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GANDHINAGAR INSTITUTE OF TECHNOLOGY

Approved by AICTE, Affiliated: Gujarat University and Gujarat Technological University

Convenor
Dr N M Bhatt, Principal

Developer team
Ms. Abhilasha Shrivastav (Lecturer, CE)
Ms. Zalak Modi (Lecturer, EC)
Mr. Hiren Trivedi (Sr. Lab Asst.)

Students:
Mr. Tapan Patel
Mr. Amit Dantani
Mr. Nirav Shah
Mr. Prashant Parekh
Mr. Sarthak
Mr. Sanket

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About Gandhinagar Insititute of Technology

Gandhinagar Institute of Technology was established by Platinum Foundation Trust in December 2006. The Institute is affiliated to Gujarat Technological University and Gujarat University and approved by AICTE New Delhi. The Trust is registered under Public Trust Act, having Registration No. E-17490 dated 19 June 2006 at Ahmedabad, Gujarat.

The Institute aims to be a leading center for research and engineering study, pursuing knowledge in both fundamental and applied area, and collaborating closely with business and industry in promoting technological innovation and economic development. The members of the Trust are involved in social activities and are also contributing to the technical institutions development by raising funds and promoting the technical interest of state and country. Gandhinagar Institute of Technology is situated near Village "Moti Bhoyan" and 24 km away from Ahmedabad city.

It offers B.E Program in Mechanical, Electronics & Communication, Computer Engineering & Information Technology and Civil Engineering. It also offers MBA Program with specialization in Marketing, Finance, Human Resource Management and Information Systems. Gandhinagar Institute of Technology will nurture the intellectual growth of its students and serve humanity through creation, application and dissemination of knowledge relevant to technology and become one of the premier Engineering and Management Institutes and achieve the highest order of excellence in teaching.

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GIT Trustee's

GIT Trustee's

Shri Harishbhai B. Rohera

Qualifications : B. Com

Position : Member - Board of Trustee & Advisory Board

Background

» Proprietor: Mahadev Steel Suppliers
» C/o: Vinayak Steel Syndicate
» C/o: Dhiraj Steel Supplier
» C/o: Krishna Steel Trader
» Owner: National Steel Processor
» Trustee: Sai Vasant Ghot Darbar
» Trustee: Jai Jhulelal Mandir

Shri Dipakbhai N. Ravani

Qualifications : B.Com., LL.B.

Position : Member - Board of Trustee & Advisory Board

Background

» Business

Shri Pravinbhai A. Shah

Qualifications : B.A., LL.B.

Position : Member - Board of Trustee & Advisory Board

Background

» President of Zalavad Samaj Jain Seva Trust
» Trustee of Vasant Atma Charitable Trust
» Trustee of Rampura Champa Vijya Hospital
» Trustee of Shantivan & Ambawadi Jain Sangh
» Trustee of Rampura Kelavani Mandal
» Trustee of Pampura Panjrapole Trust

Shri Gahanshyambhai V. Thakkar

Qualifications : M.A

Position : Member - Board of Trustee & Advisory Board

Background

» Professor at Vivekanand College of Arts, Ahmedabad
» Ex. M.L.A., Gujarat Assembaly from Mandal
» Trustee of V.M. Thakkar Charitable Trust, Ahmedabad
» Manages Muktajeevan Vidhyalaya and BVD High School, Isanpur and Maninagar
» Advisor/Member Kankaria Maninagar Nagarik Sahakari Bank
» Director - Adarsh Co-Operative Departmental Stores

Smt Varshaben M. Pandhi

Qualifications : B.Com

Position : Member - Board of Trustee & Advisory Board

Background

» Working experience in the field of Insurance and Investment Advisory for about 20 years

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Message from Shri Hareshbhai Rohera

I am happy to learn that GIT is publishing yet another issue of “GIT - A Song of Technocrat”. In this age of highly competitive globalization, the higher education, particularly technical and management education, has assumed newer dimensions. When global competition is upon us, we must offer quality education and training to our youngsters to keep up and keep pace with the best and the brightest in the world. Keeping this in mind Platinum Foundation is offering the best possible technical as well as management education. It is heartening to note that over a span of 4 years GIT has become one of the premier engineering colleges in Gujarat. But the path toward excellence is never ending. Therefore, our collective efforts should direct towards all round improvement of GIT in all the frontiers if modern technical and management education. We also see that technological advances and research outputs should be beneficial to all human beings and to the society at large. I convey my blessings and best wishes to one and all members of GIT family. I also congratulate the members of the editorial board of “GIT - A Song of Technocrat”.

Shri Ghanshyambhai Thakkar

પ્લેટીનમ ફાઉન્ડેશનનાં ટ્રસ્ટી પ્રા. શ્રી ઘનશ્યામભાઈ ઠક્કરનો સંદેશ

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Dr N M Bhatt

Principal

It gives me immense pleasure that the third issue of our Annual magazine called “GIT – A song of Technocrats” is being published for third successive year. The magazine contains technical and non technical articles submitted by students and staff members of the Institute. The issue is a result of imaginative and expressive skill and talent of them. During a short span of four years, GIT has accomplished the mission effectively for which it was established. Institute has been constantly achieving the glory of excellence in the field of curricular, co-curricular and extra-curricular activities. It is a matter of proud and privilege that the Institute organized a national level technical symposium called TechXtreme ‘10. More than 500 participant form all over the country attended the symposium. Around 33 events were organized by different departments. The media including Divyabhaskar and Ahmedabad Mirror also comprehensively covered this symposium. The success of TechXtreme ’10 was guaranteed since many students of GIT had won prizes in similar symposiums organized at various engineering colleges of Gujarat.

I am extremely happy to mention that throughout the year the faculty members have worked very hard to achieve all kinds of curricular and co-curricular activities. The institute has organized many state level seminars and workshops on current trends of Engineering and Management. To name a few seminars on ‘Image Processing’, ‘Networking’ ‘Gateway’. ‘Embedded Systems’, ‘Marketing Practices in Rural Areas’, ‘Accounting Standards Innovation in Branding’, ‘Managing Innovation’ Workshops on ‘Embedded Systems’, ‘Cisco Certified Networking and its Applications’, and ‘Robotics’. Institute has organized industrial visit and expert lectures for the students for supplementing the class room teaching.

Successful organization of extra and co-curricular activities of such magnitude in not possible without whole hearted support of committed and experienced Trustees of Platinum Foundation Mr. Harishbhai Rohera, Mr. Ghanshyambhai Thakkar, Mr. Deepakbhai Ravani, Mr. Pravinbhai Shah and Smt. Varshaben M. Pandhi. I take an opportunity to express my deep feelings of gratitude to all the trustees of Platinum Foundation and Mr. Mahendrabhai Pandhi, member of Governing body of the trust for their constant support and motivation.

It’s my privileged to compliment the staff members and the students for showing high level of liveliness throughout the year. The institute has also successful organized Debate Competition, Elocution Competition, Rangoli Competition, Essay Competition, and Sports activities. I also congratulate the team for the ‘GIT- A song of technocrat’ for their untiring effort to bring out this third issue of the annual magazine.

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Message from Editors

The Third issue of GIT "A Song Of Technocraft" is released to provide the readers at the various interseting sessions in engineering and management. This magazine provides precise information about the technical events, seminar, management contests, cultural and sports activities of the current academic year.

This magazine has been continently structured so that it becomes very convient to readers to peruse any intersting content of any of the event or activity. The contribution is absolutely from the family of GIT. The contribution made by the student as well as the teachers is outstanding because the senior most students have completed just four years. The faculty members have also taken pain in motivating the students to write for this magazine. We heartily congratulate the students and the faculty members for their efforts in the right direction.

During the edition, we have travelled a joyful journey of various articles submitted by the student as well as by the faculty. Few of the article "Kruti" of Kruti's corner, student wall bulletin of GIT.

We hope that this E-edition will serve a purposeful presentation to the readers. We regret unintensional error, if any, in publication of this E-magazine.

GS, AGS & LR ON ANNUAL ACTIVITIES

It was indeed matter of great pride and elite to hold honorary position of the General Secretary, Ladies Representative and Assistant General Secretary over past one year. We were given this opportunity to do something great for the development of our Institution. During this academic year 2009-2010, we held various co-curricular and extra-curricular activities in the college with the wonderful support and co-operation from our colleagues. Teachers also gave their guidance in the superintend of these activities. Our Principal Dr. N. M. Bhatt had always been source of inspiration and encouraged us to give our best in all these activities.

• Our college students participated in the Technical Festival of different colleges and received many prizes for their talent.
• The Elocution competition held on “Mahatma Gandhi : An Ideal Teacher”
• The Industrial visit of Mechanical Engineering Department was organized at Elecon, L&T, Essar, Ispat Industries, GNFC, GSFC, HMT, Reliance, Sintex, Universal starch allied Ltd, HDFC, SBI, Arvind Mills Ltd, TCS, Joyti CNC etc.
• The Industrial visit of E&C, InformationTechnolgy and Computer Engineering Department was organized at DEL, Chennai.
• The Industrial visit of MBA semester 1 student was organized in the month of November, 2008 where students visited Plastic Division of Sintex Industries Ltd.
• A state level seminar on “Technology Management” was organized on 26th February,2009. the eminent speakers from all over the state were invited to address the audience comprising of students of GIT and other colleges.
• A state level seminar on “Commercializing wireless communication” was organized on 3rd march, 2009. The eminent speakers from all over states were invited to address the audience comprising of students of GIT and other colleges.
• The Essay competition held on 27th February, 2009 in seminar hall on “Anatomy of satyam Fraud”.
• The Debate competition held on 12th February, 2009 in seminar hall on the topic “Can Global Recession get Remission by next year?”
• The major event of the Engineering and Management students which was national level technical festival named “TechXtreme’10” having technical competitions in various events at the campus of the college. We invited all the engineering students as well as Management students from all over India. The “TechXtreme’10” was held on 26th and 27th March, 2010. The 26th March, 2010 events were followed by the D.J. Night party.

• We have organized the Third “Annual Function” and “Talent Evening” on the 11th April, 2009. We have also organized the releasing ceremony of the college magazine “GIT-A song of technocrats” on the same day and also a research journal ‘JET’ on the same day.

Annual Report of Sports Society

Sports Society was established during the month of **AUGUST'08** for the academic year 2008-2009. The structure of the Sports Society for the academic year 2009 –2010 is as under:-

Dr N M Bhatt
President

Mr Rahul Vaghela
Vice President (Engg.)

Dr Rajesh Modi
Vice President (M.B.A.)

Mr Parthiv Shah
Co-ordinator

A.P. Amit Sharma
Co-coordinator

Mr Nirav Pandya
Co-coordinator

Mr Birendra Zala
Co-coordinator

Mr Mihir Pathak
Co-coordinator

Mr Shailesh Dutt
Co-coordinator

Mr Rashmikant Patel
Co-coordinator

Meghal Bhatt
Sports Secretary

The principal objective of the constitution of Sports Society is to excel in the field of Sports and Games and promote the talent and the skills that the students of our institute possess. In order to bring excellence in sports activities, our Institute represented in various tournaments organized by Gujarat University South Zone Local Committee, DAIICT, PDDU, etc. GIT also celebrated Sports activities this year. The brief summary of the important activities performed are given in following paragraphs.

Sr. No.	Name of Game	Winner/s/ Winning team	1st Runner up / s / team	Score of final match
1	Carom (Singles)	Trivedi Jaydeep (06IT056)	Gajera Vaibhav (07ME 011)	By 1 point
2	Carom (Doubles)	Gajera Vaibhav (07ME 011) & Chhatrala Mohit (07ME008)	Kapupara Jayraj (07ME015) & Modasiya Krushang (07ME021)	By 2 points
3	Badminton (Boys – Singles)	Trivedi Jaydeep (06IT 056)	Darji Indraneel (08CE011)	22 – 20 21 – 14
4	Badminton (Boys – Doubles)	Trivedi Jaydeep (06IT 056) & Saluja Tarun (06IT043)	Darji Indraneel (08CE011) & Ghodasara Chetan(08CE019)	21 – 14
5	Badminton (Mixed Doubles)	Trivedi Jaydeep (06IT 056) & Vaidya Mitisha(06IT057)	Darji Indraneel (08CE011) & Sharma Pooja(07EC040)	21 -12
6	Badminton (Girls – Singles)	Pillai Dhanya (07CE042)	Vanar Dipali(08CE072)	15 -05
7	Badminton (Girls – Doubles)	Pillai Dhanya (07CE042) & Rathod Jinal (08CE100)	Singh Richa (06EC052) & Joshi Khyati (08EC204)	21 – 18 21 – 12
8	T.T. (Boys–Singles)	Trivedi Jaydeep (06IT 056)	Sheth Sahil (08ME028)	11 – 08 11 – 08 11 – 06
9	T .T. (Boys–Doubles)	Trivedi Jaydeep (06IT 056) & Saluja Tarun (06IT043)	Shah Darshil (08 CE 054) & Khattar Nikhil (06CE017)	11 – 07 11 – 06 11 – 06
10	Kabbadi	**8th SEM. M.E.** Dhokiya MehuL(C)(07ME154) Naik Smith (07ME155) Syed Mushraf (06ME049) Wadiya Tejas (06ME052) Patel Vijay (06ME036) Dhameliya Jatin (06ME006) Vyas Rushikesh (06ME060) Patel Piyush (06ME034) Panchal Ankit (06ME018)	**4th SEM. I.T. (B)** Bhavik Patel (c) (08IT066) Parth Patel (08IT071) Sagar Hirani (08IT052) Hitesh Dhaduk (08IT048) Mehul Patel (08IT070) Rajesh Nangar (08IT062) Manthan Shah (08IT079) Sunil Patel (09IT256) Jatin Dobaria (08IT050)	65 - 35
11	Volleyball	**8th SEM. M.E.** Jatin Dhameliya (06ME006) B K Mandal (06ME 016) Vijay Patel (06ME036) Jignesh Patel (06ME028) Sanket Patel (06ME035) Piyush Patel (06ME034) Tejas Wadiya (06ME052) Mushraff Syed (06ME049) Harshit Talavia (06ME050)	**6th SEM. E.C.** Thakkar Mihir (c)(07EC059) Thakkar Utsav (07EC042) Panchal Darshan (07EC053) Naik Sapan (07EC051) Patel Jatin (07EC026) Anovadiya Tejas (07EC001) Parth Vora (07EC061)	14 – 13 & 20 – 19
12	Cricket	**4TH SEM. E.C.** Patel Viviek I.(c) (08EC021) Akash Panchal (09EC255) Amit Bhatia (08EC004) Dinesh Nair (08EC014) Parth Chavda (08EC005) Jignesh Suthar (08EC055) Dhruv Shah (08EC054) Jaimin Patel (08EC047) Jigar Patel (08EC048) Apurva Patel (08EC046) Swapnil Pandya (08EC045) Hemedra Rathod (08EC052) Yagnik Popat (08EC050) Hunaidkhan Pathan (08EC022)	**6TH SEM M.E.** Chetan Patel (07ME029) Ravi Patel (07ME040) Arpit Chaudhary (07ME006) Priyank Dungrani (07ME009) Hardik Patel (07ME032) Neel Panchal (07ME052) Nilay Bhatt (06ME053) Pragnesh Prajapati (06ME039) Ankit Patel (06ME056) Suhag Patel (07ME042) Chirayu Trivedi (07ME047) Chetan Erabattini (07ME010) Viral Shah (07ME063) Krushang Modasiya (07ME021)	4th sem E.C. 128/6 in 18 overs 6th sem. M.E. 109/9in 18 overs. 4th sem E.C. won by 19 runs.

Participation in Tournaments organized by Gujarat University South Zone Local Committee

Our college participated in **chess**, **Swimming**, **Table Tennis**, **Badminton**, **Cricket** tournaments organized by **GUSZLSC** during **August '09** and **September '10**.

Trivedi Jaydeep (06IT056) played Guj. Uni. South Zone Table Tennis tournament held at Vasad and was selected for Guj. Uni. Inter Zonal tournament held at Ahmedabad. **Trivedi Jaydeep (06IT056)** played Guj. Uni. South Zone Badminton tournament held at Ahmedabad and was selected for Guj. Uni. Zonal tournament held at Ahmedabad and further selected for representing Guj. Uni. For Inter West Zone University tournament held at Jabalpur.

Participation in Tournaments organized by Dhirubhai Ambani Institute of Information and Communication Technology , DAIICT

Our college participated in **Cricket**, **Volleyball**, **Basketball**, **Badminton (boys)**, **Badminton (girls)** and **Table Tennis (boys)** tournaments organized by **DAIICT** during **September '09**.

Qualifying for the semi final round of Volleyball was the notable performance by our college volleyball team.

Annual Sports Activities for the academic year 2009 – 2010

College organized annual sports activities for the academic year 2009 – 2010 from **8th, 09th Feb, 2010 to 27th Feb, 2010**. Results of the tournaments played during annual sports activities are listed below:-

Parth Chavda (08EC005) was declared "**Man of the Match**" for taking **4** crucial wickets and scoring **25** runs.

Arpit Chaudhary (07ME006) was declared "**Man of the Series**" of cricket tournament for scoring **220** runs and taking **10** wickets.

Jignesh Patel (06ME028) was declared "**Player of the Volleyball**" tournament because of his passing skills and consistent good performance which helped his team won the title.

8th sem. M.E. has won the **Kabbadi** tournament for **3 years** in a row.

Girls' team of **C.E.** defeated girls' team of **I.T.** in friendly matches of **Khokho** and **Cricket**.

It has been a matter of immense satisfaction and pride for me to carry out college sports activities successfully for last **3 years** in continuity. I, wholeheartedly, thank all the employees of college and students for their unconditional and undying support.

I would like to thank , on behalf of sports committee and students , all the managing trustees and principal sir of college for encouraging students to take part in sports activities as well as allowing students to participate in tournaments organized by various other colleges so that their competitive skills can be enhanced.

I would like to take an opportunity to thank **V.P.s** of Engineering and **M.B.A.**, heads of various departments, all the co-coordinators of sports for their support through the annual sports activities. I would also like to thank **Mr. Hardik Bhatt**, **Mr. Mukesh Parmar**, **Mr. Nikhil Abhangi**, **Mr. Shaival Parikh**, **Mr. Ruchir Parikh**, **Mr. Kuldeep Dodiya**, **Mr. Balwant Tandel**, **Mr. Ritesh Patel**, **Mr. Rajesh Gadhvi**, **Mr. Mayank Patel**, **Mr. Gaurangbhai Trivedi** for doing full justice to umpiring and refree work with full transperancy and honesty and without any bias.

I would like to congratulate **G.S. Braj Kishore Mandal**, **A.G.S. Sanket Patel**, **L.R. Kruti**, Sports secretary **Meghal Bhatt**, Assistant Sports Secretary **Tarun Saluja**, **Ex – G.S. Keyur Prajapati** and **Cultural Secretary Ankit Patel** for the successful completion of annual sports activities.

I would like to appreciate the efforts and sincerity of students in organizing annual sports activities. I would like to congratulate **Mehul Dhokiya**, **Keyur Prajapati**, **Chetan Patel**, **Ronak Pancholi**, **Jitu Patel** for successful execution of **Kabbadi**, **Neel Gandhi**, **Mehak Khushlani**, **Harshit Gandhi**, **Parth Contractor** for **Volleyball**, **Gajera Vaibhav**, **Chhattrala Mohit**, **Krushang Modasiya**, **Mihir Rajyaguru** for **Carom**, **Trivedi Jaydeep**, **Darjii Indraneel**, **Chetan Ghodasara**, **Harsh Kanada**, **Manthan Gandhi** for **Badminton**, **Tarun Saluja**, **Nikhil Khattar**, **Yash Pathak** for **T.T.**, **Rohan Jardosh**, **Jigar Patel**, **Rachit Dalpat**, **Saurabh Jain**, **Jaynesh Patel** for **Cricket**, **Keyur Prajapati** for Chess.

I would like to thank **Rohit Savlani**, **Amit Bhatia**, **Akash Shah**, **Jayesh Kheshkani** and **Dhruv Patel** for taking photographs of the entire event.

I ask for an apology if I have missed out on thanking anyone who has helped me in carrying out annual sports activities and sports activities through the academic year. It is purely unintentional.

Parthiv shah
Coordinator

REPORT OF RESOURCE CENTRE – GIT (2009-2010)

Introduction

GIT has maintained its culture of yielding more & more productive services to its family. The latest example of which is the newly constructed fully air-conditioned Resource Centre of GIT. After a keen survey & research of the expectation of the users of GIT, students & staff members, GIT presents this Resource Center with state of the art facilities, infrastructures & information material. The prime motive of this Resource Center will be to provide services like reference and consultation, membership and circulation, document delivery, resource sharing, information alert service, book bank for needy students, extra books facility for Meritorious Group's students, user awareness programmes, and ICT-enabled web-based services.

Collection Development and Management

Collection building is one of the important functions of the Resource Centre that supports academic and research work of the students, faculty, staff and other users. Resource Centre collection comprising of books, journals, reports and other reading material in science, engineering, technology, humanities, social sciences and management. It has spent over Rs 5.55 lacs during the year to maintain and update its collection with new knowledge resources. The total collection of Resource Centre as on 31st March 2010 stands as follows:

Collection	Titles Added during 2009 -2010	Total as on 31st March 2010
Books (Technical)	263	9216
Books (General)	175	744
Books (MBA)	222	2532
CDs/DVDs	100	820
Journals/Magazines	5	85

All the newly acquired documents have been processed for use. A list of new additions of books and periodicals is displayed daily and can be accessed through e-mail. An email alert is also sent to the requesting faculty member(s) about the arrival of publications requested by them. Special care was taken to neatly maintain the Resource Centre stacks to facilitate users to locate the desired document quickly, and worn out labels were immediately replaced.

Automation

The GIT Resource Centre is now fully automated. Every function of the Resource Centre has been operated by the software named "SOUL 2.0". The OPAC (Online Public Access Catalogue) is one of the most heavily used functions of the software and is accessible during Resource Centre hours via terminals. Besides listing all the documents available in the Resource Centre, it allows reservation, circulation, fine collection, and indicates status of a particular book. OPAC is searchable by author, title, accession number, subject and several other fields.

Resource Centre Homepage

Resource Centre Homepage, which is under construction, will provide a single window to all the resources and services of the library. It will allow to:-

● Search/Browse the material in the library (Search OPAC)· Check the materials borrowed by a user and their due date· Access E-Resources (books, journals, theses, databases and multimedia products)· Download library membership form, Book suggestion form, library guide· Locate library material· Ask the librarian, to know more like Suggestions, Complaints & Queries.

Resource Centre Services

The Resource Centre aims to provide wide and efficient access to the needed information in a service-rich environment to all its users. It offers a package of high quality, user focused services to support the research, teaching and learning endeavors of faculty, students and staff.

1) **Reference, Consultation & Circulation**: Reference service helps users to make full use of library resources and services. It provides necessary assistance to users in locating information or document of their choice. There are around 100 reference documents which includes Dictionary, Encyclopedias, yearbooks etc. Approximately 150 documents are circulated daily which includes books, Magazines, Journals, CDs and DVDs. It is open from 09:00 am to 04:00 pm on all working days.
2) **Book Bank:** The Book Bank Collection helps students belonging to Scheduled Castes, Scheduled Tribes and economically weaker background. The collection consists of the prescribed text books for undergraduate courses and loans books to these students for full semester. During the year 15 students availed this facility and borrowed approximately 95 books from this collection.
3) **Information Alert Services**: The library offers the following current awareness services to alert users about the latest information of their interest: List of Additions, New Arrivals (What's new in the library)
News items display Useful articles Display of Forthcoming conferences, other national and international events
4) **Library Orientation**: Users education is an important regular activity of the library to inform, alert, educate and train users about various resources and services of the library. In addition, orientation programmes organized for new students
5) **Inter Library Loan:** Inter Library Loan facility plays very important role in research as well as paper presentation for the students and staff. Under this service the document which is not available in the GIT Library is made available for the consultation by borrowing the document from other organization or Institution.
6) **Membership**: GIT is the respective member of British council as well as Ahmedabad Management Association.
7) **Reprography**: Photocopying service is one of important services offered by the Resource Centre. The photocopy is chargeable. The cost of photocopy is 50 paisa per page.

Report on Seminar on PLC

PLC: Programmable Logic Controller consists of microprocessor along with different Input / Output ports, Timers, Special Function Registers (SFRs), counters, ALU, and very high data storage capacity. The PLC has a very fast response time.

The theme of the seminar was “Introduction of PLC in the field of Automation”. During the seminar we were made aware about the different types of PLC’s starting from simple microcontroller to the latest PLC like KPIT: ASTRA, SIEMENS: WinCC etc. They told us how PLC can be installed & configured in the automation industry.

Every hardware system needs an Operating System so as PLC uses SCADA (Supervisory Control & Data Acquisition) Software.

The features/applications of PLC/SCADA are as follows:-

- **Dynamic Process Graphic**
- **Real time & Historical Trading**
- **Alarms**
- **Recipe Management**
- **Security**
- **Device connectivity**
- **Database connectivity**

At the end they have also shown us a video of Bottling Plant which uses PLC to control the operation of plant.

ASP.NET Report

GIT has organized a seminar on asp.net held on 4th March, 2010 for the student of 6th & 8th semester student of CE and IT department.

The speaker, Apurva Dhamani is Director of Uniueinfopath. He Has 15 year of experience in the field of software development and is expertise in the field of ASP.Net.

The seminar was very informative and faithful for the student as he exposed the practical field to the student and he also introduced the student with the market requirement in the field of software.

Student got good exposure to ASP.Net, a technology which is leading in the today, and he also provided much project definition to the students to work on.

VLSI: The Industry Side

By : Nitin Paranjpe

The engineers of electronics field are always, generally, fond of the VLSI technology. But unless and until they are not given correct guidance they cannot settle well, in the industrial atmosphere, with the academics knowledge alone. This particular seminar was organized, by GIT, keeping in mind the above mentioned requirement.

The seminar was taken over by people of a company which intentionally works to help students and industry mutually. The experts showed how using the technology (internet access), the skilled students can interact with the industry people directly. It was demonstrated, in the seminar, how one can see the errors or defects in a particular task going on in the industry. The student can see the situation, work over it and bring out a possible solution for any problem that may have occurred or may occur in the company's work.

On the other hand the student can also put forward his quarries regarding the subject or even his personal project with no additional cost to pay. With this facility a student come in direct touch with the industrial needs and thus can understand what skills he might need to make himself worth.

Also in the session, the experts provided some very good tips that might help the students to learn how they can find out the weak points in them. Students were made clear that it was rather necessary to understand the fundamentals of the subject (or any device) than to pay more attention on scoring good marks only (with no idea how the device can work practically).

It was advised by the experts to study about the entire family of the device instead of learning the only one which is included in the university's syllabus. The students were also advised to apply all possible logics (even those which seem impractical) coming in their mind while going with the project and have a habit to simulate before implementing the design.

Technical Report of "Dell Computers India Ltd" Visit

It's been pleasure to write about industrial visit which was organized by the Platinum Foundation managed, Gandhinagar Institute of Technology on 8th of April 2010 at Chennai.

We visited DELL Manufacturing Unit in two batches of 64 students. One batch visited in the morning and second batch visited at noon. The technical session started with Power point presentation.

Mr. SATISH, production manager discussed the history of Dell Computers and also the market positions in India since they started and as on today. They described the main foundation of Dell computers which involves direct selling and two hours inventory management. He has also compared the software and hardware market globally which was one billion and sixty two billion annually and respectively.

After that we went for line tour in which we have seen the different phases of assembling the various parts of computers. They have three lanes for assembling which are desktops, laptops and servers. He demonstrated to us laptop assembling. In first phase they collect all the components of laptops for assembling as per customer order and also create an image of that particular laptop configuration ordered by customer and store it on the server which is known as "Kitting" process.

They assembled two main parts of the laptop which is Base and LCD. They use RFID to identify configured component of Laptop. They also use two methodology of assembling. One is Self development unit in which the whole task completed by single person which requires minimum training of six months and having higher efficiency. The second is Progress development unit in which the whole task is divided in to smaller tasks which requires one week training and having less efficiency.

They performed two kind of testing.

a) Quick Test: - It compares the component configuration with the stored order image on server and also checks weather it is working at primary level.

b) Performance Test: - It is being performed in two levels extended2 and extended3. It checks for technical efficiency by giving different logical testing scenarios. Finally if the computers pass all the tests then the software installation begin otherwise it will be stopped with error message. Then after, it will be dispatched by verifying physical check.

They use following software for smoothing the process

Sr. No.	Short Name	Software Name	Function
1	WTS	Work Tracking System	Start with creating the image to the dispatched of the order
2	SS	Smart System	For downloading the customer order within India
3	Olivia	Olivia	For managing the short term inventory.

DATA CENTRIC ROUTING IN WIRELESS SENSOR NETWORKS

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ABSTRACT

The emergence of Wireless Sensor Networks (WSN) as one of the dominant technology trends in the coming decades has posed numerous challenges to researchers. These networks are likely to be comprised of hundreds, and potentially thousands of tiny sensor nodes, functioning autonomously, and in many cases, without access to renewable energy resources

While the set of challenges in sensor networks are diverse, we focus on fundamental networking challenges (routing) in sensor networks. Routing in WSN is very challenging due to the inherent characteristics that distinguish these networks from other wireless networks like mobile ad hoc networks or cellular networks. In this paper we present two routing algorithm used by WSN, namely Sensor Protocols for Information via Negotiation (SPIN) and Directed Diffusion. Both these algorithms are multi hop flat routing protocols and are data centric. These two protocols motivated the design of many other protocols which follow a similar concept. Advantages and performance issues of these two algorithms are also highlighted.

Keywords: Wireless Sensor Networks, Data centric Routing, Sensor Protocols for Information via Negotiation, Directed Diffusion

1. INTRODUCTION

Due to recent technological advances, the manufacturing of small and low cost sensors became technically and economically feasible. A Wireless Sensor Network (WSN) contains hundreds or thousands of these sensor nodes. They greatly extend our ability to monitor and control the physical environment from remote locations. The sensing electronics measure ambient condition related to the environment surrounding the sensor and transforms them into an electric signal. When networked, sensors can aggregate such data to provide a rich, multi-dimensional view of the environment. Each sensor node operates autonomously with no central point of control in the network, and each node bases its decisions on its mission, the information it currently has, and its knowledge of its computing, communication and energy resources.

However, sensor nodes are constrained in energy supply and bandwidth. Thus, innovative techniques that eliminate energy inefficiencies that would shorten the lifetime of the network are highly required. Such constraints combined with a typical deployment of large number of sensor nodes pose many challenges to the design and management of WSNs and necessitate energy-awareness at all layers of the networking protocol stack. At the network layer, it is highly desirable to find methods for energy-efficient route discovery and relaying of data so that the lifetime of the network is maximized. Routing in WSNs is very challenging due to the inherent characteristics that distinguish these networks from other wireless networks like mobile ad hoc networks or cellular networks.

2. ROUTING CHALLENGES IN WSN's

Despite the innumerable applications of WSNs, these networks have several restrictions, e.g., limited energy supply, limited computing power, and limited bandwidth of the wireless links connecting sensor nodes. One of the main design goals of WSNs is to carry out data communication while trying to prolong the lifetime of the network and prevent connectivity degradation by employing aggressive energy management

techniques. The design of routing protocols in WSNs is influenced by many challenging factors.

- *Energy consumption without loosing accuracy:* Because wireless sensors have a limited supply of energy, energy-conserving communication protocols and computation are essential.
- *Computation:* Sensors have limited computing power and therefore may not be able to run sophisticated network protocols.
- *Fault Tolerance*: Some sensor nodes may fail or be blocked due to lack of power, physical damage, or Environmental interference. The failure of sensor nodes should not affect the overall task of the sensor network.
- *Scalability*: The number of sensor nodes deployed in the sensing area may be in the order of hundreds or thousands, or more. Any routing scheme must be able to work with this huge number of sensor nodes.
- *Communication:* The bandwidth of the wireless links connecting sensor nodes is often limited, on the order of a few hundred Kbps, further constraining inter-sensor communication.
- *Data Aggregation*: Since sensor nodes may generate significant redundant data, similar packets from multiple nodes can be aggregated so that the number of transmissions is reduced. Data aggregation is the combination of data from different sources according to a certain aggregation function, e.g., duplicate suppression, minima, maxima and average.

3. WHAT DOES DATA CENTRIC MEAN

"Data-centric", means routing is based on data contained in the sensor nodes rather than traditional IP theme where end-to-end delivery method is used based on unique identifications. There is no network layer node identification used for routing. Message exchange is driven by the application layer (using link layer support). Use of data naming allows negotiation between nodes concerning what data to forward to eliminate redundancy, and the ability to aggregate primitive data into more complex data.

There are two data centric routing protocols devised for Wireless Sensor Networks. They are:

1) Sensor Protocols for Information via Negotiation (SPIN)

2) Directed Diffusion

Along with being data-centric, both SPIN and directed diffusion are also *flat based routing protocols*. In flat networks, each node typically plays the same role and sensor nodes collaborate together to perform the sensing task. Due to the large number of such nodes, it is not feasible to assign a global identifier to each node. This consideration has led to data centric routing, where the Base Sensor sends queries to certain regions and waits for data from the sensors located in the selected regions. Since data is being requested through queries, attribute-based naming is necessary to specify the properties of data. Early works on data centric routing, e.g., SPIN and directed diffusion were shown to save energy through data negotiation and elimination of redundant data. These two protocols motivated the design of many other protocols which follow a similar concept. In the rest of this subsection, we summarize these protocols and highlight their advantages and their performance issues.

4. SENSOR PROTOCOLS FOR INFORMATION VIA NEGOTIATION (SPIN)

SPIN is a sender initiated routing protocol. It is a family of adaptive protocols that was designed to disseminate individual sensor observations to all sensors in a network, treating all sensors as potential base stations (sink nodes). SPIN, thus, provides a way of replicating complete views of the environment throughout an entire network. This enables a user to query any node and get the required information immediately.

Conventional protocols like flooding or gossiping based routing protocols waste energy and bandwidth when sending extra and un-necessary copies of data by sensors covering overlapping areas. The drawbacks of flooding include *implosion*, which is caused by duplicate messages sent to the same node, *overlap* when two nodes sensing the same region will send similar packets to the same neighbor and *resource blindness* by consuming large amounts of energy without consideration for the energy constraints.

To overcome the problems of implosion and overlap, SPIN nodes negotiate with each other before transmitting data. Negotiation helps ensure

that only useful information will be transferred. To negotiate successfully, however, nodes must be able to describe or name the data they observe. We refer to the descriptors used in SPIN negotiations as *meta-data*. The use of meta-data descriptors eliminates the possibility of overlap because it allows nodes to name the portion of the data that they are interested in obtaining. In SPIN, nodes poll their resources before data transmission. Each sensor node has its own *resource manager* that keeps track of resource consumption; applications probe the manager before transmitting or processing data. This allows sensors to cut back on certain activities when energy is low.

4.1 SPIN PHILOSOPHY

SPIN family of protocols rests upon two basic ideas.
1) Exchanging sensor data may be an expensive network operation, but exchanging data about sensor data need not be.
2) Nodes in a network must monitor and adapt to changes in their own energy resources to extend the operating lifetime of the system.

4.2 META-DATA

Sensors use meta-data to succinctly and completely describe the data that they collect. If x is the meta-data descriptor for sensor data X, then the size of x in bytes must be shorter than the size of X, for SPIN to be beneficial. If two pieces of actual data are distinguishable, then their corresponding meta-data should be distinguishable. SPIN does not specify a format for meta-data; this format is application-specific.

4.3 SPIN MESSAGES

SPIN nodes use three types of messages to communicate:

- ADV – new data advertisement. When a SPIN node has data to share, it can advertise this fact by transmitting an ADV message containing meta-data.
- REQ – request for data. A SPIN node sends an REQ message when it wishes to receive some actual data.
- DATA – data message. DATA messages contain actual sensor data with a meta-data header.

ADV and REQ messages contain only meta-data and are smaller than their corresponding DATA messages. ADV and REQ messages will therefore be cheaper to transmit and receive than their corresponding DATA messages.

4.4 SPIN PROTOCOLS

There are mainly four protocols that follow the SPIN philosophy outlined in the previous section.

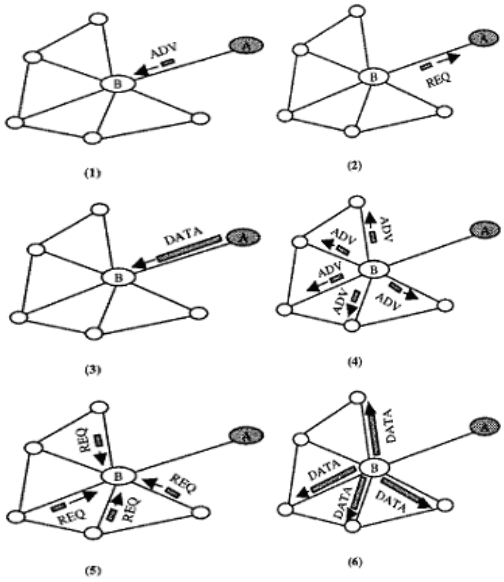
- *SPIN-PP* – tackle the basic problem of data transmission under ideal conditions, solves problems for net works using point-to-point transmission
- *SPIN-EC*, an energy-conserving version of SPIN-PP
- *SPIN-BC*, tackle the basic problem of data transmission under ideal conditions, where energy is plentiful and packets are never lost, solves this problem for networks using broadcast media.
- *SPIN-RL*, a reliable version of SPIN-BC

4.4.1 SPIN-PP: A THREE-STAGE HANDSHAKE PROTOCOL FOR POINT-TO-POINT MEDIA

The first SPIN protocol, SPIN-PP, is optimized for networks using point-to-point transmission media, where it is possible for nodes *A* and *B* to communicate exclusively with each other without interfering with other nodes The SPIN-PP protocol works in three stages (ADV–REQ–DATA). The protocol starts when a node advertises new data that it is willing to disseminate. It does this by sending an ADV message to its neighbors, naming the new data (ADV stage). Upon receiving an ADV, the neighboring node checks to see whether it has already received or requested the advertised data. If not, it responds by sending an REQ message for the missing data back to the sender (REQ stage). The protocol completes when the initiator of the protocol responds to the REQ with a DATA message, containing the missing data (DATA stage).

Figure shows an example of the protocol. Upon receiving an ADV packet from node A, node B checks to see whether it possesses all of the advertised data (1). If not, node B sends an REQ message back to A, listing all of the data that it would like to acquire (2). When node A receives the REQ packet, it retrieves the requested data and sends it back to node B as a DATA message (3). Node B, in turn, sends ADV messages advertising the new data it received from node A to all of its

neighbors (4). It does not send an advertisement back to node A, because it knows that node A already has the data. These nodes then send advertisements of the new data to all of their neighbors, and the protocol continues.



4.4.2 SPIN-EC: SPIN-PP WITH A LOW-ENERGY THRESHOLD

The SPIN-EC protocol adds a simple energy-conservation heuristic to the SPIN-PP protocol. When energy is plentiful, SPIN-EC nodes communicate using the same three-stage protocol as SPIN-PP nodes. When a SPIN-EC node observes that its energy is approaching a low-energy threshold, it adapts by reducing its participation in the protocol. In general, a node will only participate in a stage of the protocol if it believes that it can complete all the other stages of the protocol without going below the low-energy threshold. Similarly, if a node receives an advertisement, it does not send out a request if it does not have enough energy to transmit the request and receive the corresponding data. This approach does not prevent a node from receiving, and therefore expending energy on, ADV or REQ messages below its low-energy threshold. It does, however, prevent the node from ever handling a DATA message below this threshold.

4.4.3 SPIN-BC: A THREE-STAGE HANDSHAKE PROTOCOL FOR BROADCAST MEDIA

In broadcast transmission media, nodes in the network communicate using a single, shared channel. As a result, when a node sends out a message in a lossless, symmetric broadcast network, it is received by every node within a certain range of the sender, regardless of the message's destination. SPIN-BC improves upon SPIN-PP for broadcast networks by exclusively using cheap, one-to-many communication. This means that all messages are sent to the broadcast address and thus processed by all nodes that are within transmission range of the sender.

Like the SPIN-PP protocol, the SPIN-BC protocol has an ADV, REQ, and DATA stage, which serve the same purpose as they do in SPIN-PP. There are three central differences between SPIN-PP and SPIN-BC.

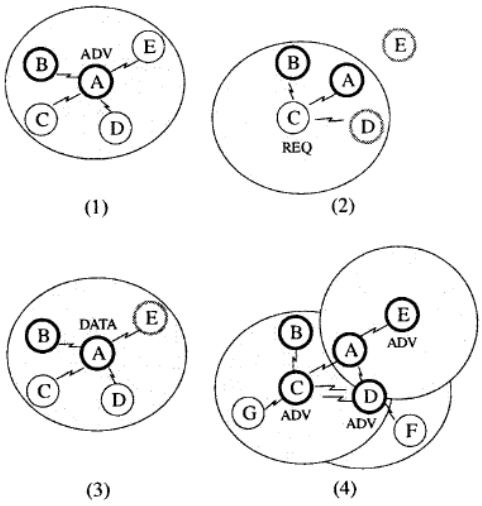
1) All SPIN-BC nodes send their messages to the broadcast address, so that all nodes within transmission range will receive the messages.

2) SPIN-BC nodes do not immediately send out requests when they hear advertisements for data they need. Upon receiving an ADV, each node checks to see whether it has already received or requested the advertised data. If not, it sets a random timer to expire, uniformly chosen from a predetermined interval. When the timer expires, the node sends an REQ message out to the broadcast address, specifying the original advertiser in the header of the message. When nodes other than the original advertiser receive the REQ, they cancel their own request timers, and prevent themselves from sending out redundant copies of the same request.

3) SPIN-BC node will send out the requested data to the broadcast address once and only once, as this is sufficient to get the data to all its neighbors. It will not respond to multiple requests for the same piece of data.

Figure 4 shows an example of the protocol. Upon receiving an ADV packet from node A, A's neighbors check to see whether they have received the advertised data (1). Three of A's neighbors, C, D, and E, do not have A's data, and enter request suppression mode for different, random amounts of time. C's timer expires first, and C broadcasts a request for A's data (2), which in turn suppresses the duplicate request from D. Though several nodes receive the request, only A responds, because it is the originator of the ADV

packet (3). After A sends out its data, E's request is suppressed, and C, D, and E all send out advertisements for their new data (4).



4.4.4 SPIN-RL: SPIN-BC FOR LOSSY NETWORKS

SPIN-RL, a reliable version of SPIN-BC, can disseminate data efficiently through a broadcast network, even if the network loses packets or communication is asymmetric. The SPIN-RL protocol incorporates two adjustments to SPIN-BC to achieve reliability.

- Each SPIN-RL node keeps track of which advertisements it hears from which nodes, and if it does not receive the data within a reasonable period of time following a request, the node rerequests the data. It fills out the originating-advertiser field in the header of the REQ message with a destination, randomly picked from the list of neighbors that had advertised that specific piece of data.

- SPIN-RL nodes limit the frequency with which they will resend data. If a SPIN-RL node sends out a DATA message corresponding to a specific piece of data, it will wait a predetermined amount of time before responding to any more requests for that piece of data.

4.5 PERFORMANCE COMPARISON OF SPIN PROTOCOLS

Using the simulator NS-2, comparison was performed between SPIN protocols with classic flooding and gossiping and the ideal data distribution protocol.

In terms of time, SPIN-PP achieves comparable results to classic flooding protocols, and in some cases outperforms classic flooding. In terms of energy, SPIN-PP uses only about 25% as much energy as a classic flooding protocol. SPIN-EC is able to distribute 60% more data per unit energy than flooding. In all of our experiments, SPIN-PP and SPIN-EC outperformed gossiping. They also come close to an ideal dissemination protocol in terms of both time and energy under some conditions. SPIN-BC and SPIN-RL are able to use one-to-many communications exclusively, while still acquiring data faster than flooding using less energy. Not only can SPIN-RL converge in the presence of network packet losses, it is able to dissipate twice the amount of data per unit energy as flooding.

4.6 ADVANTAGES:

- Meta-data negotiation and resource adaptation. SPIN provides much energy savings than flooding and meta- data negotiation almost halves the redundant data.
- Maintains only local information about the nearest neighbors.
- Suitable for mobile sensors since the nodes base their forwarding decisions on local neighborhood information

4.7 DISADVANTAGES

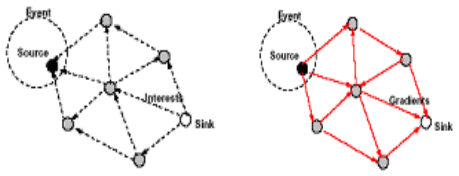
- It cannot isolate the nodes that do not want to receive information; unnecessary power may be consumed.
- SPIN's data advertisement mechanism cannot guarantee the delivery of data.

4.7 SUGGESTIONS/IMPROVEMENTS /FUTURE WORK

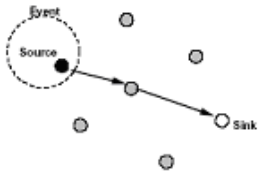
- Study SPIN protocols in mobile wireless network models
- Develop more sophisticated resource-adaptation protocols to use available energy well
- Design protocols that make adaptive decisions based not only on the cost of communicating data, but also the cost of synthesizing it

5. DIRECTED DIFFUSION

Directed Diffusion is receiver-initiated routing protocol Directed diffusion consists of several elements: interests, data messages, gradients, and reinforcements. An *interest* message is a query or an interrogation which specifies what a user wants. Each interest contains a description of a sensing task that is supported by a sensor network for acquiring data. Typically, *data* in sensor networks is the collected or processed information of a physical phenomenon. Such data can be an *event* which is a short description of the sensed phenomenon. In directed diffusion, data is *named* using attribute-value pairs. A sensing task (or a subtask thereof) is disseminated throughout the sensor network as an *interest* for named data. This dissemination sets up *gradients* within the network designed to "draw" events (*i.e., data* matching the interest). Specifically, a *gradient* is direction state created in each node that receives an interest. The gradient direction is set toward the neighboring node from which the interest is received. Events start flowing towards the originators of interests along multiple gradient paths. The sensor network *reinforces* one, or a small number of these paths. Figure 1 illustrates these elements.



(a) Interest propagation (b) Initial gradients set up



(c) Data delivery along reinforced path

5.1 NAMING

In directed diffusion, task descriptions are *named* by, for example, a list of attribute-value pairs that describe a task. Intuitively, the task description specifies an interest for data matching the attributes. For this reason, such a task description is called an *interest*. Given a set of tasks supported by a sensor network, then, selecting a naming scheme is the first step in designing directed diffusion for the network.

5.2 INTERESTS AND GRADIENTS

The named task description of Section constitutes an *interest.* An interest is usually injected into the network at some (possibly arbitrary) node in the network. We use the term *sink* to denote this node.

5.3 INTEREST PROPAGATION

This sink node records the task and for each active task, the sink periodically *broadcasts* an interest message to each of its neighbors. Intuitively, this initial interest may be thought of as *exploratory*; it tries to determine if there indeed are any sensor nodes that detect the specified task. To do this, the initial exploratory interest specifies a low data rate. The interest is soft state and it will be periodically refreshed by the sink.

Every node maintains an interest cache. Each item in the cache corresponds to a *distinct* interest. Two interests are distinct if their attribute differs. . The definition of distinct interests also allows interest *aggregation*. Interest entries in the cache *do not contain information about the sink* but just about the immediately previous hop. An entry in the interest cache has several fields. A timestamp field indicates the timestamp of the last received matching interest. The interest entry also contains several gradient fields, up to one per neighbor. A *gradient* contains

- the node where to forward data (the *previous hop* where the *interest* was received from)
- Data rate, which tells how often data events should be forwarded
- duration, which tells how long data should be forwarded

When a node receives an interest, it checks to see if the interest exists in the cache. If no matching entry exists, the node creates an interest entry. The parameters of the interest entry are instantiated from the received interest. This

entry has a single gradient towards the neighbor from which the interest was received, with the specified event data rate. If there exists an interest entry, but no gradient for the sender of the interest, the node adds a gradient with the specified value. Finally, if there exists both an entry and a gradient, the node simply updates the timestamp and duration fields. When a gradient expires, it is removed from its interest entry.

After receiving an interest, a node may decide to re-send the interest to some subset of its neighbors. To its neighbors, this interest appears to originate from the sending node, although it might have come from a distant sink. This is an example of a local interaction. In this manner, interests diffuse throughout the network. Not all received interests are re-sent. A node may suppress a received interest if it recently re-sent a matching interest.

5.4 GRADIENT ESTABLISHMENT

Every pair of neighboring nodes establishes a gradient towards each other. This is a crucial consequence of local interactions. In summary, interest propagation sets up state in the network (or parts thereof) to facilitate "pulling down" data towards the sink.

5.5 DATA PROPAGATION

A sensor node that is within the specified target region processes interests as described above. In addition, the node tasks its local sensors to begin collecting samples. A sensor node that detects a target searches its interest cache for a matching interest entry. When it finds one, the node tasks its sensor subsystem to generate event. The source then sends to each neighbor for whom it has a gradient. This *data* message is, in effect unicast individually to the relevant neighbors. A node that receives a data message from its neighbors attempts to find a matching interest entry in its cache. If no match exists, the data message is silently dropped. If a match exists, the node checks the *data cache* associated with the matching interest entry. This cache keeps track of recently seen data items. It has several potential uses, one of which is loop prevention. If a received data message has a matching data cache entry, the data message is silently dropped. Otherwise, the received message is added to the data cache and the data message is re-sent to the node's neighbors.

5.6 REINFORCEMENT FOR PATH ESTABLISHMENT AND TRUNCATION

The sink initially and repeatedly diffuses an interest for a low-rate event notification. These are called *exploratory* events, since they are intended for path setup and repair. The gradients set up for exploratory events *exploratory* gradients. Once a source detects a matching target, it sends exploratory events, possibly along multiple paths, towards the sink. After the sink starts receiving these exploratory events, it *reinforces* one particular neighbor in order to "draw down" real *data* (*i.e.,* events at a higher data rate that allow high quality tracking of targets). The gradients set up for receiving high quality tracking events *data* gradients.

5.7 PATH ESTABLISHMENT USING POSITIVE REINFORCEMENT

In general, this novel feature of directed diffusion is achieved by *data driven* local rules. One example of such a rule is to reinforce any neighbor from which a node receives a previously unseen event. To reinforce this neighbor, the sink re-sends the original interest message but with a smaller interval (higher data rate). When the neighboring node receives this interest, it notices that it already has a gradient towards this neighbor. Furthermore, it notices that the sender's interest specifies a higher data rate than before. If this new data rate is also higher than that of any existing gradient (intuitively, if the "outflow" from this node has increased), the node must also reinforce at least one neighbor. Again, the same local rule choices apply. For example, this node might choose that neighbor from whom it first received the latest event matching the interest. Alternatively, it might choose all neighbors from which new events were recently received. The local rule, then, *selects an empirically low-delay path.*

It is very reactive to changes in path quality; whenever one path delivers an event faster than others, the sink attempts to use this path to draw down high quality data. However, because it is triggered by receiving one new event, this could be wasteful of resources. More sophisticated local rules are possible, including choosing that neighbor from whom the most events have been received, or that neighbor which *consistently* sends events before other neighbors. These choices trade off reactivity for increased stability.

5.8 PATH TRUNCATION USING NEGATIVE REINFORCEMENT

The algorithm described above can result in more than one path being reinforced. For example if the sink reinforces neighbor A, but then receives a new event from neighbor B, it will reinforce the path through B. If the path through B is consistently better (*i.e.,* B sends events before A does), we need a mechanism to *negatively reinforce* the path through A. One mechanism for negative reinforcement is soft state, *i.e.,* to time out all data gradients in the network unless they are explicitly reinforced. With this approach, the sink would periodically reinforce neighbor B, and cease reinforcing neighbor A. All gradients along the path through A would eventually degrade to being exploratory gradients.

5.9 ADVANTAGES

- Data-centric dissemination
- Robust multi-path delivery
- Reinforcement-based adaptation to the empirically best network path
- Energy savings with in-network data aggregation and caching
- Gives designers the freedom to attach different semantics to gradient values
- Reinforcement can be triggered not only by sources but also by intermediate nodes

5.10 DISADVANTAGES

- It may consume memory since all the attribute list is being sent

5.11SUGGESTIONS / IMPROVEMENTS /FUTURE WORK

- Exploration of possible naming schemes

6. COMPARISON BETWEEN THE TWO PROTOCOLS

Both SPIN and Directed Diffusion protocols are optimized for disseminating application specific information in a sensor network. Both SPIN and Directed Diffusion allows negotiation between nodes concerning what data to forward to eliminate redundancy. Interest (REQ) and Data (DATA) caches maintained at each node.

Directed diffusion differs from SPIN in following aspects.

- Directed diffusion issues on demand data queries as the BS send queries to the sensor nodes by flooding some tasks. In SPIN, however, sensors advertise the availability of data allowing interested nodes to query that data.

- Second, all communication in directed diffusion is neighbor-to-neighbor with each node having the capability of performing data aggregation and caching. Unlike SPIN, there is no need to maintain global network topology in directed diffusion. However, directed diffusion may not be applied to applications (e.g., environmental monitoring) that require continuous data delivery to the BS. This is because the query- driven on demand data model may not help in this regard. Moreover, matching data to queries might require some extra overhead at the sensor nodes.

- One advantage of Directed Diffusion over SPIN is that it consumes much less energy by having less traffic compared to flooding. Also in terms of scalability it is based on local interaction only and It uses the best path available so it has good latency bound. Moreover It is robust because of retransmission of interest and low data rate gradients.

- The disadvantage is Gradient setup phase is expensive. It is not energy aware as the best paths might be used too often. Need to retransmit interest and alternate path maintenance is needed

7. CONCLUSION

Wireless sensors are going to be the next big thing in the future. Routing of data conserving the energy and bandwidth will be of utmost importance. These two algorithms define the standards for the future. These both algorithms have the common objective of trying to extend the lifetime of the sensor network, while not compromising data delivery. Although these routing techniques look promising, there are still many challenges that need to be solved in sensor networks.

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E-Resources in E-learning

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What are E-Resources?

E-Resources used to describe all of the information products that a library provides through a computer network. This includes electronic books and journals, bibliographic databases, and library website pages.

E-Resources can be classified into following two categories:

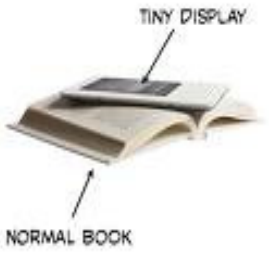
Online E-Resources	Offline E-Resources
Search Engines	MS Office Applications
Websites	CD/DVDs
E-Books	Mobile Devices
E-Journals	
E-Dictionaries	
E-Library	
E-Learning courses	

Online E-Resources

1. **Search Engines**
   These are programs that search documents for specified keywords and return a list of documents where the keywords are found.

2. **Websites**
   A website is a collection of web pages, images, videos or other digital assets that is hosted on one or more web servers, usually accessible via internet. For e.g., *Wikipedia*

3. **E-Books**
   E- Books are virtual representations of printed books. Although many titles can be read at the computer as "Web versions," individuals may need special software (e.g., Adobe Reader, Microsoft Reader) and sometimes special hardware like e-book readers (kindle), PDAs etc.



4. E-Journals

These are journals published and available online. Some sites offer full text journals on variety of topics. e.g., www.doaj.org , and links to e-journal collections like JSTOR, Science Direct, but many others require purchase of a subscription.

5. **E-Dictionaries**

These are dictionaries in electronic form.

6. E-Library

E-Library is a modular and highly flexible solution designed for organizations that have large volumes of content they want to organize and present to users in a smart and interesting way.

7. E-Learning Courses

In most Universities, e-learning is used to define a specific mode to deliver course content and activities or program of study online. Some sites also offer e-learning courses, for e.g.,

www.scdl.net

www.hrdc.in

www.ignou.ac.in

Offline E-Resources

1. **MS-Office Applications**
   MS Word
   MS Excel
   MS PowerPoint

2. CD/DVDs

Educational CD/DVDs include topics like-

- Encyclopedia
- Dictionaries
  Subjects like Mathematics, English, Physics etc
- Stories, games etc for small children

3. Mobile Learning

M-Learning is the art of using mobile technologies like mobile phones, PDAs, pocket PCs and internet to enhance learning experience.

Conclusion:

E-learning has two main advantages. First advantage lies in its ability to cover distances. It can reach each and every learner across the globe. And secondly, it provides self-paced learning. Learners can learn at their own speed.

Both these things are made possible through e-resources. The learning content can be made more compelling and interesting by providing the learner with multiple learning choices depending on his or her needs.

Thus, E-learning without E-resources would be like *body without soul.*

Image Processing with Point Operations

Prof Darshana Mistry, Computer Engineering Department(GIT)

Image enhancement refers to any technique that improves or modifies the image data, either for purposes of subsequent visual evaluation or for further numerical processing. Image enhancement techniques include gray level and contrast manipulation, noise reduction, edge sharpening, linear and nonlinear filtering, magnification, pseudocoelomate, and so on. One useful, broad categorization of enhancement techniques divides them into point- and region-based operations. Point operations modify pixels of an image based on the value of the pixel. These are also called zero-memory operations. By contrast, region-based operations calculate a new pixel value based on the values in a (typically small) local neighborhood.

This loads the package.

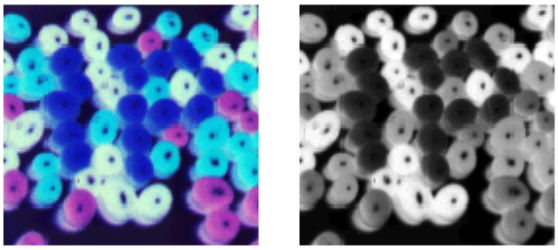
```
In[1]:= << ImageProcessing`
```

This loads an example color image.

```
In[2]:= beans = ImageRead["beans.tif"];
```

Negating an image is a simple image operation. It changes large values to small and vice versa, according to $\bar{x} = 2^n - 1 - x$ where x is a pixel value and n = 8 for the typical 8-bits-per-pixel monochrome image. For color images the same transformation is applied to the individual color values. Here we show the effect of negation on both the color and grayscale images.

```
In[3]=Show[GraphicsArray[Graphics/@{255-beans, 255 – ToGrayLevel[beans]}]];
```



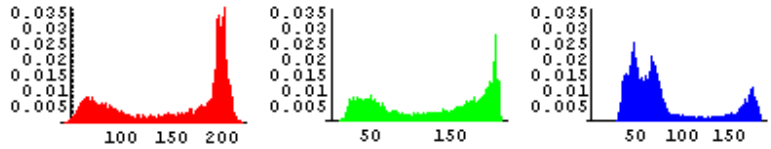
A common approach to contrast modification is to use a power-law point transformation, where each pixel of the original image is raised to a specified exponent value. By selecting the exponent values appropriately, either high or low luminance values can be boosted. A simple yet useful contrast manipulation technique is to define a piecewise linear transformation to selectively stretch and/or compress a range of luminance values. The slope of the transformation is chosen to be greater than 1 in the region of stretch and less than 1 in the region of compression.

Examples of the effect of selected point operations on the color `beans` image are displayed below.

```
In[4]:= {Graphics[ScaleLinear[beans^3, {0, 255}]],
         Graphics[ScaleLinear[Log[10., 1. + beans],
           {0, 255}]]};
In[5]:= Show[GraphicsArray[%]];
```

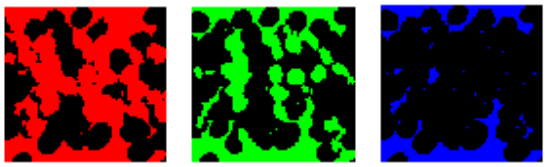
The image histogram is an estimate of the probability density of the image pixels. As such, it measures the frequency of occurrence of the pixel luminance values. Many higher-level image processing tasks require the calculation of a histogram. Here we present the histograms of each of the three color channels in the `beans` image.

```
In[6]:= ImageHistogram[beans];
In[7]:= ShowImageHistogram[%,
          Ticks → {{{50, 100, 150, 200}, Automatic},
            {{50, 150, 250}, Automatic}, {{50, 100, 150}, Automatic}}];
```



Amplitude thresholding is one of many segmentation techniques. Two-level or binary thresholding changes a pixel value to one of two desired values (typically 0 and 1), depending on the setting of a threshold. Here is an image segmentation example where we extract the green beans by applying the threshold operation to the individual color channels. The respective thresholds were selected from an examination of the channel histograms.

```
In[8]:= tmp = Threshold[beans, {170, 170, 120}];
In[9]:= Show[Graphics[PlanarImageData[tmp]]];
```

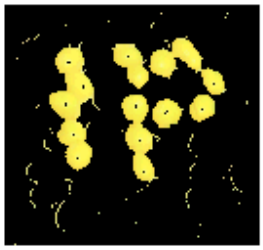


We now find all the image regions that do not have yellow pixels and set them to black.

```
In[10]:= RegionProcessing[0 &, beans,
           Where[tmp, _?(# != {1, 1, 0} &)]];
```

Here we display the original and the segmented images.

```
In[11]:= Show[GraphicsArray[Graphics /@ {beans, %}]];
```

Further processing with morphological filters may be used to clean up the segmented image.

SATELLITE SOLAR POWER STATION

CHAUDHARY DINESH T.
BRANCH:-EC (6th)
ROLL NO:-07EC004

INTRODUCTION

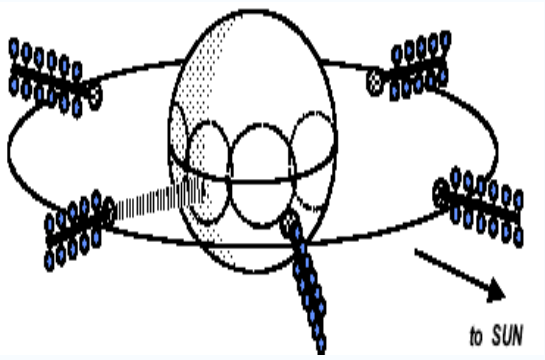
The SPS concept, originally known as *Satellite Solar Power System* ("SSPS") was first described in November 1968.

In 1973 Peter Glaser was granted U.S. patent for his method of transmitting power over long distances (eg, from an SPS to the Earth's surface) using microwaves from a very large (up to one square kilometer) antenna on the satellite to a much larger one on the ground, now known as a rectenna.

Glaser then worked at Arthur D. Little, Inc., as a vice-president. NASA signed a contract with ADL to lead four other companies in a broader study in 1974.They found that, while the concept had several major problems – putting the system in the orbit and lack of experience on this project of this scale in space, it needs enough investigation and research on this project. But today we have sufficient technology to make it possible.

Today the world needs to find new sources of clean energy. Space solar power can solve this energy problem and green house gas emission problems.

A satellite solar power station as originally proposed would be a satellite built in high earth orbit that uses microwaves power transmission to beam solar power to a very large antenna on the earth.Advantages of placing a solar collectors in space include the unobstructed view the sun, unaffected by the day/night cycle, weather.It is a renewable sources, zero emission after putting the solar cells in orbit.



This satellite station capable of generating on million kilowatt per second equivalent to the output of a nuclear plant.In this project the solar panels placed about 36000 km above the earth surface.As shown in the above pictures that the satellite will have two gigantic solar power generating wing panels and a power transmission antenna between them.These solar wings converted solar energy into electrical energy.This electrical energy converted into microwave form with the help of transmeter.These microwaves send to the earth by transmitting antenna.This electricity received on the earth with the help of receiving antenna which also known as rectenna.The rectenna on the ground , several kilometer would probably setup in the desert or at sea and the electricity relate from there along conventional cables.

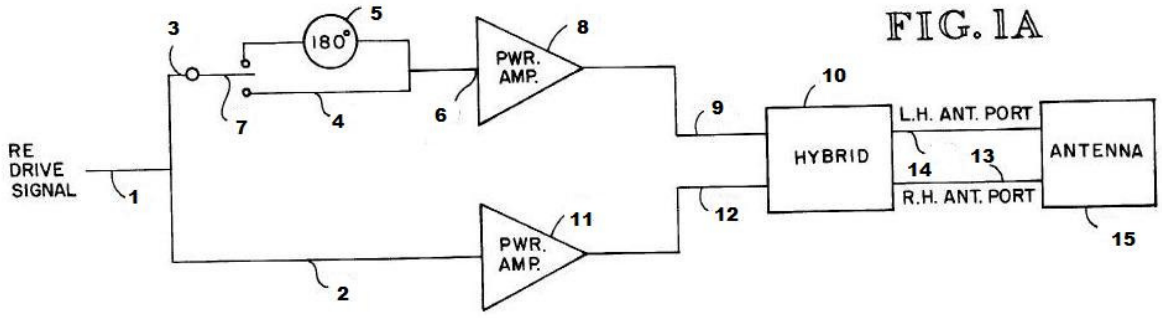
WIRELESS POWER TRANSMISSION FROM SATTELITE TO EARTH

SUMMARY OF THE INVENTION

Accordingly, the present invention is a system for the transmission of power at microwave frequencies, which comprises:

1. A means for generating a microwave signal.
2. First antenna means for transmitting the microwave signal.
3. Second antenna means for receiving the microwave signal.
4. The device which maintain the direction of transmitting antenna

TRANSMITING SIDE:



In the first embodiment, the transmitting antenna is circularly polarized. In circular polarization, the transmitting antenna comprises to orthogonal microwave radiating elements, such as but not necessarily a dipole, which are driven simultaneously, but phased in a such manner that the electromagnetic wave energy from one radiating element is maximum while the wave energy from the other is minimum, so that electromagnetic vector which represents the moment of the polarization of the propagated wave describes a circle, at the frequency of the driving signal. Thus, referring to figure the antenna 15 of the satellite transmitter is circularly polarized.

The operation of a circularly polarized antenna is characterized by what is referred to as direction of polarization, i.e. the electromagnetic vector representing the polarization rotates in one direction or the other, the two directions of polarization are differentiated as right hand and left hand polarization.

In the embodiment of figure, the microwave drive signal which is available on input line 1 from the solar power generation system is modulated in such a manner that the circular polarization of the propagated wave alternates between right hand and left hand polarization rate of 360 Hz.

The circuit which produces such a modulation is shown in block form in figure. Two circuit branches 2 and 3 are driven commonly by the drive

signal on line 1. In one circuit branch, a switch 7 alternately connects a 180 degree phase shifter 5, and a straight line connection 4 to the input 6 of a conventional power amplifier 8. The switch 7 switches phase shifter 5 in and out of the circuit at a desired rate, i.e. 360 Hz. or other selected frequency. Thus, the drive signal entering circuit branch 3 will alternately undergo a 180 and a 0 degree phase sift, at a rate of 360 Hz. or other selected switching rate. The output of power amplifier at is applied to a first input 9 of a hybrid circuit 10.

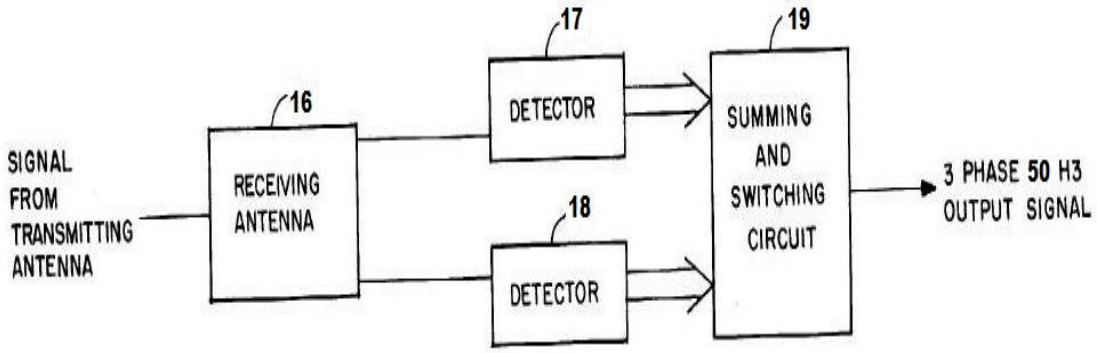
The drive signal applied to the other circuit branch 2, on other hand , is routed directly to a power amplifier 11, which may be similar to power amplifier 8. The output of amplifier 11 is applied to the other input 12 of hybrid 10 thus , the device signal present on line 1 is amplified continuously at its original phase by power amplifier 11 in circuit branch 2 and amplified with an alternating phase sift in circuit branch 3.

Hybrid circuit is a conventional device. It has two input connections 9 and 12 and two output connection 13 and 14. One output is algebraic phasor sum of the two inputs, and the other output is algebraic phaser difference of the two inputs. The hybrid 10 which in embodiment shown is a 3 db coupler, thus alternately direct the power from amplifiers 8 and 11 into the left hand port and right port of antenna 15, depending on whether or not the signal at input 9 has been shifted 180 degree by the phase sifter 5. More specifically, during the time that the signal at input 9 has been sifted 180 degree the signal at both inputs is routed by the hybrid to one of the antenna ports. During the time that the signal at input 9 is not phase sifted the signal at both input is routed to the other antenna port.

The left hand and right hand antenna ports are direct inputs to the circularly polarized transmitting antenna 15 of figure 1A. Applying power via line 14 to the left hand port, with the appropriate internal routing and phasing, while applying power via line 13 to the right hand port results in a right hand polarization of the transmitted signal.

The circularly polarized signal alternating between left hand and right hand polarization, is transmitted through space to a receiving station on the earth.

RECEIVING SIDE:



In operation, referring to figure, antenna 16 receives the propagated signal from the transmitting antenna. In the embodiment shown, antenna 16 comprises to dipoles. Associated with the dipoles are detectors 17 and 18. The outputs of both the detectors are opposite to each other.

The frequency of the signals from the detectors 17 and 18 is the modulation rate of switching between left hand and right hand polarization at the transmitter. The output of detectors 17, 18 is applied to a conventional summing and switching network. This switching and summing circuit contains rectifiers and inverters. The rectifiers convert the microwave power signals into D.C. current. Than the inverters convert the D.C. current into A.C. current.

Accomplishment of Solar Power Satellites

Japan's Recent Research Efforts

- 2001, Japanese's Ministry of Economy, Trade and Industry (METI) launched a research program for a solar-powered-generated satellite.

- By 2040, beginning of a SPS operation. The planned satellite will be able to generate 1GW/Sec. (equivalent to the output of a nuclear plant) in a geostationary orbit. The receiving antenna (rectenna) on the ground will be either positioned at desert or sea.

ADVANTAGES

Advantages over Earth-based solar power

More intense sunlight.
In geosynchronous orbit, 36,000 km (22,369 miles) an SPS would be illuminated over 99% of the time.
No need for costly storage devices for when the sun is not in view.
Waste heat is radiated back into space.
Power can be beamed to the location where it is needed, don't have to invest in as large a grid.
No air or water pollution is created during generation.
Ground based solar only works during clear days, and must have storage for night. Thus it is More reliable than ground based solar power.

Advantages over Nuclear Power

Possible power generation of 5 to 10 gig watts.
If the largest conceivable space power station were built and operated 24 hours a day all year round, it could produce the equivalent output of ten 1 million kilowatt-class nuclear power stations.
Nuclear power doesn't pollute the atmosphere like fossil fuels. But it does produce waste. This stays radioactive for thousands of years and is very dangerous. At the moment most stations bury their waste deep underground, at sea or send it to other countries. (Britain, for example, accepts and buries nuclear waste from several countries.)
One of the disadvantage of Nuclear

On April 26, 1986 the worst catastrophe in nuclear history occurred in the station at Chernobyl, Ukraine.
Due to the failure of one of reactor, two people died immediately from the explosion and 29 from radiation. About 200 others became seriously ill from the radiation; some of them later died. It was estimated that eight years after the accident 8,000 people had died from diseases due to radiation (about 7,000 of them from the Chernobyl cleanup crew). Doctors think that about 10,000 others will die from cancer. The most frightening fact is that children who were not born when the catastrophe occurred inherited diseases from their parents.

Advantages over Fossil Fuel

Fossil fuels won't last forever (next 50yrs).
It is not renewable.
The ability to match supply to demand may already have run out, especially for oil.
Fossil Fuel fired electric power plants in the US emits about 2 billion tons of greenhouse gas CO2 in to air every year. This courses climate change in the future via greenhouse effect.

Disadvantages

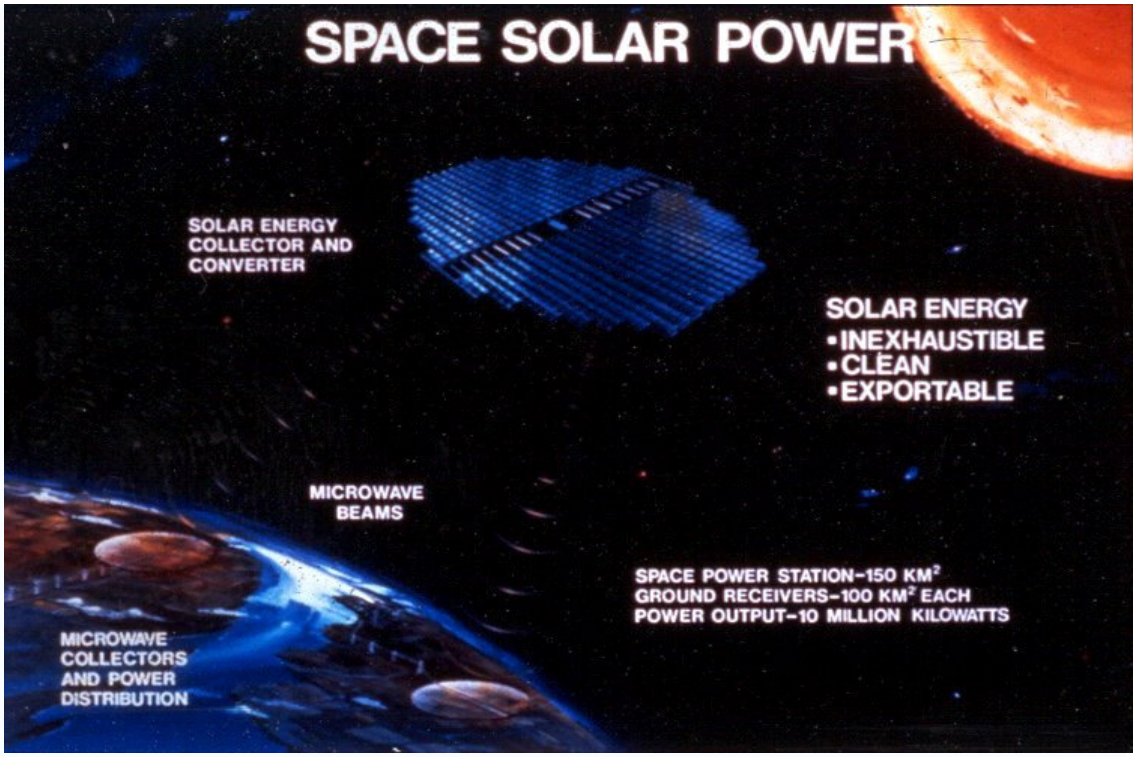
If microwave beams carrying power could be beamed uniformly over the earth. They could power Mobile Devices Eg. cell phones.
Microwave transmission

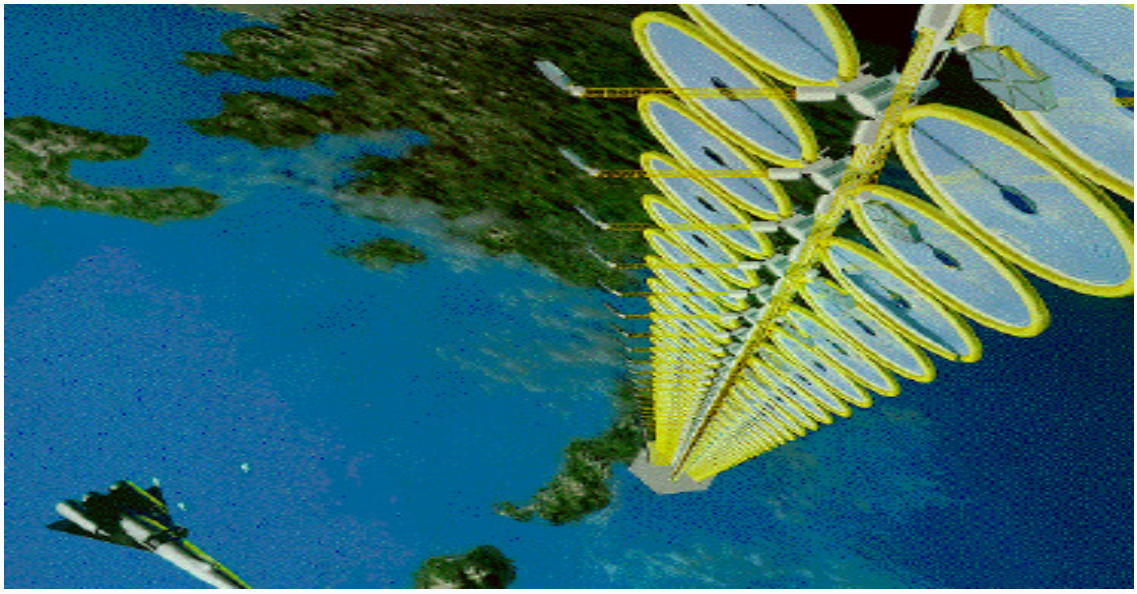
-Interference with other electronic devices.
-Health and environmental.
Possible health hazards
-Effects of long term exposure.
-Exposure is equal to the amount that people receive from cell phones and Microwaves.
Location.
-The size of construction for the rectennas is massive and also Implementation Complexity .

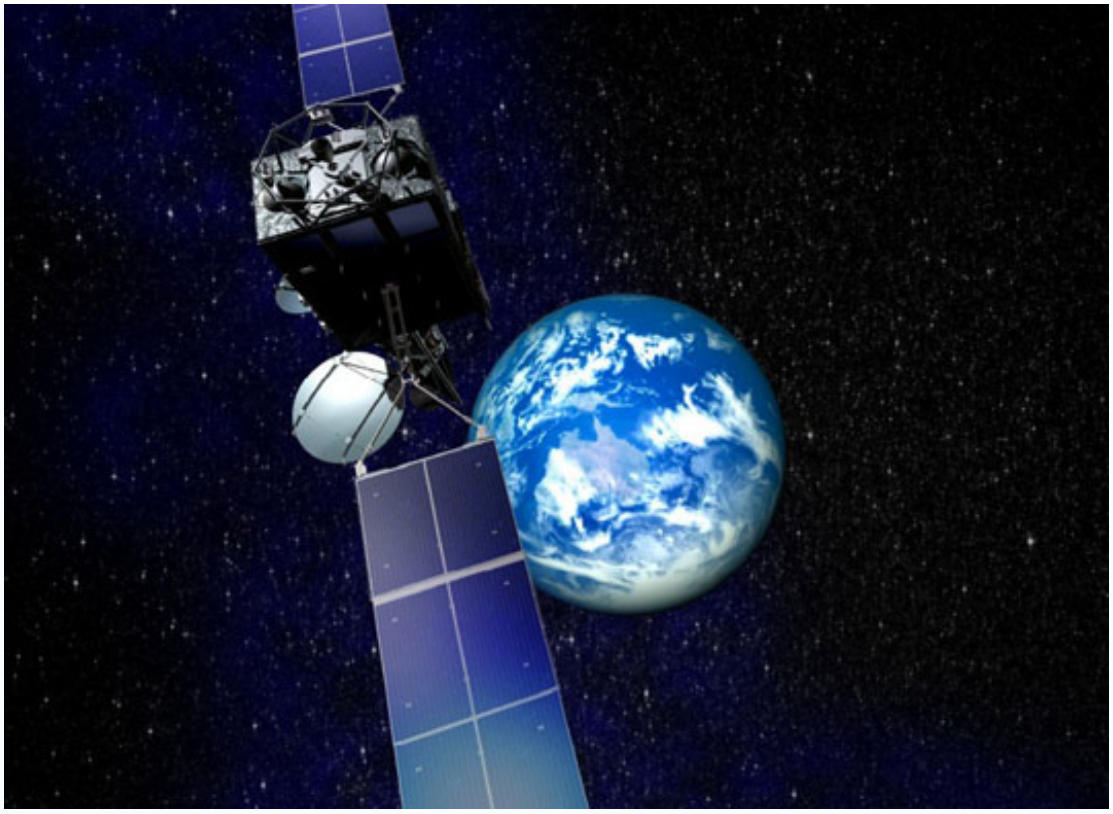
Conclusion

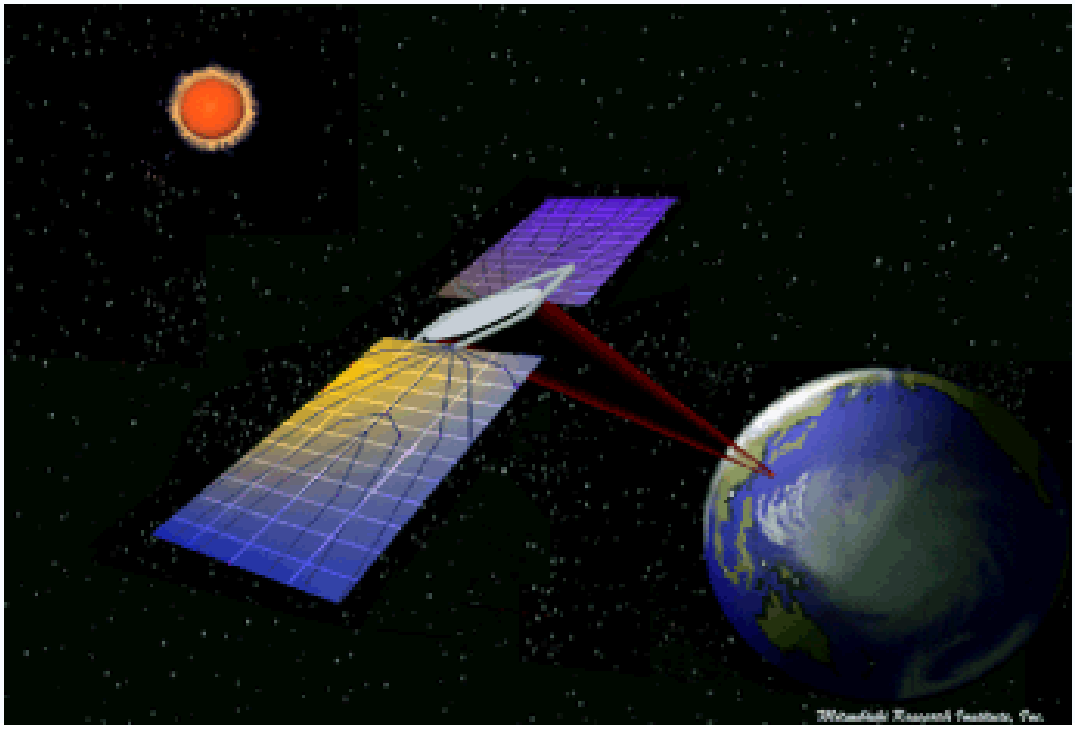
This idea worth to invest in since this technology brings in virtually unlimited power from the sun.
This also benefits the intercontinental power providers.
Absolutely environmentally friendly since it is emission-free.

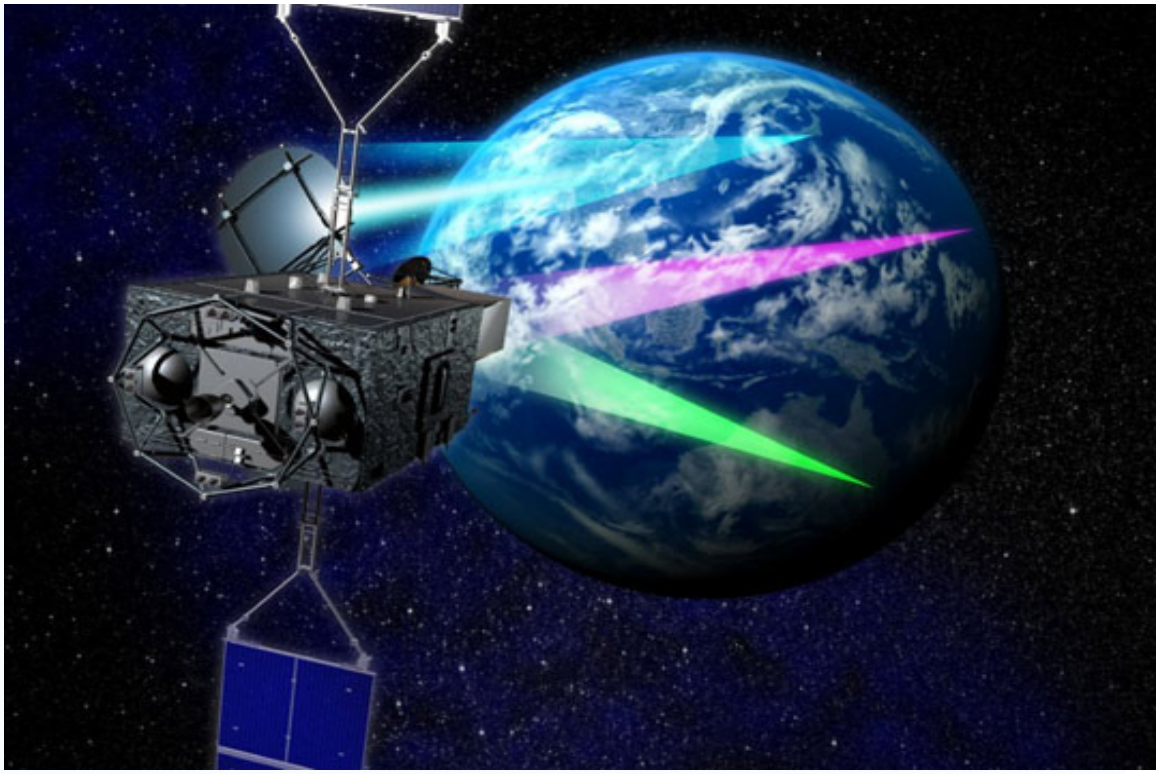
EXTRA PICTURES

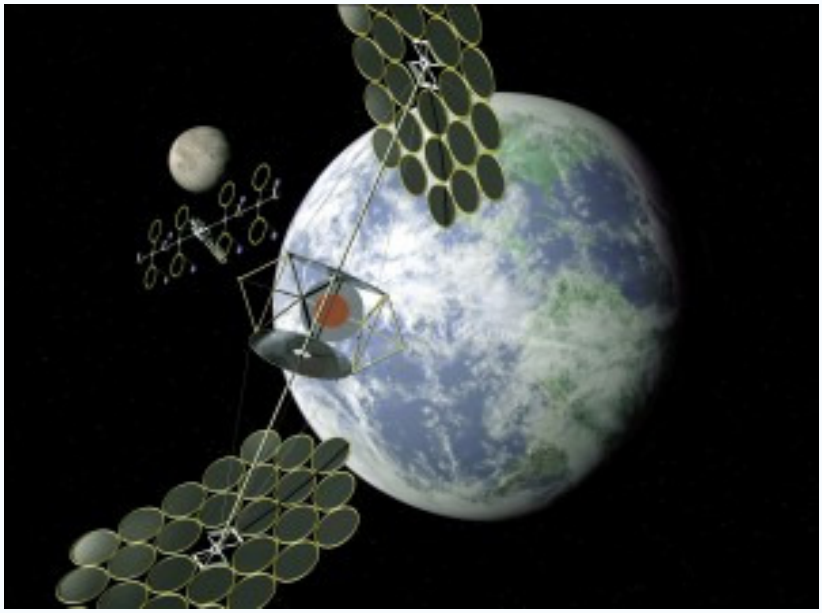

SPACE SOLAR POWER
SOLAR ENERGY COLLECTOR AND CONVERTER
SOLAR ENERGY
•INEXHAUSTIBLE
•CLEAN
•EXPORTABLE
MICROWAVE BEAMS
SPACE POWER STATION–150 KM²
GROUND RECEIVERS–100 KM² EACH
POWER OUTPUT–10 MILLION KILOWATTS
MICROWAVE COLLECTORS AND POWER DISTRIBUTION

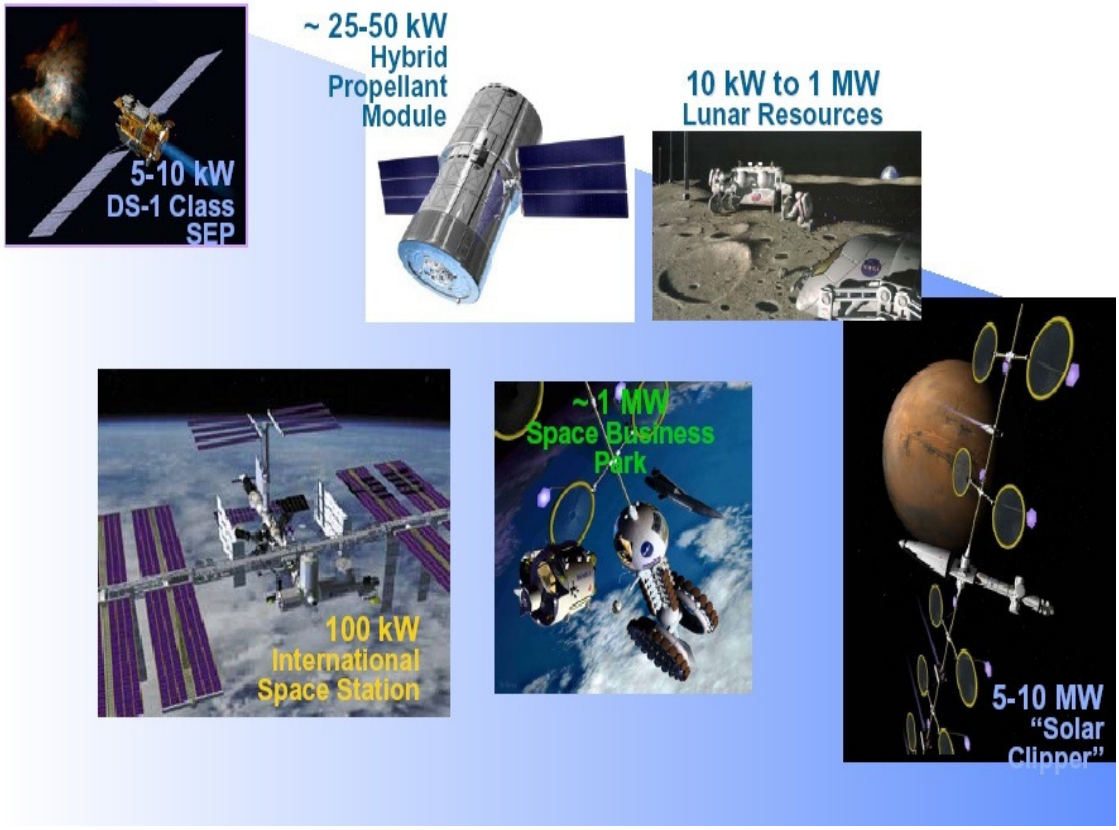











5-10 kW
DS-1 Class
SEP
~ 25-50 kW
Hybrid
Propellant
Module
10 kW to 1 MW
Lunar Resources
100 kW
International
Space Station
~1 MW
Space Business
Park
5-10 MW
"Solar
Clipper"

Microsoft Touchless SDK

Introduction:

Microsoft Touchless SDK has introduced an innovative way of interacting with the computers by using webcam for object tracking. Touchless is an SDK that allows users to create and experience multi-touch applications which was started as Mike Wasserman's college project at Columbia University. The main idea was to offer users a new and cheap way of experiencing multi touch capabilities, without the need of expensive hardware or software. All the user needs is a camera, which will track colored markers defined by the user. By tracking multiple moving objects (markers) with a webcam, the Touchless SDK obtains a number of position data in real time, which simulates a multi-touch positioning device. Positioning data obtained from Touchless can be used for various operations and gesture based pointing device.

Applications:

Touchless SDK can be used for various applications, e.g. Handwriting recognition, gesture recognition, air mouse, touchless painting.

Handwriting recognition is the task of converting user input using pointing device to symbolic representation as an alphabet of the language. Touchless works very well for this application because little inaccuracies coming from Touchless can be filtered or corrected by processing the camera input. Corrected positioning data can be processed by pre-trained Artificial Neural Network and recognized as an alphabet. So by using this application one can write the document in air and it can be produced as a text file on the computer.

Another application is about using common gestures to perform certain tasks. For example one can use two markers to produce gestures for Zoom-in and Zoom-out operation. Gestures can be defined as below.

Zoom-in: when two markers are moving apart, that operation can be treated as Zoom-in operation

Zoom-out: when two markers are coming close that operation can be treated as Zoom-out operation.

Other possible gestures with only one marker are Next, Previous, Start and Stop, which can be defined as below.

Next: When marker moves from Left to Right it can be considered as "Next" operation.

Previous: When marker moves from Right to Left it can be considered as "Previous" operation.

Start and Stop: When marker moves to produce circle it can be considered as "Start" and "Stop" operation one after another.

Limitations:

Though it shows great potential for replacing traditional input devices, there are certain limitations that prevent it from being a more powerful input device. As the implementation of Touchless SDK is based on image processing, its capabilities are limited by image quality of webcam. As user need to define marker from captured image, contrast and color details of the

image restricts tracing capability of Touchless SDK. So in-order to identify marker from the captured image, the color of the object must be contrasting to make it easily distinguished from the environment or background. Secondly, the color response is heavily influenced by the ambient light conditions. A slight change of environmental light makes significant change of the color captured by camera, thus introduce large error into the tracking algorithm. Also, marker tracing being a CPU time consuming algorithm, the performance relies greatly on the computing power of the system. As a result, Touchless cannot provide smooth movement and accurate positioning as other pointing devices. So, proper application for Touchless may be those that are more tolerant to such inaccuracies.

Conclusion:

Touchless SDK has introduced an innovative way of developing next generation pointing devices from existing hardware and software. But, it cannot replace traditional input devices like mouse or keyboard, as the input data from Touchless SDK (markers' position data) are usually unstable and inaccurate in nature. This inaccuracy and instability limits the application of Touchless device as a replacement of the traditional input.

References:

http://touchless.codeplex.com/Wikipage

http://www.ces.clemson.edu/~stb/ece847/projects/Touchless_Writer.pdf

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References:

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http://www.ces.clemson.edu/~stb/ece847/projects/Touchless_Writer.pdf

CE || IT

Dear Sir/Medam,

Paper published list of CE-IT faculty members is as below:

Sr. No.	Faculty Name	National/International Paper/Poster
1.	Prof. Darshana Mistry	National Conference-27th Nov.-28th NOv.NUCONE 2009, Nirma University "Content Based Image Retrieval using SVM for Relevance Feedback"
2.	Prof. Darshana Mistry	International conference-28th-29th Dec. ICSSA-2009, GCET,V.V.Nagar "Color and Texture based Image Retrieval using SVM for Relevance Feedback"
3.	Mrs. Archana Singh	National Conference-NCAC09-GCET, V.V.Nagar "Character-Recongnition-An Application of Neural Network"

Other Achievment

Sr. No.	Faculty Name	National/International Paper/Poster
1.	Prof. Darshana Mistry	Expert Lecturer-Marwadi Education Foundation Group of Institute "Image Processing and Its Application"

EC Workshop, Conference attended by Faclulty

Paper Published/Presented

Sr. no.	Faculty name	Paper Title	Name of Conference / Journal	Category	Venue	Month or date
1	Zalak modi	Optimized Rumor Routing Algorithm For Wireless Sensor Network	WCSN-09 (published)	conference	IIIT-ALLAHABAD	14 To 19 Decr,2009
		Optimized Rumor Routing Algorithm For Wireless Sensor Network	CICSYN-09(selected)	conference	Pune	JUNE
2.	Mesha shah	Comparative analysis of speckle noise reduction techniques in CT images	ISCAR-2009 (published)	Conference	DDIT, Nadiad.	9-10 Jan
		Contrast Enhancement Of Soft Tissues In Tomography Images Using K-Means Clustering	IJ-ETA-ETS-2009 (published)	Journal	CCET, Surendranagar.	6th March
3.	Jalpa Patel	Quality Evaluation of Cuminum Cyminum L(cumin) Seeds Using Colorization	ICSSA-2009 (published)	Conference	GCET, V.V.Nagar.	28-29 Dec
		Non-Destructive Quality Evaluation In Spice Industry With Specific	ICETET-09 (published)	Conference	GHRCE, Nagpur.	16-18 December 2009

		Reference To Cuminum Cyminum L(cumin) Seeds				

Seminar and Conference attended by Faclulty

Workshop / seminar/ conference

Sr. no.	Faculty name	category	topic	vanue	Month or date
1	Zalak Modi	conference	WIRELESS COMMUNICATION ANS SENSOR NETWORKS	IIIT-A ALLAHABAD	december
2	Zalak Modi	conference		G.C.E.T., Anand	
3	Zalak modi	workshop	WIRELESS COMMUNICATION ANS SENSOR NETWORKS	IIIT-A ALLAHABAD	december
4	Zalak modi	seminar	Image processing		
5	Khushali shah		Low power VLSI		
6			Microwave and radio frequency		
7	Shweta khakhkhar		Utility and challenges in professional English usage		

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DETAILS OF ATTENDED WORKSHOP/CONFERENCE/SEMINAR

MECHANICAL ENGINEERING DEPARTMENT

SR NO	NAME OF THE FACULTY	PARTICIPATION IN CONFERENCE/SEMINAR/WORKSHOP	VENUE	DATE
1	KULDIP DODIYA	NATIONAL CONFERENCE ON BOILER AND STEAM SYSTEMS	TAGOR HALL, AHMEDABAD	19-20 DEC. 2008
2	RASHMIKA PRAJAPATI	NATIONAL CONFERENCE ON BOILER AND STEAM SYSTEMS	TAGOR HALL, PALDI	19-20 DEC. 2008
3	RUCHIR PARIKH	HYPERFORM AND HYPERMESH(STTP)	S.V.N.I.T - SURAT	5-9 JAN 2009
4	JATIN PATEL	ADVANCES IN INDUSTRIAL BOILERS (STTP)	NIRMA – AHMEDABAD	25-29 MAY 2009
5	TWINKLE COLLERWALA	ADVANCES IN INDUSTRIAL BOILERS (STTP)	NIRMA – AHMEDABAD	25-29 MAY 2009
6	UMANG PATDIWALA	ADVANCES IN INDUSTRIAL BOILERS (STTP)	NIRMA – AHMEDABAD	25-29 MAY 2009
7	PIYUSH MISTRY	ADVANCES IN INDUSTRIAL BOILERS (STTP)	NIRMA – AHMEDABAD	25-29 MAY 2009
8	KULDIP DODIYA	CONFERENCE ON SYNERGY WITH ENERGY.	TAGOR HALL, AHMEDABAD	16-17 JUNE 2009
9	RUCHIR PARIKH	CONFERENCE ON SYNERGY WITH ENERGY.	TAGOR HALL, AHMEDABAD	16-17 JUNE 2009
10	MILAN PANDYA	CONFERENCE ON SYNERGY WITH ENERGY.	TAGOR HALL, AHMEDABAD	16-17 JUNE 2009
11	RUCHIR PARIKH	ADVANCES IN MANUFACUTRING PROCESS (STTP)	S.V.N.I.T - SURAT	28 DEC 2009 – 01 JAN 2010
12	TAPAN PATEL	INNOVATIVE APPPROACH OF ENGINEERING GRAPHICS	INDUS COLLEGE OF ENGINEERING	16 JAN 2010
13	SHAIVAL PARIKH	INNOVATIVE APPPROACH OF ENGINEERING GRAPHICS	INDUS COLLEGE OF ENGINEERING	16 JAN 2010
14	BHAVIK PATEL	INNOVATIVE APPPROACH OF ENGINEERING GRAPHICS	INDUS COLLEGE OF	16 JAN 2010

		MECHANICAL ENGINEERING		MICRO JOULE THOMSON CRYOCOOLER	
2	KULDIP DODIYA	INTERNATIONAL CONFERENCE ON “ADVANCES IN MECHANICAL ENGINEERS (ICAME 2009)”	S.V.N.I.T - SURAT	DESIGN OF PLATE FIN TYPE COUNTER FLOW HEAT EXCHANGER FOR JOULE THOMSON CRYOCOOLER	3-5 AUGUST 2009
3	PIYUSH MISTRY	PAPER PRESENTATION IN NATIONAL CONFERENCE “EMERGING VISTAS OF TECHNOLOGY IN 21ST CENTURY”.	PARUL INSTITUTE OF TECHNOLOGY	METHODS OF HELIUM LEAK DETECTION AND ITS IMPORTANCE IN INDUSTRIES	11-12 SEPT 2009
4	MILAN PANDYA	NATIONAL CONFERENCE ON EMERGING TRENDS IN MECHANICAL ENGINEERING	G.C.E.T. V.V.NAGAR	BATTERY CHARGING SYSTEM IN ELECTRIC SCOOTERS	5-6 MARCH 2010
5	MILAN PANDYA	NATIONAL CONFERENCE ON EMERGING TRENDS IN INDUSTRIAL AUTOMATION	VELAMMAL ENGINEERING COLLEGE, CHENNAI	BATTERY CHARGING SYSTEM IN TWO WHEELER VEHICLES OPERATED BY ELECTRICAL ENERGY	26TH MARCH 2010

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SR.NO.	NAME OF THE FACULTY	CONFERENCE WORKSHOP/STTP	TOPIC	ORGANIZED BY	DATE
1	Gaurav.H.Tandon	STTP	Environmental Impact Assessment	PIT Vadodara	8th To 12th December, 2008
2	Gaurav.H.Tandon	STTP	Hazardous Waste Management	SVNIT, Surat	15th To 19th December, 2008
3	Gaurav.H.Tandon	WORKSHOP	Applications of MATLAB in Mathematical Sciences	SVKM,KADI	2nd to 3rd January 2010.

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MBA

Placement Orientation
MBA Programme
Center for Management Studies
Gandhinagar Institute of Technology

Placement Orientation Program was organized by MBA Department, Center for Management Studies, GIT on October 3, 2009 at GIT Seminar Hall. The main objective of the event is to orient the students of MBA about which kind of skills and preparation required to get the job and consequently develop the shining career in the right direction.

The event was coordinated by Dr. Rajesh Modi, Head, MBA program and coordinator Mr. Milan Shah. The program was started at 11:00 am & ended at 3:30 pm. The guests invited for the program were Mr. Ramesh Bhakta, Director, Sixth Sense Solutions, Vallabh Vidyanagar accompanied by Mr. Shil Dholakiya, Director, Sixth Sense Solutions, V.V.Nagar. The talk started with introduction of the speakers.

Bhakta sir had shared unique ideas of how to identify prospective employer. Mr. Sheel Dholakiya had conducted mock Group Discussions and Personal interviews to provide real life example to the students of Semester III.

Both the speakers had interacted with students as well as faculty members.

>>More Details

Nishant sizzles

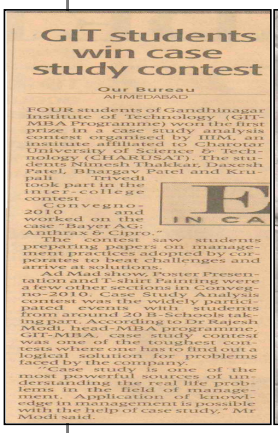
AHMEDABAD MIRROR BUREAU

Nishant Jani's brilliant all-round performance helped JS Sports 'A' thrash Eleven Star CC by 72 runs in the Ekta Cup T20 cricket tournament at LM Pharmacy ground on Tuesday.

Opting to bat, JS Sports got a good start thanks to Nishant and Sandip Kaushik posting a total of 156 for six in 20 overs. Both Nishant and Sandip scored 33 runs each. For Eleven Star, Ajaz Ajmerwala took two wickets.

Chasing 157, Eleven Star were bundled out for mere 84 in 17.4 overs. Nishant claimed five wickets for just 12 runs.

Nishant Jani



GIT students win case study contest

Our Bureau
AHMEDABAD

FOUR students of Gandhinagar Institute of Technology (GIT-MBA Programme) won the first prize in a case study analysis contest organised by IIM, an institute affiliated to Charotar University of Science & Technology (CHARUSAT). The students Nimesh Thakkar, Dasesh Patel, Bhargav Patel and Krupali Trivedi took part in the inter-college contest, Convegno-2010, and worked on the case 'Bayer AG: Anthrax & Cipro.'

The contest saw students preparing papers on management practices adopted by corporates to beat challenges and arrive at solutions.

Poster Presentation and T-shirt Painting were also the highlights of Convegno-2010. Case Study Convegno contest was the widely participated events with students from around 20 B-Schools taking part. According to Dr Rajesh Modi, head-MBA programme, GIT-MBA, case study contest was one of the toughest contests where one has to find out a logical solution for problems faced by the company.

"Case study is one of the most powerful sources of understanding the real life problems in the field of management. Application of knowledge in management is possible with the help of case study," Mr Modi said.

Nishant helps JS Sports enter semis

TIMES NEWS NETWORK

Ahmedabad: A blazing 33 off just 28 balls and a five-wicket haul was Nishant Jani's contribution for JS Sports when they thrash Eleven Star CC by 72 runs in the Etka Cup T20 tournament being played at the LM Pharmacy ground here on Tuesday.

Winning the toss and electing to bat first, JS Sports (A) managed a mammoth 156 for six in 20 overs. Then Nishant spun a deadly web and plotted Star CC's downfall with five for 12 runs to skittled them for 84 all out and bag the man of the match award. They now play Power Batsmen in semifinals on Saturday at same venue.

Gujarat declares team for national T20 meet: A 16 member squad for the All-India National T20 Championship which will be played in Goa from March 15 was declared by State T20 Cricket Association here.

Team: Jay Patel (capt), Jayesh Chaudhary (vc), Vishnu Goswami, Parth Mehta, Nishant Jani, Mahesh Chaudhary, Pratik Desai, Jignesh Oza, Harshid Patel, Sobaraf Multani, Mehul Thakor, Ravi Chaudhary, Dhaval Barot, Jashvant Rajput, Omkar (coach).

MBA Gallery

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List Of "Class Representatives"

Gallery of GIT Staffs & Students . . .

1st Year		
Year	Branch	Name
1st	ME A	Deep Kaulania
1st	ME B	Kavan Vadiya
1st	IT A	Chirag Thakkar
1st	IT B	Shashi Shukla
1st	EC	Sapan Shah
1st	CE-A	Vidit Maniyar
1st	CE-B	Pooja Sharma
1st	Civil	Chintan Dadakiya

2nd Year		

3rd Year		
Year	Branch	Name
3rd	ME	Keyur Prajapati
3rd	IT	Kaushal Parikh
3rd	EC	Keval Thakkar
3rd	CE B	Rahul Patel
3rd	CE A	Ankit Patel

4th Year		
Year	Branch	Name
4th	ME	Braj Kishor Mandal

Year	Branch	Name
2nd	ME	Nrupen Patel
2nd	IT A	Shinod Babu Mathunmi
2nd	IT B	Naitik Shah
2nd	EC	Swapnil Pandya
2nd	CE B	Pankit Patel
2nd	CE A	Indraneel Darji
4th	IT	Saharsh shah
4th	EC	Vivek Pathak
4th	CE	Robin

MBA	
Year	**Name**
1st	Akshat Shah
2nd	Jignesh Panchal

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SR NO.	Name	College name	Event	Rank
1.	Keraliya Kanji N.	AIT	C/C++ Programming	First
2.	Patel Hiren K.	LDRP	X-MANIA (NFS)	First
3.	Patel Pankit	Faculty of Technology & Engineering	NFS ACCELERO	First
4.	Shah Deval	Faculty of Technology & Engineering	NFS ACCELERO	First
5.	Patel Paresh	Faculty of Technology & Engineering	NFS ACCELERO	First
6.	Patel Hiren	C. U. Shah of Engineering & Technology	Gaming (NFS)	First
7.	Patel Paresh J.	C. U. Shah of Engineering & Technology	ADABHUT YANTRA (Robo Pool)	First
8.	Shah Deval P.	C. U. Shah of Engineering & Technology	ADABHUT YANTRA (Robo Pool)	First
9.	Patel Pankit N.	C. U. Shah of engineering & Technology	ADABHUT YANTRA (Robo Pool)	First
10.	Charniya zenith	AIT	Rangoli	First

11.	Varma Parth A.		VGCE	PPT	First
12.	Shah Saharsh M.		AIT	C/C++ Programming	Second
13.	Patel Sanjay D.		AIT	C/C++ Programming	Second
14.	Shah Saharsh M.		LDRP	Relay Storm	Third
15.	Patel Sanjay D.		AIT	Relay Storm	Third

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News Of GIT

Nishant sizzles

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Chasing 157, Eleven Star were bundled out for mere 84 in 17.4 overs. Nishant claimed five wickets for just 12 runs.

Nishant Jani

ઉદ્ઘાટન

તસવીર જિતેન્દ્ર જોષી
સવારે ૧૦:૦૦

કલોલ તાલુકાનાં ખાત્રજ-મોટી ભોયણ રોડ ખાતે સ્થિત ગાંધીનગર ઇન્સ્ટિટ્યૂટ ઓફ ટેક્નોલોજીમાં બે દિવસીય ટેક્નિકલ ફેસ્ટિવલનું આયોજન કરવામાં આવ્યું છે. પેપર પ્રેઝન્ટેશન પ્રોગ્રામિંગ, બૅંગ ગેમિંગ્સ જેવી ૩૨ જેટલી ઇવેન્ટ્સમાં સમસ્ત ગુજરાતમાંથી ૫૦૦ જેટલા સ્પર્ધકોએ ભાગ લીધો છે. આ ફેસ્ટિવલનું ઉદ્ઘાટન શુક્રવારે ઇક્વુડીસીના મેનેજિંગ ડિરેક્ટર ગોલ. એસ. શર્માને હસ્તે કરવામાં આવ્યું હતું.

Three Cheers to Donors

A blood donation camp was organised by Gandhinagar Institute of Technology on Wednesday. Staff as well as students got together to gather 110 units of blood.

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CULTURAL EVENTS-2010

(1) Result of Elocution Competition 13th Oct, 2010

On 13th Oct, 2010 elocution competition was organized on the topic “Mahatma Gandhi – an ideal Teacher”.Many GITians have shown their excellence and knowledge and lead it to very interesting elocution. In this competition, our director announced a special prize to Verma Parth.

Price	Roll No.	Name
Director’s Special Price	08CE073	Verma Parth
1st	09EC062	Sharanya Rao
2nd	09CE087	Pooja Sharma
3rd	08IT034	Shinod Babu

(2) Result of Essay Competition 13th March, 2010

On 13th March, 2010 Essay competition was organized on the topic “Global warming”.Here different GITians expressed their

ideas the reason of global warming, how to stop global warming and many great things about global warming , which when implemented in our day to day life will be helpful to stop “Global warming”.

Name of Judge: Nikhilkumar Abhangi D.

Rank	Roll No.	Name
1st	07CE077	Riddhi Oza
2nd	07CE042	Dhanya Pillai
3rd	07CE030	Adit Majmudar

Rangoli Competition – 2010

On 27th April, 2010 Rangoli competiton was organized. Many GITians participated in this competition and showed their creativity with different color combination.

Name of Judge: (1) Mrs. Anshu Shah, (2) Mrs.Darshana Mistry

The winners are:

Sr. No.	Rank	Roll No.	Name
1	First	07CE077	Riddhi Ojha
2	Second	07CE030	Aadit Majmudar

Kruti’s Corner-2010

In the Kruti’s Corner students can display their painting, poems, general activities, technical articles and their creativity on notice board.

The winners for Painting competition are:

The winners for Poem competition are:

Sr No.	Rank	Roll No	Name
1	First	07IT044	Kartik Shukla
2	Second	07IT041	Shah Alap
3	Third	08CE205	Sandeep Das

The winners for Short Story competition are:

Sr No.	Rank	Roll No	Name
1	First	07CE100	Jinal Rathod
2	Second	07IT005	Savan Gadhiya

The winners for Article competition are:

Sr No.	Rank	Roll No	Name
1	First	07CE098	Neel R.Anand
2	Second	07CE077	Riddhi Ojha

Ratri Before Navratri

STUDENT

Best Group:

GROUP 1:

SR NO.	ROLL NO.	NAME
1	07CE095	ROHAN JARDOSH
2	07CE027	MAHAK KHUSHALANI
3	07CE019	NEEL GANDHI
4	07CE103	KARISHMA SHAH
5	07CE120	MONALI VAKIL
6	08CE203	ZENITH CHARANIYA
7	07CE046	MANISHA VALERA
8	08CE210	NIRALI MODI
9	07CE092	KISHAN BHATIA

GROUP 2:

SR NO.	ROLL NO.	NAME
1	07CE117	HARSH SHAH
2	07IT048	SAUMILL CHUKSHI
3	07IT016	HETAL NEGI
4	07IT100	JINAL RATHOD
5	08IT209	GUNJAN VYAS
6	07IT051	NISHIT NAYAK
7	09ME011	KALP DESAI

Best Costume (Female):

SR. NO.	ROLL NO.	NAME
1	07CE100	JINAL RATHOD
2	07CE042	DHANYA PILLAI

Best Costume (Male):

SR. NO.	ROLL NO.	NAME
1	07IT048	SAUMIL CHOKSHI
2	07CE117	HARSH SHAH

Best Performance in Pair: 1:

SR. NO.	ROLL NO.	NAME
1	06IT057	MITISHA VAIDHYA
2	06IT056	JAYDEEP TRIVEDI

2:

SR. NO.	ROLL NO.	NAME
1	07IT048	SAUMIL CHOKSHI
2	09ME011	KALP DESAI

FACULTY

Best Group:

SR. NO.	NAME
1	ZALAK MODI
2	MONALI DAVE
3	NITI PATEL
4	ILA VAGHELA
5	BINDAL GANDHI
6	KHUSHALI SHAH

Best Costume:

SR. NO.	NAME
1	ILA VAGHELA

Best Performance:

SR. NO.	NAME
1	NIKHILKUMAR ABHANGI
2	RAHUL VAGHELA

Best Performance in Pair:

SR. NO.	NAME
1	MEGHA SHAH
2	DHAVAL PATEL (STUDENT)

List Of Companies for Training
(Mechanical Engineering 6TH SEMESTER)

Sr. No	Name of Students	Company	ADDRESS
1	ANAND DIVAKARAN	Flowchem Ind	SANTEJ - KALOL
2	CHAUDHARI DINESHBHAI AMBARAMBHAI	Iffco	KALOL
3	CHAUDHARI ARPIT NARENDRABHAI	Prashant engg.	VATVA
4	CHAUHAN RAJ RAMESH	G.S.R.T.C	NARODA
5	CHHATRALA MOHITKUMAR JAMNADAS	G.S.R.T.C	NARODA
6	DUNGARANI PRIYANK BABUBHAI	Appex Alloy	NARODA
7	ERABATTINI CHETAN LAXMINARAYAN	Flowchem	SANTEJ - KALOL
8	GAJERA VAIBHAV VITHALBHAI	G.S.R.T.C	NARODA
9	GAJJAR NAYANKUMAR ARVINDBHAI	G.S.F.C	JAMNAGRA
10	GOSWAMI PARTHGIRI JAGDISHGIRI	shah bhogilal	AHMEDABAD
11	JADAV KIRAN SANJAYKUMAR	Fluide logic	CHANGODAR
12	KAPUPARA JAYRAJ RAJABHAI	G.S.R.T.C	NARODA
13	LAD HEMANSHUKUMAR GULABBHAI	Cad-mech	VATVA
14	MAKWANA KETANKUMAR PRAVINBHAI	Cad-mech	VATVA
15	MALAVIYA NAYANKUMAR JASWANTBHAI	Shree laxmi founders	NARODA
16	MEHTA JAIMINKUMAR AMIT	Electro therm ltd.	PALODIA-THALTEJ
17	MEHTA NIRAV RAJENDRAKUMAR	cad mech industired	JAMNAGAR
18	MODASIYA KRUSHANG MANSUKHLAL	G.S.R.T.C	NARODA
19	MUDALIAR TAMILARASAN PANNERSELVAM	Ruby Bus pvt.ltd.	NARODA
20	PANCHAL DUSHYANTKUMAR MUKESHBHAI	Iffco	KALOL
21	PANCHASARA BHARATKUMAR VINODBHAI	Sintex ind. ltd.	KALOL
22	PANDYA BHAVIK SANJAYKUMAR	Ruby Bus pvt.ltd.	NARODA
23	PATEL ANKITKUMAR RAMABHAI	Sintex ind. ltd.	KALOL
24	PATEL CHETANKUMAR ARVINDBHAI	Electro therm ltd.	PALODIA-THALTEJ
25	PATEL DHAVAL UPENDRAKUMAR	Indo-German	VATVA
26	PATEL DHRUVKUMAR MAHESHBHAI	K.H.S.machinary pvt.ltd.	VATVA-MEHMEDABAD

27	PATEL HARDIKKUMAR RAJESHBHAI	Appex Alloy	NARODA
28	PATEL JAY KISHOREBHAI	Jeck-Tech	ODHAV
29	PATEL JIGNESH NAGJIBHAI	Appex Alloy	NARODA
30	PATEL JITENDRAKUMAR HARISHBHAI	Electro therm ltd.	PALODIA-THALTEJ
31	PATEL KETANKUMAR MAHESHBHAI	LHP Ind.	DUDHESHWAR
32	PATEL MAYANK BABUBHAI	shah alloy	KALOL
33	PATEL PARESHKUMAR DAHYABHAI	Iffco	KALOL
34	PATEL RAVIKUMAR MUKESHBHAI	sohil ind.	AHMEDABAD
35	PATEL SATISHKUMAR GOVINDBHAI	windsor	AHMEDABAD
36	PATEL SUHAG MAHENDRAKUMAR	windsor	AHMEDABAD
37	PRADEEP KUMAR	G.S.R.T.C	NARODA
38	SOLANKI RAGHAVKUMAR BHAGVANSINH	Iffco	KALOL
39	TRIVEDI CHIRAYU AMRISHKUMAR	well-spun ltd.	AHMEDABAD
40	VAGHASIA ROHANKUMAR BHIKHUBHAI	Jeck-Tech	ODHAV
41	BANERJEE ABHIK ASHOK	Alpha nippon	CHNAGODAR
42	DALWADI VIVEK SIDDHARTH	shah alloy	KALOL
43	PANCHAL NEEL MILANKUMAR	LHP Ind.	DUDHESHWAR
44	PARIKH RUSHI JIGNESH	LHP Ind.	DUDHESHWAR
45	PATEL ANIKET BABULAL	Anupam ind.	ANAND
46	PATEL DHAVALKUMAR PRAVINBHAI	LHP Ind.	DUDHESHWAR
47	PATEL NIRMALKUMAR HASMUKHLAL	Fluide logic	CHNAGODAR
48	PATEL SARTHAKKUMAR RAMESHCHANDRA	Ruby Bus pvt.ltd.	NARODA
49	PATEL SOHAM MAHESHBHAI	Ruby Bus pvt.ltd.	NARODA
50	PRAJAPATI KEYOOR ISHWARLAL	G.S.F.C	jamnagar
51	SHAH VIRAL RAMESHCHANDRA	LHP Ind.	DUDHESHWAR
52	BHABHOR PRATAPBHAI RAMSING	Anupam ind.	ANAND
53	BUCH HARSH AJAYBHAI	Texspin bearings ltd.	RANPUR
54	DESAI DHARAMSINH NAGJIBHAI	Shree laxmi founders	NARODA
55	KHARADI PRATIKKUMAR BHARATKUMAR	ratna mani	chhatral
56	MARU TUSHAR ARVINDBHAI	Shree laxmi founders	NARODA
57	PATEL KUNAL RATILAL	Iffco	KALOL

58	SOLANKI KAMLESH KALIDAS	Kabra Extrusion	AHMEDABAD
59	THAKOR JASHVANT AMARSINH	Iffco	KALOL
60	VALAND KALPESHKUMAR AMRUTLAL	Shree laxmi founders	NARODA
61	BHATT VISHWAS RAJESHKUMAR	Johnson screen	KALOL- KHATRAJ
62	GANDHI ANKIT BALMUKUND	shah bhogilal	AHMEDABAD
63	KHAN ABDULHAFIZ ABDULHAMID	Blue star	BHARUCH
64	KHUNT RAKESH BHAILALBHAI	Jeck-Tech	ODHAV
65	MAKWANA HITESHKUMAR DINESHKUMAR	Indo-German	VATVA
66	PANCHAL SAURABHKUMAR RAJESHKUMAR	shah alloy	KALOL
67	PANCHOLI RONAKKUMAR RAMESHCHANDRA	Anupam ind.	ANAND
68	PATEL DIPAK NATVARBHAI	Patel Air-flow	VATVA
69	PATEL HARSHADBHAI KESHARBHAI	Indo-German	VATVA
70	PRAJAPATI PRGNESHKUMAR GUNVANTLAL	Patel Air-flow	VATVA
71	SHAIKH SAJID YAKUBBHAI	G.E.B,G'nagar	GANDHINAGAR
72	SUTHAR BHAVINKUMAR PRAVINBHAI	Indo-German	VATVA
73	BHATT NILAY SHAILESHKUMAR	shah alloy	KALOL
74	DESAI PRATIK HARESHBHAI	ratna mani	chhatral
75	PATEL ANKIT BABUBHAI	Alpha nippon	CHNAGODAR
76	RANA ANKIT KAMLESHBHAI	shah alloy	KALOL
77	SUTHAR UTTAMKUMAR RAGHUNATHJI	ratna mani	chhatral
78	VORA ASHISH BIPINBHAI	Jyoti CNC	RAJKOT

LIST OF THE 8TH SEM. E.C. STUDENTS WITH PROJECT NAME

Sr. No.	Name of the Students	Company Name	Address
1	Kosthi Dharmagn	Electrotherm India Ltd., Ahmedabad	Survey No. 72, Palodia, Ahmedabad
2	Soni Ankit		
3	Raval Hardik	BSNL	Ahmedabad
4	Yadav Sweta		
5	Seema Sathawara		
6	Pikin Patel		
7	Bhatt Meghal		
8	Patel Jaydip G.		
9	Patel Tejas G.		
10	Rathore Lalit		
11	Patel Purav		
12	Manit Nagrecha	Amee Dot Com Pvt. Ltd., Ahmedabad	2nd floor, Shalin complex, 17- 22 road, Near Gh-5, Sec 22, gandhinagar
13	Shah Kalp/Kinnar		
14	Vadiya Keval	MCBS, Gandhinagar	B- 138-139, GIDC, Sec.25 Gandhinagar
15	Patel Nikhil R.		
16	Shah Amita		
17	Nabilabanu Shaikh	ISRO,	Ahmedabad
18	Shukla Riddhi	Tata Tele Services Ltd., Ahmedabad	Gujarat Bhavan Opp. M.J. Library, Ahmedabad
19	Shah Dikesh		
20	Ishita Vyas	Nokia Siemens, Ahmedabad	
21	Bhau Parthiv	IPR, Gandhinagar	Bhat, Gandhinagar
22	Jaimin Vaghela		
23	Kalburgi Bhagyesh	KHS machinery Pvt. Ltd., Ahmedabad	Near Hirapur Chowkadi, Vatva Mehmadabad Hioghway, Ahmedabad
24	Vaishakhi Panchal	Samyak Infotech Pvt. Ltd., Ahmedabad	905-908, Abhijit, Mithakhali Six road, Ellise bridge, Ahmedabd

25	Hardik Joshi	D.K. Scientific Technology,	Ahmedabad
26	Krunal Joshi		
27	Mehta Rishi		
28	Ashish Pandya	HCl Infosystems Ltd.,	Ahmedabad
29	Darji Avanika M.		
30	Dharajiya Himanshu		
31	Rahul Parmar		
32	Raxit G. Panchal		
33	Nakul Patel		
34	Patel Dipak	Idea Cellular ltd., Gandhinagar	Abhjit III, 3rd Floor, Mithakhali Six Road Ahmedabad
35	Goovind Yadav		
36	Palak Patel	Reliance Communication, Naroda	Reliance Adag House, 100 ft. road Prahladnagar, Ahmeadabad
37	Patel Kevin		
38	Suthar Tarun R.	Prima Automation (India) Pvt. Ltd.	Plot 793, Rakanpur, Dist: Gandhinagar
39	Patel Jaydip V.		
40	Raol Hardiksingh	InspirOn Engineering Pvt. Ltd.	Near GIDC, Odhav, Odhav road Ahmedabad
41	Sunny Gurbani	Bharti Airtel Ltd.	Zodiac Square, 2nd Floor, S.G. road, Ahmedabad
42	Trivedi Rutvij	Matrix Telcom Pvt. Ltd.	394- GIDC, Makarpura baroda
43	Vivek Pathak	e-safe HSS	Opp. Masibus,GIDC, Sec. 25, Gandhinagar
44	Bhalala Mayur M.		
45	Chivatiya Urvish H.		
46	Memon Moinuddin		
47	Saksena Rahul B.		
48	Patel Hardik V.	Alcatel-Lucent Network Management Service India ltd.	15th floor ,Tower C, DLf cyber greens, Dlf City, Phase 3,Gurgaon 122002
49	Chauhan Bhavin	GTL limited	303, Baleshwar Square, Opp. Iscon temple, S.G. highway, Ahmedabad
50	Pathan Najib N.		
51	Hemang Vegad	Ahmedabad Textile Indusry's Research Association	P.O. Ambawadi Vistar ahmedabad
52	Virani Tapan		
53	Bhavsar Ganshyam	Sunotronics India Pvt Ltd.	3rd floor Moonlight complex, opp. Gurukul, drive in road, Ahmedabad
54	Patel Bhavin		

TRAINING & PLACEMENT

Gandhinagar Institute of Technology (GIT) is pleased to invite you for the Campus Placement Drive for the academic year 2009-10. We sincerely appreciate the positive feedback on the performance of our students from the recruiting industries.

In the short span, many companies working in Mechanical Engineering, Computer Engineering, Information Technology, Electronics & Communication Engineering, etc have shown their willingness for recruitment of our final year students and given their consent for visiting our campus for placement interviews. It fulfills dual purposes, students secure their future career and the industries secure the best talents available in this institute.

Year 2010 has given a remarkable start on the track of campus placement, with the arrival of the companies listed below for the placement drive in the institute and many companies are still to come for the same. Few of them have already selected some of our students. This is a really milestone in the history of our institute.

We extend a warm welcome to the participating industries.

Thanking you,

Indresh C Shah
Training and Placement Coordinator

Ms. Brinda Parekh
Ms. Janki Naik
Mr. Pratik Shah
Mrs. Seema Nagrani
Coordinators

List of companies:	
Sr. No.	**Name of the Company**
1.	Shri Krishna Engineers
2.	Visiospect systems PVT Ltd
3.	Scoda tubes PVT Ltd
4.	Reinfold Physical Innovation Labs
5.	Surat Super Yarn Park Ltd
6.	Anant softtech PVT Ltd
7.	Prudent CAS Ltd
8.	Elmex Controls PVT Ltd
9.	CMC Ltd
10.	CMC technologies India PVT Ltd
11.	Semitronik Industries PVT Ltd
12.	Nokia Siemens network
13.	PCB Planet (India) Ltd
14.	Patel air flow
15.	AIA engineers
16.	Kloecner Desma Machinery Pvt. Ltd.
17.	Nsure Information Security
18.	Cadila Pharma Machinaries
19.	Perception system private ltd

List of the Students selected in campus interview			
Sr.	**Name**	**Branch**	**Name of the Company**
1	Patel Dhaval	IT	Prudent CAS Ltd.
2	Chauhan Monika	IT	Prudent CAS Ltd.
3	Gupta Neha	CE	Prudent CAS Ltd.
4	Patel Vishnu	CE	Prudent CAS Ltd.
5	Madhu Nishit	ME	Shree Krishna Engineers
6	Mandal Brijkishor	ME	Shree Krishna Engineers
7	J. Nitin	ME	Shree Krishna Engineers
8	Bhau Parthiv	EC	Semitronik Industries
9	Thakkar Nitish	CE	Semitronik Industries

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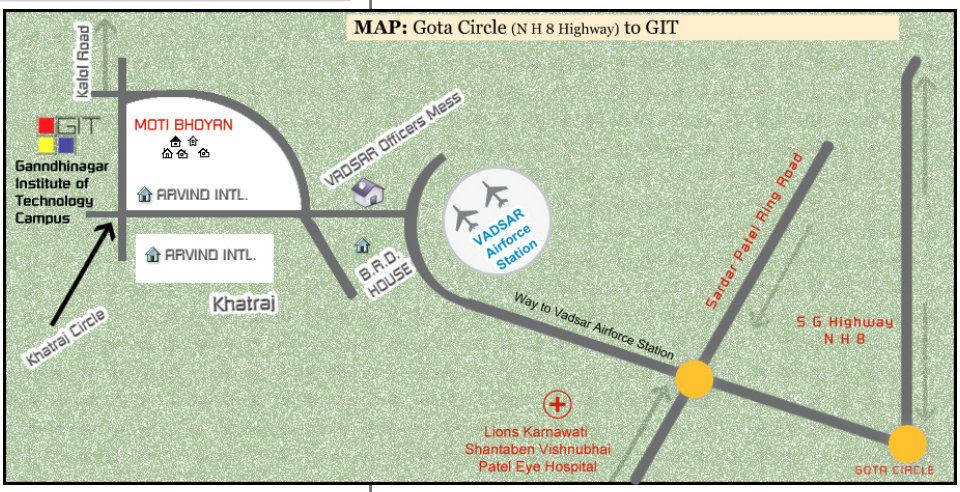

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