective. *Food technology*, 60(3), 24-26, 28-29.

- 40) Duxbury, D. (2005). Food safety audits. *Food technology*, 59(11), 62-65.
- 41) Pszczola, D. E. (2006). Fiber gets a new image. *Food technology*, 60(2), 43-44, 46, 48-53.
- 42) Quilez, J., et al. (2005). Bakery products enriched with phytosterols, α -tocopherol and β -carotene. Sensory evaluation and chemical comparison with market products. *Food chemistry*, 94(3), 399-405.
- 43) Sloan, A. E. (2005). The new face of frozen. *Food technology*, 59(12), 21.

FOOD MICROBIOLOGY

- 44) Plessas, S., et al. (2005). Bread making using kefir grains as baker's yeast. *Food chemistry*, 93(4), 585-589.
- 45) Pszczola, D. E. (2006). Exploring new 'tastes' in textures. *Food technology*, 60(1), 44-48, 51-55.
- 46) Witwer, R. (2005). Understanding glycemic impact. *Food technology*, 59(11), 22-24, 26-28.

FOOD TECHNOLOGY

- 47) Blyn, L. B. (2006). Biosense and food protection. *Food technology*, 60(2), 36-38, 40-41.
- 48) Chen, H., et al. (2006). Nanotechnology in nutraceuticals and functional foods. *Food technology*, 60(3), 30-32, 34-36.

FOOD-FRUITS, VEGETABLES AND NUTS

- 49) Amin, I., et al. (2006). Antioxidant activity and phenolic content of raw and blanched *Amaranthus* species. *Food chemistry*, 94(1), 47-52.
- 50) Chaijan, M., et al. (2005). Changes of pigments and color in sardine (*Sardinella gibbosa*) and mackerel (*Rastrelliger kanagurta*) muscle during iced storage. *Food chemistry*, 93(4), 607-617.
- 51) Cieslik, E., et al. (2006). Contents of polyphenols in fruit and vegetables. *Food chemistry*, 94(1), 135-142.
- 52) Mohd Zin, Z., et al. (2006). Antioxidative activities of chromatographic fractions obtained from root, fruit and leaf of mengkudu (*Morinda citrifolia L.*). *Food chemistry*, 94(2), 169-178.

INFORMATION TECHNOLOGY

- 53) Dedrick, J., & Kraemer, K. L. (2005). The impacts of IT on firm and industry structure: The personal computer industry. *California management review*, 47(3), 122-142.
- 54) Emigh, J. (2006). New flash player rises in the web-video market. *Computer*, 39(2), 14-16.
- 55) Fox, B. (2005). Forget technology - it's money that talk. *Personal computer world*, 29(2), 36.
- 56) Inman, M. (2006). Welcome to the open source cellphone. *New scientist*, 189(2542), 26-27.
- 57) Nott, T. (2006). Learn your signature tune. *Personal computer world*, 29(2), 150.
- 58) Rupley, S. (2005). The Net's next 10 years: The grown-up internet promises faster speeds, fantastic apps, and billion connected gadgets. *PC Magazine*, 24(14), 102-103, 105-108, 110, 112.
- 59) Stevens, A. (2006). Protect your network. *Personal computer world*, 29(2), 157-158.
- 60) Wijnhoven, F., et al. (2006). Post-merger IT integration strategies: an IT alignment perspective. *Journal of strategic information systems*, 15(1), 5-28.
- 61) Tung, L. L., & Rieck, O. (2005). Adoption of electronic government services among business organizations in Singapore. *Journal of strategic information systems*, 14(4), 417-440.

MACHINERY AND EQUIPMENT

- 62) High, R. (2006). Maximum impact: Screening and crushing equipment manufacturers continue to expand their mobile ranges, with several new machines being launched recently. *International construction*, 45(1), 31-33, 35-36, 39.
- 63) Maynard, E. (2006). Designing pneumatic conveying systems. *Chemical engineering progress*, 102(5), 23-33.
- 64) Symes, C. (2006). Drilling evolution: innovation in the rock drilling sector is helping to create equipment which is not only faster, more efficient and more durable, but it is also quieter and offers greater accuracy than ever before. *International construction*, 45(1), 41-42, 45-46, 49.

MANAGEMENT

- 65) Berman, B. (2005). How to delight your customers. *California management review*, 48(1), 129-151.
- 66) Cornelius, P., et al. (2005). Three decades of scenario planning in Shell. *California management review*, 48(1), 92-109.
- 67) Mankins, M. C., & Steele, R. (2006). Stop making plans: start making decisions. *Harvard business review*, 84(1), 76-84.
- 68) Pfeffer, J., & Sutton, R. I. (2006). Evidence-based management. *Harvard business review*, 84(1), 62-74.
- 69) Rogers, P., & Blenko, M. (2006). Who has the D? How clear decision roles enhance organizational performance. *Harvard business review*, 84(1), 52-61.

MARKETING & TRADE

- 70) Berthon, P., et al. (2005). Consuming technology: Why marketers sometimes get it wrong. *California management review*, 48(1), 110-128.
- 71) Kumar, V., et al. (2006). Knowing what to sell, when, and to whom. *Harvard business review*, 84(3), 131-137.
- 72) McEwen, W., et al. (2006). Inside the mind of the Chinese consumer. *Harvard business review*, 84(3), 68-76.
- 73) Roberts, J. H. (2005). Defensive marketing: how a strong incumbent can protect its position. *Harvard business review*, 83(11), 150-152, 154, 156-157.

OFFICE AND BUSINESS BUILDING

- 74) Lyall, S. (2006). What is significant about computer size is that office design may have to change. *The architects' journal*, 223(6), 42-43.
- 75) Williams, A. (2006). When the waters rise, the buildings simply float. *The architects' journal*, 223(6), 39-41.

PACKAGING

- 76) Avella, M., et al. (2005). Biodegradable starch/clay nanocomposite films for food packaging applications. *Food chemistry*, 93(3), 467-474.
- 77) Bordy, A. L. (2006). Aseptic and extended-shelf-life packaging. *Food technology*, 60(2), 66-68.
- 78) Brody, A. L. (2005). Improving the package development process. *Food technology*, 59(11), 69-71.

PETROCHEMICALS AND PETROLEUM

- 79) Marris, E. (2006). More than just hot air? *Nature*, 439(7072), 17.

PHARMACEUTICALS

- 80) Fay, T., & Zelmanovich, Y. (2006). Designing a facility for API development. *Chemical engineering progress*, 102(3), 34-39.
- 81) Herrling, P. (2006). Experiments in social responsibility. *Nature*, 439(7074), 267-268.

PUBLIC HEALTH

- 82) When vaccine is safe. (2006). *Nature*, 439(7076), 509.
- 83) Aldhous, P. (2005). Concerns over IVF contamination risk. *New scientist*, 188(2528), 10.
- 84) Butler, D. (2006). Doubts hang over source of bird flu spread. *Nature*, 439(7078), 772.
- 85) Clemens, R., & Pressman, P. (2006). The road to diabetes. *Food technology*, 60(1), 17.
- 86) Mandavilli, A. (2006). Open season: SARS caught China unawares. *Nature*, 439(7075), 382-383.
- 87) Motluk, A. (2005). How the food you eat could change your genes for life. *New scientist*, 188(2526), 12.
- 88) Tildesley, M. J., et al. (2006). Optimal reactive vaccination strategies for a foot-and-mouth outbreak in the UK. *Nature*, 440(7080), 83-86.

RESEARCH AND DEVELOPMENT

- 89) D'Aquino, R. (2006). Bioprocessing systems go disposable. *Chemical engineering progress*, 102(5), 8-11.
- 90) Huston, L., & Sakkab, N. (2006). Connect and develop: inside Procter & Gamble's new model or innovation. *Harvard business review*, 84(3), 58-66.
- 91) Ring, P. S., et al. (2005). Managing formation processes in R&D consortia. *California management review*, 47(4), 137-156.
- 92) Rust, R. T., et al. (2006). Defeating feature fatigue. *Harvard business review*, 84(2), 98-107.

SUGAR & SWEETNESS

- 93) Pszczola, D. E. (2006). Synergizing sweetness. *Food technology*, 60(3), 69-70, 72, 74-76,79.

TEXTILE INDUSTRY

- 94) Mehta, M. (2005). The batik craze: Malaysian designers should take advantage of the opportunities available with the ongoing batik renaissance. *Malaysian business* (Nov. 1st. - 15 th.), 48-49.

WATER RESOURCES

- 95) Ag researchers: Water reuse works. (2005). *Water environment & technology*, 17(12), 48.
- 96) Bhupinder, S. (2005). In deep water: with water demand fast outpacing water supply, we need to look at new ways of managing our precious water resources. *Malaysian business* (1st. - 15st.), 50=51.
- 97) Furlow, B. (2005). To your good health! *New scientist*, 188(2528), 47-49.
- 98) Hope, R. A. (2006). Evaluating water policy scenarios against the priorities of the rural poor. *World development*, 34(1), 167-179.
- 99) Jiang, J.-G. (2006). Development of a new biotic index to assess freshwater pollution. *Environmental pollution*, 139(2), 306-317.
- 100) Prentiss, D. (2005). Disaster response preparation and planning. *Water environment & technology*, 17(12), 74-76.

**All articles in the Current Awareness Service List
are available in the Hamzah Sendut Library
Universiti Sains Malaysia**

PEMBAYARAN FOTOKOPI

Harga bayaran untuk membuat fotokopi bagi ahli MIDAS adalah seperti berikut:

Bayaran minima RM10.00 untuk 10 muka surat pertama. Bayaran tambahan RM1.00 bagi setiap muka surat seterusnya. Tiada caj perkhidmatan dikenakan.

Sila alamatkan semua permintaan kepada:

Unit Perkhidmatan MIDAS
Perpustakaan Hamzah Sendut
Universiti Sains Malaysia
11800 USM
Pulau Pinang
Tel.: 04-6533888 ext. 3723 or 3596
Fax: 04-6571526
E-mel: midas@notes.usm.my

PHOTOCOPYING CHARGES

Photocopying charges for MIDAS members are as follows:

Minimum charges of RM10.00 for the first 10 pages. Additional charge of RM1.00 per page thereafter. There will be no service charge.

Please address all requests to:


Unit Perkhidmatan MIDAS
Perpustakaan Hamzah Sendut
Universiti Sains Malaysia
11800 USM
Pulau Pinang
Tel.: 04-6533888 ext. 3723 or 3596
Fax: 04-6571526


**BORANG PERMINTAAN
UNTUK SENARAI PERKHIDMATAN KESEDARAN KINI
REQUEST FORM FOR CURRENT AWARENESS SERVICE LIST**

Unit Perkhidmatan MIDAS
Perpustakaan Hamzah Sendut,
Universiti Sains Malaysia
11800 USM,
Pulau Pinang

Sila hantar kepada saya fotokopi bagi perkara-perkara berikut: *Please send me the photocopies of the following:*
(Tulis hanya nombor artikel yang dikehendaki di ruang bawah.) *(Please state only the requested article number in the space below.)*

MIDAS Keluaran: Bulan : Tahun :
Bulletin Issue : _____ Month : _____ Year : _____

 Saya bersetuju akan membayar harga fotokopi untuk bahan-bahan yang tersebut di atas. *I agree to pay for photocopying charges for the above mentioned materials.*

 Sila kirim bahan-bahan tersebut serta inoisnya kepada saya.
Please send me the requested materials and invoice.

Tandatangan/ *Signature:*

Nama/ *Name:*

No. Ahli/ *Membership No.:*

Nama Syarikat/ *Company Name:*

Alamat Syarikat/ *Company Address:*

KEPADA :



MIDAS BULLETIN
JILID 34, BIL 1 JAN-MAC 2006

Ketua Penyunting / Chief Editor
Fawzia Dawood

Penyunting-penyunting / Editors
Arinawati Ayob
Rizalawati Ayu Abdul Razak
Husriati Hussain
A. Basheer Ahamadhu b. Ameer Sultan

Pembaca Pruf / Proof Reader
Kirubananthan a/l Sundaraju

Penginput Data / Data input by
Musthapa Ismail
Nor Sharmiza Ismail

Reka Letak / Layout
Mahadzer Hj. Mokhtar

Edaran/Circulation
Hasan Sukit
Nordin Ahmad