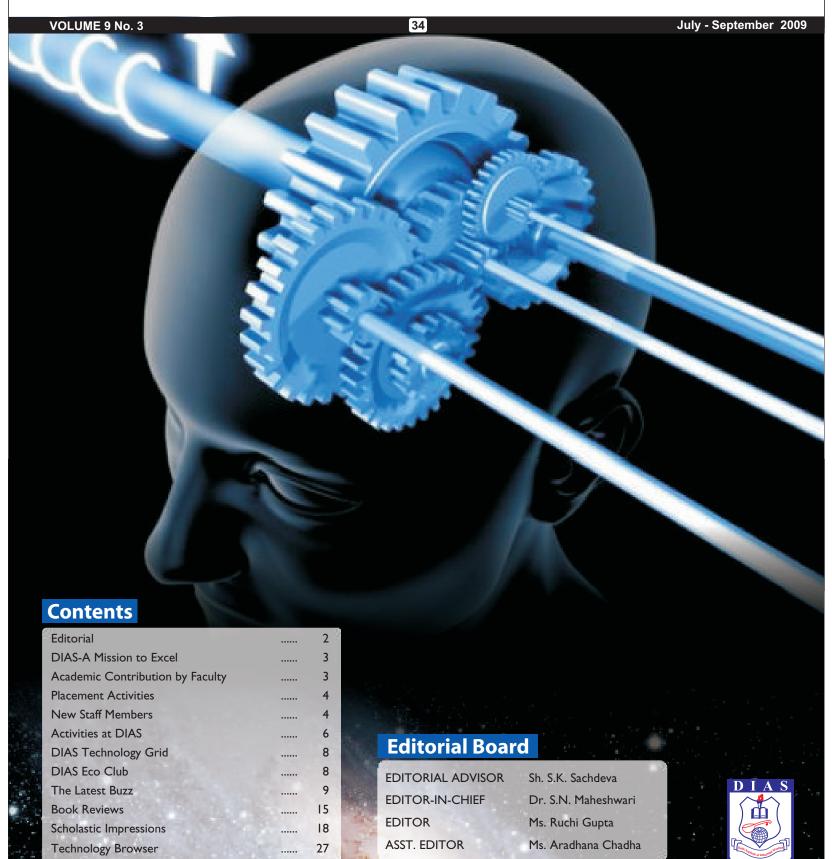
# DIASIDIMES

DELHI INSTITUTE OF ADVANCED STUDIES









# From the

# **Editor's desk**

### Dear Readers,

The quarter saw the much awaited Budget 2009-10. It brought relief for individuals with the basic exemption limit for personal income tax being raised by Rs. 15,000 for senior citizen tax payers, Rs. 10,000 for the others and by Rs. 15 lakh for wealth tax. Also, the surcharge of 10% on personal income tax has been eliminated as the first step towards phasing out of surcharge on various taxes though the same cannot be said for the corporate sector as no changes have been made in corporate tax rate and Minimum Alternate Tax rate has been increased by 5%. To counter the increase, the period allowed to carry forward tax credit under MAT has been extended from 7 yrs to 10 yrs.

In addition to it, some long range measures were also suggested by the Finance Minister, Mr. Pranab Mukherjee. He played a masterstroke by releasing the draft of Direct Tax Code that is expected to completely overhaul and simplify the existing tax proposals for individual tax payers, corporate houses as well as foreign residents. The Code proposes some sweeping changes and follows a two pronged approach towards taxation. Firstly, it widens the tax slabs substantially thus lowering the incidence of tax on corporate and individual incomes. Consequently, it paves way for reduction in tax evasion. Secondly, it does away with quite a few exemptions.

It is anticipated that the Code will be implemented for assessment year 2011 after approval of Parliament. Though the success of the code cannot be guaranteed but let us hope for the best to come.

Ruchi Gupta Editor

Royal S.









# DIAS

# **A Mission to Excel**

Delhi Institute of Advanced Studies is a dynamic growth oriented Institution affiliated to Guru Gobind Singh Indraprastha University. Established by Shri Laxman Dass Sachdeva Memorial Education Society, the Institute is providing dynamic learning environment that is changing in response to the changing needs of society. The Institute seeks professional excellence through ethics, passion and perseverance. The guiding philosophy behind all academic activities of the Institute is to inculcate professionalism and to enhance the effectiveness of an organization.

Sh. S.K. Sachdeva, a well-known name in the educational world, is the Chairman of the Institute. Dr. Jagmohan Taluja is its Director and Dr. S.N. Maheshwari, former Principal of Hindu College, Delhi University, is the Director General.

The Institute runs the MBA & MCA programmes affiliated with Guru Gobind Singh Indraprastha University. The credibility of education at the Institute is increasingly being realised and recognized by foreign universities as well as the corporate world.

The Institute's students are its brand ambassadors. Our students have been placed in some of the best companies in India like IBM, Infosys, Adobe, TCS, Nucleus Software Ltd., Intersolutions, Mahindra British Telecom, Bharti Touchtel, Reliance Infocomm, Ranbaxy, Thomas Cook, FICCI, American Express, Tata Tele Services, Jet Airways, Mahindra Finance, Alcatel, Abacus, Synergy, Torrent, Quark, Syntel, Om Logistics, BEC Foods, Hughes, BrickRed Technologies, Escosoft Technologies, Nagarro, Grapecity, Satyam, Wipro, Accenture, Caritor, L & T Infotech, HCL, Tata Infotech, ICICI Prudential Life Insurance, Reliant Infomedia, India Bulls, Tact India, Sapient, J.K Technologies, Mindfire Solutions, Momentum Technologies, ACS Infotech (P) Ltd., Interra Systems, CE Infosystems, Nagarro, Tata Teleservices, Kotak Life Insurance, UTI Bank, Kotak Mahindra Bank, Grail Research, Planman Consultancy and many others. These ambassadors are making the Institute proud in the corporate

# **Academic**

# **Contribution by Faculty**

# Dr. S.N. Maheshwari, Director General, DIAS

**Dr. S.N. Maheshwari,** a prolific author with around 100 books/monographs to his credit, has brought out the following revised editions of his books in July - September 2009:

- Cost Accounting Theory and Problems: Twenty Fourth Revised and Enlarged Edition 2009, for B.Com, M.Com, MBA, CA, CS and ICWA Examinations. (Shree Mahavir Book Depot)
- Cost Accounting and Financial Management: Second Revised and Enlarged Edition 2009, for PCC and IPCC examinations of the Institute of Chartered Accountants of India. (Shree Mahavir Book Depot)
- Cost Accounting Principles and Practice: Third Revised and Enlarged Edition 2009, for IInd Year B.Com(Hons.), Delhi University. (Shree Mahavir Book Depot)
- 4. **Elements of Financial Services :** For BBA of Bhartiya Vidyapeeth University. (Vikas Publishing House)







# **Placement**

# at DIAS

Placement activities in this quarter have been expeditious at DIAS. The institute teamed with Aspiring Minds conducted an aptitude test, AMCAT for MCA Batch 2007-10 students. The said test is believed to help the students in their final placements. Rajesh Yadav, a student of MCA Batch 2007-10, has been selected in Hyper Soft. Also, Nasih Ansari, a student of the same batch has been appointed as Central Excise Inspector. A test has been conducted by Miracle Technologies for twenty students of MCA Batch 2007-10 to be selected for free industrial training and subsequent performance based placement.

The quarter has proved lucky for the MBA students too with Nupur Jain and Swati Gupta, students of MBA Batch 2007-09 getting selected as Management Trainees-HR at HCL Technologies. A Pool Campus Drive by Capital IQ for MBA Batch 2008-10 students had also been organized in the campus on September 24, 2009 in which students from Tecnia Institute of Advanced Studies and Maharaja Agrasen Institute of Technology also participated. The results of the drive have favored us with three of our students, Priyanka Rastogi, Namita Jain and Ekta Mahajan being hired by the organization.

# **New Staff**

# **Members**

The following faculty members have joined the DIAS fraternity from August 2009.

## **DEPARTMENT OF MANAGEMENT**

### **JOINED AS DIRECTOR AND PROFESSOR**

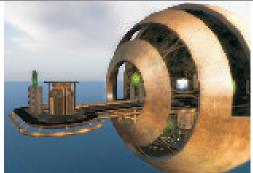
**Dr. Jagmohan Taluja** is PhD in Management, MBA, and Chartered Mechanical Engineer with 38 years of experience integrating a blend of corporate and academic experience.

Formerly Visiting Professor with several universities and management institutes, his areas of specialization include International Business, International Logistics, Marketing Management, Sales and Distribution, Competitive Marketing and Strategic Management. He initiated International Management course for Kurukshetra University.

Also, for business purposes, he has visited large number of countries like U.K, France, Netherlands, Germany, Hong-Kong, Czechoslovakia, Poland, Hungary, Tanzania, Zimbabwe, Sudan etc.

He is ex-member, Board of Academics, Guru Jambeshwar University and has been associated with IGNOU for Distance Learning Programme for International Marketing Logistics. He is Honorary Professor by UGC for International Business Management course conducted by University. Besides, he is a regular speaker / panelist / judge on SINET TV Programme in the field of International Business. He has extensively travelled abroad for international business, set up several turnkey projects in overseas countries including a joint venture company in Europe.







### **JOINED AS LECTURER**

Ms. Shilki Bhatia holds distinction of being the topper of the M.Com batch 2000-2001 from Delhi University and is a graduate from Shri Guru Gobind Singh College of Commerce, Delhi University. She has done B Ed. from Chaudhary Charan Singh University in first division and CS (Inter) from Institute of Company Secretaries of India (ICSI). She is NCFM certified in various modules viz. Capital Market (Dealer's) Module, Securities Market (Basic) Module and Derivatives Market (Dealer's) Module. She is also MCX certified faculty for commodities market and has more than 7 years of teaching experience at both the undergraduate and post graduate levels.

Her specialization areas are Finance (International Business and Capital Markets), Financial Accounting and Business Law. She is UGC Net-Qualified and has also been a Corporate Trainer with companies like Religare and India Bulls.

Mr. Himanshu Puri has done Masters of Business Administration (MBA) with 'Finance and Banking' as specialization from ICFAI Business School, Hyderabad and Bachelors of Business Administration from NDIM, G.G.S.I.P. University. He has also cleared certification courses on Derivative Market, Capital Market and Financial Market conducted by National Stock Exchange of India. He has been associated with Encompass Events, an event management firm as a free lancer on project basis.

Ms. Aradhana Chadha has done MBA and Masters in Economics from Punjab University, Chandigarh & has done PGDCA (Post Graduate Diploma in Computer Application). She has done Bachelor of Commerce from Punjab University. Also, she has qualified UGC-NET examination. She has previously worked with Bank of Tokyo as an associate and has teaching experience of one year respectively.

**Ms. Ritika Maheshwari** has done Post Graduation in Business Administration from Bharati Vidyapeeth University, Pune and B.Sc (Hons.) Mathematics from University of Delhi.

Ms. Sakshi Saxena is MBA with Finance and Marketing as specialisations from Delhi Institute of Advanced Studies, Guru Gobind Singh Indraprastha University and has done B.Com from Delhi University. She has also qualified UGC NET and has done certification courses on Financial Market, Securities Market and Derivative Market conducted by National Stock Exchange of India.

# **DEPARTMENT OF COMPUTER SCIENCE**JOINED AS READER

**Ms. Tripti Mishra** holds M.Tech in Information Technology and B.Tech degree in Electronics and Telecommunication . She has 10 years of teaching experience and has also worked as Microsoft Patent Analyst.

### **JOINED AS LECTURER**

Ms. Bharti Taneja has done MCA from GGS Indraprastha University. She is Economics (Hons.) graduate from Shri Ram College of Commerce, University of Delhi. She had been associated with Wipro Technologies and Alcatel India Ltd. as Senior Test Engineer in different domains for almost 4 years.

Ms. Parul Singhal has done MBA with HR as specialisation and BE (Computer Science) from Maharishi Dayanand University, Rohtak. She has worked as a Senior Faculty at CMC Limited for three years and as a Software Programmer at Planet PCI for more than a year.

**Ms. Nidhi Goel** is MCA from GGS Indraprastha University and has done B.Sc.(Hons.) Physics from Hansraj College, University of Delhi. She had been associated with Tata Consultancy Services Pvt Ltd. as Assistant Software Engineer Trainee in Tax Mantra Project in J2EE technology.

Ms. Shuchi Vasisht is MCA from Delhi Institute of Advanced Studies, GGS Indraprastha University and has done B.Sc.(Hons.) Computer Science from University of Delhi. She had been associated with Gail India Ltd. as project trainee in SAP technology.







# **Activities**

# at DIAS

# **Orientation Day**

"Journey is new, the road unknown......
To guide me all through....
My institute is prone!!"

With the commencement of every academic year, fresh minds enter the institute's gate of knowledge. Though accompanied by enthusiasm and a zeal to make it big, anticipation is what still hovers around. Stuffed with numerous queries regarding the new environment, the fresh batch looks forward for an answer. To accomplish a new journey, expectations are high and so is the hope.



Dr. S. N. Maheshwari welcoming the new batch

In order to extend a warm welcome to the new students and to serve this common interest, an orientation program is conducted every year.

At DIAS, the orientation program for the new students of MBA and MCA courses was conducted on 17th August, 2009. The batches were welcomed by Dr. S.N. Maheshwari, Director General, DIAS. He acquainted the students with the pedagogy of the institute. Emphasizing the vitality of discipline, he explained how a good education system incorporates not only text knowledge but also the exposure to the world outside the walls of the college. He concluded by underlining the fact that a student also has an imperative role to play in creating his own future.



The students at the Orientation program

Dr. Jagmohan Taluja, Director, DIAS enhanced the student's vision by his knowledge and exposure of the corporate sector. He stressed upon the practical aspect of management and made the students aware of the bitter reality of the corporate world. He encouraged the students to be "Doers rather than thinkers."

Ms. N. Malati, co-ordinator, MBA program and Ms. Barkha Bahl, co-ordinator, MCA program briefed the students about their respective course curriculum, marking scheme and the projects and assignments to be undertaken by them during the course of their program. The new batch was also informed about the various extra curricular activities organized by the institute wherein they can participate and work for their own overall development.

Further, the students were given an insight into the functioning of the placement department. The session concluded with the warm wishes and blessings from DIAS fraternity with a hope for students to win accolades in all future endeavors.







# Guest lecture on "Emerging trends in IT(Oracle)"

Mr. Tanay Mishra and Mr. Bikash, Corporate trainers, CMC Pvt. Ltd. visited the institute on 31st August, 2009. They delivered an enlightening talk on "Emerging trends in IT (Oracle)" to make students aware of the scope in the field of Databases. The seminar was organized for MCA students. It mainly focused on various domains of Oracle and the future growth in this field.

The seminar started with discussion on basics of DBMS and gradually moved to advanced concepts. The speakers gave the students a brief introduction to diverse database softwares and compared them to Oracle. The Oracle Database is a relational database management system produced and marketed by Oracle Corporation. Mr. Mishra elaborated on how Oracle is one of the leading Database Software available in the market. He introduced the students to two areas of specialization under Oracle viz. Oracle Developer and Oracle Administrator.

The speakers made the students aware of how to get knowledge of the subject and also focused on the importance of getting certified for various Certifications provided by Oracle Corporation like OCA, OCP, OCM etc. The seminar was very beneficial and value enhancing for the students.

# Teacher's Day

"Education is not a destination but a journey at every stage of which we have something to learn, something to imbibe."



Students distributing mementoes amongst the staff members

Teachers are the ones that play a vital role in directing a country's youth towards success and heights of development.

It has thus been wisely stated that "Guru devo, guru brahma, guru Vishnu-maheshwara, guru sakshat parabrahma, tasmaye Shri Guruve namah" (A teacher is The Angel, The Brahma, The Vishnu and the Maheshwara. He is the clear picture of God and so to him I give my regards). Teachers hold a higher rank than one's God and parents, for he is the one that teaches us the value of the other two. They lay down the foundation of a country's education and modernisation.

It is said that the modern times have diluted the appeal of the guru-shishya parampara, but the tradition still continues.

5th September marked as "Teacher's Day" is celebrated by the entire nation to pay tribute to eminent scholar, teacher and president of India, Dr. Radhakrishan Sarvpalli and the whole teacher's community.



Dr. S. N. Maheshwari cutting the cake

Students at DIAS celebrated this day with great zeal and expressed their love and gratitude for teachers for their continuous and priceless support. On this occasion, students gave titles and mementoes to the faculty members. Dr. S. N. Maheshwari, Director General, DIAS and Dr. Jagmohan Taluja, Director, DIAS delivered a thank note and shared their views on the teacher-student relationship.

The felicitation ceremony proceeded with the cake cutting ceremony. Flowers and cakes were distributed amongst the teachers and students. To add to the celebration, the management of the institute organized lunch at City Park Hotel, Pitampura for the staff of DIAS and its sister concerns.







# DIAS

# **Technology Grid**

# **Blood Donation Camp**

"Donate Blood and give the gift of life"

There is no substitute for blood! Despite all the medical advances, we have found no way of duplicating it except in our own bodies. Thousands of lives are lost every year due to scarcity of blood. Blood is required specially by patients with blood diseases like severe Anaemias especially Aplastic Anaemias, Leucaemias (blood cancer), Haemophilia (bleeding disorder) and Thalassemia.

Being a responsible corporate citizen, Delhi Institute of Advanced Studies recognizes the difference blood donation can make to the mankind. The institute this year organized a Blood Donation Camp in collaboration with Sant Parmanad Hospital in its premises on September 23rd, 2009. A team of thirteen doctors and specialists headed by Dr. Tandon, Consultant, Sant Parmanand Hospital visited the institute for conducting the voluntary blood donation camp.

Before initiating the voluntary blood donation, Dr. Tandon coached the students on the need and benefits of blood donation and he also cleared their apprehensions related to blood donation. A whole-hearted response was received from the faculty members, the administration staff and the students. In all, the institute made a contribution of 65 units of blood.

# DEBATE COMPETITION ON "RECESSION: GOD'S GIFT TO INDIA"

An intra college debate competition on "Recession: God's Gift to India" was organized by the institute on 26th September 2009. The announcement of the event attracted enthusiastic participation. Twelve teams competed at the preliminary stage, out of which five were given the opportunity to discuss the brown and silver sides of recession. The event was judged by Dr Jagmohan Taluja, Director, Ms Barkha Bahl, Reader & Ms Ritika Maheshwari, Faculty, DIAS. The following teams emerged as winners.

Prize	Name of Students	Class
1st	Rahul Jain Harikrishan Pal	MBA 1A
2nd	Sunil Antil Divya Gupta	MBA1B
3rd	Manish Kumar Akansha Bahl	MBA 1A

# DIAS

# **ECO CLUB**

## TREE PLANTATION DRIVE

It is a well known fact that trees help in purifying air, maintaining ecological balance, preventing soil erosion, etc.

It is very essential that not only the government but also the people at grass root level should involve themselves for achieving the targets set for green cover in Delhi.



Students planting trees

Keeping up with this spirit of "Green Delhi, Clean Delhi", DIAS Eco Club organized tree plantation drive on 11th September, 2009. The aim of organizing this event is to discharge social responsibility towards maintaining clean and







healthy environment. Entire DIAS fraternity and students participated in this small but important effort towards creating awareness towards environment conservation.



Teachers at the tree plantation drive

It is hoped that in the coming years, children not just plant trees but also take care of them, watch them grow and be able to bask in their glorious beauty.

## The

# **Latest Buzz**

### **TECHNOLOGY**

### **CLOUD COMPUTING**

Cloud computing is a buzzword in IT sector. It is a style of computing in which dynamically scalable and often virtualized resources are provided as a service over the Internet. It is a combination of the laaS(Infrastructure as a Service), PaaS(Platform as a Service) and SaaS(Software as a Service). In cloud computing, customers consume resources as a service and pay only for resources that they use. The majority of its architecture consists of reliable services delivered through data centers and built on servers with different levels of virtualization technologies.

## INTELLIGENT DNS FOR MORE SECURE **INTERNET USE**

Nominum's Intelligent DNS systems play a critical role in ensuring that Internet users benefit from an efficient, safe, and secure Internet experience. In contrast, legacy DNS systems that passively answer network queries are holdovers of legacy network strategies now deemed obsolete. These older DNS systems were not designed to ensure user trust, honour

end user intent, support compliance efforts, provide navigation assistance, and worse, often blindly direct users to Internet destinations hosting unwanted, illegal or malicious content. Failing to address these deficiencies in the DNS itself is a disservice to the Internet and its users.

Intelligent DNS is the logical evolution of DNS to support all of these uses in a coherent framework. It lets ISPs create policies combining raw DNS directory data with other public and private information in real time so users go to intended and safe destinations. ISPs can customize Intelligent DNS to meet the protection and compliance needs of individual users and jurisdictions. Nominum's Intelligent DNS systems bring the power of policy based control to every DNS request and direct users to safe and intended destinations. These benefits are further improved by making use of real-time data sources such as search, or live data feeds that track botnets, phishing sites and sites hosting illegal content.

## THE DESIGN OF COMPETITIVE ONLINE ALGORITHMS VIA PRIMAL-DUAL APPROACH

The primal-dual method is a powerful algorithmic technique that has proved to be extremely useful for a wide variety of problems in the area of approximation algorithms for NPhard problems. The method has its origins in the realm of exact algorithms, e.g., for matching and network flow. In the area of approximation algorithms, the primal-dual method has emerged as an important unifying design methodology.

The primal-dual method can be extended to the setting of online algorithms and can be applicable to a wide variety of fundamental problems. Among the online problems that can be considered are the weighted caching problem, generalized caching, the set-cover problem, several graph optimization problems, routing, load balancing and the problem of allocating ad-auctions. It can also be shown that classic online problems such as the ski rental problem and the dynamic TCP-acknowledgement problem can be solved optimally using a simple primal-dual approach.

The primal-dual method has several advantages over existing methods. First, it provides a general recipe for the design and analysis of online algorithms. The linear programming formulation helps detecting the difficulties of the online problem, and the analysis of the competitive ratio is direct, without a potential function appearing "out of nowhere." Finally, since the analysis is done via duality, the competitiveness of the online algorithm is with respect to an optimal fractional solution, which can be advantageous in certain scenarios.







### **OPTIMIZING SQL SERVER INDEXES**

Indexes are critical to how fast SQL Server retrieves data, though at the same time they reduce the speed at which SQL Server can write new and changed data to the database. Properly creating and maintaining indexes will ensure that they work for the SQL Server environment. SQL Server supports two types of indexes: clustered and non-clustered. Every database table has exactly one clustered index, and this index determines the order that data is physically stored. Typically, a clustered index is created on the most commonly-queried column -- often a unique ID number. A non-clustered index works a bit differently. It is a separate structure that contains a copy of the indexed data as well as pointers back to the rest of the data.

We can check the fragmentation level of an index and Microsoft provides details for doing so. Indexes that are between 5% and 30% fragmented should be reorganized, or in other words, defragmented.

For fragmentation levels greater than 30%, the user needs to rebuild -- a one-step process that drops the existing index and builds a fresh one from scratch. Rebuilding is more laborintensive than reorganizing and may impact some applications' performance. With both steps, you can set how full you want each page in the new index to be with the fill factor key option.

### THE FUTURE OF DBMS TECHNOLOGY

More flexible data structures and increased intelligence lie ahead in the future of DBMS technology. Although database management system (DBMS) technology is very mature, there is a potential for much future innovation in integrating structured and unstructured data, virtualizing access to data, and simplifying data management through greater automation and intelligence. Estimates are made that more than 90% of all business data in enterprises is unstructured, but only 5% of unstructured data is stored in databases. This creates a huge opportunity to integrate different types of data and content - structured, unstructured and semi structured - for enhanced information sharing and control. It is expected that DBMS will address this challenge by supporting all kinds of data and content in its native form with much tighter integration, while sustaining high performance. In the next four years, DBMS technology and middleware will also evolve to support information fabric, virtualizing access to heterogeneous data. Both of these trends will combine to offer an evolutionary path to a future world of information management in which all forms of information will be much

easier to access, integrate and control, and this will all come at a lower cost due to increased automation.

### LINUX MOBILE OPERATING SYSTEM

The LiMo Foundation has unleashed a slew of phones based on its mobile Linux platform, but devices alone aren't likely to attract hordes of consumers. Nowadays, it's all about apps, and LiMo doesn't have anything like the iPhone's App Store, the Android Market, the App Store for Windows Mobile, or the Palm Pre's App Catalog. Nokia recently launched its Ovi App Store as well.

LiMo Foundation, a Linux mobile operating system consortium, announced that two of its members -- NEC (Nasdaq: NIPNY) and Panasonic -- are shipping the latest round of LiMo-compliant devices. NTT Docomo plans to use the new handsets in its Prime and Style series of phones, marketed primarily in Japan.

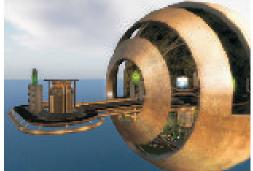
The eight new phones are purported to have advanced features, including an enhanced 8-megapixel camera and better integration capabilities, but not everyone is impressed with the new releases.

A bigger question is whether Linux is fulfilling its promise as an application platform for developers, as Apple (Nasdaq: AAPL) has done with its iPhone application store. Because LiMo is a consortium, no particular company has a vested interest in pushing applications that will run on any LiMo platform.

LiMo's position is that it creates a platform that needs to be customized at the discretion of its members. The handsets are highly customized on top of LiMo Platform and Linux technologies. While none of these devices are uniquely targeted at the enterprise, that is a function of OEM prioritization rather than of the LiMo Platform's capabilities.

The new release is also not compatible with Bondi, a set of JavaScript extensions that help developers maximize their development efforts for a variety of different platforms. In a simultaneous announcement, LiMo announced the addition of two new members to its consortium – Immersion and KDDI.







# OPEN SOURCE LINUX DEVICE DRIVERS SUBMITTED BY MICROSOFT

Microsoft announced the code release for three Linux device drivers at the O'Reilly Open Source Convention (OSCON) in San Jose, California on July 21, 2009. Developed by Microsoft's Open Source Technology Centre (OSTC), the three Linux drivers enhance the performance of Linux when virtualized on Windows Server 2008 Hyper-V or Windows Server 2008 R2 Hyper-V server virtualization platforms. Their initial goal in developing the code was to enable Linux to run as a virtual machine on top of Hyper-V, Microsoft's hyper visor and implementation of virtualization.

The drivers enable Linux to run in "enlightened mode," giving it the same optimized synthetic devices as a Windows virtual machine running on top of Hyper-V. Linux could previously run on Hyper-V, but with slower performance. The Linux device drivers will help customers who are running Linux to consolidate their Linux and Windows servers on a single virtualization platform, thereby reducing the complexity of their infrastructure.

### **RELEASE OF SONAR 1.9**

Sonar is an open source software testing tool to manage code quality. The Sonar Team has announced the release of the version 1.9.

Sonar Squid has now replaced JavaNCSS for static analysis. It fixes many Java5 parsing errors and it has direct impact on several metrics: lines of code, complexity, comments, and duplications. It enables to uncover some new axes of analysis such as undocumented APIs and JavaBean accessors. Also, a chart displaying the methods distribution by complexity has been added to project dashboard.

Further more, the focus has been placed on performance improvements in this version such as increased speed, lesser memory needs of the server, new jobs to delete unused data etc. Sonar now supports PostgreSQL along with Oracle and MySQL.

# COMPUTER SCIENTISTS PROGRAM ROBOTS TO PLAY SOCCER, COMMUNICATE WITH BEES

Engineers have built humanoid robots that can recognize objects by color by processing information from a camera mounted on the robot's head. The robots are programmed to play soccer, with the intention of creating a team of fully autonomous humanoid robots able to compete against a championship human team by 2050. They have also designed

tiny robots to mimic the communicative "waggle dance" of bees

Engineers have created robotic soccer players, bees and even a spider. They're big, strong and fast. Powered by a small battery on her back, humanoid robot Lola is a soccer champion. Using the camera mounted on her head, Lola recognizes objects by color. The information from the camera is then processed in this microchip, which activates different motors. Using this camera it can locate objects on the floor for example a red ball, go after the ball and try to score a goal. German engineers have also created a bee robot. Covered with wax so it's not stung by others, it mimics the 'waggle' dance -- a figure eight pattern for communicating the location of food and water. Robots like this could one day become high-tech surveillance tools that secretly fly and record data.

# INTEGRATION MANAGER – A DATA TRANSFORMATION TOOL

Integration Manager provides connectivity to all parts of the laboratory workflow and translates the data generated by any of the instruments, services or third-party enterprise applications that may be used in an organisation. Most laboratories utilise many different types of instruments that generate data locally.

This approach requires human intervention to access data from each of the instruments individually before preparing a report that makes use of the collected data. Data collection is often completed through re-keying of report data, where human error can result due to time-consuming transcription of data

With Integration Manager, data are collected electronically and stored in a central database, regardless of the individual report formats required for each instrument. It acts as a translator of all the individual languages of the various data sources, accepting and delivering data in the format appropriate to each intended recipient. Organisations can save time in preparation of manual reporting, save costs in personnel time and eliminate potential errors created during manual processes. In addition, Integration Manager is built on open standards architecture that is configurable for the specific needs of each enterprise.

Overall, enterprise-wide connectivity allows individuals and organisations to not only manage and capture their data more efficiently and securely, but also to simplify daily workflow and







communicate more effectively. At a higher level, enterprise connectivity allows management to make decisions based on current data and aggregated information from the entire operation.

Integration Manager is a key component of Thermo Scientific Connects, a set of tools that use the company's laboratory information management systems (Lims) and chromatography data systems (CDS) capabilities, as well as expertise in enterprise systems integration to facilitate the transfer of knowledge between laboratory-generated data and enterprise-level information systems.

# **MANAGEMENT**

### **GREEN HR**

With society becoming more environmentally conscious, businesses are starting to incorporate green initiatives into their everyday work environment. Human Resource managers around the world are beginning to incorporate these concepts within their respective HR functions.

Green HR effort and initiatives for long have primarily focused on increasing efficiency within processes, reducing and eliminating environmental waste, and revamping HR products, tools, and procedures resulting in superior efficiency and reduced costs for the organization.

Managers today are ready to take these initiatives a step further and expand way of thinking green. People often referred to as "industry's most valued assets" possess infinite levels of knowledge, experience, and know-how gained at the expense of their employer and appear expendable in today's market.

Green HR is about retaining, recalling, preserving, and nurturing talent and as a result reducing and/or eliminating workplace inefficiency. Along with creating a more efficient workplace, retaining knowledge capital forces employers to properly evaluate their staff and look for the best options available. Some examples of Green HR implementation include reduced work schedules, furloughs, and phased retirement programs.

In the current economy, for managers this means saving the top talent while still meeting cost cutting needs. When the economy begins to recover, Green HR initiatives continue to preserve knowledge capital while giving employees more options and a better work-life balance. By continuing to be environmentally friendly while recognizing the importance of human capital, not only will our environment benefit but our jobs will remain globally and nationally competitive.

### **UNION BUDGET 2009-2010**

The Indian Union Budget 2009-10 has been presented in the Parliament by finance minister Mr.Pranab Mukherjee. Union Budget is one of the important events which was being awaited eagerly by everyone especially the traders and the investors in the stock markets. The main challenges outlined by the Finance Minister, Mr. Pranab Mukherjee, while presenting his Budget speech for the short term and long term perspective of the Indian economy are:

- to lead economy to high GDP growth rate of 9% p.a. at the earliest
- to deepen and broaden the agenda for inclusive development, and
- to improve delivery mechanisms of the government.

### Some of the Highlights of the Union Budget 2009-10

The income-tax rates have been modified and the IT exemption limits have been raised.

The tax exemption limit has been increased by Rs. 15,000 for senior citizen tax payers and Rs. 10,000 for the rest. The surcharge on the personal income tax of 10% has been waived off. Fringe Benefit Tax has also been abolished with immediate effect which was introduced in Finance Act 2005.

But the sad part of the story is that the corporate tax rates have been left unchanged and the Indian markets reacted sharply to this piece of news. Sensex lost 870 points or 5.83 % and Nifty lost 258 points or 5.84%.

Also, govt. has increased its allocation to rural job scheme by Rs 39,000 crores i.e. 144% rise. The budget lays much emphasis on the infrastructure development. The allocation for National Highways Development Programme (NHDP) and NHAI has been increased by 23% in this fiscal. The govt. will now hold 51% in the public sector undertakings. Sectors like banks and insurance will remain in public sector and they will be given capital infusion to recover from the current scenario.

## **BLUETOOTH MARKETING**

In Bluetooth Marketing, also known as "Proximity Marketing", the Promotional content is transmitted to potential customers by using "Bluetooth wireless technology". A company needs to have a Bluetooth transmitting device.







## How does Bluetooth marketing work?

- The mobile content is remotely pushed to small Bluetooth servers that constantly scan a location (about 200-300 feet) for users carrying Bluetoothdiscoverable mobile phones.
- Upon identifying such a user, the Bluetooth broadcasting server sends a message to the mobile phone, requesting permission to transmit multimedia content to it.
- Users accept the message and view the mobile content

Type of data transmission through Bluetooth	
• Plain Text	• Games
Audio and Videos	• Images
Market Research	E-business Card
Vouchers	Event Reminder

## **Reasons for using Bluetooth Marketing**

- **Economy**: After initial investment the company need not go for increment cost of data transmission.
- Flexibility: Marketer can send their messages in a number of forms like text, videos etc.
- Multiple Uses: Marketer can use this tool to provide the product information, specify their promotional schemes as well as for building relationship with their customers.

### **Application Areas of Bluetooth Marketing**

Airport Lounges
Trade shows
Support to field Marketing Staff
Trains and Bus stations
University and College Campuses
Malls and Shopping Centres
• Banks
Hotels and Hospitals

### **WEB OPERATIONS MANAGEMENT (WOM)**

•WOM consists of the following components:

 Web Strategy is used to translate objectives and values into management directives for the web. **Web Governance** is about authoritative structures setting policies and standards for your web products. Artifacts of sound governance include policy, standards and governance framework.

- Web Execution should be focused around coordination of tactical web teams with a goal of creating high qualit web presence for the organization.
- Web Measurement can help understand if the web is meeting strategic goals set by the management, and whether the money is spent right.

### **ALUMINIUM RIDING HIGH ON FUTURES DEALING**

The aluminium market appears to be contravening some of the most basic principles of economics. Prices have risen 30 per cent this year, a gravity-defying recovery in the face of falling demand and a growing supply surplus. Klaus Kleinfeld, chief executive of Alcoa, the US aluminium producer, recently warned that global consumption would decline 7 per cent this year. But while there have been sharp falls in demand in the recession-hit aerospace and construction industries, aluminium prices at the London Metal Exchange have surged beyond the \$2,000 a tonne mark.

One explanation for the seeming riddle lies in the opaque world of aluminium inventories. In recent months, aluminium stocks have accumulated in the LME's warehouses, with inventory levels almost doubling this year to a record of nearly 4.6m tonnes. That is sufficient for about 48 days of global consumption of the metal. But about 75 per cent of the LME's stock could be tied up in warehouses or financing deals, according to industry estimate. That means it cannot be used, reducing available supply to about 1m tonnes – or a mere 10 days of consumption. Under financing deals, traders pay warehouses to store the metal while they lock in future higher prices on the LME, taking advantage of the steep upward slope of the futures curve. That essentially allows those holding the aluminium to sell the metal at a higher profit at a later stage.

Another factor, which could buffet the market, is that a swathe of production capacity has been left idle following last year's collapse in prices. As prices recover, output is expected to increase, particularly in China.







# ET AWARDS FOR CORPORATE EXCELLENCE 2008 – 09

AWARD	AWARDEE
Company of the Year	Hero Honda
Lifetime Achievement Award	Keshub Mahindra
Business Leader	Anand Mahindra
Policy Change Agent	Jean Dreze
Businesswoman of the Year	Vinita Bali
Global Indian	Ram Charan
Entrepreneur of the Year	GV Krishna Reddy
Business Reformer	Nitish Kumar
Emerging Company	ldea Cellular
Corporate Citizen	The Energy and Resources Institute (TERI)



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 $<sup>*</sup>Subject\ to\ change\ without\ prior\ notice.$ 







# Book

# **Reviews**

### **OPERATION MANAGEMENT**

Author : William J. Stevenson
Publisher : Tata McGraw Hill
Edition : 9th Edition, 2009

Pages : 906

Reviewed by : Ms. Pratiksha Tiwari

The book is intended as an introduction to the field of Operation Management. The topics covered include both strategic issues and practical application. The subject range is very good and is strong on inventory and MRP. Also in detailed areas such as the EOQ model it is good to see a balanced description of techniques allowing students to understand them better and make a more informed decision as to whether and how to use them.

The book is divided into 8 parts namely, Understanding Operations i.e. Introductions Forecasting, System Design, Quality, Supply Chain Management, linventory Management and Scheduling, Project Management, Waiting Lines and Simulation. The entire book covers most of the topics, which are normally taught in an operations management class in management schools in India. The book is written in a text book mode with number of worked out examples, summary, discussion and review questions, problems and case lets. Chapters include various news clips, readings, operation tours and cases. In addition, at the end of most chapters and supplements there are a group of solved examples. Each and every chapter of the book includes a separate bibliography and suggested books for further reading, this is one of the many unique features of this book.

There are a number of competitive books in this area, many lacking the detail of how to implement the strategic aspects as they focus on too much mathematical detail. Fortunately this has a healthy balance of principles and their application. The presentation of the book is strong, meeting the desire of the author to attract those who are not motivated to study operations management. It is easy to read and navigate the book as the cross-referencing is extensive, allowing chapters to be dipped in and out of as well as reinforcing the links between concepts, thereby living up to its name of integrating the subject areas together.

This is a well written, well presented and accessible book. Chapters open with a problem case study to draw the students' interest and have numerous relevant practice examples from a wide range of areas including service sector. The approach taken by the author allows the book to be used in isolation by using the lecture slides, spreadsheet examples, supplementary chapters, etc. This valuable feature keeps the book simple but allows a lot of value to be drawn from it.

Overall, this is a comprehensive and useful book as it strikes a good balance between concepts, techniques and application. The supplementary chapters on reliability, decision theory, linear programming, learning curves, acceptance sampling, transportation, maintenance, scheduling and simulation make this a very versatile book. The end solutions to the selected problems provide students a better outlook.

## STRATEGIC MANAGEMENT

Author : Dr. S.P.Singh

Publisher : A.I.T.B.S Publishers, India

Edition : 2009 Pages : 499 Price : Rs. 250

Reviewed by : Ms. Shilki Bhatia

Strategic Management is a capstone course that is being offered as one of the core subject in the final year of the two year full time and three years part time MBA programs in almost all of the universities in India and abroad. This subject encompasses all the disciplines that students study in their MBA curriculum like HRM, Organizational Behaviour, Finance, Quantities Techniques, and Operations Management. This particular course is of utmost importance to the students as this unique course enables them to connect, correlate and comprehend all the disciplines of Management from the overall perspective of Organizational Strategic Decision Making and General Management.

This book has been divided into two parts. The first part consists of 18 chapters which deals with different theoretical aspects of strategic management concepts like Formulation, Implementation and Control of strategy. An interesting and innovative aspect of this book is its second part where the author has given an insight to the students about how to analyze the case studies based on different parameters including financial parameters like financial ratios. The author







has also tried to give a general framework for writing case studies, though it falls short of a full fledged text of guidelines of writing text cases.

The 18 chapters in the part I are arranged sequentially in such a way that theoretical concepts are developed systematically and are easy to understand. The author has taken a lot of references from the other text and writings in the strategic management especially when defining certain terms and concepts. The coverage area of the subject is exhaustive though it seems to be brief and concise when it comes to explanation. The writing style in the book is simple, concise and lucid. Though, all efforts have been made by the author to make the concepts simple and comprehensible for the students, still a need for end of the chapter case studies from Indian industry, highlighting the core issues, delineated in the chapters could have added a lot of value to the text.

Overall, this book can be useful text for the students taking the first basic course in the strategic management in their Graduation and Post Graduation level management curriculum.

## **EFFECTIVE BUSINESS ENGLISH**

Author : Rajendra Pal & J. S. Korlahalli Publisher : Sultan Chand and Sons

Edition : 2009 Pages : 420 Price : Rs. 195

Reviewed By : Ms. Shuchi Vasisht

English has emerged as the most commonly used medium of communication in today's globalized world. One of the prominent features of modern business is that workforce everywhere is composed of multinational, multiracial, multicultural & multi-linguistic membership. Therefore English used at the workplace must be stripped of linguistic peculiarities and subtleties. Good business English is simple, straight forward and courteous. Good communication is believed to be free from jargon & slangs and leans heavily on simple words and simple sentence structures. Whether one looks after his own business or enters the corporate world as a professional, his success depends largely upon his communication skills which through the medium of English are described in this book in a very appreciable manner.

The text is organized into six parts. The first part from chapter 1-5 gives the basic concepts of business English & communication. It also discusses about the communication media, types of communication and elaborates on non-verbal communication. The second part from chapter 6-8 covers

topics based on Cultural Components of communication like Corporate Culture, Cultural variables, intercultural communication & gender sensitivity. The third part from chapter 9-17 focuses on principles of effective communication, the correct formats for writing memos, office orders, circulars, notices, minutes of a meeting, job application letters & resumes. The fourth part deals E-correspondence comprising of topics like the internet, e-mail, e-commerce and telecom technology. The fifth part throws light on Oral Business Communication which includes basic presentation skills, telephone skills, the conduct during interviews, meetings, and group discussions. The last part describes the format for writing short proposals as well as long reports.

The presentation of subject matter in the book is lucid and it covers the entire syllabus comprehensively. The key points of each chapter are given as boxed items the fleeting glance at which may refresh the memory of the students. The diagrams & tables are not only interesting & educative but also useful aids to memory. Overall this book is an asset for readers who wish to have a quick guide on effective business communication.

### **MASTERING THE ART OF BUSINESS COMMUNICATION**

Author : Sumita Roy
Publisher : Sterling
Edition : 2008
Pages : 322
Price : Rs. 250/-

Reviewed by : Ms. Ritika Maheshwari

Effective communication and better relationships go hand in hand with one promoting the other. It is the key to success in business and social understanding. Good communication leads to good business. Language and communication are skills which need to be tested in the context of business. Since English is the language of communication in the global contexts of business, so efficiency in its use is must to succeed in the world of business.

In this book, the author has made very astute efforts in improving the career prospects by paying due emphasis on enhancing the communication skills. The book addresses various skills of communication such as listening, speaking, reading and writing (LSRW) and the aspects of language which help to sharpen these skills: structures, pronunciation and punctuation as well as vocabulary.

Textual material of the book has been divided into three parts with each part focusing on particular dimension of Business Communication. First part comprises of listening, reading and

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Tech-Mag (Business and IT Quiz )	Thrust Talk (Extempore)
Bataille des mots (Group Discussion)	e-LAN-e-Jung (LAN Gaming)
Rocket Singh-Salesman of the Year (Ad-mad Show)	Mosaic (Rangoli Making Competition)
Junkyard Wars (Recycling Competition)	Coderz Decoded (Software Development)
Street Rockers (Street Play)	Concours de Chant (Solo Singing Competition)
Encasde Danse (Group Dance Competition)	Mr. and Ms. Ecstasy 2010

For further details please contact: -

Ms. Jiveta Chaudhary, DTG Coordinator - 9871056057 (M)

Ms. Neha Tandon, DTG Co-Coordinator - 9891784218 (M)







language skills which is further divided into twenty chapters sharing knowledge right from the importance of listening, components and need of listening to touching upon vocabulary and it's usage, conjunction, pronunciation and finally discussing effective oral business communication. The second part focuses on business writing skills covering writing techniques, business letters, memorandums, advertisements, notices, agenda, minutes of a meeting, job application and resume writing. All these topics together provide ample acquaintance in effective writing.

The final part of the book deals with important skills required in the business context which further incorporates dialogue skills, telephone skills, interview skills, interpersonal skills, group interaction skills, presentation skills and leadership skills.

The presentation of subject matter in the book is quite simple, lucid and authentic. The text is facilitated by cases at the end of each chapter to enhance the diagnostic and analytical skills of readers. Overall, this book is an ideal selection for students at both graduate and post graduate level for the comprehensive and simplified understanding of the topic.

# **Scholastic**

# **Impressions**

# INFORMATION TECHNOLOGY REAL TIME LINUX KERNEL SCHEDULER32 Ankita Garg

Most appli

Most applications like financial trading, defense, industry automation and gaming, have a need for low latencies and deterministic response time till custom-built hardware and software were used to meet these real-time requirements. But, now IngoMolnar has introduced PREEMPT-RT patch set, referred to as-rt hence forth, which has made Linux a real-time operating system. A real-time system is one that provides guaranteed system response times fro events and transactions that is, every operation is expected to be completed within a certain rigid time period.

The paper discusses Design Goal which states that strict priority order should be followed to execute tasks an real time system. The rt patch set scheduling algorithm adopts an active push-pull strategy developed by steven Rostedt and Gregory Haskins for balancing tasks across CPUs. It uses important rt-rq patch set scheduler Data structures which encapsulates information about the real-time tasks placed on

the per-CPU run queue. And in order to reduce the performance and scalability impact that might result from increased contention of global variables, the scheduler uses the concept of root domains and CPU priority management. In the scheduler the scope of the global variables is reduced to a subset of CPUs as opposed to the entire system, resulting in significant reduction of cache penalties and performance improvement.

Ms. Barkha Bahl, Faculty, DIAS (For full text, please refer to Linux Journal, August 2009, Issue 184, Pages 54 - 60)

# NEURAL NETWORKS IN SOFTWARE DEVELOPMENT PROCESS : A STATUS REPORT

Yogesh Singh, Pradeep Kumar Bhatia, Arvinder Kaur, Om Prakash Sangwan

Artificial Neural Networks (ANN) can be used in various phases of software development life cycle, right from the requirement analysis phase far effort estimation, software testing, quality production, to the operation and maintenance. Neural Networks can be used to build tools for software development and maintenance task since NN have learning abilities and are particularly useful for: Firstly, poorly understood problem domains where little knowledge exists for humans to develop effective algorithms. Secondly, domains where there are large databases containing valuable implict regularities which are to be discover and thirdly domains where programs must adopt to changing conditions.

ANNs are recognized for their ability to provide good results when dealing with problems where there are complex relationships between the inputs and outputs, and where the input data is distorted by high level noise. NN methods were developed to model the neural architecture and computation akin to that of the human brain.

ANN consists of simple neuron-like processing elements. Processing elements are inter connected by a network of weighted connection that encode network knowledge.

Software Testing is the process of executing a program with the intention of locating possible errors. ANN is neither a system nor text case metric specific. Therefore, it can be used across a variety of testing crulerea, test case and conerage metrics.

Automation of NN can be utilized for solving the problems faced by software professions. However, ANN results are sensitive to the choice of the architecture and treading parameters Considerable expertise and efforts are involved in arriving at an optimal model which could be a valuable







method for companies to correctly predict efforts, quality and maintenance of the project.

Ms. Shruti Gupta, Faculty, DIAS (For full text refer to The ICFAI University Journal of Information Technology, Vol. 5, No. 1, March 2009, Pages 54-67)

# LESSONS LEARNED FROM POOR DATA WAREHOUSE DESIGN

Michelle A. Poolet

A number of things must be kept in mind while designing data warehouse. The first and the foremost is that business alignment must come first because if the product that's delivered at the end of the day doesn't reflect the goals then data warehouse is a failure. Involving business decision makers throughout the project ensures that the data warehouse will deliver meaningful, useful information to business users. It must be ensured that data replication and data inconsistency is kept to minimum while designing tables.

One must always strive for user friendly interfaces because a data warehouse without users is a failure. Data warehouse that is designed must be cost effective. Design implementation cost must be reduced by creating a set of reusable designs and repeatable ETL (Extraction, Transformation and Loading) processes so that every time a data warehouse is not started with a clean state. It must also be able to anticipate and manage changes since business is going to change over time. It must also comply with internal and external standard.

Some design tips must be kept in mind like measures should not be confused with context. Measures are usually numeric, can be aggregated and are stored in fact tables, whereas context is descriptive and open ended. The grain of fact tables should be defined. Generally a data warehouse must contain information to the finest level of grain. Snowflake should not be used when star schema would do, partitioning of fact tables should be done on date key and the clustering of fact tables should also be done on date key as it efficiently retrieves historical slices of data.

Ms. Neha Goel, Faculty, DIAS (For full text refer to SQL Server, July 2009, Pages 21-23)

# OPTIMISATION OF SIGNIFICANT GA FACTORS USING STATISTICAL TOOLS

V.N. Rajavarman, S.P. Rajagopalan

Genetic Algorithms (GA) are an optimization tool that computationally emulates the process of evolution. GA's have been applied across broad front- from traditional and cutting-edge optimization in engineering and OR to such nontraditional areas such as drug design, financial predictions and data mining. The great advantage of GA is that they work well over a broader class of problems with reasonable effectiveness. However, it has been found that the efficiency of Genetic Algorithms in finding good solution decreases as it turns to larger or harder problems. This necessitates the development of competent Genetic Algorithms that solve hard problems quickly, reliably and accurately.

# Genetic Algorithms applied to an optimal control problem:

The composition of an optimal schedule for anti-cancer chemotherapy treatment is a non-linear optimal control problem that is subject to contradictory constraints. The competence of GA applied to our problem is measured by the time necessary for GA to find at least one feasible solution.

# Factors affecting the Efficiency of Genetic Algorithms:

The right balance between explorative and exploitive features of GA is quantified by the following factors:

- The penalty coefficients
- The probability of mutation
- The probability of crossover
- Parameters defining selection pressure
- A number of breaking points

Ms. Surbhi Jain, Faculty, DIAS (For full text refer International Journal of Computing and Applications, Vol. 4, No. 1, June 2009, Pages 07 – 12)

### RANDOMIZED ROUTING ALGORITHMS

M. Thiyagarajan & V. Anand

Routing is the process of selecting paths in a network along which to send network traffic. The n-dimensional hypercube or n-cube is a network with N=2n nodes such that node x has a direct connection to node y if and only if x' and y' differ in exactly one bit.

The algorithm for hypercube networks follows a bit fixing routing mechanism. Using only bit fixing routes can lead to congestion and poor performance. To improve the







performance, Two Phase Routing Algorithm is used in which a packet is sent from source to destination chosen uniformly at random.

**Phase I:** Route the packet to a randomly chosen node in the network using the bit fixing route.

**Phase II:** Route the packet from its random location to its final destination in the network using the bit fixing route.

Analysis shows that this algorithm achieves asymptotically parallel time, if all the packets execute the algorithm in parallel. Also the time taken by packets to reach the destination depends on the random node chosen.

Ms. Neha Tandon, Faculty, DIAS (For full text, please refer to International Journal of Computing and Applications, Vol. 4, No. 1, June 2009, Pages 13-18)

# COMPLETELY FAIR SCHEDULER: Find Out How Linux's New Scheduler Strives To Be Fair To All Processes And Eliminate The Problems With The Old O(1) Scheduler Chandandeep Singh Pabla

The Completely Fair Scheduler is the name of a task scheduler which was merged into the 2.6.23 release of the Linux kernel. It handles CPU resource allocation for executing processes, and aims to maximize overall CPU utilization while maximizing interactive performance.

### O(I) Scheduler

The algorithm used by the O(1) scheduler is based on the active and expired arrays of processes to achieve constant scheduling. The algorithm identifies the interactive processes by analyzing the average sleep time, which is the amount of time the process spends waiting for input. Process having long sleep time periods, are assumed to be interactive by the scheduler, as scheduler considers that they must be waiting for the input from the user. O(1) scheduler gives more priority to the interactive process while penalizing the non-interactive process with the lower priority.

# Completely Fair Scheduler

From Ingo Molnar's (the author of the CFS) description, CFS basically models an 'ideal, precise multitasking CPU' on real hardware." By this statement we mean, a hardware CPU that can run multiple processes at the same giving each process an equal share of processor power. If a single process is running, it would receive 100% of the processor power. With 2 processes, each would have exactly 50% of the CPU power in parallel. Similarly, with four processes running each would get

precisely 25% of CPU power in parallel and so on. Therefore, the CPU would be "fair" to all the runnable tasks in the system. Obviously, this ideal CPU is non-existing but the CFS tries to emulate such a processor in software. The CFS tries to keep track of the fair share of the CPU that would have been available to each runnable process. So, CFS runs a fair clock at a fraction of real CPU clock speed. The fair clock's rate of increases the division of wall time and the total number of processes waiting.

The resulting value is amount of CPU time to which each process is entitled. As the process waits for the CPU, the scheduler tracks the amount of time it would have used on the ideal processor. This wait time, represented by the pertask wait runtime variable, is used to rank processes for scheduling and to determine the amount of time the process is allowed to execute before being preempted. The process with the longest wait time is picked by the scheduler and assigned to the CPU. When this process in running, its wait time decreases while the time of other waiting tasks increases. This essentially means that after sometime, there will be another task with the largest wait time and the currently running tasks will be preempted. Using this principle, CFS tries to be fair to all tasks and also tries to have system with zero wait time for each processes, each process has an equal share of the CPU.

Ms. Nidhi Goel, Faculty, DIAS (For full text refer Linux Journal, Issue 184, August 2009, Pages 68-71)

# DESIGN AND DEVELOPMENT OF THE DYNAMIC DRBAC MODEL USING PMI AND XACML-BASED AUTHORIZATION

Somchart Fugkeaw, Piyawit Manpanpanich, Seakpon Juntapremijitt

The research paper presents the idea and implementation of how the authentication, RBAC authorization, and accountability for the multi-application and multi-user are well supported by the PKI, PMI and MAS techniques in the distributed system. It presents the mapping scheme of user identification, role assignment, and privilege delegation. This achieves both intra-and inter-trust domain for performing authentication and authorization. Based on the proposed model, the validation cost of role-based authorization is also optimized since the PA is not necessary to look up all Role ACs to find out the role and privilege information of the particular user. Also, the idea of how the SAML supports the SSO based authentication and RBAC authorization model is discussed. It also integrates the XACML and SAML to work







with the MAS engine reasonably. Thus, AmTRUE supports both PMI and XACML standard. This could be beneficial for the distributed system that required the scalable and flexible authentication and authorization. For the trust management of multiple PKI domains, the CTL model was employed to enable the different PKI domains to operate effectively. In order to improve the performance, a multi-instance concept is employed to parallelize agents' activities. Finally, the simulation has been conducted and confirmed a good performance in both speed and response time.

With respect to the deployment of MAS, the agent system is capable of working and adapting well in the distributed environment by taking the following actions:

- I Verifying trust among agents to ensure the authenticity and integrity of partners organizations.
- 2 Monitoring the security sessions because the multiagents can more easily mange the detection and response to important time-critical information that could appear suddenly at any large number of users in the distributed systems.
- 3 Supporting the multi-organization access control policy defined in PMI or XACML.
- 4 Intervening any improper actions or illegal activities according to the activity-based policy enforcement.

For future works, the paper focuses on the reliability and robustness of the system, the system needs to be tested under a high number of clients and applications. The management of the complexity and heterogeneity of different access control models are indeed promising.

Ms. Tripti Mishra, Faculty, DIAS (For full text refer to Journal of Digital Information Management, Vol. 7, No.2, April 2009, Pages 63 - 73)

# STAR COLORING BIPARTITE PLANAR GRAPHS H. A. Kierstead, Andre' Ku" ndgen, and Craig Timmons

In this research paper all graph considered have no loops or multiple edge and the vertex set of a graph G by V(G) and denote the edge set of G by E(G). If G has vertex set V(G) and edge set E(G) we may write G = (V, E).

An orientation of a graph G is a digraph G obtained by assigning one of two directions to each edge of G. If G is a digraph, we may write G = (V, E). If edge e has endpoints e and e we may write e to denote e. If e is an oriented edge that points away from e and towards e then we may write e and its orientation.

Let  $d_{G}(x)$  denotes the degree of x in G and let  $\Delta(G)$  denote the maximum degree of G. The outdegree of a vertex v in a digraph is the number of edges adjacent to v that are oriented away from v. Let  $d_{G}^{+}(v)$  denote the outdegree of v in G . The maximum outdegree of a digraph G is denoted by  $\Delta^{+}(G)$ . A graph is k-choosable if given any assignment of lists of size k to the vertices of G, G has a proper coloring in which the colors are chosen from the lists. Similarly, a graph is k-star choosable if given any assignment of lists of size k to the vertices of G, there is a star coloring in which the colors are chosen from the lists. It is known that if every subgraph H of G has average (and thus minimum) degree less than k, then G is k-choosable. Of course k-star choosable graphs are k-star colorable.

A proper coloring of a graph G is an assignment of colors to the vertices of G such that adjacent vertices receive different colors. Acyclic colorings, is a proper colorings such that all 2-colored subgraphs are acyclic

A star coloring of a graph is a proper vertex-coloring such that no path on four vertices is 2-colored. In the paper authors proved that the vertices of every bipartite planar graph can be star colored from lists of size 14, and also given an example of a bipartite planar graph that is not 7-star colorable that is bipartite planar graph that requires at least eight colors to star color.

Ms. Pratikhsa Tiwari, Faculty, DIAS (For full text refer to Published online Journal of Graph Theory, Vol. 60, Issue 1, Page – 1-10, published on 10th September 2008 in Wiley Inter Science)

# KNOWLEDGE SHARING: THE EFFECTS OF INCENTIVES, ENVIRONMENT, AND PERSON

Christopher Wolfe, Tina Loraas

The article is based on Knowledge Sharing and the impact of incentives on knowledge sharing. Knowledge sharing focus on aspects that encourage people to share what they know. In organizations able to cultivate a knowledge-sharing work Environment, employees share ideas as a natural part of their job function, rather than something they are forced to do. The selected literature reveals that there is a key motivational factor: incentives.

A survey was conducted on Big 4 accounting firms to find out the effect of incentives which can be monetary or non monetary on knowledge sharing. Laboratory experiments were carried out and a result is derived that incentives are sufficient for knowledge sharing irrespective of their types.







Secondly, the personal level differences also affect the knowledge sharing as in non competitive forms of individualism and collectivism reduced and increased organizational knowledge sharing. Equity and inequity in incentives also affect the knowledge sharing.

Ms. Parul Singhal, Faculty, DIAS (For full text refer to Journal of Information Systems, Vol. 22, No. 2, 2008, Pages 53-58)

# FAILURE REPORTING AND CORRECTIVE ACTION SYSTEM

MTain Inc

Failure Reporting And Corrective Action System(FRACAS) commonly referred to a "Closed Loop Reporting System" can be used to collect, record and analyze system failures. The failures are reviewed and corrective actions identified and verified. It basically helps in understanding how a system is actually performing in the field from a reliability perspective. FRACAS is beneficial in number of ways. A manufacturer can see how well systems are performing in an operational environment which helps in better decision making regarding new designs, issues associated with warranties etc.

### **FRACAS Procedure**

A FRACAS could be implemented for a program during the specified production, integration, test and field deployment phases to allow for the collection and analyses of reliability and maintainability data for the hardware items. These items could be considered to be Line Replaceable Units (LRUs) and Shop Replaceable Assemblies (SRAs).

- Process: The FRACAS/DRACAS information would be collected using a report format. Depending upon the complexity of the system or systems and their intended operational profile, this could be achieved by using a simple form or may require a more complex database. The person as detailed in the FRACAS/ DRACAS process procedure will complete the individual data element field.
- Failure Identification: When the system failure is detected the FRACAS/DRACAS process would be implemented by initiating the failure reporting sequence.
- Field Data Collection: The responsible person will collect the required field data. This would vary depending upon program requirements and the phase of the program itself.
- **Supplementary Data:** The subcontractors and vendors for units (LRU and SRA) that will be repaired at their facilities will supply supplementary failure data.

- Reliability & Maintainability Evaluation: The after the collection "Field Data" elements the Reliability Engineering would review each Failure Report.
- Failure Analysis: Prior to issuing a corrective action a
  detailed investigation into the cause of the failure trend
  maybe warranted. The Reliability Engineer will consult
  with the Reliability Engineering Manager, to obtain the
  required engineering support and resources.
- Disposition: The Reliability Engineer will disposition a Failure Report with one of the following category types as no action required, observations and corrective actions.
- R&M Reports: The Failure Reports will be compiled into a R&M Report, this would be detailed in the project/ program R&M Plan or as supporting procedures.

Ms. Sonia Gupta, Faculty, DIAS (For full text, please refer to Sigsoft, Volume 34, No. 3, May 2009)

### **LCD MONITOR TEST**

Michael Browne

LCD monitors are the de facto standard these days and are becoming even cheaper. They offer serious value for money, and performance that get close to the best CRTs around, while occupying a fraction of our desk space. This article states that 26 and 24 inch LCDs are the two categories that represent the top of the pyramid of LCD monitors available today. This article suggests some of the best LCD monitors that a customer can buy as per the requirements of the customer.

This article gives detailed information on the different models and features available in LCD monitors which are sold by the leading brands in the market today. The monitors are divided into categories on the basis of their screen size. On the features front all the physical specifications of the LCDs are logged including details on the panel, the weight, dimensions and connectivity. Also the build quality, menu system and bezel thickness of each panel has been rated in this article. This information is gathered on the basis of certain tests which were conducted to enable the customers to make the best choice. The test system consisted of an Intel Core 2 Duo E6700 CPU (2.66 GHz), 4 GB DDR2 800 MHz RAM and a ZOTAC GeForce GTX 295 graphics card. When testing for purity of the primary colours and individual shades the 16shade ramp test and the 256-ramp test are being used. The movie test consisted of a set of four HD 1080p clips encoded in WMV format.







This article also contains Contact Sheet which gives the details like the Contact Number, Email IDs and Website of the leading brands selling LCD monitors today. Also a buying guide has been given which suggests the model and its price on the basis of the needs of the customer. For ex. A customer looking for professional monitors where colour accuracy is of utmost importance, NEC's duo of the 1990SX and the 1990FXp fit the bill, but are pricey when compared to other models.

Thus, to conclude, this article is good read for people who want to buck the prevailing recessionary trend by splurging on the super slim LED displays that have just emerged in stores around the country.

Ms Bharti Taneja, Faculty, DIAS (For full text, please refer to Digit, Issue 8, Vol. 9, August 2009, Pages 52 - 62)

### IN SEARCH OF A BETTER "SEARCH" Anindya Roy & Mastufa Ahmed

The modern day search technology suffers from several limitations like the search results point us to websites where we 'might' find the information we are looking for. We have to ourselves judge the accuracy or facts thrown up. The process of finding the right information is time consuming because we have to go through so many links.

This article focuses on some of the things being developed for new internet search like - looking for similar photographs on the internet like the one uploaded by the user on an image based search site or download a song, the tune of which is known to the user but the lyrics are not. Organizing data so that it is immediately computable and replicable to usual representations is what the new 'search engines' want to tap.

Computer scientist, Stephen Wolfram invented a computational engine, Wolfram Alpha, that generates output by doing computations from its own internal knowledge base. It can answer queries like the molecular weight of cholesterol, location of a gene in human genome, the height of Mt. Everest etc. The components of Alpha comprise of data curation, algorithms, linguistic analysis and presentation through graphs.

The new picture based search uses pattern recognition technologies to identify similar looking images on the internet. Some engineers have come up with an idea of developing a search engine which can search for any tool just by a photograph or a doodle sketch of it. They did this keeping in mind that remembering the name of a tool or a part in repair work can sometimes become very difficult. The

upcoming feature of sound based searching can be done by typing the name of the song, or by playing its melody, or just by whistling the melody to the computer's microphone. Search enhancements from Google include new search features like Google squared, Google options & tool for Android.

Another very intuitively useful search coming up is 'Plagiarism search' for checking if an article is being used by someone else or not on the internet. This service can be used for hunting phishing websites for banks. In the near future we can rely on AI & NLP or Natural Language Processing to get a robot connected to the internet who can listen to one's voice & respond to the questions in a very friendly manner. One day we might have a similar interface for Google or Wikipedia.

Ms Shuchi Vasisht, Faculty, DIAS (For full text, please refer to PC Quest, July 2009, Pages – 20-25)

# **MANAGEMENT**

# GREEN HR PRACTICES: A STUDY ON IT PROFESSIONALS WORKING IN BANGALORE

Indrainal Mutsuddi, Rimi Mutsuddi

Green HR initiatives are those which lead to sustainable development and utilization of human resources in order to reduce manpower wastage; protect human health and create a safe, hazard free working environment and culture so as to ensure high levels of productivity in the organization.

The research article deals with the Green HR practices adopted by the IT professionals working at Bangalore.

With increasing concerns for the environment, people all over the globe are considering the identification of the various "Go Green" strategies adopted by companies.this article finds out the respondent satisfaction on Green HR initiative taken by their organization and also their perceptions on effective delivery and implementation of the Green HR initiatives.

A standard questionnaire was used and about 100 IT professionals in and around Bangalore were interviewed. It was observed that the respondents felt that use of human capital management systems as a solution to paperless officeyyt received the highest ranking amongst the green initiatives while employee rewards for green initiatives was the lowest ranked amongst all. With respect to the delivery and implementation the highest ranks were observed for online assistance and help while case study discussions was rated the lowest.







A majority of respondents was satisfied with the implementation of green initiatives and the major focus of senior managers was on policy formulation and lower focus on monitoring was observed. Hence, it was concluded that in the four steps for effective implementation of Green HR practices, the evaluation stage needs most improvement. Hence, organization should take note of this to make the green HR practices more effective.

Ms. N.Malati, Faculty, DIAS (For full text, please refer to BVIMR Management Edge, July - December 2009, Pages 56-62)

# INVESTMENT STRATEGIES OF FIIS IN INDIAN EQUITY MARKET

Sanjay Sehgal, Neeta Tripathi

The article delineates that the FIIs play an important role in the emerging markets including India and hence it is important to analyze their investment behaviors as it has strong implications for the security pricing as well as market characteristic such as volatility, liquidity and informational efficiency. The study concludes that the FIIS are positive feed back traders when analyzed for the weekly data perspective while no such relation seems to be there when analyzed from the daily data perspective. The article tries to highlight that rather than policies, it is the market dynamics and momentum that propels their activities. The study finds that FIIs show intense "Herding" behaviors at aggregate level and they share expectations more at aggregate level than at individual level.

The study has a strong implication for the domestic financial institutions, portfolio managers, wealth managers and other investors as well as the policy makers as they shall be interested in understanding the trading behavior of the dominant investor group in the market. The article concludes with the remark that "An examination of FII Investment behavior provides us a better understanding of the risk-return relationship that emerges in any given financial market".

The article is really a thought provoking and enlightening one as it forays in to an altogether different and unique aspect of the stock markets which actually is an important aspect in understanding the behavior and the volatility of the market.

Ms. Shilki Bhatia, Faculty, DIAS (For full text, please refer to VISION-Journal of Business Perspective, Vol. 13, No.1, January - March 2009, Pages 11-18)

# FDI IN RETAIL – THE IMPLICATION FOR INDIA Mamta Shah

FDI or Foreign Direct Investment is any form of investment that earns interest in enterprises which function outside the domestic territory of the investor. Moreover, FDI specifically in retail sector is the hot topic for debate these days. Retailing is the largest private sector industry in the world economy with the global industry size exceeding \$6.6 trillion and latest survey has projected India as the top destination for retail investors. And the further upsurge is anticipated in the retail sector as the Government opened up 51% FDI in single brand retail outlets.

This article provides the reader with the information that, how India has been affected with the reforms taken up for the FDI specifically in retail sector. Retailer is the middle party between producer and the end customer who works on a profit margin basis. Foreign direct investment (FDI) inflows as in January 2009, in single-brand retail trading, stood at approx. US\$ 25.18 million. India's overall retail sector is expected to rise to US\$ 833 billion by 2013. Also, organized retail, which accounts for almost 5 per cent of the market, is expected to grow at a CAGR of 40 per cent from US\$ 7 billion presently to US\$ 23 billion by 2010. India has emerged the third most attractive market destination for apparel retailers.

Both demand side and supply side factors are affecting growth of retail in India. Demand side factors are increase in population, increase in disposable income, Economic growth, Availability of consumer credit and supply side factors are Greater variety and quality products and more number of outlets. Wal-Mart is entering India by a joint venture with Bharati. Such kinds of ventures are threat to small kirana stores. But there is always a positive side to everything. The competition created will lead to price contraction and increase in employment opportunity. Competition, if healthy, is always good and this would be the case for Indian retail sector. Big retailers will benefit the customer and economy as a whole. The rise in FDI in this sector will truly transform it from unorganized to an organized one.

Mr. Himanshu Puri, Faculty, DIAS (For full text, please refer to "Effulgence", Vol. 7, No.1, January - June 2009, Pages 1-4)







# INSIDER TRAINING REGULATIONS – AT A GLANCE

P.R.Raamaanathan

To protect the common investor in securities and to stop the misuse of price sensitive information by the insider, SEBI, the market regulator enacted a regulation called SEBI (Insider Trading) Regulations, 1992 on 19 November' 92. Insides Trading implies buying, selling, and dealing in shares and securities of a listed company by insiders such as directions, designated officers of management team, analysts who possess material inside information which is not available to general investors.

The name of regulations was changed to SEBI (Prohibition of Insider Trading) Regulations 1992 in the year 2007 and the words 'Prohibition of were added before the word 'insider trading'. The Insider Trading Regulation contain 15 regulations and 3 schedules with 4 forms portraying 2 model codes of conduct for prevention of insider trading in listed companies. The Regulations contain several provisions to control the trading of securities by specific categories of insiders viz director, officers and their relatives and associates and persons having professional relationship with the company.

Insiders generally trade on the secondary market and they forecast future risk and return of shares and other securities of their company on the basis of unpublished inside price sensitive confidential information and end up with huge profit. Such opportunity is being denied to general common investors. Hence, the prevention of insider trading is considered as an important form of securities regulation. As such the market regulator SEBI keeps watchfulness on the implementation of insider trading regulation by listed companies from the day of its promulgation. In the year 2002, SEBI amended the regulation & increased the list of persons who are deemed to be connected with insiders. In the 2008 amendment too, SEBI broadened the term 'insider' and the insiders have been barred from entering into contrary transactions for a period of 6 months. Besides they have been barred from trading in derivatives of shares. SEBI has been successful in curbing the social & economic menace of insider trading.

Ms. Haritika Chhatwal, Faculty, DIAS (For full text refer to Chartered Secretary, August 2009, Pages 1052 – 1055)

# IMPACT OF LEADERSHIP TRAITS ON EFFECTIVE LEADERSHIP: AN EMPIRICAL STUDY

Manoj Patwardhan & Santosh Rangekar

It has been a really a tough time for the business organization to grow and sustain in the competitive environment. They are putting efforts to make it viable and sustainable. However not many organizations see the fruitful results at the end of the day. Top management viewed it due to lack of effective leadership and are trying to nurture the leaders in the organization. Leadership is widely discussed as the ability to influence the people to achieve the goals set by the organization.

In the real world, a well-known excellent manager always has special traits of personality, shows a leader's taste, encourages subordinate's willingness to work, has a good ability to communicate with others, leads the team to organizational goals, and secures the team's excellent performance. But, unless a leader can trigger his subordinate's motivation to work, it is difficult to make people follow him. This study has made an attempt to find the factors responsible for the leader effectiveness and the relationship with the variables.

Traditionally, the study of leadership has been closely tied to the study of the leader and his/her relationships with the followers. However, recently there has been growing evidence that follower perceptions have an important role in determining leadership outcomes. Leaders are effective as far as followers are willing to be led. So, the relationship between leadership traits and subordinate job satisfaction in different organizations have been studied extensively by the author.

It was observed that out of 16 factors viz Communicative, Adaptable to Situation, Persistent, Considerate, Interpersonal Skills, Initiative, assertive, Openness, Vision, Decisive, Alert to Social Environment, Dominant, self Regulation, Impartial, Competent & Cooperative, three new factors i.e. Self Monitoring, Achievement Oriented and Transparency were identified as more dominant factors compared to others and it was finally concluded that the traits of leadership depends upon the purposes to be served by the definition and the behavior of a leader can be changed by developing such traits which are more influential as compared to others.

Ms. Ritika Maheshwari, Faculty, DIAS (For full text, please refer to BVIMR Management Edge, Vol. 2, No.1, January – June 2009, Pages 10-15)







# COMPETITIVE DYNAMICS OF INDIAN HOUSING FINANCE INDUSTRY

Ashwani Kr. Bhalla, Parvinder Arora & P.S.Gill

Since the 1970s, the Indian government had given special emphasis to the housing industry and made providing housing one of its main objectives. However, due to the scarcity of finance, owning a house remained a distant dream for the average Indian; even a lifetime's earnings and investments were not enough to fund the purchase of a house.

This study has been conducted to measure the level of competition in Indian housing finance industry and amongst housing finance companies.

The companies for analysis have been selected from the list of companies approved by the National Housing Bank under section 29A of the NHB Act and have been given permission to accept deposits and also been listed with recognized stock exchange. In order to measure the concentration level in the housing finance companies, top ten HFC's in relation to their market share and largest number of branch network in India have been selected. In this study, HH Index has been used to measure the size of group of players in relationship to the industry and as indicator of the amount of competition. HH Index is a commonly accepted measure of market concentration. It is calculated by squaring the market share of each firm competing in the market and then summing the resulting numbers.

The study has shown that housing finance business is concentrated around banks and major housing finance companies. In order to expand their business, to survive competition, HFC's and other players lure customers. Competition among them helps the customer to get finance at lower rates. There is need to diversify and differentiate their business geographically for the housing finance institution to become a market leader.

Ms. Sakshi Saxena, Faculty, DIAS (For full text, please refer to PARADIGM, Vol. 12, No. 1, January-June 2009, Pages 28-38)

# IMPACT OF GLOBALIZATION IN INDIAN FINANCIAL MARKETS

Dr. A.S. Pandey

India started to liberalize its capital account regulations in the early 1990s. In 1994, it introduced current account convertibility. There is no doubt that in the post 1991 period FDI flows in India have increased, but the growth in portfolio investment has been more dramatic. India did not follow the "Big Bang" approach of financial deregulation and liberalization. But, the content of financial liberalization in India is similar-deregulation, and pro-market oriented policies.

The growing domination of foreign funds: There are nearly 500 foreign institutional investors registered with SEBI to operate in Indian financial markets, only few of them dominate the markets. Recent studies reveal a positive correlation between net inflows by foreign institutional investors and the movement in the stock indices.

According to Indian Bank's Association report, 'Banking Industry Vision 2010', there will be greater presence of international players in Indian financial system and some of the Indian banks would become global players in the coming years.

In the overall scenario, the policy relating to the financial services and, in particular, banking must be considered. In most of emerging markets, bank's assets comprise well over 80 per cent of total financial sector assets.

Ms. Aradhana Chadha, Faculty, DIAS (For full text, please refer to Synergy, Vol. 7, No. 1, January 2009, Pages 81 – 105)







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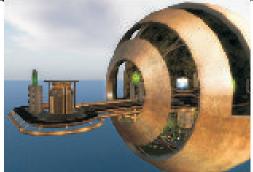
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# For further details please contact the organizing team:

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(ii) Computer Applications: Ph.D. degree with First Class Degree at Bachelor's or Master's level in Computer Engineering / Computer Technology or Ph.D degree in any relevant area of Computer Science / Information Technology with First Class Master's degree and 2 years experience in Teaching / Industry / Research.

OR

First Class Master's degree in Computer Science / Information Technology / Computer Technology or First Class MCA degree and with 5 years experience in Teaching / Industry / Research at the level of lecturer or equivalent. Such candidates will be required to obtain Ph.D. degree within a Period of 7 years from the date of appointment as Reader

Candidates from Industry / Profession with First Class B.E./ B.Tech. in Computer Science / Information Technology / M.Sc. (Comp Sc) / M.Sc. (IT)/ MCA degree and Professional work experience of 7 years in relevant industry. Such candidates will be required to obtain Ph.D. degree with in a period of 7 years from the date of appointment as Reader.

### 3. Lecturer:

- (i) Management: First Class Master's Degree in Business Management / Administration or other relevant management related discipline (viz. Economics, Commerce, Maths etc) / PGDBM/PGDM programmes (minimum 2 years duration) recognized by AICTE/MHRD/UGC and declared equivalent to MBA by AICTE/AIU with NET qualification.
- (ii) Computer Applications: First Class B.E/B. Tech in Computer Science/ Engineering with GATE qualification of minimum 80% percentile score or First Class MCA Degree with NET qualification.

**EMOLUMENTS** Pay Scale Present Min. Total Emoluments

- Provident Fund and other benefits as per rules. Higher starting salary admissible in deserving cases.
- Recently retired persons, at the level of Professor only below 70 years of age may also apply.
- Candidates qualifying through Distance Education Programmes need not apply.
- Application form for the same can be downloaded from the Institute's website: <a href="http://www.dias.ac.in">http://www.dias.ac.in</a>
- · Duly filled in application form can either be submitted on line or in person at the Institute's address mentioned above