The editors of the Acro chronicle make every effort to ensure that the newsletter’s contents are authentic and complete. However they do not represent any endorsement. The articles and technical news in this newsletter are solely for education and information. At this outset, it will surely be said, with a basic core of truth, that the topics covered may not be a new subject but certainly keep adding new dimensions to itself. This treat is complemented by the technical penetration and the deep in-sightedness of our students who are seriously indulged in various academic activities. Our chorused full throated appreciation for their sincere attempts is acknowledged through this newsletter and carried to our worthy readers every quarterly.
Undeniably Information Technology in this present decade has emerged as the largest global industry. It goes without saying that every branch of education including entertainment and culture have come under its spell. For India to become an IT superpower, every Indian student must be the pivot. For developing this vision today’s scholars need to emulate the successful entrepreneurs of the world through study of their personal and professional profiles. No earnest reader would disagree with this judgment and it is for this reason that the newsletter is tailored to cover not only the technical skills but the biographies of great legends as well. We hope our readers will appreciate this humble attempt.

With thoughtful and warmest greetings of the season,

Dr. Anita Thakur

Cover page, including the collage and the caricatures, depicts the true craftsmanship of the students. The special effects are added by the CS II yr. students Piyush Jain and Piyush Rathore. The sketch by Mr. Piyush Jain on the cover page reveals a new hope after the catastrophe. The deep grove, encircling the skeleton structure of a tree and a cup of wine on a palm, indicates a new life in the midst of difficult situations. However it is solely one’s choice how one deciphers the art and these sketches are no exceptions……….

Piyush Jain (CS II Yr.) Piyush Rathore (CS II Yr.)

T hought O f T he V olume
Our plans miscarry because they have no aim,
when a man does not know what harbor he is making for,
no wind is the right wind.

- S eneca

EMERGING TRENDS IN EDUCATION

Education in the advanced stages of 21st century is likely to bring in new changes clubbed with unprecedented opportunities. To enable the students to adapt themselves in this new environment will require new design of human resource development. It is no doubt a big challenge to internalize new ideas constantly and creatively. They have
to be imbued with undaunted commitment simultaneously synchronizing human values and social changes. All this implies quality education. Nothing short of this will meet the situation.

In anticipation of new educational demands and challenges, we at Acropolis, provide an array of programmes that fulfill the needs of the emerging trends in education and the society. In finding new niches and being fast on its feet and swift in imparting quality education, AITR with its modest beginning has very soon carved for itself a respectable name in Madhya Pradesh. We have nurtured innovation across and between disciplines to respond to the interdependent, multicultural and technologically advanced society. With the rapid expansion of education in diverse fields, we are also constantly striving hard to create institutions with unique characters so as to absorb the heterogeneous clientele, to respond to the persistently changing demands of the employment market and the financial scenario across the globe.

Gaurav Sojatia.  
Chairman – FMS

RAGGING - A DISORDERLY CONDUCT

Ragging- which was originally considered the phase of introduction between the freshers and the seniors, has been distorted to the extent that the freshers are being tortured, teased and handled with roodness causing annoyance, hardship or psychological harm to the new students. Some times the students commit suicide under depression. Now days it has become a social problem and as such Vishwa Jagrit Mission, an organization of the spiritual leader Shri. Sudhanshuji Maharaj had filed a civil writ petition against ragging to the supreme court of India on 5.11.1998 under article 32 of the constitution of the India. It is also said that ragging was a violation of article 21. In the judgment by apex court of India, ragging is defined as...........

Any disorderly conduct whether by words spoken or written or by an act which the effect of teasing, treating or handling with rudeness any other student, indulging in indiscipline activities which cause or is likely to cause annoyance, hardship or psychological harm or to raise fear or apprehension thereof in a fresher or a junior student or asking the students to do any act or perform something which such student will not do in the ordinary course and which has the effect of causing or generating a sense of shame or embracement so as to adversely affect the physique or psyche of a fresher or a junior student.

This definition includes all types of misbehavior amongst the students. The students are required to create the friendly environment in the institute and outside.

In the judgment it is also supposed that the cause of indulging in ragging is deriving our sadistic pleasure, authority or superiority by the seniors over their junior and fresher.
A teaching to leave such type of complexity is to be given to the students. The ragging can be stopped creating awareness amongst the students, teachers and parents that ragging is a reprehensible act which does no good to any one and by simultaneously generating in atmosphere of discipline by sending a clear message that no act of ragging shall be tolerated and any act of ragging shall not go unnoticed and unpunished.

Anti ragging moment should be initiated by the institute right from the admission. Any literature, prospectus, admission forms must clearly mention that in the institution any one indulging in ragging is likely to be punished appropriately. The possible punishments suggested in the judgment are:

1. Expulsion from the institution or classes for a limited period or fine with a public apology.
2. Withholding scholarships or other benefits.
3. Debarring from representation in events.
4. Withhold results.
5. Suspension or expulsion from hostel or mess and the like.

R.G.P.V. in its circular for preventing ragging have suggested that the migration certificate issued by the institution should have an entry apart from that of general conduct and behavior whether the student has participated in and in particular was punished for ragging.

The mutual understanding amongst the students, teachers and parents may avoid the ragging activities. The institute must have open eyes in this matter so that any small instance may not lead to a serious ragging case.

Dr. M.D. Agrawal
Principal – AITR

NEWS OF THE CAMPUSS

Independence Day

This historic day was celebrated in the campus with a profound feeling of chauvinism. The flag was hoisted by the patron of the institute Shri. Ashok Sojatia on the ramparts of the institute followed by a national anthem. The principal Dr. M.D. Agrawal and the CEO Prof. M.K. Dube addressed the students and instilled into them a spirit to safeguard their hard won freedom. The speeches delivered comprised the fabric of true freedom, endorsing the philosophy “eternal vigilance is the price of liberty”. The highly motivational speeches were followed by the cultural activities and the high tea.
Teachers’ Day
The institute celebrated the Teachers’ Day on 5th Sep.07. The chairman Shri. Ashish Sojatia, Vice-Chairman Dr. Ashok Kumat and other eminent personalities of the institute delivered speeches on attaining intellectual freedom through wisdom. The teacher is the architect of the society was endorsed by many. All the teachers were felicitated with bouquet and the adoring verses. The event was followed by high tea. The Chairman of the institute, Shri. Ashish Sojatia made some important declarations to promote the teachers in the field of academics and research.

Induction Programme
The institute extended a genial welcome to all the new admitants of the institute with a intake of 360 in BE, 60 in MCA and 60 in MBA. The welcome notes of the top-notch authorities of the institute exhorted the new comers to dream big and the management pledged their strong support in fulfilling their larger dreams. They were ensured quality education and elite placements ahead. The code of conduct and other institutional policies were briefed by the Principal Dr.M.D.Agrawal, Dr.Anand Sapre-Director MBA, and Prof. D.M.Puntambekar HOD, MCA.

Poster - Making & Slogan - Writing Competition on Anti-Ragging
In compliance with the decision of the Hon’ble Supreme court of India and to curb the venomous attributes of ragging, the anti-ragging committee of the institute organized a poster making and slogan writing competition for the senior students on 14 September, 07. The students worked in small groups and succeeded in depicting the after effects and the ill menaces of ragging. As a token of encouragement the institute announced I, II and III prizes for the following winners.

I prize - Ms. Pankhuri & Priyanka Rohira - CS II yr.
II prize - Ms. Sarika Hablani & Ms. Druvika Raj - IT III yr.
III prize - Mr. Arpit Jangir, Ms. Ankushi Sharma - CS II yr
Ms. Akshita Tare & Mr.Amber Tripathi

Engineers’ Day
15 September, the birthday of Mokshagundam Visveswaraya, was celebrated in the campus by commemorating his valuable contribution made for the nation. He is a man who is a mere diploma holder but had planned, promoted and encouraged the developments in the field of industry, education, commerce and public works. On this auspicious occasion the founder director of AITR and eminent educationist Prof. C.M. Poddar was honoured and felicitated by the chairman Shri. Ashish Sojatia. Speeches were delivered by the eminent authorities of the institute. Prof. C.M. Poddar, the torch bearer of the institute, in his speech focused on the major objectives
of the institute’s master plan and urged every member of the institute to march towards the goal with a mission and vision. The ideal of Visveswaraya “Duty before comfort” was the punching massage of the day. Vote of thanks was proposed by Prof. Puntambekar, HOD –Applied Sciences and Humanities.

**Vishwakarma Jayanti**
On 17 September 2007 the institute celebrated Vishwakarma Jayanti by worshiping Lord Vishwakarma, the presiding deity of all architects. All the acro members took a resolution to increase their potential productivity and gain divine inspiration for creating novel ideas in the field of Engineering. The staff and students assembled in the workshop for performing the rituals. A blend of technical and spiritual feelings depicted the true culture of India.

**Results - RGPV Examination - June 2007**
The institute’s thick edge over others and its commitment to effective teaching was once again reflected in the univ. results. The continued encouraging results of BE, MBA and MCA have exceeded 82% setting new vibrant milestones for the forthcoming batches. The management is highly pleased with the results, and efforts with new dimensions are under process, for opening unprecedented avenues for the students.

**Open Campus at FMS-Acropolis**
The FMS, Acropolis arranged the open placement campus of India Mart Intermesh Ltd. for MBA students. The company is engaged in the activities of business to business (B2B). They operate their business over internet through a Web Portal of their own. Around 550 students from 15 reputed institutions joined the event.

**The Summer/Winter School Events**

**Organized: Guest Lectures /Seminars:**

**Lecture on Product Management and Quality control**
A lecture on “Product Management and Quality Control” was organized by FMS, Acropolis for MBA students on 13th Sep.07. Dr. Ravindra Singh Kushwah, Sr. Manager , Quality Assurance, Schon Pharmaceuticals Private Ltd. delivered the lecture. Dr. Kushwah enhanced the managerial skills of the
students and also focused on the quality control, quality assurance and product development. Mr. Gaurav Sojatia and Dr. Anand Sapre were highly indebted to Dr. Kushwah for chiseling the skills of the students.

**Lecture on Effective Communication**

A lecture on “Effective Communication” was organized by FMS, Acropolis for the students of MBA on 20th Sep.07. The eminent speaker Mr. Pankaj Kothari delivered a lecture and emphasized the importance of three E’s i.e. Excitement, Enthusiasm and Energy that contribute to effective communication.

**Lecture on Memory, Management & Communication**

A lecture on “Memory, Management and Communication - Get you to Sure Success” was organized by FMS, Acropolis on 27th Sep. 07. Noted Memory Guru Dr. Pankaj Mehta from Raja Ramanna Centre for advanced Technology delivered the lecture and demonstrated the creative and constructive role of sub-conscious mind. His idea of harmonizing concentration with confidence can pave the right line of action for the management students in the global world.

**Lecture on Basics of Management**

A lecture on “Basics of Management” was organized by FMS, Acropolis for MBA students on 25th Oct.07. Mr. Yashvardhan Pathak, Director, Mirash Infotech Pvt. Ltd. delivered the lecture and focused on fundamentals of management i.e. organizing, planning, controlling etc.

**Lecture on Software Engineering**

The MCA Dept. of AITR organized a lecture on “Software Engineering” on 31st August, 07. The eminent speaker Mr. Yash Pathak delivered the lecture which has benefited the staff and students of MCA and BE.

**Lecture on Raid Technologies**

The computer Science Dept. of AITR organized a Seminar on “RAID TECHNOLOGIES” on 3rd Oct 2007. An eminent expert from EMC2, Mr. Amit Rawat, presented the seminar which has benefited the staff and students of BE and MCA.
Refresher course attended

To enhance the soft skills and to adopt the emerging trends in teaching of English language, **Dr. Anita Thakur**, Reader, Dept. of Humanities attended one month training programme at English and Foreign Languages University, Hyderabad from 22nd June 07 to 19th July 2007.

Conference attended

**Prof. D.K. Mishra**, Prof. & Head, Dept. of Computer Science and **Mr. Himanshu Nimonkar**, Lecturer-Computer Science attended a national conference on “Supply Chain Management in Global Environment” on 27 and 28 July 2007 at RGPV, Bhopal.

Workshops attended – Engineering

1. **Ms. Varsha Tare**, Reader – Dept. of Computer Science and Mr. Himanshu Nimonkar, Lecturer-Computer Science attended a faculty development programme on “National Agile Software Awareness workshop 2007” on 22nd Sep. 07 at Medicaps Institute of Technology & Management, Indore.
2. **Dr. Anita Thakur**, Reader, Department of Humanities attended a workshop on “Effective Communication” organized by Govindram Seksaria Institute of Management & Research, Indore, on 6th & 7th October 07 at Hotel Sayaji, Indore.
3. **Mr. Chintan Goyal**, Lecturer, Dept of Computer Science, attended a Training Programme on “Storage Devices” organized by EMC2 at Noida between 16th & 20th July 2007.

Workshops attended – MCA

1. **Prof.D.M.Puntambekar,HOD-FCA**, attended one day workshop on “Agile Software” at Medicaps Institute of Technology and Management on 22nd Sep.07.
2. **Prof.D.M.Puntambekar,HOD-FCA**, attended Industry Institute Meet organized by HCL Infosystems Ltd. at Noida on 8th Oct.07. The programme was an initiative towards bridging the gap between industry and academics.

Technical Trainings Attended – Engineering

Training at IIT Roorkee

Mr. Madhur Jaiswal, Mr. Gautam Nathani, Mr. Aman Sharma, Mr. Aayushya Mudgal, Mr.Vaibhav Takalkar, Mr. Vratant Jain, Mr. Nikhil Kale of EC III Yr. attended one month training program in embedded systems & VHDL conducted at Science and Technology Entrepreneurship Park, IIT Roorkee. A project was also assigned which was efficiently executed by the students. The training was imparted by the core faculties of IIT –Roorkee along with a full fledged lab exposure in the state-of –the-art laboratory, which boasts of cutting – edge technological instrument.

Training at Bajaj Allianz
Ms. Druvika Raj of IT IIIyr attended one month training programme at Bajaj Allianz general Insurance company, Pune, Maharashtra on networking and software life cycle process from July 1st to August 5th 07.

Research Advancements

- **Mr. Suresh Batni**, Reader, Dept. of Mechanical Engineering, has been registered for the Ph.D degree in the RDC meeting held on 1st Oct. 07 at RGPV, Bhopal. Mr. Batni will work under the able guidance of Dr. M.L. Jain, Professor, SGSITS, Indore on the topic “Studies of feature based machine components using reverse engineering”.

- **Ms. Richa Tiwari Gupta**, Reader, Dept. of Computer Science, has been registered for the Ph.D degree under the guidance of Dr. Sanjiv Tokkar, Professor, IET, DAVV, Indore. Ms. Gupta will work on “Performance Evaluation by using Different Replacement Algorithms in L1 and L2 Cache”

Recreational Tour – MCA Department

The staff and students of MCA visited Mandav, on 3rd Sep. 07. A historical place known for its serenely beautiful relics surrounded by waterfalls, rivulets and soothing greenery. The trip filled the hearts of the nature lovers with pleasure and developed affinity for each other.

Laurels to Acropolis

Allocates for Accomplishments – Competitive Tests Cleared – GRE & IELTS

Mr. Nikhar Maheshwari of CS III yr. notched the first success story by clearing the Graduate Record Exam (GRE) held on 1st Nov. 07. He secured a handsome score and is a protagonist in this regard.

Mr. Karan Sayata of CS III yr. cleared one of the most challenging English tests IELTS (International English Language Testing System), conducted by the British Council and IDP, held on 20 Oct.07 and came out with a fine performance. He now has the option of Credit Transfer for pursuing his present studies or an access to masters degree in the same field in Australia or Europe.

Literary Activities

I Prize in Inter-College English Debate Competition:

Speaking against the motion Ms. Rashmeet Khanuja of CS III yr. stood 1st in the Inter-college English debate competition held at Chameli Devi Institute of Technology and Management, Indore on “Renewable Energy is the best alternative to nuclear energy” on 20 August 07. She was awarded a trophy and a certificate.
II Prize in Inter-college English Debate Competition:
Mr. Nikhil Kapoor and Ms. Rashmeet Khanuja of CS II yr. stood 2nd in the Inter-College debate competition held at Sanghvi Institute of Technology, Indore, on 15th Sep. 07. They were awarded cash prizes and certificates.

Extra Curricular Activities

I Prize in Inter – College Dance Competition
Students of EI III yr. won 3rd prize in Inter College Dance Competition held in Sep. 07 at S.D.Bansal Institute of Technology, Indore.

III Prize in Inter-college Slogan Writing Competition:
Ms. Tanvi Saxena of EI III yr. stood 3rd in the slogan writing competition organized by Akshay Urja Club in Medicaps Institute of Technology and Management on the topic “Use of renewable sources of energy to reduce global warming”. She was awarded cash prize and a certificate.

Sports

I Prize in Inter-College Volleyball Competition
The volleyball team of Acropolis stood 1st in the District Level III Inter College Boys Volleyball Tournament organized by Rishiraj Institute of Technology, Indore on 30 Sep. 07. Mr. Vaibhav Mathankar of EI I yr. was awarded the best player of the tournament. The players were awarded a trophy and certificates. Mr. Satish Talreja (Convenor), Mr. Anil Parashar (Sports Incharge), Dr. Shivraj Singh Chawda & Mr. Anil Singh (Faculty Incharges) coordinated the team.

II Prize in RGPV State Level Kho-Kho Competition
The girls Kho Kho team of Acropolis stood 2nd in the RGPV state level Kho Kho competition held at Malwa Institute of Technology, Indore on 17th, 18th & 19th Oct. 07. They were awarded certificates.

II Prize in Indore Nodal Level Chess Competition
The chess team of Acropolis participated in nodal level Chess Tournament held at Malwa Institute of Technology, Indore, on 17th, 18th & 19th Oct. 07 and secured 2nd prize. On the basis of their performance Ms. Raavi Agrawal EI III yr., Ms. Triveni Benpela, IT I yr., Ms. Sneha Morab CS III yr. Mr. Manish Shrotriya EI III Yr. and Mr. Sumit Mundra IT I yr. were selected for state level team

Intra Nodal Cricket Tournament
The cricket team of Acropolis participated in Intra Nodal Cricket Tournament held at JIT, Borawan in the first week of November 07. On the basis of their performance three students of Acropolis Mr. Ankit Gupta EI III yr., Mr. Pushp Deep Singh Takkar EI II yr. and Shiven德拉 Shrivastava CS I yr. were selected to represent Indore Nodal team for the forthcoming events.

ACRONOTCH

Papers Presented/Published by the Faculty of Engineering


2. A paper entitled “Anonymity enabled secure multiparty computation for India BPO” of Prof. D.K. Mishra, Dept. of Computer Science was presented & published in the proceeding of IEEE-TENCON’07 held at TAIPEI, TAIWAN between 29 Oct. to 02 Nov.’07. He chaired one session of Privacy and Security in the same conference. He also delivered an expert Lecture on “SMC DATA WAREHOUSING & MINING” in National Taiwan University, Taipei, Taiwan on 3rd Nov. 07.

3. A paper entitled “An adaptive forecasting system in SCM” of Mr. Suresh Batni, Reader, Mr. Pradeep Yadav, Sr. Lecturer, Mr. Anil Singh, Lecturer, Dept. of Mechanical Engg. and Mr. Himanshu Nimonkar, Lecturer, Comp. Science was presented in AICTE sponsored National Conference on “Supply Chain Management on Global Environment” held at Mahakal Institute of Management, Ujjain on July 27 & 28, 2007.

4. A paper entitled “Humanistic Cognition of Indian Ideals: From theory to Practice” of Dr. Anita Thakur, Reader, Dept. of Humanities, was presented in a National Seminar held at RDVV, Jabalpur on “Idea of India” from 27th to 29th Oct.07.

5. Ms. Archana Parashar, Lecturer, Dept. of Humanities:
   - Participated in the National Seminar on 15th Sept.2007 organized by LNCT-MER, Indore on “Current Issues in Management Scenario in functional Area – A Global View”. The paper “Importance of Soft Skills in Negotiation” was published in the LNCT journal “Prabandhan & Takniki”.
   - Participated in a national conference held at RDVV, Jabalpur on “Idea of India” from 27th to 29th Oct.07. She has submitted two research papers entitled “English women & their revelation of Racial Insolence in Kamala Markaday’s “Possession” and “Exploration of the self versus biased perceptions in Anees Jung’s “Unveiling India: A woman’s Journey” and V.S.Naipaul’s “ An Area of Darkness”. 
Papers Presented/Published by the Students of Engineering

1. A paper entitled “Potentials of non-computing” of Juhi Gandhi III yr. EI and Gautam Bhawasar III yr IT was presented in a national level symposium “Technomillenium’07” at MIT, Aurangabad from 15 to 17 Sep. 2007.
2. A paper entitled “Spine Routing in Ad-hoc Networks” of Sushil Vijaywargi & Aditya Desai III yr. IT was presented in a national level symposium “Technomillenium’07” at MIT, Aurangabad from 15 to 17 Sep. 2007.
3. A paper entitled “Nonosensors” of Rupal Sinha & Aditya Sharma III yr. IT was presented in a national level symposium “Technomillenium’07” at MIT, Aurangabad from 15 to 17 Sep. 2007.
5. A paper entitled “Mobile Ad-hoc in Mobile computing field” of Aditya Desai and Sushil Vijayawargi III yr. IT was presented in a national level paper presentation competition organized by TECHOS Solutions Pvt. Ltd. in co-operation with LNCT Indore on 5th Oct.2007. The students secured 3rd position.
6. A paper entitled “BIONICS” of Rahul Dalvi III yr. EC & Rahul Jain III yr. CS was presented in a national level paper presentation competition organized by TECHOS Solutions Pvt. Ltd. in co-operation with LNCT Indore on 5th Oct.2007. The students secured 4th position in Bio Medical field.

Papers Presented/Published by the Faculty of MCA

1. **Prof. D. M. Puntambekar**, HOD FCA participated in two days national conference “Organizational Transformation through Information Technology” held at Prestige Institute of Management on 7th and 8th Sep.07 and presented a paper on “Essential Practices for developing Good Software”

2. **Mr. Sailesh Gondal**, Reader in FCA participated in national conference held at Prestige Institute of Management on 7th & 8th Sept.07 and presented a paper on “Role of E-Commerce in Travel and Tourism Industry”.

3. **Mrs.Pushpa Pathak**, Reader in FCA participated in national conference held at Prestige Institute of Management on 7th and 8th Sept.07 and presented a paper on “Role of Six Sigma in Information Technology”.

Papers Presented/Published by the Faculty of MBA

1. **Dr. Anand Sapre**, Director, Faculty of Management Studies, presented a paper entitled “Customer Relationship Management: An HR Perspective” in a National Seminar “Supply Chain Management in Global Environment”
organized by Mahakal Institute of Management, Ujjain on 27 and 28 July, 2007 The paper was published in the journal.

2. **Mr. Avinash Desai**, Professor, Faculty of Management Studies, participated in National Seminar on “Supply Chain Management in Global Environment” organized by Mahakal Institute of Management, Ujjain on 27 and 28 July, 2007 and presented paper entitled “External & Internal Factors Influencing Aggregate planning – A Model”. The paper was published in the journal.

3. **Ms. Nidhi Vyas**, Lecturer, Faculty of Management Studies:
   - Participated in National Seminar on “Supply Chain Management in Global Environment” organized by Mahakal Institute of Management, Ujjain on 27 and 28 July, 2007 and presented papers entitled “Supply Chain Management: A New Mantra of Marketing” and “Total Quality Management: Some Salient Issues Redefined”.

4. **Ms. Anjali Shukla**, Faculty of Management Studies:
   - Participated in National Seminar on “Supply Chain Management in Global Environment” organized by Mahakal Institute of Management, Ujjain on 27 and 28 July, 2007 and presented paper entitled “Customer Relationship Management: An HR Perspective”. The paper was published in the journal.
   - Participated in National conference “Organisation Transformation through Information Technology” held at Prestige Institute of Management and Research, Indore and presented a paper entitled “Human Vs. Artificial Intelligence” on 9th and 10th Sep.07.

---

**CURTAIN RAISER**

**CADBURY INDIA LTD.**

**History:**
- Named after its inventor, John Cadbury
- Cadbury was first made by John Cadbury in 1849
- It was introduced in UK in 1905
- Cadbury was incorporated in India on July 19, 1948 as a private company

**Variety & Facts:**
• Cadbury’s products other than Dairy Milk are Five star, Perk, Bournvita, Bytes, Éclairs
• Cadbury Dairy Milk is available in 23 varieties and all these varieties are available in Australia
• Some of the varieties of Dairy Milk are Fruit & Nut, Caramel, Crunchy, Almond & Honey
• Cadbury Bytes is the only sweet snack in the world of salty snacks
• Lozenges & Gums are also manufactured by Cadbury

About the Industry……. (Cadbury India Limited)

• Presently, there are 5 company owned manufacturing factories at Thane, Induri (Pune), Gwalior, Bangalore, Baddi (H.P)
• Company has 4 sales offices at New Delhi, Mumbai, Kolkata & Chennai
• In the Chocolate confectionery business, Cadbury enjoys a value market share of 70% - the highest Cadbury brand share in the world
• Cadbury Dairy Milk alone holds 30% Value share of the Indian Chocolate market.
• Bournvita enjoys market share of 17%
• Total confectionery market is valued at 23 billion rupees with a volume turnover of about 1,45,000 tones per annum
• Cadbury is consumed in market with 70% skew to urban market and 30% to rural market.
• Overall industry growth is estimated at 2.5% in the chocolate segment.
• Dr.Amitabh Bachchan has been announced as the Brand Ambassador of the company.

Nutritional & Medicinal Value

According to the scientists, a chemical ‘polyphenol’ is present in Cadbury chocolates which reduces the blood pressure & hence reduces the risk of heart attacks, without any weight gain. But these effects are cancelled out if more than 30 cal/day is consumed through the chocolates. It gives energy, carbohydrates, proteins and fats.

Disadvantages:

• Excess eating can cause cavity in teeth.
• Excess eating can increase the sugar level.
• It is not good if you are allergic to chocolate or have a nut allergy.

Cadbury India Limited as Social Pioneers

• Energy Relief donation and tsunami Regeneration Programme for Tsunami Victims in 2004.
• Partnered with Vatsalya Foundation an NGO working with underprivileged children in Mumbai.
• Built Gurka School for Girls.
• Established play school for children below 5 years of age.
• Undertaken women empowerment activities.
• Employs 60,000 people in over 200 countries.

Ms.Nidhi Nirkhey, Gaurav Nahar, Jyoti Yadav, Gaurav Gupta   II yr. CS

TECH. ER U PT

Wearable Computer – A Fashionable Device
The very first wearable computer was built in 1961 by the mathematician, Edward O. Thorp and Claude E. Shannon. The year 1967 saw the rise of eye-mounted wearable computer to assist in lip reading. It was then followed by HP-01 Algebraic Calculator where HP denotes the initials of its designer Hewlett Packard. Then improvements took place year by year, major contribution being made by Professor Steve Mann, from the University of Toronto. He made wearables of various kinds. Today we are available with more efficient, portable and comfortable forms of wearables.

With rising costs and demand for increased efficiency, wearable computers give personnel real-time access to critical information. Now personnel can connect to enterprise information systems without interrupting their work.

Wearable computers are the light weighted body-worn, fashionable devices. They are based on human-computer interaction. Wearable computers can be used either as a communication device, reference device, audio-visual or as sensor. These are also known as battery powered computer systems. These are specially designed to perform specific tasks

**Features:** The speciality of wearables lies in its features like hands free operation and minimal power consumption. These are the most portable computers ever made in the history of computers. By default, wearables are always on, working and sensing. It also includes sensors to interact with the physical environment. Such sensors might include wireless communications, cameras or microphones. Since one of the defining features of wearable computers is their multi-tasking, the wearer can perform certain task using the information he receives from the wearables without actually using it.

**Input and Output:**

The information is fed into the wearable through the use of input and output devices. Text input to the wearable is through the use of a one handed device called twiddler. It is basically the combination of a mouse and the keyboard. Video input to the wearables is through the use of video capture devices. For still images quick cam is used which works well for low frame rate movies.

Output is through the use of head mounted display where you can see an equivalent of a 15” monitor at a comfortable vision. Its focus can be adjusted from 10” to infinity. Techniques that makes these wearables distinctly ahead of the desktops and the laptops-

1:- **Video Surveillance Technology:** This Technology is of the form of parabolic microphones, wireless radio transmitters, telephone taps, and miniature television cameras. These are the most recent innovations. This technology is of tremendous value to the users as it enables the WC to capture and process digital data about a user’s experience. This technology enables to constantly and secretly record one’s experiences using both audio and video sensors. With the help of this tech, terabyte storage media will be commonly available within next 4-5 years and the wearables will do more than simply collect data.

2:- **Thermal Coupling:** Wearable computers are physically close to, or are in contact with, the user during most of the day. The heat which such a device may generate, conflicts the user demands for increasing processor speeds and wireless capabilities. To design such type of thermal coupling, scientist thought to use the concept behind the human body. Human body can be an excellent regulator of heat if
proper preparation is made. It can survive in the hot Sahara desert or on the ice in Antarctica for extended periods. Yet, the body maintains its “core” temperature.

3:- Human Powered Computing:  This involves two concepts viz. Power Shoes and Piezoelectric Film. The arrangement present within the power shoes absorbs the required amount of power (approx. 17 W) from the power generated during the brisk-walk (generally upto 90 W). piezoelectric film is composed of the piezoelectric matter which on any movement produce charges. Thus on every movement of the wearer the flow of these charges produce electricity which prohibits the use of battery.

Applications

1. In Space: - The astronauts use the wearable to capture the images of the space, using the attribute of hands free operation.
2. Object/Face Recognition:- The wearable carries around a camera which locates and identifies faces. As soon as it recognizes a face, it displays the name of the person on a screen in front of your eyes.
3. Medicine: - Professionals in the medical field can also benefit from the use of the wearable computer. In medicine, it can be used in neurosurgery treatment, ensuring a way towards adoption of wearable in health care activities. Doctors and paramedics (can) collect reference and communicate critical patient information wirelessly while administering care.
4. Food Management: - Food service can be improved through the use of this new technology. After the order is taken, it can be transmitted immediately to the employees behind the counter. The process is much faster, thus increases customer satisfaction

Various companies are experimenting and currently using these tools for production efficiency. The wearable computer is a new solution for the company by making location and management of underground assets more productive, more cost-effective and safer.

The operator wears the computer while pushing the radar equipment over the surfaces to be scanned, and has the system controls and scan results available at all times (Xybernaut). The mobility of the wearable computer enables the operator to gather data more efficiently and reduces the amount of rework. This efficiency leads to reduced costs, improved safety at the site, and quality information is apparent that there are currently numerous uses of wearable computers. Usage will increase in years to come. As these production tools become more popular, additional companies will utilize the systems for increased efficiency and production.

The wearables must be used with safety. They must not be used during sports, showers or while sleeping, this would decrease their efficiency. The only side effect of the wearables is that wearing it for a long duration causes heat dissipation from the wearables into the body of users. So this may cause irritation. So far this is the only side effect found in the wearables

Conclusion:-

Hence, we can say that wearable computing is an active area of research at present and may soon bring changes to our lives in the forthcoming years by providing us such computers that may highly assist in our day to day life.
ULTRA MOBILE PCs (UMPC)

UMPC is the next generation mobile computer. It combines the power of Windows Vista and mobile ready technology to put every kind of software you need at your fingertips wherever you go. Origami is another name given by Microsoft to UMPCs. They are built to go everywhere and do everything as it is equipped with powerful processors, bright displays, easy input options, 1GB RAM, 30 to 80 GB hard disk and Windows Vista Home Premium OS which has built-in security against spy-ware and unwanted malicious software.

UMPC is essentially a small lightweight tablet PC with an onscreen keyboard. It weighs less than 900gms and has a 7” touch screen display with a resolution of 800x480. Apart from wired connectivity, it encompasses both WiFi and Bluetooth for wireless connectivity. Applications have been designed for UMPCs to extend it into live roadmap, textbook or an artist’s palette. So, your lifestyle may take you to any part of the world, you can still stay connected to your world with UMPC.

Leading Manufacturers of UMPC: Asus – Asus R2H, Samsung – Samsung Q1, Founder – Founder Mini Note, Medion and Wibrain

Hardware specifications: OS – Windows Vista, Resolution 800x480 pixels, Integrated touch panel, WiFi and Bluetooth enabled, 1GB RAM, 30 to 80 GB.

Vinita Somani, MCA Iyr.

Shifting Paradigms in Storage System

Storage Technology

Need:

A storage system deals with storing of data. Data today is exploded at the rate of 50% every year. For any organization, whatever the volume of data is, it is important and is required to be preserved or stored. For storing this data many technologies and strategies are being developed so that data is stored centrally and allowed to access it for different applications. While deploying the strategies, the organization should keep in mind the IT budget, which includes expenses on servers, networks, storage and personnel. Amongst the IT expenses 40% is contributed towards the data storage. Therefore the organization should be cautious while selecting the correct technology for storing data.

Key Requirements of Storage systems:

The basic requirement for any organization in order to manage their Data Center are as follow:
Data Storage Solutions:

Large amount of data can be stored on hard disks, tapes and optical disks. Each of these media provides solutions that are address specific. Networked storage comprised of disk arrays and networking components. These solutions today have become an integral business data storage need. The current Storage environments include

(1) Direct Attached Storage – DAS

In this environment, servers connect directly to the disk array via a SCSI interface. Clients connect to the servers through LAN. The distance between the server and the disk array is governed by SCSI limitations.

(2) Networked Storage:
   (a) Storage Area Network - SAN
       In SAN servers access the disk array through a dedicated network SAN, which consists of Fibre Channel switches. These switches provide connectivity between the servers and the disk array. Clients communicate with the servers over the LAN.
   (b) Networked Attached Storage- NAS
       In NAS environment, NAS Devices access the disks in an array via Connection or through external connectivity. The NAS heads are optimized for file serving. They are setup to export/share file systems. Servers access these file systems over LAN to run applications. The clients connect to these servers also over LAN.

(3) Content Addressed Storage – CAS

It is a unique way to store vast amounts of static unchanging information. It is object oriented location independent approach to data storage.

Thus Storage technology is emerging technology with new and promising job avenues like Storage Technologist, Storage Administrator, Technology Architect and lot more.

Ms.Pushpa Pathak - Reader, FCA

DO YOU KNOW?

A Landmark Rendezvous in the History of Industrial Development

Global Investors’ Summit
An Overview

Background and History: The Global Investors Summit was the beginning of a comprehensive and ambitious programme wherein the Government of Madhya Pradesh projected the investment potential of the state to a wide cross section of entrepreneurs and investors both within the country and abroad. Recently, FICCI had partnered with the Government of Gujarat in successfully organizing Vibrant Gujarat - Global Investors Summit. Similar initiatives for other states are in the process. States like
Gujarat, Karnataka, Maharashtra and Andhra Pradesh have taken early initiatives for attracting investments and have made concerted efforts to strengthen infrastructure and industrial environment. These efforts and subsequent projection of the same to the investors have yielded positive results.

Taking cue from the success of such summits, the Government of M.P. took on the mantle and organized the Global Investors Summit, 2007 on Oct. 26-27. The first step in this regard was the successful culmination of a business meet in Khajuraho during February 2007. 26 MoUs were signed during this meet; work on 21 has already started.

Preparations: The preparations were undertaken on a war-footing for the Summit which was held at Indore, the financial capital of central Indian state of Madhya Pradesh. It was the foresight of the Chief Minister Shivraj Singh Chauhan that the summit would facilitate inflow of “quality investment” in the state and it would be a landmark event in the history of the state’s industrial development. The main idea behind the meet was to sell Madhya Pradesh as an investment destination to the world. “Madhya Pradesh will become the talking point in India and hopefully in the world,” he said.

Loads of Investors from India and Abroad: According to sources, the Global Investors Meet of the Madhya Pradesh Government got a boost with around 340 investors attending. Of them, about 100 investors were from abroad. The MP government had invited loads of investors from within India and abroad. Investors from the UK, US, China, Switzerland, Finland, Mauritius, Gulf countries, Scandinavia, Malaysia and Singapore, among other countries, took part in the event, a top government official told PTI. Prominent among those who attended the summit were Reliance Energy chief Anil Ambani, US-based Redberry chief Deepak Kant Vyas, England's Escott International Ltd Managing Director Nitin Sethi and American firm Care Soft President Deepak Khare. Sources say that bigwigs like Azim Premji (Wipro), Narayana Murthy (Infosys), Sunil Bharti Mittal and Nusli Wadia had expressed inability to come.

Stress on Small-Scale Industries: Prospects of rapid industrialization of Madhya Pradesh have increased. The state government is paying attention to development of small-scale industries and is trying to solve the problems of local industrialists. A 300-day action plan has been put forth for development of small-scale industries.

Industrialists rue neglect of local entreprenuers: Albeit a majority of industrialists and dignitaries are lauding the initiative of the state government about holding global investors meet in Indore, at the same time they could not hide their displeasure over the step-motherly treatment, the state government meted out to the local entrepreneurs and industrialists. At the outset for the preparations for the global investors meet, the local industrialists had approached the then industry minister Babulal Gaud apprising him of their willingness and full-fledged participation in the global investors meet so that investors could have got an opportunity to take a closer look at the existing industrial scenario in the state and instill confidence in them for making an investment in the state, but the state government gave a cold shoulder to their pleas.

Opposition Skeptical: By means of a press conference in Bhopal on Oct 22, Madhya Pradesh Assembly Opposition Leader Jamuna Devi suggested the ruling BJP government to take the Opposition into confidence before the summit. In a letter to Chief Minister Shivraj Singh Chouhan, Ms Devi has asked the government to refrain from acquiring agricultural land for industries and provide land to industries at
market price. Former state minister Sajjan Singh Verma, while expressing his good wishes for the success of global investors meet, alleged that the government had neither a vision and infrastructure nor any remedies for its sick industries. Investors will not get merely attracted by organizing meet, rather it requires a good infrastructure and industrial climate.

**IIM Students apprised investors about the U.S.P of the State:** The students of Indian Institute of Management (IIM), Indore were assigned an important role in the Global Investors Summit-2007. This team of young management students apprised the investors coming from within and outside the country of the specialties of the state. Good industrial atmosphere, peace loving people, rich natural resources, geographical location and investor friendly policy of the state government were highlighted as the U.S.P. of Madhya Pradesh. Prior to the event a special workshop for these students was held at Indore in this regard. Addressing the workshop the Minister for PWD Kailash Vijaywargiya had reportedly asked the students to put forth Madhya Pradesh and Indore before the investors in an effective manner. The students were advised to keep abreast of the latest in infrastructure development and energy sector in the state. He informed that a time bound action plan has been drawn up for the MoUs to be signed during the summit. The Divisional Commissioner Singh reportedly asked the management students to have complete information about hydel power projects of Omkareshwar and Indira Sagar Dam as well as the S.E.Z. at Indore.

**Sub-committee for IT Policy 2006:** Just ahead of the two-day global investors meet, the Madhya Pradesh government reconstituted the cabinet sub-committee on the implementation of the Information Technology (IT) Policy 2006. The sub-committee will consider announcing special package and land allotment for big investors and will also decide on investment proposals in IT sector, including on infrastructure development. The reconstituted sub-committee with the CM as its Chairman comprises Mr Babulal Gaur (Commercial Tax), Mr Raghavji (Finance), Mr Jayant Kumar Malaiya (Industries), Mr Kailash Vijayvargiya (Public Works) and Mr Kamal Patel (Revenue). The sub-committee will hold its meeting every three months. IT is a key area where the BJP government seeks investment as the mineral-rich state is yet to take off in the IT sector.

**96 MoUs worth Rs.1.14 Trillion Signed:** Madhya Pradesh reaped a rich harvest at the two-day Global Investors' Summit, with 96 Memorandums of Understanding (MoUs) worth Rs.1.14 trillion (nearly $29 billion) signed in various sectors. Some important sectors that have caught the investors' attention are tourism, food processing, information technology, mining, textiles, education, energy, urban development, infrastructure and health. 48 MoUs entailing an investment of Rs.463.63 billion were related to a large gamut of industries, 6 MoUs worth Rs.548.46 billion pertained to the energy sector. Similarly 10 MoUs worth Rs.27.31 billion were related to the education sector, 4 MoUs worth Rs.16.85 billion were from the health sector and 12 MoUs were signed worth Rs.64.07 billion in the IT sector. The chief minister expressed happiness that agreements have been signed in almost all the important sectors and added that the signing of MoUs for 10 universities showed that Madhya Pradesh would soon emerge as a major education hub. The Summit got a fabulous start when in the inaugural function 4 MoUs worth Rs.57, 400 crores (about $11,850 million US dollars) were signed on the opening day of the mega event. The first MoU was signed with Reliance Power Limited representing Anil Dhirubhai Ambani Group. The chairman of the group Anil Ambani was also present on the occasion. As per the MoU the group would set up a 3,960 MW Sasan Ultra Mega Power Plant in Sidhi district of Madhya Pradesh. A mega Thermal Power Station as Merchant Power Project at Chitrangi tahsil of Sidhi district would also be established.
Besides, four cement manufacturing plants each with capacity of around 5 million tones per year in the vicinity of Sasan project and limestone reserves in the state would be set up. An airstrip/airport would be developed in Sidhi district for the benefit of industrial and other development of the area. A technical institute would be set up at Bhopal. An investment of Rs. 50,000 crore (about $12,500 million US dollars) would be made on all these projects.

The second MoU was signed between Hyderabad-based Sanghi Industries and TRIFAC. Under this, a Greenfield Cement Plant of 7.0 million tones per annum would be established at Katni and Satna districts with a capital investment of Rs. 5,000 crore (about $1250 million US dollars). The Managing Director of the Company Ravi Sanghi and Managing Director of TRIFAC Praveen Garg signed the MoU.

The third MoU was signed with A.C.C. Limited. The company would set up a 2.2 million tones per annum capacity state of the art cement plant at a cost of Rs. 1200 crore (about $30 million US dollars). Managing Director of the company Sumit Bannerji and Managing Director of the TRIFAC Praveen Garg signed the MoU.

It may be mentioned here that ACC Company has cement plants in Saudi Arabia also. The fourth MoU was signed with Birla Corporation Limited under which a Rs. 1200 crore (about $30 million US dollars) plant would be set up at Satna with 3 million tone capacity per annum. All the entrepreneurs, investors and business leaders present availed of this opportunity to evaluate the prospects and consider investments in the state in their areas of interest. This Summit would serve as a springboard for a long term and fruitful partnership between investors' community and the state of Madhya Pradesh.

Ms. Nitisha Gupta - CS III yr.

**Swedish Experts in acquiesce with Israeli Scientists on the use of Deadly Tech. Gadgets**

Attention mobile users ………Some shocking truths about mobile phones

The increased risk of brain tumor due to the excessive use of mobile phones, agreeing to the Israeli scientists, even Swedish experts have come to the same conclusion.

Swedish scientists analyzed the result of eleven previous studies carried out globally and came out with the conclusion that almost all studies in the past had discovered an increased risk of cancer amongst long term mobile users.

Prof. Lennart Hardell at the university hospital in Orebro and Prof. Kjell Hansson Mild at Umea University said that long term mobile user had doubled the chance of getting tumor on the same side of the brain where they held the handset for over ten years.
The study published in the “occupational environmental medicine” said that people who are using the cell phone for a decade or more have 20% more chances to get affected with acoustic neuromass (a type of brain tumor) and 30% more likely to get malignant gliomas (a common brain tumor).

The team called for a special caution regarding children, children should particularly be discouraged from using mobiles because their thinner skulls and developing nervous systems make them especially vulnerable.

Cell phone use in India has rocketed in the past few years, India is now Home to over two hundred million mobile phone users with six million been added each month. While studies have shown that people who use cell phone for long periods face risk of developing malignant brain tumors, others said it could lead to hearing impairment and sleep disorders.

Indian Counsel of Medical Research (ICMR) is conducting the study in five centers including PGI, Chandigarh. Individual trials are being conducted to look at how mobile phones can cause sleep disorders, memory lapses and hearing impairment.

TOI had recently reported about what psychiatrists call “Ringxiety”- a phenomenon in which user imagine their phone ringing or feel it vibrate when it actually doesn’t.

**India - An Importer of Illegal E-Waste**

“If the human race wishes to go to hell by a basket, technology can help it get there by jet.”

The technical progress acquired during the last century has posed a new threat in the management of e-waste.” E-WASTE”, the shorthand for WEEE, i.e., Waste from Electrical and Electronic Equipments. So basically the obsolete and unwanted equipments are what e-waste actually comprises of. The presence of constituents like lead, mercury, cadmium, plastics including PVC, barium and beryllium makes e-waste hazardous.

**When does equipment become a part of E-WASTE?**

- Nearing the end of their useful life
- Advancement in technology
- Changes in fashion, style and status

**Where does it come from?**

- Individuals and small businesses
- Large corporations, institutions, and governments
- Original Equipment Manufacturers (OEMs).

**What does it comprise of?**

- Obsolete electronic devices
- Telecommunication devices
- Household electronics
- Recording Devices
- Electronic components
- Industrial electronics

**Where Does E-Waste go and why is it hazardous?**
• **Landfills** – A landfill is a disposal area where garbage is piled up and eventually covered with dirt and top soil. The biggest disadvantage is the formation of a leachate which contaminates ground water causing diseases like cholera, typhoid and polio.

• **Incineration** – Incineration means burning the solid–wastes in properly constructed hearth of furnaces. It leads to the formation of harmful toxic gases like dioxins and furans which escape to the atmosphere causing health problems.

• **Reuse** – Reuse constitutes direct second hand use or use after slight modification are made to the original functioning equipments.

• **Domestic Recycling** – recycling of hazardous products has little environmental benefit, it simply moves the hazards into secondary products that eventually have to be disposed off.

• **Disposal into sea** – this method of E-waste disposal can be used in coastal areas having deep sea water (greater than 30 m deep) at a reasonable distance (less than 16 to 20 km) and with strong forward currents.

• **Export to Developing Countries** – The industrialized nations very often dispose off their e-waste by exporting this to the underdeveloped and developing nations like India which is a major problem.

**BASEL CONVENTION**

In an effort to counter the unsustainable and unjust effects of free trade in toxic wastes, an international treaty known as the Basel Convention was created in 1989 and in 1994 it agreed to adopt a total ban on the export of all hazardous wastes from rich to poor countries for any reason, including for recycling.

The Basel Convention calls on all countries to deal with their waste problems within national borders. Indeed, this is an obligation of the Basel Convention regardless of the level of waste management technology in the importing country.

One would think that a country like the United States should be able to fulfill and implement this call for national self-sufficiency in waste management. But, to date, United States is the only developed country in the world that has not ratified the Basel Convention.

**INDIAN SCENARIO:** India generates about 146000 tonnes of e–waste per year which is worth 1 billion dollars. This figure does not include e-waste illegally imported from the developed countries. According to estimates, India receives as much illegal e-waste from developed countries as it generates within, there is no regulation or guidelines to handle e-waste in the country.

E-parisara, ash recycler and AER recyclers are three formal recyclers in the Bangalore city.

**MANAGEMENT OF E-WASTE**

Management of e-waste can be broadly divided into two categories:

1. **Sustainable product design**: Minimization of hazardous waste should begin at product design stage, keeping in mind that less hazardous or non-hazardous materials are used in manufacturing process.

2. **4R’s policy**:
   - Reduce
   - Reuse
   - Recycle
   - Respond

**INDUSTRY EXAMPLES:**
Dell offers users’ ways to donate, trade in, or recycle unwanted equipment.

Epson offers a program that enables Epson customers to send back used Epson products for recycling.

Hewlett-Packard has a service that gives consumers and businesses a convenient way to recycle unwanted computer equipment.

Gateway offers qualified buyers a rebate of up to $50 when they purchase a new PC and donate or recycle their old PC.

IBM offers a product recycling program designed for individual PC owners and small businesses. Contact IBM sales at (877) 999-7115 (option 4) for more information.

Office Depot and Hewlett Packard have partnered to provide free electronic equipment recycling through Labor Day, September 6, 2004.

What can we do?
- E-waste should never be disposed with garbage and other household waste.
- Used electronics should be donated as they not only keep them out of the waste management system for a longer time but also benefit society.
- If you are planning to buy a new computer, for your home or business make sure you ask about options for managing your old computers.

CONCLUSION
We should opt for upgrading our computers or other electronic items to the latest versions rather than buying new equipments. We should also make people around us aware of this issue.

Ms. Pankuri sharma, Pragya Jain, Priyanka Puntambekar, Priyanka Rohira. CS II Yr.

Will ‘123 Agreement’ Unlock a New Room for India…?
Indo-US Nuclear Deal…An Unclear Deal
A Critical Appraisal

It is probably ‘unclear’ to the majority that what exactly is this deal, why such fuss about it and what are the reasons and motives of all the parties involved, stirring up the current brouhaha.

Do we really need this deal? What are the repercussions on India (military, economic, political, domestic and international etc…)? What are the 123 agreement and the HYDE act? Role of the NSG and the IAEA? These are a few questions I have dared to answer here.

What is this deal all about?

Nearly two years after Prime Minister Manmohan Singh and President George W. Bush issued the Joint Statement on July 18, 2005 that set the stage for facilitating civil nuclear cooperation and commerce between India and the United States, the agreement formalizing the stated intent was concluded on July 20, and unveiled on August 1, 2007.

The finalization of the text of the agreement, known as the ‘123 Agreement’ after Section 123 of the U.S. Atomic Energy Act which governs international nuclear cooperation by the U.S., took place in
Washington during July 17-20, 2007. This was the fifth round of negotiations after the process began in June 2006.

In what follows, I wish to draw the attention of the readers to the main features of the Agreement.

- **Full Civil Nuclear Cooperation:** The Agreement stipulates that such cooperation will include nuclear reactors and aspects of the associated nuclear fuel cycle, including technology transfer on industrial or commercial scale. It would also include development of a strategic reserve of nuclear fuel to guard against any disruption of supply over the lifetime of the reactors.

- **Right to Reprocess:** The right to reprocess is key element of a closed fuel cycle, which will enable India to make full use in its national facilities of the energy potential of the nuclear fuel used in its reactors. This important yardstick has been met by the permanent consent for India to reprocess.

- **The Principle of Reciprocity:** India would accept only IAEA safeguards on its civilian nuclear facilities, that too only when all international restrictions on nuclear trade with India have been lifted. A **Separation Plan** *(separation between civilian and military reactors)* has been identified for that purpose.

- **Certification:** The Agreement confirms that US cooperation with India is a permanent one. There is no provision, which states that there will be any sort of annual certification process.

- **Safeguards:** India has accepted only IAEA safeguards, which will be reflected in an India specific **Safeguards Agreement with the IAEA**. India has not consented to any provisions that mandates scrutiny of our nuclear weapons programme or any unsafeguarded nuclear facility. The Agreement will not hinder or otherwise interfere with India’s nuclear activities including our military nuclear facilities.

- **Fuel Supply Assurances:** An important assurance given is the commitment of support by the US and the IAEA for India’s right to build up strategic reserves of nuclear fuel to meet the lifetime requirements of India’s reactors. This assurance has endorsed the right of India to take corrective measures to ensure uninterrupted operation of its civilian nuclear reactors in the event of disruption of foreign fuel supply.

- **Integrity of our Strategic Programme, Autonomy of Decision-making for future R and D:** This Agreement does not in any way impact on India’s ability to produce and utilize fissile material for its current and future strategic needs. Our right to use for our own purposes our independent and indigenously developed nuclear facilities (nuclear material, non-nuclear material, equipments, components, information and technology) for civilian as well as military purposes, has been fully preserved.

- **Cessation of Cooperation:** Cessation of cooperation can be sought by the US only if it is prepared to take the extreme step of termination of the Agreement. India’s right to take corrective measures will maintain even after the termination of the Agreement. In such a condition India’s primary objective will be to ensure the uninterrupted operation of our nuclear reactors.

**Do We Really Need This Deal?**

The 123 unlocks a new room for India. It turns us from nuclear outcasts to mainstream decision makers. It converts decades of isolation and ostracism into vibrant, participatory inclusion. Taking into account the resurgence of China, India needs to sustain its growth rate, and nuclear power is the best bet to achieve this goal. It would be interesting to note that China is also investing heavily in nuclear energy, in spite of it being the largest producer of coal in the world. Nuclear Energy is also the most viable option with regard to environmental hazards. There is a nuclear renaissance, which has started, driven substantially by the threat of global climate change. We cannot afford to miss this bus for nuclear
The HYDE Act:

It is an internal act of the US and is the enabling US legislation for civilian nuclear cooperation with India. It requires the administration of the day in Washington to analyze annually that India’s foreign policy is congruent with that of the US of A. The Act is in no case binding on India. The real issue is the state of bilateral relationship between the two incumbent governments, not the certification requirements in a piece of legislation.

What will be the repercussions on India?

By allowing India to have this agreement without having to sign either the NPT or the CTBT, India has been allowed to have its cake and eat it too. The Agreement is historic for a variety of reasons.

- **Energy Security**: Nuclear plants scores on all three counts of reducing our huge energy deficit, cost and efficiency. A nuclear plant has a life span of 40-50 years and is also environmentally the cleanliest. The single most important point is that despite the high initial cost of a nuclear power plant, the running cost is infinitesimal compared to all other types of plants. Also, unlike coal plants, nuclear ones are distance neutral. Finally, where one ton of uranium generates 1000 MW of energy, it would take 3 million tons of black coal to generate the same.

- **Military Programme Untouched**: Under the Agreement India has the sovereign right to decide how many of its current or future plants will be for military and how many for civilian purposes. Current estimates suggest that our 8 military facilities, even without future augmentation, can produce 200 bombs. We do not need more to survive or even to destruct.

- **India gets unique advantage over China**: It should be noted that China has also done a similar Agreement with USA, but on inferior terms. China gets no uranium from USA (only reactors) and has to source uranium from Australia. China agrees to both US and Australian inspectors without a whimper! India gets uranium from USA but no inspectors. Only IAEA can inspect. India draws its own separation plan, whereas China has to draw it up mutually with Australia. There a clear advance consent to India to reprocess, whereas the same is denied to China.

The Role of NSG and IAEA:

Having wrapped up the Agreement, the next important step that India has to take is to negotiate an India-specific safeguards agreement with the International Atomic Energy Agency (IAEA) for implementation on its civilian facilities. This proposed agreement with the IAEA is in accordance with the HYDE Act, which requires determination by US President that India and the IAEA have concluded all legal steps (including safeguards) required for the successful culmination of the 123 Agreement.

Besides these, the President has to make a determination on five other steps to be taken by India. The most important among them is action by the 45-member Nuclear Suppliers Group (NSG). It requires the NSG to have decided by consensus to permit supply of nuclear items covered by its Guidelines.

Million Dollar Question – Can We Conduct Nuclear Tests?

The Agreement does not in any way affect India’s right to under take future nuclear tests, if it becomes mandatory for India’s national interests. The decision to undertake a nuclear test will always remain the sovereign right of the Government of India. Kudos to the Indian negotiators, whose diligent efforts have resulted as an attempt in the 123 Agreement that differentiates an ‘unprovoked’ Indian test from a test taken in response to detonation by others, presumably Pakistan or China.
Why are the Left Parties and the BJP opposing the deal?

Despite the hard sell by the Indian government, the nuclear deal with the US has found very few takers among the opposition parties. The abject refusal of the deal by the Left Parties is mainly rooted in instinctive anti-Americanism. They have a long lineage of interpreting nationalism as denouncing so-called American Capitalism and endorsing foreign Communist Ideologies from Russia and China. From the outset, the Left parties were in opposition of the nuke deal. They pointed out that the deal should not be seen in isolation ‘with the overall strategic tie-up with the US’. The communist parties, chiefly the CPI (M) has serious reservations over the HYDE Act. They speculate that it could be used to coerce India into supporting American foreign policy goals. This argument sounds quite legitimate, as even before the nuclear agreement was finalized, the Indian government responded by voting against Iran not once but twice in the IAEA.

The BJP on the other hand has said that it will seek a revision of the 123 Agreement if voted back to power. The party has proposed that the agreement should be put to vote in both Houses of Parliament, and that national consensus should be evolved on such vital issues of national importance. In the US many believe that the 123 is a bad agreement made worse. That the US can live without this agreement, there is no doubt. That India should live without this agreement is certainly a matter of debate. Today India stands on the verge of an economic revolution, looking towards a 10% annual growth rate. We are also facing stiff competition from the likes of China, North Korea and Japan to emerge out as the strongest Asian economy.

In such a scenario, should we still remain a victim of the past and seek to scrap the deal, which is being perceived in the international circles as the highest feet of Indian diplomacy or should we march out confidently in a new world order where nuclear energy will dictate the fate of all development - civilian or military.

Here, I have made an attempt to highlight the finer points of the Nuclear deal. Definitely, there are loads of other issues that should be debated upon. Now it remains with the readers to contemplate upon, whether we should go ahead with implementing the deal, or can we afford to lose this historic opportunity to be a part of a global nuclear regime. History has taught us that if you miss the bus you also miss the ride.

Nikhil Kapoor, CS III Yr.

Russia tests Vacuum Bomb……The World’s most Powerful Bomb

A safe way to destroy the world

Introduction:

- Russia tested the world's most powerful air-delivered vacuum bomb on Sep.11 in Bloomberg.
- It generates a shockwave similar to a nuclear blast.
- The bomb is comparable to a nuclear weapon in its power and efficiency.
- Unlike a nuclear bomb, it doesn't leave radioactive contamination.

Need

- We have lot of nuclear weapons for large level destruction but they have very harmful after effects in terms of nuclear radiations.
- We have sufficient weapons to destroy the world in just 13 minutes.
- Vacuum bomb may be a safer way to large level destruction.

Principle
It works on principal of thermoberic weapons in which emphasis is given to produce a shock wave instead of explosive power.

**Shock wave**
- It is a pulse of high frequency, high energy & travels with supersonic speed due to which destruction occurs.
- It is the root cause of destructive power of bomb.
- It may be considered as a jerk of pressure.

**Mechanism**
- The weapon consists of a container of either a volatile liquid or a finely powdered solid, and two separate explosive charges.
- The first explosive charge bursts open the container at a predetermined height.
- The fuel disperses in a cloud that mixes with atmospheric oxygen.
- The second charge detonates, propagating an explosion (blast wave) through the cloud Pressure in detonation can reach 430 lb/in² (3 MPa), and temperature can be 2500 to 3000 °C.
- Outside the cloud the blast wave travels at over 2 mi/s (3 km/s)

### Comparison with nuke

<table>
<thead>
<tr>
<th>Principle</th>
<th>Nuclear bomb</th>
<th>Vacuum bomb</th>
</tr>
</thead>
<tbody>
<tr>
<td>Manufacturing risk</td>
<td>More (due to nuclear radiations)</td>
<td>Less</td>
</tr>
<tr>
<td>Explosive power</td>
<td>Most powerful</td>
<td>Comparable to small nuclear bomb</td>
</tr>
<tr>
<td>After effect</td>
<td>Harmful radiations</td>
<td>None</td>
</tr>
<tr>
<td>Cost &amp; complication</td>
<td>More</td>
<td>Less</td>
</tr>
</tbody>
</table>

### Countries working on it
- Most of the research work done in U.S and Russia.
- First such explosive tested by Russia. They said that it is world’s most powerful non nuclear weapon. So called Father of all the bombs.
- Such researches are in very initial state in India

Mohit Agrawal, Deepanshu Mishra, Bhavishya Bhatt, Yogesh Patel IT II yr.

### A Blessing in Disguise

**Hats off to Japanese Work Culture**

**An Unforgettable Incident from My Japan Diary**

I returned from Tokyo, Japan in June, 2001 after availing of the renowned STA Fellowship (Science and Technology Association Fellowship) sponsored jointly by Department of Science and Technology, India and JISTEC, Japan. After two long years, I was returning my home country. Although, I visited India in between but that was for a few days only due to a personal loss.
Being away from the country for such a long time, was making me more and more impatient, just too
to touch the Indian soil and see my motherland. I was scheduled for my next job in the USA which
was to commence in the next few months. My collaborator and Professor in the USA, was very
understanding to grant me a breather until September, 2001.

I had arranged my return trip and in fact it was taken care of by the STA agent for an economy class
ticket in January 2001. The D day arrived and I was at the Narita airport. All the boarding process began
in time. My baggage was deemed “in excess” upon arrival at the luggage weighing section. I had a 1.5
Kg extra baggage. I had no option as I was leaving the country for good and so was prepared to pay for
the extra bucks. Upon reaching the counter with my passport and economy class air ticket, the custom
officer greeted me with “Ohayo Gozaimasu” meaning Good Morning. I replied back in Japanese itself as
during my tenure learning Japanese language was mandatory. I was a little stressed out but waited for the
officer to confirm my requested (isle) seat and then pay for the extra kilos. He took a very short time to
look at my visa and he got the message that as I was going back to India for good. He smiled at me as he
had completely understood the reason for the extra few kilos I had packed with me.

Anyway with a very expectant pair of eyes, and a thought that sometimes these officials are kind
enough and they may waive off the extra kilos, I was keeping my fingers crossed. Suddenly, he looked
again on my visa stamp that read “STA researcher: entry valid until 2001 only”; called his colleague and
said something in Japanese which I was unable to grasp. And in minutes, he smiled again and said you
are saved, to which I did not understand anything. Actually he gave me a ticket in Business class. He
explained to me later, that according to a change in policy, STA fellows could now enjoy traveling in
business class. And to my delight (I had never traveled in Business class till then) I traveled comfortably
to India extremely relaxed enjoying the privileges I had never ever dreamt of at least during that time. I
could not help wondering the efficiency of that ticket official, the updated knowledge that he had, and the
short time he took to call JISTEC officials to confirm the same and allot me the new upgraded seat. I feel
worth mentioning here that the number of STA fellowships awarded in 1999 were 08 from India.

I was highly impressed by the capability, sincerity and helping attitude of the officer and the
airlines. Japanese are known for their love for their language, promptness, regularity and sincerity and I
experienced it and left the country with the deep impression of these qualities in my mind.

Dr. Prasanna Shah, Reader, Engineering Physics
Incredible Coincidence - Abraham Lincoln & John F Kennedy

- Both elected in the same year of century 1860 & 1960
- Both were assassinated on Friday
- Both were succeeded by the Presidents – Andrew Johnson and Lyndon Johnson.
- Both succeeded Presidents were born in 1808 & 1908.
- Both the succeeded President’s names contain 7 letters.
- Both the assassins’ names John Wildes Booth & Lee Harvey Oswald contain 15 letters.
- Man who killed Lincoln was born in 1839, Man who killed Kennedy was born in 1939
- Both the Presidents lost their children through death while in White House.
- John Wilkes Booth who killed Lincoln in theatre escaped into warehouse.
- Lee Harvey Oswald who killed Kennedy in a warehouse escaped into a cinema hall
- Both the culprits were killed before trial.
- Both presidents were highly concerned with the issue of civil rights

Nazeefa Kanchwala   IT I yr.

Brain Twisters

- If a batsman hits a six OFF a no ball in a one day international how many runs he is awarded?
- If every batsman gets bowled out in the very first ball he faces, which batsman remains not out?
- A cricket ball hit by a Batman’s is broken into two pieces. One part is caught by a fielder while the other was caught by a spectator outside the boundary line. What will be the decision of the umpire?
- On an Amavasya, a man going in a black car at 12 without lights could avoid dashing a black goat. How?
- A boy and his father went to a second show horror movie. While returning, the father died on the spot in an accident. The son was immediately taken to hospital. The doctor, on seeing the boy, exclaimed: “Oh! He is my son. I can’t operate. Call someone else”. How and why?

(Search for the answers in the same volume)

Ambiguity around us

Parent: “How many teachers work in this institute?”
Head Master: “About 1/3rd of them.”
Teacher: “Now, Sam, tell me frankly do you say prayers before eating?”
Student: “No sir, I don’t have to, my mom is a good cook”.

Teacher: “George Washington not only chopped down his father’s Cherry tree, but also admitted doing it. Now do you know why his father didn’t punish him?”
Student: “Because George still had the axe in his hand”

Teacher: What is the main confusion in the Egyptian children?
Student: After death their daddy become a mummy

Skand Bhandarkar  I yr. CS - 2

---

The Mayonnaise Jar and 2 Cups of Coffee

A touching lecture on philosophy

When things in your life seem almost too much to handle, when 24 hours in a day are not enough, remember the mayonnaise jar and the 2 cups of coffee.

A professor stood before his philosophy class and had some items in front of him. When the class began, he wordlessly picked up a very large and empty mayonnaise jar and proceeded to fill it with golf balls. He then asked the students if the jar was full. They agreed that it was.

The professor then picked up a box of pebbles and poured them into the jar. He shook the jar lightly. The pebbles rolled into the open areas between the golf balls. He then asked the students again if the jar was full. They agreed that it was.

The professor next picked up a box of sand and poured it into the jar. Of course, the sand filled up everything else. He asked once more if the jar was full. The students responded with a unanimous “yes”.

The professor then produced two cups of coffee from under the table and poured the entire contents into the jar effectively filling the empty space between the sand. The students laughed.
“Now”, said the professor as the laughter subsided, “I want you to recognize that this jar represents your life. The golf balls are the important things… God, your family, your children, your health, your friends and your favorite passions---- and if everything else was lost and only they remained, your life would still be full. The pebbles are the other things that matter like your job, your house and your car. The sand is everything else ------ The small stuff”.

“if you put the sand into the jar first”, he continued, “There is no room for the pebbles or the golf balls. The same goes for life. If you spend all your time and energy on the small stuff you will never have room for the things that are important to you. “Pay attention to the things that are critical to your happiness. Play with your children. Take time to get medical checkups. Take your spouse out to dinner. Play another 18. There will always be time to clean the house and fix the disposal. Take care of the golf balls first ----- The things that really matter. Set your priorities. The rest is just sand”.

One of the students raised her hand and inquired what the coffee represented. The professor smiled. “I’m glad you asked. It just goes to show you that no matter how full your life may seem, there’s always room for a couple of cups of coffee with a friend.”

Munjal Doshi   IT I yr.

(Answers to Brain Twisters--- * 6 for the batsman and 7 for the team * 8th batsman * Umpire awards 6 runs to batsman * It was day time * The doctor was his mother.)

**THE GREAT LEGEND**

Bill Gates

William Henry Gates III (born October 28, 1955) is an American entrepreneur, philanthropist and chairman of Microsoft, the software company he founded with Paul Allen. During his career at Microsoft he has held the positions of CEO and chief software architect, and he remains the largest individual shareholder with more than 8% of the common stock.

Gates has received four honorary doctorates, from the Nyenrode Business Universiteit, Breukelen, The Netherlands in 2000, the Royal Institute of Technology, Stockholm, Sweden in 2002, Waseda University, Tokyo, Japan in 2005, and a fourth in June 2007, from Harvard University. Gates was also given an honorary KBE (Knighthood) from Queen Elizabeth II of the United Kingdom in 2005, in addition to having entomologists name the Bill Gates flower fly, *Eristalis gatesi*, in his honor.

**How I Work**: Bill Gates

Not much of a paper chase for Microsoft’s chairman, who uses a range of digital tools to do business.
NEW YORK (FORTUNE) - It's pretty incredible to look back 30 years to when Microsoft was starting and realize how work has been transformed. We're finally getting close to what I call the digital work style.

If you look at this office, there isn't much paper in it. On my desk I have three screens, synchronized to form a single desktop. I can drag items from one screen to the next. Once you have that large display area, you'll never go back, because it has a direct impact on productivity.

The screen on the left has my list of e-mails. On the center screen is usually the specific e-mail I'm reading and responding to. And my browser is on the right-hand screen. This setup gives me the ability to glance and see what new has come in while I'm working on something, and to bring up a link that's related to an e-mail and look at it while the e-mail is still in front of me.

At Microsoft, e-mail is the medium of choice, more than phone calls, documents, blogs, bulletin boards, or even meetings (voicemails and faxes are actually integrated into our e-mail in-boxes).

We're at the point now where the challenge isn't how to communicate effectively with e-mail, it's ensuring that you spend your time on the e-mail that matters most. I use tools like "in-box rules" and search folders to mark and group messages based on their content and importance.

I'm not big on to-do lists. Instead, I use e-mail and desktop folders and my online calendar. So when I walk up to my desk, I can focus on the e-mails I've flagged and check the folders that are monitoring particular projects and particular blogs.

Outlook also has a little notification box that comes up in the lower right whenever a new e-mail comes in. We call it the toast. I'm very disciplined about ignoring that unless I see that it's a high-priority topic.

Staying focused is one issue; that's the problem of information overload. The other problem is information underload. Being flooded with information doesn't mean we have the right information or that we're in touch with the right people.

I deal with this by using SharePoint, a tool that creates websites for collaboration on specific projects. These sites contain plans, schedules, discussion boards, and other information, and they can be created by just about anyone in the company with a couple of clicks.

SharePoint puts me in touch with lots of people deep in the organization. It's like having a super-website that lets many people edit and discuss—far more than the standard practice of sending e-mails with enclosures. And it notifies you if anything comes up in an area you're interested in.

Another digital tool that has had a big effect on my productivity is desktop search. It has transformed the way I access information on my PC, on servers, and on the Internet. With larger hard drives and increasing bandwidth, I now have gigabytes of information on my PC and servers in the form of e-mails, documents, media files, contact databases, and so on.

Paper is no longer a big part of my day. I get 90% of my news online, and when I go to a meeting and want to jot things down, I bring my Tablet PC. It's fully synchronized with my office machine so I have
all the files I need. It also has a note-taking piece of software called OneNote, so all my notes are in digital form. The one low-tech piece of equipment still in my office is my whiteboard. I always have nice color pens, and it's great for brainstorming when I'm with other people, and even sometimes by myself.

The whiteboards in some Microsoft offices have the ability to capture an image and send it up to the computer, almost like a huge Tablet PC. I don't have that right now, but probably I'll get a digital whiteboard next year. Today, if there's something up there that's brilliant, I just get out my pen and my Tablet PC and recreate.

Days are often filled with meetings. It's a nice luxury to get some time to go write up my thoughts or follow up on meetings during the day.
Industry–Institute Interface

Envisaging education as a tool for industrialization and a source for techno-economic modernization, AITR in quest for better education, organized an Industry-Institute Interface on 11th August, 2007 at Hotel Fortune Landmark, Indore. During the meet the institute accorded serious attention to the distinct levels of the educational pyramid and a new structure of competence was designed to suit the choice and pace of the industries in the new millennium. Several eminent industrialists and the chief executives of Indore topography participated in the meet and contributed their valuable suggestions. Dr. Rajeev Mishra, Head-T&D, Eicher Motors Ltd., Mr. M.M. Sharma, General Manager, Indo-German Tool Room, Mr. Amar Singh Rathore, Country Head-LCV, Hindustan Motors Ltd., Mr. O.K. Kaul, President, Tata International, Mr. B. Tiwari, Head-Operations, GATI Ltd., Mr. Vivek Kulkarni, GM, Gabriel India Ltd., Mr. Ashok Taneja, Regional Head-HR, Caparo Tubes of India Ltd., Mr. Sunil Chordia, MD, Rajratan Global Wire Ltd., Mr. Subhash Gandhi, Vice Chairman & MD, Gajra Gears Pvt. Ltd., Mr. Yashwardhan Pathak, Director, Mirash Infotech Pvt. Ltd., were some of the dignitaries who added grace to the event. The management and the top order authorities of AITR were highly indebted to all the distinguished guests for sharing their brains for a better cause and a better tomorrow.

Published By:

Dr. Ashok Kumat, Vice-Chairman, Acropolis Institute of Technology and Research, Indore.

Cover page, including the collage and the caricatures, depicts the true craftsmanship of the students. The special effects are added by the CS II yr. students Piyush Jain and Piyush Rathore. The sketch by Mr. Piyush Jain on the cover page reveals a new hope after the catastrophe. The deep groove, encircling the skeleton structure of a tree and a cup of wine on a palm, indicates a new life in the midst of difficult situations. However it is solely one’s choice how one deciphers the art and these sketches are no exceptions........