Chairman's Message

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Dear Friends,

The Faculty Development Program (FDP) is an ambitious project of the IEEE Madras Section aimed at improving the quality of teaching. In this program, the participants, who are faculty members in various Engineering Colleges, are exposed to the teaching methodologies of some of the best teachers in their field.
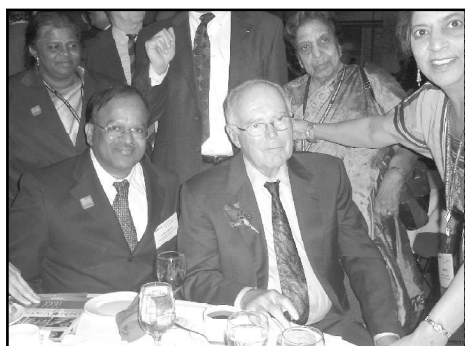
The first Faculty Development Programme was conducted in November 2006 at IIT Madras. In the subsequent years, four FDPs in April / May and November / December 2007 and two FDPs in April / May 2008 were organized at the Department of Electrical Engineering, Indian Institute of Technology (IIT) Madras, Chennai.

It gives me immense pleasure to announce that the IEEE Madras Section is going to conduct another Faculty Development Programme on *"Trends in Computing"* during December 20 – 21, 2008 at Technology Park, Bharathidasan University, Tiruchirappalli - 620 023. The Faculty who are the IEEE Members are welcome to utilize this opportunity to attend this program at free of cost.

The apparent slowdown of the US economy is bothering economists all over the globe. Emerging economies such as India and China are well aware of their dependence on the US economy and are bracing themselves for the impending impact. In this scenario, the IEEE takes an initiative to help the students to find appropriate positions world wide in MNCs like Microsoft. A program called IEEE Student Branches Industry Relations (ISBIR), which was started by students and run by students effectively in other countries, proved that it would bring together industry, university and students through an extensive online career centre with huge database of CVs and job offers. The ISBIR programme shall be introduced in India also shortly. Through ISBIR portal, the companies can access to talents globally in many disciplines, and the students may be involved in social responsibility and technical based projects.

In IEEE SC Congress 2008 at Quebec, Canada, the IEEE Honours Ceremony was held on September 20, 2008 evening, resulting in the largest attendance ever for an Honours Ceremony. IEEE President Lewis

Dr. S. Salivahanan, Chairman, IEEE Madras Section with Dr. Gordon Earle Moore, Co-founder and Chairman Emeritus of Intel Corporation and the author of Moore's Law, at IEEE Section Chairs Congress 2008, Quebec, Canada

From The Editor's Desk

hrmohan@gmail.com

Dear Friends,

LINK congratulates Mr. V. T. Lakshminarayanan of SVCE & Ms. G. Selva Amal Arasi of KLNEC, the winners of Info Contest - 0810 who will receive an award of Rs. 500/= each sponsored by SRA Systems. It may be of interest to know that Mr. Laksminarayanan is getting the award for the second time.

The colleges in and around Erode seem to be competing with each other in organizing programmes. We are happy to note that Kongu Engg College is topping in no. of events being organized followed by MP Nachimuthu M Jagannathan Engg College with two events and Velalar College of Engg inaugurating activities of EMBS, CSS & WIE along with that of main student branch. We are glad to see the revival of the student branch at RMD Engg College. Valliammai Engg College had conducted EMERGE, the national level technical symposium in a grand manner. All these have been covered in this issue along with the Project Contest held at Kumaraguru College of Technology and the lecture programmes by Dr. Prabhaker Mateti organized by the IEEE Computer Society and held at VIT University and Pondicherry University.

The article on Automated Guide ROBOT by Ms. G. Selva Amal Arasi of KLNEC is an interesting survey type article and provides an excellent overview.

We are happy to have the Oceanic Engineering Society Chapter inaugurated at Chennai with the efforts of Dr. Atmanand.

Attention of readers is invited to the announcements relating to the Faculty Development Programme at Trichy, Volunteers for Humanitarian Technology Projects, IEEE Presidents' Change the World Competition. Take benefit from the list of forthcoming events — workshops, conferences being organized or supported by IEEE and its sister societies

The proceedings of the monthly technical meeting held along with the IEEE PELS Madras Chapter on the topic "Global Warming" was a timely one. Time has come to take note of the alarming issues and impacts of Global Warming and act judicially to lesson the impact though we can not avoid them totally. The sites http://www.worldviewofglobalwarming.org/ and http://www.ncdc.noaa.gov/oa/climate/globalwarming.html and http://www.climatehotmap.org/ provide interesting info on Global Warming and worth seen by every one.

While there has been a reasonable compliance with regard to the submission of material for publication in the newsletter, we still get mails not addressed to ieeemaslink@gmail.com and the IEEE Office mail ID, which has now changed as ieeemas@airtelmail.in, where the consolidation takes place. Pl. co-operate with us by sending the matter by 8th of every month.

Editorial Team

Mr. H.R. Mohan, Dr. S. Salivahanan, Dr. M. Ponnavaikko, Dr. P. Suresh Chander Pal, Mr. T.S. Rangarajan, Mrs. M. Ramalatha

Technical Meeting on Global Warming

A technical meeting on the topic "Global Warming" by Dr. S. Renganathan, Former Vice-Chancellor Bharath University & Former Dean MIT was organized jointly by the IEEE Madras Section, IEEE PELS, Madras Chapter, on 18th Oct 2008.

Dr. S. Salivahanan, Chairman, IEEE Madras Section welcomed the gathering. Dr. Pappa, Excom Member, IEEE Madras Section, introduced the speaker.

Dr. S. Renganathan, in his presentation stated that our mother earth is getting warmer, faster than what we expected and this rise in earth average temperature is due to green house effect. The energy from the sun enters the earth through radiation at the optical visible wavelength for which the atmosphere + CO_2 layer is transparent. But when it gets reradiated

into the space, it is at the infrared wavelength (long waves) for which the atmosphere + CO_2 layer is partially opaque. Hence part of energy is trapped inside the layer and the earth gets warmer. This effect is increasing if the amount of CO_2 is more. In the last few decades the CO_2 emissions by the thermal power plants, automobiles etc. are on the increase at an alarming rate.

He informed that according to a German scientist estimates, the earth temperature will raise by 2^0 by the turn of the century and the mean sea level will go up by 1m., if we do not contain and reduce the CO_2 emissions.

He elaborated with illustrations on the problems due to global warming which include: land area reduction, Europe will freeze and no vegetation will grow, deserts will become hotter, pond water availability will reduce, many tsunami's incidents may happen. He stressed that the only way to contain the global warming is to reduce CO_2 emissions.

After the talk, Dr. S. Salivahanan, Chairman, IEEE Madras Section Presented the memento to Dr. S . Renganathan. Mrs. Sailaja IEEE PELS Madras Chapter proposed the vote of thanks.

Inauguration of IEEE, OES, India Chapter

India Chapter of IEEE, Oceanic Engineering Society has been inaugurated on 25th Sep 2008 at National Institute of Ocean Technology (NIOT), Ministry of Earth Sciences, Govt. of India, Chennai, India. Dr. P.S. Goel, Former Secretary, Ministry of Earth Sciences and Dr. James McFarlane, President, International Submarine Engineering (ISE), Canada has inaugurated the chapter by lighting a traditional lamp along with the other dignitaries. Dr. S. Kathiroli, Director, NIOT welcomed the members and other invitees. Dr. P.S. Goel delivered the inaugural address and appreciated the efforts of IEEE, OES members and office bearers. He dwelled on the importance of interaction among the Ocean Engineering Community of India. He felt that such initiative has to be encouraged by the Institutes involved in Research and Development activities in the field of Ocean Engineering. Dr. M.A. Atmanand presented the need for membership in IEEE by professionals and the vision of IEEE, OES, India

Chapter and introduced the office bearers of the India Chapter. The inaugural technical lecture was delivered by Dr. James Mc Farlane. He gave a lecture on "Underwater vehicles: Past, Present and Future". Mr. B.K. Miller from South West Research Institute (SWRI), USA, presented their activities in developing various submersibles in association with ISE.

The inaugural session was attended by representatives from research institutes like, NIOT, Indian Institute of technology (IIT), Madras and Ocean Engineering industry. 28 IEEE members and 57 others attended the function. The meeting ended with vote of thanks by the Vice President of IEEE, OES, India Chapter, Prof. P.R.S. Pillai, Cochin University of Science and Technology, Kochi, India.

On-line registration facility to join IEEE, OES was provided at the venue for the benefit the invitees and other participants. The meeting was web-cast live, sponsored by NI Systems India.

For more information, please contact Dr. M. A. Atmanand, Chairman, IEEE OES India Chapter at atma@niot.res.in or Dr. G. A. Ramadass, Secretary, IEEE OES India Chapter at ramadass@niot.res.in.

> Note the new e-mail id of the
> IEEE Madras Section

Competition Challenges Students to Change the World

IEEE student members are invited to participate in the IEEE Presidents' Change the World competition, being held in conjunction with the 125th anniversary celebrations. The competition will reward students individually or in teams who apply engineering, science, computing, and leadership skills to solve real-world problems. This could include, for example, the design and implementation of projects to improve the lives of the poor, the sick, or those with disabilities, or that could lead to a more sustainable world.

"The competition is designed to recognize the passion IEEE student members have for helping humanity," says John Vig, IEEE President-Elect. "It's an opportunity for students everywhere to communicate their ideas, apply their creativity, and demonstrate their ability to make a difference in the world. Surprises are welcome."

Submissions will be accepted between 1 September 2008 and 28 February 2009. Entry forms can be found on the competition Web site at http://www.ieee125.org/change-the-world/index.html

The top three prizes are US $10 000, $5000, and $2500, with other awards of $1000 and $500. Winners will be notified by 10 May 2009.

Revival of   IEEE Student Branch at RMD Engineering College

Though the IEEE Student Branch of RMD Engineering College was started in the year 2006, the activities could not be continued due to administrative reasons. However, the Student Branch was revived on 19th Sep 2008 in the presence of Dr. P. Suresh Chandar Pal, Chairman, IEEE Madras Section Student Activities Committee. New office bearers for IEEE Student Branch were nominated. Also the Chairperson, from among the willing students, for Woman In Engineering (WIE), was also nominated. Various Committees such as Membership development, Programme, News Letter and Website design, were formed and the students of 2nd and 3rd year, from various disciplines enthusiastically joined. The meeting was very lively and there was an over-whelming response from the students. Many were very eager to become members.

A separate session was conducted by our Guest Speaker, Dr. P. Suresh Chander Pal, in the afternoon, for the benefit of the students of first year B.E / B.Tech and they showed keen interest to become IEEE members. Shri. R. M. Kishore, Vice Chairman of the RMK Group of Institutions also took part in the function and he was very happy about the revival of the IEEE Student Branch of RMD.Engineering College.
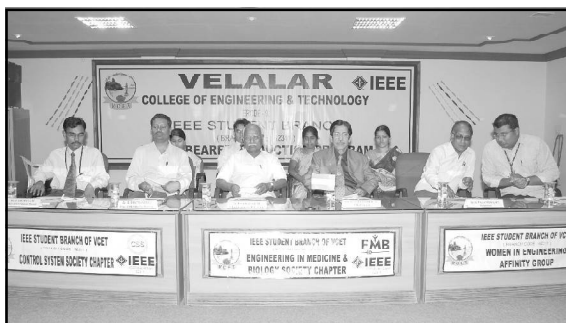
Report by : Prof. N. Sundaresan, HOD/EEE

Inauguration of Students' Technical Chapters and Affinity Group at Velalar College of Engineering and Technology

The students' technical chapters - Control System Society chapter (CSS) and Engineering in Medicine and Biology Society chapter (EMBS)) and affinity group - Women in Engineering (WIE)) of IEEE students' branch, VCET Erode was inaugurated on 6th October 2008. Dr. P. Suresh Chander Pal, Chairman, Students' Activity Committee, IEEE Madras Section and Dr. B. Santhanaraj, Chair, EMBS Chapter, Madras Section were the guests of honour. The function began at 10:30 am with welcome address by Ms. S. Pradhebaa Rubina, Vice-Chair, CSS Chapter.

Mr. V. G. Pratheep, the branch counselor, introduced the office bearers of the technical chapters and affinity group. Following that all the student members took oath (Code of Ethics), which was read by Ms. A. Shammi, Treasurer, EMBS Chapter. Mr. N. Dhanasekar, Vice-Chair, IEEE SB gave a brief note about the IEEE SB activities carried out till date.

Mr. P. Ravikumar, Chair, CSS Chapter, Ms. K. P. Aarthy, Chair, EMBS Chapter, Ms. V. Madhumathi, Chair, WIE affinity group presented their respective action plans for this year.

The chief guest gave the inaugural address and also elected members for certain committees with which the activities of IEEE SB can be enhanced more. Dr. P. Sabapathi, Administrative Director, VCET delivered the presidential address. Dr. K. Palaniswamy, Principal, VCET and Dr. B. Santhanaraj felicitated the function.

In the afternoon, an interaction session was arranged for students to clarify their queries on IEEE in which they interacted with Dr. P. Suresh Chander Pal and Ranjith R. Nair, Secretary, GINI, Madras Section.

The function came to an end with a thanking note given by Ms. C. R. Varalakshmi, Vice-Chair, WIE affinity group and followed by National Anthem.

Branch Counselor	:	Mr.V.G. Pratheep
Chair	:	B. Arumugam Final year BME
Vice-Chair	:	N. Dhanasekar III year BME
Secretary	:	M.Arunraja Final year BME
Treasurer	:	M.Preethi Final year BME
Faculty Advisor	:	Dr.B. Santhanaraj
Chair	:	K.P.Aarthy Final year BME
Vice-Chair	:	S.Monica III year BME
Secretary	:	K.Lavanya Final year BME
Treasurer	:	A.Shammi Final year BME
Faculty Advisor	:	Mr.U.Ragavandran
Chair	:	P.Ravi Kumar Final year EEE
Vice-Chair	:	S.Pradheba Rubina III year EEE
Secretary	:	T.Raja Gopal Final year EEE
Treasurer	:	M. Sarangan Final year EEE
Chair	:	V.Madhumathi Final year BME
Vice-Chair	:	C.R.Varalakshmi III year BME
Secretary	:	N.A.K.Shalini Final year BME
Treasurer	:	C.S.Abinayah Final year BME

Reported by : Ms.K.Lavanya, Secretary, EMBS Chapter.

Guest Lecture on Agile Development at Kongu Engg College

A guest lecture on Agile Development by Mr. P. V. Sri Hari, Assistant Manager, Telecom section, Tata Consultancy Services was delivered at Kongu Engg. College on 13th Sep 2008.

Ms. Purnima Jothikrishnan, Secretary, and IEEE Student Branch welcomed the gathering and introduced the speaker. Prof. R.Asokan, Assistant Professor, Dept. of ECE delivered the presidential address.

Project processing is building blocks of software. Hence the best practices give the best output. One such practice is agile development.

- Individuals and interactions over processes and tools
- Working software over comprehensive documentation
- Customer collaboration over contract negotiation
- Responding to change over following a plan

- Highest priority is to satisfy the customer through early and continuous delivery of valuable software.
- Welcome changing requirements, even late in development. Agile processes harness change for the customer's competitive advantage.
- Deliver working software frequently, from a couple of weeks to a couple of months, with a preference to the shorter timescale.
- Business people and developers must work together daily throughout the project.
- Build projects around motivated individuals. Give them the environment and support they need, and trust them to get the job done.
- The most efficient and effective method of conveying information to and within a development team is face-to-face conversation.
- Working software is the primary measure of progress.
- Agile processes promote sustainable development. The sponsors, developers, and users should be able to maintain a constant pace indefinitely.
- Continuous attention to technical excellence and good design enhances agility.
- Simplicity - the art of maximizing the amount of work not done - is essential.

- The best architectures, requirements, and designs emerge from self-organizing teams.
- At regular intervals, the team reflects on how to become more effective, then tunes and adjusts its behaviour accordingly.

- Stand up calls
- Iterative development
- Release planning
- Test automation
- Continuous integration
- Retrospectives

- Implement Agile principles for development engagements
- Avoid Agile working for maintenance & enhancement work for large legacy applications
- Avoid Agile for projects mandating rigorous documentation
- Optimize the level of documentation
- Involve Designers in development team
- Dedicated development teams for specific business functionality
- Automate Build & Install process
- Automate Testing

The valedictory address and vote of thanks was given by Ms. Aruna, Vice chairperson, WIE.

Report by : Ms. Purnima Jothikrishnan, Secretary, ieeekec@gmail.com OR jpurni@gmail.com

IEEE Seeks Volunteers for Humanitarian Technology Challenge

The Humanitarian Technology Challenge (HTC) is a partnership between IEEE and the United Nations Foundation designed to bring together technical professionals and humanitarians to develop technological solutions for pressing challenges facing humanity.

A small number of IEEE members are needed to help shape the early stages of the program, working with humanitarians to further detail challenge definitions and outline a solution process. This is a unique opportunity for IEEE volunteers experienced in systems engineering to work directly with prominent humanitarian volunteers.

The following initial challenges were identified by focus groups composed of representatives from ten humanitarian organizations:

- Reliable Electricity – Availability of power for electronic devices
- Data Connectivity of Rural District Health Offices – Capability of exchanging data among remote field offices and central health facilities
- Local Management and Tracking of Supply Distribution – Ensure that supplies are getting to the people that need them in order to maximize the impact of assistance
- Incident Tracking – Determine locations and extent of medical problems in order to focus resources

- Patient ID and Tie to Health Records – Maintain consistent patient records, including when patients visit different clinics and when they relocate.

IEEE volunteers should be experienced in the application of technology to solve humanitarian issues and be willing to commit approximately two to four hours per week to the project. A conference call/webcast for early stage volunteers is scheduled to take place in late November, 2008. This will be followed by an in-person conference scheduled for the first quarter of 2009, where additional volunteers will be needed. For more information, visit the HTC Web site at http://www.ieee.org/web/volunteers/tab/htc/index.html Interested volunteers should contact IEEE HTC Project Manager Harold Tepper at h.tepper@ieee.org.

Technology Awareness Program at Kongu Engineering College

As a part of IEEE Student Branch activity the Technology Awareness Program was arranged on 9th Sep 2008. A total of 30 students including the IEEE student branch office bearers and IEEE student members from our college visited the GIRLS HIGHER SECONDARY SCHOOL, Nambiyur- Gobi- Erode district. The students of 6th to 12th standard were engaged from 9.30 a.m. to 4.00 p.m. The various activities conducted include:

- Technology awareness: Live demo to students in every class on: Computer; Laptop; Pen drive, flash drive; CD, DVD drives; Internet; Data card; Modem; Search engines

- Students of the higher standards were

given brief idea about the various courses they can take up and the ample amount of opportunities present. The details for the under graduate courses they can take up was given.

- Memory games.
- Creative drawing competition.
- Basics of Electrical and Electronics that will help students in daily life were explained.
- Health related issues and tips to have healthy body and mind.
- Information about the new technologically advanced products that have entered the market.

Then Q & A session was arranged in which students enthusiastically participated and posed various questions an they were clarified.

Report by: Ms. Purnima Jothikrishnan,
Secretary, ieeekec@gmail.com OR
jpurni@gmail.com

Social Networking: Tip Sheet

: If you're hoping to score a new job or simply want to build new relationships on a business networking site, pick what you want to be known for and communicate that clearly. Some recruiters use business networking sites as if they were a giant rolodex. You'll get better job leads if your profile is clear and up to date.

At least a little. To build relationships on social networking sites, consider sharing a bit of your personal life such as a hobbies or volunteer work as a small part of your profile. It makes you appear human and it resonates with others.

: Make sure to clarify company policies about employee conduct on social or business networking sites. People in the 25 to 54 age bracket are the fastest growing demographic at MySpace. Some of them may be your employees.

: If you're creating advertising campaigns for social networks such as MySpace and Facebook, you have to be prepared for feedback. Not all of it will be pleasant, but if you listen, you just might learn how to improve your product.

: Advertising on MySpace and Facebook can easily backfire if it doesn't strike a chord with young people. Burger King has made more than 114,000 friends on MySpace by giving away free episodes of Fox shows such as *24* and *American Dad*.

: If you're trying to foster business relationships on business networking sites, make sure your profile includes your complete work history, even those entry-level jobs. Some sites allow you to search by company, and former colleagues might want to contact you. They just might have job offers.

Master networkers who are trying to connect with other executives don't expect payback from every person right away. Instead, they build relationships for the long haul. If somebody helps you, try to reciprocate.

: The more people you are connected to on business networking sites, the shallower those relationships are likely to be. Recruiters may find value in linking to as many people as possible but one executive says he feels that more than 150 contacts is too much.

If you're installing software within your company to automatically track employee contacts, make sure to calibrate the privacy settings to match your employees' level of comfort. Executives may balk at sharing personal contacts with sales people, especially if they have no control over how and when those contacts are used.

: If you're planning to build a customer network for branding or market research purposes, consider sharing insights gleaned from these networks with participants. It helps keep them engaged. Intuit, for example, lets its Quicken community know how they have helped shape product features.

Chairman's message continued...

M. Terman presented 22 awards at the ceremony, including the **Medal of Honor to Dr. Gordon E. Moore** co-founder and chairman of the board, emeritus, of Intel Corporation.

All the IEEE members who have not renewed their memberships are hereby informed to renew the same at the earliest to avail the IEEE benefits.

The nominations of the Nomination Committee for the offices of the Executive committee for the year 2009 has been received. The recommended slate for the year 2009 is announced on November 3, 2008 as given below:

1	Dr. S. Salivahanan	Chairman
2	Dr.M.A. Atmanand	Vice-Chair
3	Dr. Amitava Das Gupta	Vice-Chair
4	Dr. T. Thyagarajan	Secretary
5	Prof. M. Ramalatha	Treasurer
6	Dr. M. Ponnavaikko	Immediate Past Chair
7	Dr. P. Suresh Chander Pal	Member
8	Mr. T.S. Rangarajan	Member
9	Dr. C. Kumar	Member
10	Mr. H.R. Mohan	Member
11	Prof. G. Narasimhalu	Member
12	Dr. N. Kumarappan	Member
13	Mr. V. Sampath Kumar	Member
14	Dr. T. Michael N. Kumar	Member

A minimum of 28 days is allowed from this date for the members to make additional nominations by petition, signed by 15 or more voting members. If no petition is received, election will be announced at the annual meeting. If additional nominations are made, election will be by ballot mailed to the members by November 30, 2008, with the vote counted by a Tellers committee appointed by the Section Chairman.

Dr. S. Salivahanan

ELECZY'08 — Technical Symposium at M. P. Nachimuthu M. Jaganathan Engineering College

M. P. Nachimuthu M. Jaganathan Engineering College, Department of Electrical and Electronics Engineering in association with IEEE Student Branch conducted ELECZY'08, a National - Level Students' Technical Symposium on 30th September 2008.

Capt. S. Arulmani, Deputy General Manager, Indian Airlines, Chennai adorned the function as chief guest. "Udyog Rattan" Thiru. J. Sudhanandhen, Correspondent presided over the function and Dr. K. Jagadeesan, Principal felicitated the function. Mr. P. Selvan, HOD / EEE, welcome the gathering, Mr. D. Sabapathi, IEEE Student Branch Counselor, introduced the chief guest.

In the inaugural address, Capt. S. Arulmani stressed the important of parents & teachers in one's life. He also narrated the opportunities for the budding engineers in Indian Airlines. Selvan. R .Karthikeyan, Association Secretary proposed the vote of thanks.

Er. G. Ravichandran, Deputy General Manager, Lakshmi Electrical Control and Systems, Coimbatore participated in the valedictory the function as chief guest. Selvi.N.R.Anujadevi, Association joint treasurer, introduced the chief guest.

Er. G. Ravichandran in his valedictory address quoted the importance of the Electrical Engineers and also about energy conservation in present scenario. He also covered on time management, goal setting and discipline among the upcoming engineers.

Students from various colleges all over India presented their papers so as to prone their technical skills. During the valedictory function, the winners were awarded by the distinguished chief guest. The First prize was hugged by Bannari Amman Institute of Technology, Sathy & Sona College of Technology, Salem. The Second Prize was won by Government College of Technology, Coimbatore & Mahendra Engineering College, Mallasamudhiram.

Mr. R. Palanisamy, Association Co-ordinator, proposed the vote of thanks.

Workshop on Issues and Challenges in Hydro Electric Power at M. P. Nachimuthu M. Jaganathan Engineering College

M. P. Nachimuthu M.Jaganathan Engineering College, Association of Electrical and Electronics Engineering in association with IEEE Student Branch conducted a National - Level One Day Workshop on Issues and Challenges in Hydro Electric Power on 3rd October 2008.

In the morning session Er.S.Christian Johnson, Sr.Manager Training Division, Hydro Training Institute, TNEB, Kuthiraikkalmedu, Erode delivered a talk on "Issues and Challenges in Hydro Electric Power". In his speech he explained the important role of recent trends in hydro schemes and small hydro power schemes. He also explained about pumped storage schemes and Black Smith Technology.

In the afternoon session Er.G.Venkatesan, DGM, Hydro Training Institute, TNEB, Kuthiraikkalmedu, Erode delivered a talk on "Renovation and operating issues and silting problem in hydro electric power". He also explained about the power system operation and control methods.

Around 145 students (including IEEE Members) and 20 faculty members from the college participated.

The welcome address was given by Mr.P.Selvan, Head of the Department, Department of Electrical and Electronics Engineering and the vote of thanks was proposed by Selvan.J.Thiruvaasagam, Final Year Civil M.P.Nachimuthu M.Jaganathan Engineering College.

The arrangements for the workshop were made by Mr. D. Sabapathi, Branch Counselor of IEEE Student Branch, Mr.R.Palanisamy, Co–Ordinator, Association of Electrical and Electronics Engineering.

Report by Mr. D. Sabapathi ,
Branch Counselor

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IEEE MAS LINK
SRA Systems
Info Contest

Chairman, IEEE CS, Madras Chapter
Editor, IEEE MAS LINK
AVP (Systems), The Hindu, Chennai

This is the seventh contest under Info Contest – an ICT quiz, a regular column in our newsletter LINK. The members are encouraged to participate in the contest and win a prize. Answers to the contest questions can ONLY be sent by email following the guidelines provided at the end of the questions. TWO lucky winners who answer to maximum no. of questions and early (selected by lot if multiple entries qualify) will receive an award of Rs. 500/= each, sponsored by SRA Systems.

This contest has four sections A, B, C & D having five questions each. The number in bracket at the end of the questions denotes the no. of characters in the answer string.

A1. Variable used in the definition of a function: its value determines the value of the function.

A2. A program which translates the mnemonic language understood by the programmer into a binary form understood by the computer.

A3. Representation of numerical values by means of physical variables.

A4. Defined process which provides a set of rules for solving a given problem.

A5. The means by which a particular portion of a storage medium is identified.

B1. Access Every Network

B2. Sharing. Caring. Trustworthy

B3. Trusted Advisor of Storage

B4. Everywhere you imagine

B5. At the heart of technology

C1. Name the first peta scale supercomputer being built as a joint effort of National Center for Supercomputing Applications, the University of Illinois at Urbana-Champaign, and IBM.

C2. Which famous media company coined the phrase 'Web 2.0'?

C3. DRAM is slower than SRAM – True / False?

C4. Name the suite of open-source Indic programming languages.

C5. Who contested with Alexander Graham Bell and lost the patent rights for the invention of Telephone?

D1 A point-by-point refutation of a blog entry is known as ———

D2. Safari is the browser from ———

D3. ——— formulated the Laws of Robotics

D4. ——— Award is widely considered to be the computing world's equivalent to the Nobel Prize

D5. Name the meal assistance robot which helps people with disabilities to eat which was recently launched in Japan

In the Subject,

• Write the Contest No. (Info Contest – 0811) in the subject line.

In the body of the mail,

• In the first line, write the contest No: Info Contest – 0811

• In the second line, write your membership no.

• In the third line, write your email id.

• In the fourth line, write your name.

• In the fifth line, write the answers to the five questions of Section A, separated by comma.

• In the sixth line, write the answers to the five questions of Section B, separated by comma.

• In the seventh line, write the answers to the five questions of Section C, separated by comma.

• In the eighth line, write the answers to the five questions of Section D, separated by comma.

As the evaluation of the entries is automated, pl. ensure the above guidelines are followed.

Telecommuting, Telnet, Virus, Vortal, Webcast
Micro Star International (MSI), Ubuntu, Novatium, EMC, Express Computer
Passport eSeva, Samsung, Abhinav Bindra, Hitachi Elephants Dream
Thunderbird, Elgg, True, Android,
Warren Buffett

Sri Venkateswara College of Engineering
Mem No. : 90392451
Email: lnarayanrox@gmail.com

IV Year, EEE,
KLN College of Engg.
Mem No. : 85029178
Email: amazingamal@gmail.com

Section Membership as on 15th November 2008

Life Senior	-	8
Life Fellow	-	1
Life Member	-	3
Senior Member	-	75
Member	-	1301
Affliate	-	28
Associate	-	115
Graduate Student Member	-	557
Student Member	-	4219

Automated Guide ROBOT

IV Year, EEE,
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Machines that resemble humans or animals have fascinated mankind for thousands of years, but only in the 16th century technology and craftsmanship became sufficiently advanced both in Europe and in Japan to allow the construction of automated dolls. The robots are machines that incorporate at least some computational intelligence, and such machines have existed only for a few decades. The most wide-spread robots today are industrial robots. They are useful and important for the production of goods, but they are not very intelligent and have very little sensory abilities. They can operate only in carefully prepared environments and under the supervision of experts. For safety reasons they must stop moving whenever a safety barrier is violated by a person or an object. Another kind is mobile robot. Its purpose is not the production of goods in factories, but the delivery of various services, so far mainly in the areas of floor cleaning, mail delivery, lawn-mowing, giving tours in a museum, and surgical assistance. They have been employed in environments where they may, or even have to, come into contact with the public, and some of them actually interact with people. They can, to a very limited extent, perceive their environment and they display traces of intelligence, e.g., in navigation and obstacle avoidance. The goal is to build an autonomous mobile robot that guides people in a known environment. The motivation is to create more awareness of the laboratories for prospective students and their families as well as act as an aid to visitors, current students, and faculty in providing navigation using vision system. The robot will use human interaction to provide directions around the building.

Rhino is an indoor navigation robot designed at the University of Bonn in Germany in the mid 1990s. Rhino's main goals were to be able to navigate within an office space, move from point A to point B, and recognize a number of objects on the floor and dispose of them in a garbage can. Rhino uses Markov localization which is an algorithm that uses sensor data, which are in turn used to locate immediate obstacles and create a trajectory to navigate around the obstructions Rhino also included a user friendly interface which communicated with users through its small digital screen and received input from four buttons.

Minerva is a second generation tour guide robot created by a team made up of members from Carnegie Mellon University and University of Bonn. Its goal was to entertain and educate museum visitors about the exhibits by guiding them through the museum and providing brief explanations of some exhibits.

Alfred was designed by Swarthmore College for entry to the American Associate of Artificial Intelligence (AAAI) national robot competition in 1999. It successfully served food while recognizing humans and repeat visitors interacting with everyone in a friendly human-like manner. Alfred distinguished people from inanimate objects by using motion and skin detection with an eye template matching algorithm and color matching.

GRACE (Graduate Robot Attending ConferencE) is a robot designed to arrive at a conference, register for the event, and navigate itself to the correct location at the correct time to give a short talk about itself. The team responsible for Grace was made up of members from Carnegie Mellon University, the Naval Research Laboratory, Northwestern University, Metrica Inc., and Swarthmore College. GRACE used Markov localization and Markov decision process planners were used for navigation.

In early 2001, a team from Rice University sought out to create a robot named Virgil that could give an outdoor tour of part of Rice's campus. It used GPS and odometry readings for navigation through busy sidewalks and streets. The GPS readings were used to check the margin of error in the odometry readings and to calculate the error of Virgil's internal location, ensuring that the robot never veered too astray.

To design and construct an autonomous guide robot that helps people to reach their destination. The robot gives a pre-scripted, pre-planned guidance using dynamic navigation and localization using genetic algorithm.

The Gear motor has been selected for this Robot. One gear motor is used for driving and other for steering purpose.

Atmel 89C51 is selected for robot movement control. It is a low-power, high-performance CMOS 8-bit microcomputer with 4 Kbytes of Flash Programmable and Erasable Read Only Memory (PEROM). The on-chip Flash allows the program memory to be reprogrammed in-system or by a conventional nonvolatile memory programmer. The Atmel 89C51 provides the following standard features: 4 Kbytes of Flash, 128 bytes of RAM, 32 I/O lines, two 16-bit timer/counters, a five vector two-level interrupt architecture, a full duplex serial port, on-chip oscillator and clock circuitry.

The sensor is used for navigation and localization purposes. There are many types of sensors available like Infrared sensor, Touch sensor, RF sensor etc.In this project Retro-reflective sensor has been selected because recognize objects independent of their surface qualities.

Software coding is to be developed for robot movements using microcontroller programming. Another code is to be developed for interfacing robot with PC using RS 232C serial interface.

Genetic algorithm is proposed to use for providing guidance to the new user with in the known environment. .

S.NO	ACTIVITIES	AUG 07	SEP 07	OCT 07	NOV 07	DEC 07	JAN 08	FEB 08	MAR 08
1	Literature survey	■	■						
2	Hardware design			■	■				
3	Software design					■	■		
4	Algorithm -survey and selection			■	■				
5	Implementation of algorithm					■	■		
6	Construction of Robot						■	■	
7	Report submission								■

Thus the literature survey has been done and the objective and methodolgies has been clearly defined

1   J. Buhmann, W. Burgard, A.B. Cremers, D. Fox, T. Hofmann, F. Schneider, J. Strikos, and S. Thrun,.*" The Mobile Robot RHINO"*. AI Magazine, 16(2):31–38, 1995.

2   Bruce A. Maxwell, Lisa A. Meeden, Nii Addo, Laura Brown, Paul Dickson, Jane Ng, Seth Olshfski, Eli Silk, and Jordan Wales, *" Alfred: The Robot Waiter Who Remembers You"*. AI Magazine, 1999.

3   Reid Simmons, Dani Coldberg, Adam Goode, Michael Montemerlo, Nicholas Roy, Brennan Sellner, Chris Urmson, Alan Schultz, Myriam Abramson, William Adams, Amin Atrash, Magda Bugajska, Michael Coblenz, Matt MacMahon, Dennis Perzanowski, Ian Horswill, Robert Zubek, David Kortenkamp, Bryn Wolfe, Tod Milam, and Bruce Maxwell, " *GRACE: An Autonomous Robot for the AAAI Robot Challenge"*. AI Magazine, 2003.

4   Sebastian Thrun, Maren Bennewitz, Wolfram Burgard, Armin B. Cremers, Frank Dellaert, Dieter Fox, Dirk Hahnel, Charles Rosenberg, Nicholas Roy, Jamieson Schulte, and Dirk Schulz, "*MINERVA: A Second-Generation Museum Tour-Guide Robot"*. In ICRA, 1999.

5   Richard Thrapp and Christian Westbrook and Devika Subramanian Department of Computer Science , "*Robust Localization Algorithm for an Autnomous Campus Tour-title"* In ICRA, 2001.

6   Jianping Tu and Simon X. Yangt ,"*Genetic Algorithm Based Path Planning for a Mobile Robot"* ICRA 2003.

EMERGE-08: National Level Technical Symposium at Valliammai Engineering College

A National level technical symposium "Emerge08" was conducted by the department of Electrical and Electronics engineering in association with IEEE Valliammai student branch on 16th and 17th September 2008. The symposium was inaugurated by the chief guest Thiru. S. Rajavel-Vice President and Head, Electrical Instrumentation and Communication Sector, Larsen and Turbo Limited and Vice Chairman, IAS, IEEE Madras section. The guest of honour was Thiru. H .R. Mohan-Associate VP Systems, "THE HINDU" and the Chairman of IEEE Computer Society, Madras Chapter.

The presidential address was presented by professor R. Venkataramani-Director, CA and S, SRM University. The welcome address was given by DR. M. Balasubramanian, Principal, VEC. Following this Dr. D. Padma Subramanian, HoD, Department of EEE, in her felicitation briefed about the achievements of the department and objectives of the symposium. The souvenir magazine and CD were then released by the chief guest and guest of honour respectively.

The symposium had a number of technical and non-technical events spread over the two days. In all 450 students from around colleges across the country participated. The pool of technical events included paper presentation, robotics, circuit debugging. A practical demonstration of generation of electricity from Hydel sources through prototype of Hydro Alternator made by R. Karthik, G. Kumaran and M. Deepan of third year EEE drew much appreciation and attention. In the non-technical pool events included ad-zap, dumb charades, treasure hunt, mock interview, ship-wreck and quiz.

In the paper presentation, out of 150 papers received, 15 were short listed for the finals. The papers were tested in innovation, result analysis, social relevance. 'Intelligent Accident Prevention Using Wireless Sensor Network' by students from Velammal Engineering College was adjudged as the best paper. The second prize went to 'Staircase Climbing Wheel Chair' by students of Sri Sairam Engineering College.

The Second day of the programme, 17th Sep 2008, started with an enlightening seminar. Finals for several events like gaming, technical quiz, puzzles, Dumb-charades, mock interview and robotics were held. Events like mock interview, JAM were conducted to assess the students of their communication skills and acted as a morale booster to instill confidence in them to face interviews. Events such as ad-zap, dumb charades fostered team spirit in the participants and instigated their creativity and spontaneity. Gaming proved to be a real time fun for the participants. In Technical quiz participants were put in to test their techie quest.

The two day fiesta was concluded with the valedictory function which was presided over by Thiru. M. Myilvaganan, General Manager HR & Admin., ESAB India limited. He distributed the prizes to the winners. Cordinators of EMERGE'08, Mr. G. Madhusudhanan and Mr. S. Parthasarathy gave vote of thanks. In all, a galore of hidden talents was brought to the limelight over the two days. The event also fomented a sense of cooperation and team spirit among the staff and students of EEE department.

13-14, Feb 2008 at Chennai. Organized by Dept.of Information Technology and IEEE CS Student Branch Chapter, Aarupadai Veedu Institute of Technology, Chennai in association with IEEE Computer Society, Madras Section & CSI Division-II on Software. Last date for Paper submission: 31st Dec, 2008. For details, pl. contact: Dr.A.Anthony Irudhayaraj, Convener, NCISE, Department of Information Technology, Aarupadai Veedu Institute of Technology, Rajiv Gandhi Salai, Paiyanoor – 603104, Phone: 09443884732, 09444812756, Email: ncise2009@gmail.com

Open House Exhibition at Kongu Engineering College

An Open House Exhibition was conducted by IEEE Student Branch of Kongu Engineering College during 8-9, Aug 2008.

The various events conducted include: multimedia contest, display of the spectrum magazines, software awareness, and treasure hunt.

Students from various schools in and around Erode district, students from various colleges, public bodies and social people visited the Open House Exhibition. Students of Kongu had exhibited various models and projects. School students had also presented various exhibits.

The IEEE stall was arranged in am IT PARK class room. The spectrum magazine, IEEE Madras Section newsletter, and the Institute issues of past two years were displayed in the stall. People enthusiastically read the various articles and enhanced their ideas regarding the new technologies.

A large no. of teams participated in the treasure hunt competition. There were a total of six rounds. The first clue consisted of decrypting the given codes to get the second clue which was a crossword. The participants had to find the location in the crossword to find their next clue which was a puzzle. The teams, who solved this, were given a mirror image as the fourth clue. The location of the next clue was the solution of the mirror image. After unraveling the location, the fifth clue was found that was based on problem solving. Finally, if teams found the answer to the puzzle, they would win the treasure. On 8th no teams were able to reach the treasure. On 9th three teams won the treasure and awarded prizes.

A multimedia contest open to all IEEE members was conducted. A total of 19 entries were received. The topic for the presentation was awareness, where students submitted projects on Global warming, Cell phone radiation, etc. Three best projects were acknowledged and all the multimedia projects were displayed in the stall for creating awareness to the public.

Various software like flash, Photoshop, etc were explained to the general public. This session mainly concentrated on improving the basic knowledge of the public about computers and the software available.

Report by: Ms. Purnima Jothikrishnan, Secretary

Forthcoming Events

- covering Business, Technology, Infrastructure and Society at Mumbai during 2-4, Dec 2008, Mumbai. Jointly organized by the Computer Society of India and the Bombay Management Association. For details pl visit http://www.it2020india.com

4-5, December 2008 at Cochin University of Science & Technology, Kochi; For details pl. contact Ms. Mini Ulanat, email: icccn08@gmail.com , mini_u@cusat.ac.in / ncsoft08@gmail.com

: IEEE Conference and Exhibition on Control, Communication and Automation at IIT Kanpur by IEEE Uttar Pradesh Section and IEEE India Council during December 11-13, 2008. For details http://www.ewh.ieee.org/r10/uttar_pradesh/indicon2008/

; 14 – 17, December 2008, MIT Campus, Anna University, Chennai, India; For details, pl. visit http://annauniv.edu/adcom2008/

18-20, Dec 2008 at Chettinad College of Engg and Technology, Karur. Supported by IEEE ED Society & ZIPS Research Foundation. For details pl. contact Dr A.P. Kabilan, email: icccn08@gmail.com , apkabilan@gmail.com.

Theme: Intelligent sensing and control (towards energy management and environmental preservation); 4 – 6, Jan 2009, Chennai, India; Organised by: Dept. of Instrumentation Engg., MIT Campus, Anna University, Chennai; For further details pl. contact: Dr. T. Thyagarajan, email: tima_2009@rediffmail.com

8-10, Jan 2009, Virudhunagar, Tamil Nadu; Organized by Dept. of CSE, Kamaraj College of Engineering & Technology; Supported by: IEEE Madras Section, IEEE Computer Society - Madras Chapter, Computer Society of India - Div II (Software). For Further details, pl. contact: Er. N. Saravana Selvam, email: icetic2009@gmail.com, Website: www.icetic2009.org/

8 – 10 January 2009, Chennai, India; Organized by: Rajalakshmi Engineering College, Chennai; In Association with: IEEE Computer Society - Madras Chapter, Computer Society of India - Div II (Software) & Chennai Chapter, Indian Institute of Information Technology and Management – Kerala. For further details, pl. contact: Website: http://www.rajalakshmi.org/icwis09, email: icwis09@rajalakshmi.org

: 6 – 7 Feb, 2009 at Kochi. Organized by: School of Computer Science, Rajagiri College of Social Sciences, Cochin in association with Computer Society of India (CSI) Div II on Software and CSI Cochin Chapter. Send the papers by 15th Dec 2008 to Mr. Madhu S. Nair at the email: madhu_s_nair2001@yahoo.com/ madhu.rajagiri@gmail.com. For details visit the website at visit www.rajagiri.edu

: March 20 - 21, 2009 at Kumaraguru College of Technology, Coimbatore. For details contact: Convener Prof. K. Regupathy Subramanian, Dean R&D/EEE. Email: ieecons09@yahoo.co.in

Technotrix-08: Project Contest at Kumaraguru College of Technology

The IEEE-KCT Student Chapter, organized "Technotrix-08" project contest on 6th Sep 2008 for engineering college students. In total 104 students participated and demonstrated 28 projects. This project contest was to motivate the students so as to enhance their technical and practical knowledge .The KCT Management, Staff and Students showed great interest and enthusiasm in organizing this contest. Three cash prizes were awarded for the following best projects.

I	Vickram College of Engineering	Ground Water Depth Detector and Informer	C. Nithyanandam N. Jaheerhussain A. Elango M. Vasudevan
II	Kumaraguru College of Technology	Speed Control of 12v DC Motor by using Short Message Service	V. Pradeep S. Hariprashadh R. Sriramayyapan P.L.J. Nirmal Raja
III	Vickram College of Engineering	Automatic Irrigation Pump using Solar System	M. Siva Baarathi S. Gouse Mydeen S. Arvind M. Krishnaraja

Faculty Development Programme on TRENDS IN COMPUTING

20 – 21, December 2008

Technology Park, Bharathidasan University, Tiruchirappalli - 23

The FDP is aimed at faculty members of Engineering/Science colleges in Tamil Nadu, specifically for those who have taught courses on trends in computing.

There is no course fee for IEEE members and for non-members the course fee is Rs.1000/. Non members will be refunded the course fee if they become member within one year. The number of seats is limited and the participants will be chosen on a first-come-first-served basis provided they satisfy the criterion of having taught a course in related area. The fee includes course material and lunch. Accommodation and transport will be the responsibility of the participants.

Title: Trends in Computing

Pervasive Computing; Autonomic Computing; Open Source Computing; Web Mining; Text Mining; Grid Computing; Image Processing

R M Chandrasekar, Anna University, R Krishnamurthy, Anna University; S. Nickolas, NITT; Maluk Mohammed, CSI; A.Vadivel, NITT; S. Kalaivani, BUTP.

IEEE Madras Section, Room No. 3, ISTE Professional Centre, Gandhi Mandapam Road, Chennai 600 025. Tel : +91 44-24423939, Cell : 9382328776, Fax: 044-24423939, Email: ieeemas@eth.net OR Prof. Gopinath Ganapathy, Director, Technology Park, Bharathidasan University, Khajamalai Campus, Tiruchirappalli–620023, Ph: 0431-2331663, Fax: 0431-2331662, Email: director@butp.org

Dr. Prabhaker's Programme at VIT University

As a part of the Distinguished Lecture Programme, co-ordinated by the IEEE Computer Society Madras Chapter, Dr. M. Prabhaker, Associate Professor, Dept. CSE, Wright State University visited the leading Indian universities and institutes during July-Aug 2008.

During his visit to VIT University on 20th August 2008, he interacted with senior officials of VIT and faculty members of School of Computing Sciences.

In the morning session on 20th August, he conducted a tutorial on open source software for the target audience 3rd Year M.S. (Software Engineering) Students. This tutorial was attended about 180 students (including a few students from other Schools of VIT and engineering colleges from near by regions). The tutorial was coordinated by Ms. P. Swarnalatha, Sr. Lecturer and her student organizing team.

In the afternoon session, Dr. Prabhaker interacted with the newly admitted students of 1st year MS-Software Engineering programme. He had delivered an interactive talk on "The Computer, Society and You" which was attended by about 200 students. The session was coordinated by Mr. R. Thandeeswaran, Sr. Lecturer and his team of students. It was very significant day for the MS-Software Engineering, VIT's largest academic programme (and perhaps, India's largest software engineering programme). This five-year integrated master of software engineering programme has about 1500 students on its roll as of now in the 40th year of software engineering discipline being celebrated internationally. Dr. Prabhaker was also very special as it coincided with 15 years completion of computing education at VIT and also 15 years completion of IEEE Student Branch.

Report by Prof. H. R. Vishwakarma, VIT University

Distinguished Lecture Programme (DLP) by Dr. Prabhaker Mateti at Pondicherry University

As a part of the DLP organized by IEEE Computer Society, Madras Chapter, Distinguished Lecture Programmes on "Everything You Should Know About Linux" & "Cluster Computing With Linux" by Dr. Prabhaker Mateti, Associate Professor, Computer Science and Engineering, Wright State University, Ohio, USA.was organized by Department of Computer Science, Pondicherry University on 22nd of August 2008 at Department of Computer Science, Ramanujan School of Mathematics and Computer Science. The welcome address was delivered by Dr. G. Aghila, Professor and Head, Department of Computer Science.

About 60 participants, mostly, faculty members from Department of Computer Science, Department of Banking Technology, Department of Bio-Informatics, Pondicherry University and Post graduate students from the Department Computer Science, Pondicherry University attended the Lecture.

The lecture was presented in two sessions. Session I Everything you should know about Linux & Session II: Cluster computing with Linux. The lecture was very detailed in nature. To summarize, the titles coverage were very depth and provided fundamental information also.

The summary of feedback provided by participants of the Lecture include: The lecture was able to cater for all levels of ability and it was very much enjoyable; At times when people found it hard to understand the resource person went back over the steps without letting anyone feel that they were lagging behind; The lecture sessions were peculiar, continually fascinating and enriching the ideas related to the topic; They all found the lecture very interactive and discussion oriented; Many of the participants wanted some practical sessions on the topics covered. More emphasis would have been given to research possibilities and opportunities regarding the field.

Nine business and soft skills techies need

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- Initiative.
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- The ability to get a point across.
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