Chairman’s Message

Dr. T. Thyagarajan
thyagu_vel@yahoo.co.in

Esteemed Members,

At the outset, on behalf of the Executive committee of IEEE Madras Section, I wish you a very happy and prosperous new year 2011. I am sure you would have made some resolutions on the new year eve. May the Almighty bless you the will power for the successful implementation of all those resolutions you have made. In my December 2010 message, I presented some details on GATE-2011. Now, it is the placement season. All the final year student members will be preparing well for facing the interviews. Top companies select the candidates based on their performance in the written test (both technical and aptitude), group discussion, interview (both technical and HR) and of course with weightage for the academic performance. Let me present some useful tips to face the interview, frequently asked questions and the expectation of the interview board members (especially HR).

USEFUL TIPS TO FACE INTERVIEW

- Prepare comprehensive curriculum vitae (biography/resume).
- Know about the company and the nature of job by browsing their website or from the pre-placement talk.
- Read Frequently Asked Questions (FAQ), prepare the answers and practice their presentation.
- Dress up decently to maintain the dignity.
- Reach the venue on time to avoid nervousness.
- Clarify your doubts about the job and company during pre-placement talk.
- Sit up straight and speak loudly, boldly, clearly, honestly with confidence, by looking at the interview board members.
- Show your willingness and zeal to accept any assigned work.
- Highlight your scholastic achievements, special abilities and value added skills etc.
- Never discuss your personal problems.
- Thank the interview board members before leaving the board room.

FREQUENTLY ASKED HR QUESTIONS

- Tell me about yourself
- What are your big accomplishments?

From The Editor’s Desk

H.R. Mohan
hrmohan@gmail.com

Dear Friends,

LINK wishes all its readers a HAPPY AND PROSPEROUS NEW YEAR 2011.

Our Section Chairman, in his current month message has provided useful tips relating to placement opportunities. This comes after he has detailed out higher education opportunities in earlier month messages. It is a timely update for the student community.

LINK congratulates the Info Contest 1012 winners, Mr. V.C. Sivachandar of Kongu Engineering College and Ms. R. Shanthi Shankar of Bannari Amman Inst. of Technology who will receive books as prizes from Shroff Publishers & Distributors Pvt Ltd.

The proceedings three international conferences – ICSIP-2011 on Signal and Image Processing organized by RMD Engineering College, FAME-2011 on Frontiers in Automobile and Mechanical Engineering organized by Sathyabama University and INCOCCI-201 on Communication and Computational Intelligence organised by Kongu Engineering College are published in detail along with a no. of seminars and workshops which include: Seminar on PSTN VoIP & Ubuntu – Asterik Open Source at AVIT, Seminar on Research Challenges and Opportunities in Computer Vision at Dr NGPIT, Seminar on Careers in Semiconductor Industry at KSRCT, Seminar on Network Security and Ethical Hacking at AVIT, Seminar on Energy Conservation Workshop on Python Programming at REC, Workshop on Embedded System Design and Programming at SVCE.

We have also published brief reports on other events such as: SPAVE’10 at KEC, Industrial Visit organized by KSRCT, Participation in IEEE Xtreme Competition by SRCE students, Membership drive programmes at Jeppiaar & at Sri Krishna College of Engineering, and IEEE Day Celebrations held at SKCE.

The article on “Global Climate Change Challenges – Role of Metering & Proposed Public Policy” based on the talk given by Mr. Ramani Iyer on 30th Dec 2010 will interest our readers in the context of current trends and global attention to climate change.

We draw the attention of our readers to the IEEE Presidents’ Change the World Competition, Call for Papers and Participation in the student programme being planned at SREC, Coimbatore, international conference on Recent Trends in Information Technology at MIT, Anna University, Chennai and national conference on VLSI, Embedded Systems, Signal Processing & Communication Technologies at AVIT.

A workshop on Research Methods is being organized in Feb 2011 by IEEE CS, IEEE PCS & CSI. We request the junior academic faculty, master level & research students and professionals to register and benefit.

Pl. avail the combined membership in IEEE, IEEE CS plus digital library access at USD 40/- for the year 2011. Also, avail the benefits of eMembership & hassle free renewal by paying in INR.

Pl. send the matter for publishing in LINK by 8th of every month as per the guidelines available at http://ieeecs-madras.managedbiz.com/guidelines-matter-for-ieee-mas-link.pdf

Editorial Team

Mr. H.R. Mohan, Dr. T. Thyagarajan, Dr. S. Salivahanan, Dr. P. Suresh Chander Pal, Mr. T.S. Rangarajan, Mrs. M. Ramalatha
Seminar on PSTN VoIP & Ubuntu-Asterisk Open Source at AVIT

Technology, Aarupadai Veedu Institute of Technology organized a one day seminar on PSTN VoIP & Ubuntu-Asterisk Open Source.

The seminar was supported by IEEE Computer Society, Madras Chapter and the sessions were held on Thursday, the 16th Dec 2010 at Aarupadai Veedu Institute of Technology, Paiyanoor.

Mr. Kannan Nadarajan – Technical Leader, Unification Communication shared the information about VoIP infrastructure, Mr. Sharma – Telecom Engineer, Unification Communication, spoke on Ubuntu Operating System, and Mr Arockya Meetpan – Telecom Specialist, Unification Communication focused the importance of Asterisk Open Source.

Prof. R. Kalavathy, Vice-Principal, AVIT delivered the presidential Address. Dr. A. Anthony Irudhayaraj, Dean (IT), AVIT welcomed the gathering and briefed the importance of Open Source Technologies.

Faculty members and students from the Department of Information Technology participated and benefited by this seminar. Mr. C. Karthikeyan, Head of The Department (Information Technology) proposed the Vote of Thanks.

students came out with their alluring presentations. The Project presentation was conducted simultaneously and many students implemented their ideas as projects. Various spot events were conducted to keep the session lively and active.

Valedictory function was initiated with the welcome address delivered by Mr K. Sharath Kumar, Executive Head, IEEE.

It was followed by the prize distribution to the winners of various events. Prof K. Narayanan, Staff co-ordinator, IEEE-KEC gave the Valedictory Address. Vote of thanks was proposed by Neha Gupta, Secretary, WIE-KEC. Finally the function came to an end by extending the gratitude to mother land through national anthem. On the whole SPAVE-10 was a blast with loads of innovation and creativity.

Report by: Neha Gupta, Secretary, WIE-KEC, nehagupta48@gmail.com

SPAVE’10 at Kongu Engineering College

At Kongu Engineering College, the IEEE student branch activities of even semester started with SPAVE 10, an interdepartmental function for the IEEE members conducted on 11th Dec 2010.

The zeal began by seeking God’s blessings through payer. Prof. K. Narayanan, Staff Advisor, IEEE - KEC delivered the welcome address. He appreciated the activities conducted by IEEE and added that it’s his pride to be a part of it. Inaugural function was presided over by Prof. S. Kuppuswami, principal of Kongu Engineering College.

The day geared up with the paper presentation event. The papers presented represented a wide range including most of the promising technologies like space power system, wireless technology etc. It was followed by Idea Generation event where in students came up with their innovative ideas and offered new perspectives in engineering community.

The afternoon session started with Multimedia presentation which helped students to incorporate their knowledge in software. The theme for presentation was terrorism and the students came out with their alluring presentations. The Project presentation was conducted simultaneously and many students implemented their ideas as projects. Various spot events were conducted to keep the session lively and active.

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Report by: Neha Gupta, Secretary, WIE-KEC, nehagupta48@gmail.com

Chairman’s Message continued....

- What are your special abilities?
- How do you deal with criticism?
- What are your hobbies?
- Why do you think that you are suitable for this kind of job?
- What do you want to be doing 5 or 10 years from now?
- What are your strengths and weaknesses?
- What is your career goal?

WHAT DOES HR MEMBER EXPECT FROM THE CANDIDATE?

- Sincerity and honesty in the answers.
- Attentiveness in listening to the questions.
- Body language, gesture, posture, eye contact and level of confidence.
- Stress handling, positive approach in answering the relevant questions.
- Enthusiasm, willingness and motivation for the current job.
- Exhibition of special skills, accomplishments, talents.
- Command over the communicating language

I am sure the placement tips listed above will be of some help to the student members to fare well in the interviews. I wish all of you the very best for your placement interviews.

Affectionate office bearer
Dr. T. Thyagarajan

Section Membership as on 15th January 2011

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ICSIP 2010: International Conference on Signal and Image Processing and International Student Tutorial Meet at R.M.D. Engineering College


These events were co-sponsored by IEEE Computer Society, IEEE Communications Society, IEEE Madras Section, Computer Society of India Div IV on Communication, CSIR, DRDO, ISTE, TCS, Tamil Nadu State Council for Science & Technology, Chennai Science City, University of Mysore and University of Leicester UK.

International Student Tutorial Meet

On 15th the tutorial meet was inaugurated by Dr. K.C. Gowda former Vice Chancellor of Kuvempu University.

First tutorial which gave an insight on “Image Processing and its Applications”, was presented by Dr. S. Rakshit, Head Computer Vision, CAIR, Bangalore. This tutorial coverage included: an overview on multi resolution, Filtering techniques, Burt pyramids wavelet, Aliasing effects on edges with various real time examples, Image magnification, Noise reduction in images, PC based noise reduction, Multi resolution cording, Image restoring, Image registration, Image mosaic, Segmentation (Image/Video), Image and video fusion and its applications.

The second tutorial was on “Semantic Web and Linked Data”. It was presented by Dr. Monika Solanki, Professor, University of Leicester, U.K. The tutorial highlighted on: Motivation towards the Semantic Web application moving from Syntactic Web (Current web), Overview on Semantic Web and its technologies, Data linking and various applications, Ontology concepts, Structure of ontology and its needs, Ontology language for Semantic Web, Ontology engineering on Semantic Web, Resource Description Framework (RDF), owl.

These tutorials were attended by over 100 students of which two were from Australia and two were from UK.

Conference on Signal & Image Processing

On 15th Dec 2010 evening, after the tutorial meet, the conference was inaugurated by Dr. P. Mannar Jawahar, Vice Chancellor, Anna University Chennai. Mr. T.S. Rangarajan, Principal Consultant of TCS delivered the special address. Thiru R. S. Munirathnain, Founder-Chairman, RMK Group of institutions presided over the inaugural function. Felicitations were offered by: Dr. K.C. Gowda, Former Vice-Chancellor of Kuvempu University, Dr. Monika Solanki, Professor, University of Leicester, UK, Shri H.R. Mohan, Chairman CSI Div IV & IEEE CS Madras, Dr. M. S. Palanichamy, Vice Chairman, Tamilnadu State Council for Technical Education, Chennai, Shri T. Pichandi IAS (Retd.), Shri. R. M. Kishore, Vice Chairman, RMK Group of Institutions, Shri Yalamanchi Pradeep, Secretary, RMK Group of Institutions and Dr. Daniel Chandran, Professor, University of Technology, Sydney, Australia. At the beginning, Dr. K. Sivaram, Principal, R.M.D Engineering College welcomed the delegates and Dr. R. M. Suresh, Vice-Principal, R.M.D. Engineering College provided the highlights of the conference. Dr. K. Dharmalingam, Dean, R.M.D. Engineering College proposed the vote of thanks.

Out of the 350 research papers received from 16 countries including India 105 were selected for presentation which included 15 papers from abroad. During the conference, 75 papers were presented on different areas like image processing, computer vision, signal processing and data mining. The papers were presented by two delegates from abroad and 73 from premier institutions like IIT Delhi, IIT Mumbai, IIT Hyderabad, IISC Bangalore, ISI Kolkata, IGCAR, TIFR, Tata Innovation Laboratory, NIT Warangal, NIT Dhurgapur, NIT Suratkal and NIT Trichi presented their research papers in the conference.

On 16th and 17th Dec, three keynote addresses were delivered. The first one was delivered by Dr. K. Chidnanda Gowda, Former Vice Chancellor, Kuvempu University, Advisor, Wipro, Bangalore. It was on the theme of the conference “Signal and Image Processing”. The second keynote address was by Dr. Dipit Prasad Mukherjee, Professor, ISI Calcutta on “Organ shape visualization using statistical shape model”. The third keynote address was by Dr. P. Nagabhushan, Professor, University of Mysore delivered on “Research problems around us: Image processing based futuristic problems”.

On the second and third day, the research papers were presented in four parallel tracks namely image processing, Document processing & computer vision, Bio metrics & Bio medical signal processing and Data mining. The international journal “Image and Computer Vision” by ELSEVIER and MAJEST, IRAN Journal of Electrical Engineering have proposed to bring out special issues based on the papers presented in this conference.

During the conference, IEEE-ICSIP awards were presented to Dr. Dipit Prasad Mukherjee, ISI Kolkata and Dr. L. Ganasan, ACCET, Karaikudi for their achievements in Image Processing and Pattern Recognition area over a decade.

At the valedictory function, Prof. P. Thrimuthy, President, CSI addressed the participants on the importance of research in cutting edge technologies and highlighted the role of CSI in this direction. Dr. C.R. Chakravarthy, Convener, CSI-SIG on Information Security (CSI-SIG-IS) recommended and announced that RMD Engineering College could be nominated as a CSI Research Centre in Information Security being promoted by CSI-SIG-IS.

The conference was attended by over 200 participants which included researchers, academic faculty, students and industry professionals. The conf. proceedings both in print and on CD were released at the inaugural session.
Seminar on “Research Challenges and Opportunities in Computer Vision” at Dr. NGP Institute of Technology

Nov 2010. Dr. K. Porkumaran, Vice Principal and Branch Counselor welcomed the gathering and gave an insight on computer vision for real time applications. Dr. S. Dhandapani, Principal highlighted the major challenges faced during the research process.

The Chief Guest Dr. Ramachandran Bremananth, Post Doctoral Research Fellow, Nanyang Technological University, Singapore motivated the faculty to carry over quality research. He stated that quality research results in novel innovations which will contribute to the country’s economy. He differentiated the theoretical and practical difficulties faced in the field of research. He emphasized that fundamental concept of mathematics plays an important role in quality research on any specialization. He accentuated on various themes viz., interdisciplinary research, computer vision, research opportunities, funding, publications without plagiarism etc.

Mr.R.Karthik, IEEE Coordinator delivered the vote of thanks. Professors, IEEE Coordinators- Mr.S.Prabakar, Mr.R.Karthik, WIE Coordinators - Ms.V.Priyadharshini, Mrs.P.Pradeepa and over 250 participants comprising faculty members and students attended the seminar and benefited.

Report by: Dr. K. Porkumaran, Branch Counselor, Porkumaran@iee.org

FAME-2010: International Conference on Frontiers in Automobile and Mechanical Engineering at Sathyabama University

The event International Conference on Frontiers in Automobile and Mechanical Engineering – 2010[FAME -2010] was organized by Sathyabama University in association with Ashok Leyland, SAEINDIA, Southern Section, Chennai, and IEEE Madras Section. The motive of the conference is to create live opportunities for Industrialists, Scientists, Engineers, Technocrats, Research Scholars and Students to discuss and formulate some innovative directions for the future of the fast moving world of automobiles.

The Chief Guests for the international conference are Mr. Asit K Barma, Chairman, SAE INDIA, Southern Section, Chennai, Dr. G Krishnamoorthy, Professor Emeritus, San Diego State University, USA, Dr. Ing Helmut Wolf, Chairman, QNET quality Network, Germany and Dr. R. Mahadevan, Group Technology Director, India Pistons Ltd, Chennai. They were given a warm and colourful welcome by the staff and students of Sathyabama University.

Inaugural Function- 25-11-2010:

The International Conference started with auspicious singing of the Tamil Tha Valthu. Welcoming the gathering, Dr Sasi Prabha, Dean of Sathyabama University, called upon the scientific community to actively cooperate in meeting the objective of the conference.

In his Presidential address Dr.Jeppiaar the Chancellor of Sathyabama University highlighted the importance of the collaboration of software with hardware in the mechanical and automobile production. He stressed that infrastructure should be made suitable for the growing needs of the mechanical and automobile engineering industry.

Dr. G. Krishnamoorthy in his inaugural address pointed out that the development in the field of automobile engineering can only save the planet. He added that light weight, recyclable and low energy consuming cars are the need of the hour.

Mr.Asit K Barma mentioned that India has made progress in IT, manufacturing etc. India now leads in driven manufacturing. Chennai has been the focus of all car manufacturing companies to set up their factories in and around Chennai. It is now on par with Germany in the production of Cars.

Dr. R. Mahadevan in the keynote address stated that climate change and sustainability were linked with the mobility and mechanical industry. Emission reduction, sustainability, fuel flexibility, affordability, safety, recyclability and bad infrastructure are the challenges faced by automobile industry. These challenges should be successfully tackled by the future generation of the automobile industry.

The Technical Sessions:

The Conference featured presentations by eminent national and international experts on various aspects of automobile and mechanical engineering. The presentations were grouped into twelve different technical sessions to cover the topics including Composite Materials, Internal combustion Engines, Thermal Engineering, Production Engineering, Engineering Design, Automobile Engineering.

The following invites chaired the sessions and delivered an invited talk
Dr. M. Kamaraj, Professor, IIT/Madras, Chennai. Dr.S. Arul, Professor, Panimalar Engineering College. Dr. J. M. Malikaarjuna, Professor, IIT Madras, Chennai. Dr. C. G. Saravanan, Professor, Annamalai University. Dr. R. Venkatasamy Principal, Saveetha Engineering College Dr. G. Devaradjane, Professor MIT, Chennai. Dr. D. Thirunakkarasu, Chairman, Institution of Engineers (India) Tamilnadu State Centre. Dr. G. Palani, Deputy Director, SERC, Chennai. Mr. A. R. C. Murthi, Assistant Director, SERC, Chennai. Dr. Muthuveerappan, Professor, IIT Madras, Chennai. Dr. K. Veluchamy, Scientist, IICAR, Kalpakkam. Mr. Jeevandass, Assistant General Manager (Product Development), Ashok Leyland, Chennai. Mr. C. Subburaj, Manager (Manufacturing) Ford India Ltd, Chennai. Dr. Vaidehi Ganesan, Scientist, IICAR, Kalpakkam.

One hundred and fifty papers were selected to be published in IEEE xplor. The topics covered different areas related to the main theme and sub themes of the conference, reflecting the concern of the scientific fraternity for technological, social, ethical and political responses to the changes in the field of mechanical and automobile engineering.

The Valedictory Function – 27-11-2010:

The valedictory function was held on 27th Nov, 2010 at the university campus. The Dean, conference and publications appreciated the tremendous efforts of various departments and welcomed the participants and the chief guests to the valedictory function. In the presidential address.

Dr. Jeppiaar, The chancellor, Sathyabama University, stressed the idea that the women folk should come forward to study mechanical, automobile and production engineering. He added that now-a-days computers are playing a vital role in the automobile and machine manufacturing industries. Dr. Jeppiaar pointed out that though a very few participants are from abroad, the conference was really an international conference because it has got the valuable thoughts presented by the Indians who are wiser than the foreign delegates.

Dr. T. Thyagarajan, Chairman, IEEE Madras section gave the valedictory address. He appreciated the conglomeration of technical sector for the conference. He affirmed that all those papers selected for presentation will be published in the IEEE explore. He mentioned that the participation of IEEE, SAE INDIA and Ashok Leyland has added enormous advantage to the international conference. The chief guests Mr. Asit K Barma of SAE INDIA, Dr. R. Mahadevan of India Pistons Ltd Chennai, Dr. Ing Helmut Wolf of QNET Quality Networks, Germany have made this conference an inevitable conference in the history of Mechanical and Automobile Engineering sectors. He requested the participants of the conference to utilize the gained knowledge by practicing them. Until then the knowledge gained by them will not be fruitful. He applauded the organizers of the conference. He distributed the cash prize of $100 to 12 best paper presenters of the conference. Also, awards were given to three best Exhibitors and three Model contest winners.

Workshop on Python Programming at Rajalakshmi Engineering College

A three day workshop on Python Programming was organized by the Student Branches of IEEE, IEEE Computer Society & Computer Society of India of Rajalakshmi Engineering College (REC), Chennai during 20-22, Dec 2010. The workshop was supported by IEEE Madras Section and IEEE Computer Society, Madras Chapter.

Python is an open source, high-level and powerful programming language that is well suited for scientific computing. The aim of the workshop was to provide training to the students on the use and benefits of Open Source Software and the following aspects of Python Programming was covered:

- Introduction to Python programming
- Control structures
- Functions & Modules
- File Handling, Matrix & Arrays
- Scientific Tools & Applications

The workshop started with welcome address by Dr. S. Renganarayanan, Principal, REC. The introductory talk about the workshop was given by Dr. Sheila Anand, Executive Committee Member, IEEE Madras Section & Treasurer, IEEE Computer Society, Madras Chapter. The workshop comprised of lectures interleaved with hands-on training.

The workshop was conducted by members from the Indian Linux User Group, Chennai and the resource persons were:

- Mr. T. Shrinivasan, Collabnet Inc., Coordinator, Indian Linux User Group, Chennai
- Mr. B. Sriram Collabnet Inc.
- Mr. B. Swaminathan, REC
- Mr. Benedict Jayaprakash Nicholas, REC
- Mr. M. Anand Raj, REC

The workshop was well attended and 35 students from various engineering colleges and universities from TamilNadu participated in the workshop. The Chennai college participants were from Aarupadai veedu Institute of Technology, Bharath University, Jaya Engineering College, Jeppiaar Engineering College, Rajalakshmi Engineering College, Rajalakshmi Institute of Technology, Sri Sai Ram Engineering College, SSN College and Vel University and Muthayammal Engineering College, Namakkal.

The workshop received an excellent feedback from the participants and they had appreciated the method of delivery, model programs and the hands-on exercise. The participants were provided with course material and other reading material in a DVD. Mr. Rahul Sundaram, Red Hat India Pvt. Ltd. provided Fedora -14 Linux DVD to all participants.

The valedictory address was delivered by Prof P Kumar, Secretary, CSI, Chennai Chapter and Prof M. Palanivel, IEEE Student Branch, REC handed over the certificates to the participants for their successful completion of the workshop.
Industrial Visit arranged In K.S.Rangasamy College of Technology

The IEEE student branch of K.S. Rangasamy College of Technology, Tiruchengode, organized an Industrial visit to Seshasayee Paper and Boards Limited, Pallipalayam, on 2nd Dec 2010. The industrial visit was initiated by Dr. S. Thangavel, HOD, Department of Electrical and Electronics.

Mr.K.Ramani, Assistant Professor, Department of Electrical and Electronics Engineering accompanied the Post Graduate students of Power Electronics and Power System for the Industrial visit. During the Industrial visit, the students gained exposure to microcontroller based applications and power electronics applications in the paper industry.

Report by: Mr.S. Saravanan, AP/ECE, saravansans@ksrct.ac.in

IEEE Xtreme Competition at Sri Ramakrishna Engineering College

IEEE conducted IEEE Xtreme 4.0 (24 hour programming competition) exclusively for the IEEE members. Nearly 1000 members from all over the world participated in this competition.

Active participation of student members from our branch proved to be a good start for the progress of the branch. This contest provided an opportunity for the students to showcase their skills in the programming platform and also helped the students to develop their analytical ability.

We thank IEEE for conducting events such as IEEE Xtreme 4.0 unto the all-round development of Student members.

Report by: R. Shanmugasundram, IEEE Faculty Coordinator & Asst. Professor, rss_ts@ieee.org

Membership Drive at Jeppiaar Engineering College

IEEE Student Branch of Jeppiaar Engineering College conducted a Membership Drive on 8th December 2010 for the 1st year students. The program was aimed to provide the importance of IEEE, its membership and services.

The membership drive commenced with the Tamil Thai Vazhthu. Mr. Manoj Reddy, II year EEE student member, delivered the welcome address. The introduction to IEEE, its evolution, mission and vision, was laid by Ms. Madhuri Kala, II year, EEE, followed by Mr. Nivas Ravichandran, II year ECE and Mr. Sharon Roy, II year EIE, who highlighted the benefits of membership through an interactive session.

Ms. Apoorva Naidu, II year ECE and Ms. Divya, II year EIE briefed the events occurring around the globe and within the student branch as well. Snethaline, III year, ECE student member, emphasized the values of membership.

The overall session was outstanding which enabled students to know about role of IEEE throughout their engineering career. Around 400 students participated in this program. The conclusion was marked by the motivational talk by our student Chair, Mr. B Anand and Vice Chair, Mr. Rohit Jeydev. The session received an exemplary feedback. The program ended with the National Anthem.

“Gratitude is the memory of the heart.” We would like to express our gratitude to our Honorable Chairman, Dr. Jeppiaar, our Branch counselor, Mr. S. Sellakumar and all the student volunteers without whose endeavor the program would have not turned out to be a success.
IEEE-MAS Link
Volume: 8  Issue: 1  January 2011

NCVESCOM - 2011
4th National Conference on VLSI, Embedded Systems, Signal Processing & Communication Technologies
7-8, April 2011
Organised by
Department of ECE
Aarupadai Veedu Institute of Technology
Vinayaka Missions University
Paiyanoor – 603104
Near Chennai
Co-sponsored by
IEEE Communications Society
Madras Chapter
IEEE Computer Society
Madras Chapter
IETE Chennai Centre
Computer Society of India
Div IV – Communication
Broadcast Engineering Society (India)

CALL FOR PAPERS & PARTICIPATION
Paper Submission: 5th Feb 2011
Intimation of Acceptance: 4th Mar 2011
Registration: 12th Mar 2011
Conference Dates: 7-8, Apr 2011

For further details, pl. contact
Prof. D. Vijendra Babu
Conference Co-Chair – NCVESCOM-2011
HOD/ECE, AVIT
Phone: +91-9443538245
Email: ncvescom2011@gmail.com
Website: www.avit.ac.in

IEEE MAS LINK
Info Contest
H.R. Mohan
Chairman, IEEE CS, Madras Chapter
Editor, IEEE MAS LINK
AVP (Systems), The Hindu, Chennai

Info Contest - 1101
1. The Microprocessor Intel ——— was the precursor to the very successful Intel 8080
2. Find the odd man: Athlon, Phenom, Opteron, Pentium
3. The ——— benchmark primarily measures the floating-point arithmetic performance
4. “The future is fusion” is the tagline of which IT company
5. The term “robotics” was coined by ———

Email your answers by 5th Feb 2011 to hrmoohan.infocontest@gmail.com with subject “Info Contest - 1101”. Please provide your name, designation, company/institution, full postal address (to send the prizes) and the contact phone nos. after the answers. The first person to answer correctly and one randomly selected lucky winner will be presented with books whose brief reviews appear below. The books are sponsored by Shroff Publishers & Distributors Pvt Ltd (www.shroffpublishers.com). Answers along with the winner info will be published in the next issue.

Info Contest - 1012
Answers & Winners
Zero, Alessandro Antonio Volta, Reciprocal, True, False
Mr. V.C.Sivachandar of Kongu Engineering College will receive the book “Electronic Design: From Concepts and Reality (Book with CD-ROM)” and Ms. R. Shanthi Shankar of Bannari Amman Inst. of Technology will receive the book “Basic Electrical Circuits” from Shroff Publishers & Distributors Pvt Ltd.

Prize Books for the Info Contest - 1101
Database Concepts and Systems: This book is written to address the needs of the students of CS, IT & MCA as a reference to database concepts and systems. Each chapter deals with basic concepts followed by how these concepts are applied in real world situations with reference to Oracle database. The self review & true or false questions at the end of each chapter and selective hands-on exercises reinforce the learning. Author: Ivan Bayross. Published by: Shroff Publishers & Distributors Pvt Ltd. Pages: 342+xvi. Price: Rs. 300/- More about the book at http://bit.ly/e3CGef

Readers of LINK can get these books at 15% discount with free shipping. Contact: spdchennai@shroffpublishers.com

Seminar on “Careers in Semiconductor Industry” at K.S.Rangasamy College of Technology

IN SEMICONDUCTOR INDUSTRY on 9th Dec 2010. The day began with the ceremonial tribute to the Almighty. Mr. V Saravanam, Assistant Professor, Department of ECE welcomed the gathering. Dr. K.B. Jayanthi, HOD, Department of ECE addressed the gathering. Dr. K. Thyagarajah, Principal delivered the principal address.

Mr. S. Saravanam, IEEE Coordinator introduced the chief guest, Mr. V. Rajaraman, Co-founder, Prodigy Techninations, Bangalore.

He briefly described about the opportunities in semiconductor industry. The lecture was attended by faculty members, PG students and the talk was highly interactive and thought provoking with questions raised by the participants and clarified as the presentation progressed.

The function came to a formal closure with Mr. G Premanathan, IEEE graduate student member, thanking everyone who made the event a grand success.

Report by: Mr. S. Saravanam, AP/ECE, saravanans@ksrct.ac.in

The IEEE student branch of K.S. Rangasamy College of Technology, Tiruchengode organized a seminar on CAREERS
Society Chapter Activities during Sep – Dec 2010


- 20th Nov 2010: Presentation by Dr. N. Sundararajan, Professor, (Retd.), School of Electrical & Electronic Engineering, Nanyang Technological University, Singapore on the topic “An Introduction to Space Technology”. Organised by IEEE Madras Section, IEEE CS, IEEE COMSOC, WIE.

- 23rd Nov 2010: Sixth Prof. T. R. Natesan Endowment Lecture by Dr. A. “Ravi” Ravindran, Ph.D, Professor, Industrial Engineering Department, Pennsylvania State University, USA on “Global Sourcing and Vendor Risk Management in Supply Chains”. Organised by ORSI Chennai, IEEE CS & CSI Chennai.


- 14-16, Dec 2010: ICoAC 2010: 2nd International Conference on Advanced Computing at Chennai, India. Organised by Dept. of Information Technology Anna University Chennai, MIT Campus along with IEEE Madras Section and supported by CSI Div IV & Chennai Chapter, IEEE CS, CDAC and UGC.

- 14th Dec 2010: Presentation by Mr. Narayana Mandaleeka, Vice President & Head - Business Systems & Cybernetics Centre, Tata Consultancy Services, Hyderabad, Chairman, IEEE, Hyderabad Section on “Leadership Skills for Surviving and Thriving in Modern Times”. Organised by IEEE CS, IEEE TMC, IEEE PES, IEEE PCS & CSI Chennai.


- 28th Dec 2010: Presentations on “Electromagnetic and Antenna Theory” by Mr. M. Senthil Kumaran, M.E., (Ph.D.), Assistant Professor, EEE Department, SSNCE & Mr. I. Nelson M.E., (Ph. D.), Assistant Professor, ECE Department, SSNCE. Organised by IEEE MTTS, IEEE Madras Section & IEEE Student Branch, SSNCE.


Workshop on Embedded System Design and Programming at Sri Venkateswara College of Engineering

The IEEE student branch of Sri Venkateswara College of Engineering, Sripurumubudur, conducted a two day workshop on Embedded System Design and Programming for the students of the college on 6th and 14th December 2010.

The workshop was tutored by the Chairman of the IEEE-SVICE student branch Mathew Cherian C and the Secretary Vivekanand V.

On the first day (6th Dec 2010) of the workshop, the participants were given an introduction to designing power supplies for embedded systems and the various constraints involved in the same. The participants were also familiarised with programming the Atmega 16 microcontroller in Embedded C using AVR Studio.

On the second day (4th Dec 2010) of the workshop, the participants were encouraged to write a program to control the working of a simple robotic vehicle. The participants were then asked to develop embedded solutions for different problem statements. A demonstration on how to use PCB layout software and use the design to etch PCBs at home was also shown.

Report by: S Ganesh Vaidyanathan, Student Branch Counselor, gvaidyas@svce.ac.in

Call for Participation


Global Climate Change Challenges - Role of Metering & Proposed Public Policy

Ramani Iyer
Forbes Marshall, Pune

Abstract

This paper attempts to analyse the global warming & climate change phenomenon. In the context of its impact on the planet and prevailing geo-politics, it dwells on the consequences for India. Drawing on the response of the government and the plans of the PMO - Prime Minister’s Office, viz NMEE - ‘National Mission for Enhanced Energy Efficiency’, it elucidates the measures which will have critical impact on the Indian economy. It promotes ‘Energy Efficiency’ as a resource, not a methodology.

It also mentions the variegated role of industry in meeting the challenge, for an ‘inclusive growth’ of the economy viz based on ‘Energy Intensity’ as against ‘Per capita Capping’ strategy. Apart from various measures in technology infusion and capacity building in competencies, it specifically brings out the importance of accurate metering of energy. Lessons can be learnt, in terms of a more unified approach, and institutional participation which can lead to genuine pervasive energy efficiency.

Global Warming & Climate Change Phenomenon

Global warming and climate change are disasters, not waiting to happen in the future. Evidences of its impact, affecting ordinary people’s lives is surfacing every day. Melting of polar ice caps and Himalayan glaciers, rise in ocean temperatures and erosion of coastal lines, stark changes in seasons and impact of erratic rainfall are not just ‘News’, but natural phenomena with definite consequences that are actually being experienced. Scientific studies have established depletion of the Ozone layer, rise in ocean temperatures and levels, increase in CO2 levels and daytime temperatures in urban habitats.

Challenges & India’s Response

In the last two hundred years, the world has been impacted by the discovery of fossil fuels and use of electrical energy as primary drivers for phenomenal changes in the global economy. People’s lifestyles & leisure have been affected in no small measure. Fruits of technology and the globalization of international economy are fuelling aspirations across the continents. That better quality of daily life is possible, is driving political systems and at the same time shattering earlier known philosophies and ideologies. No country can avoid the effect of globalization and climate change. Thus India too has to face this challenge in a ‘Glocal’. The following paragraphs will examine the national response and in the context of the geo-political economy, how technological interventions and policy measures can bring about beneficial changes. It will also bring home the importance of metering of energy be it oil/gas, steam, and electricity/water. With a thrust on effective implementation, the Indian response has the potential to be a role setting example for the rest of the world.

Post ‘Montreal Protocol’ and ‘Kyoto Protocol’, the Government of India defined an eight point action plan (NAPCC) to meet the challenges of Climate Change and Global Warming. Apart from the National Solar Mission, Water Mission etc, it is the NMEE- ‘National Mission for Enhanced Energy Efficiency’ that is aimed to bring about a comprehensive change to the energy consumption pattern in the economy. A unique aspect of the policy is our focus to limit our green house gas emissions by way of an ‘Energy Intensity’ intervention rather than a limit/cap on ‘per capita consumption’. By leapfrogging into more modern technologies and investments in them, even as we grow in all our industrial & infrastructural sectors, it can provide an ‘inclusive growth model, as against the prevalent high consumption models which pervade the rest of the industrialised world. Based on the current projections the initiatives are expected to yield savings of 10,000 MW by 2012.

Bureau of Energy Efficiency-Policy Measures

Building on the recent (2010) amendments to the Energy Conservation Act 2001, the plans recommends:

- Mandating specific energy consumption decreases in large energy-consuming industries, with a system for companies to trade Energy-savings certificates. Nine sectors have been identified for energy savings with over 700 sites, which have a large savings potential. Energy audits are likely to be mandatory for setting unit wise benchmarks for energy consumption. The amended ‘Energy Conservation Act of 2009/2010 provides for quantifying energy savings into ‘Energy Certificates’, which can be traded locally in local Energy Exchanges like ‘India Power Exchange’. The act also provides for levying stiff penalties for units flouting their own benchmarking exercises.

- Financial incentives, including reduced taxes on energy-efficient appliances. Through a series of exercises conducted by BEE (Bureau of Energy Efficiency), energy consuming appliances like air conditioners, refrigerators, pumps, motors, TV sets & washing machines have been rated/graded on the basis of their energy consumption. With industry voluntarily accepting this ‘Star Labelling’ format, manufacturers have resorted to widespread dissemination of this information, through media & trade channels. More black box products are likely to come under similar policy interventions. This is likely to lead to ‘Market Transformation’ of energy consuming gadgets.

- Financing for public-private partnerships to reduce energy consumption through demand side management programs in the municipal, buildings and agricultural sectors. Public financing interventions like ‘Partial Risk Guarantee Facility’ to provide back-to-back guarantees to banks so as to reduce the perceived risks of these projects and another ‘Venture Capital Fund’ to support manufacturing of energy efficient products & services are on the anvil.

- Capacity building in services for promoting/fostering energy efficiency through ESCO companies, establishing Energy Consultancies and inter-institutional mechanisms.

Response of Indian Industry

Industry on its part is promoting Energy Efficiency practices through various schemes like:

- Formation of industry sector specific cooperation missions for Cement, Paper, Power & Steel as examples. Through a series of inter company meetings in open forums, through information sharing and data exchange, world class efficiencies are fostered.

- Institution of Energy Awards programmes to promote voluntary energy efficiency measures.

- International and inter-governmental programmes to connect to agencies across the world, particularly the developed countries.
Thus both government and industry are actively involved in all measures and policies which will lead to substantial reduction in energy consumption, by the year 2015

**Bureau of Indian Standards & ISO-50001 Energy Management Standard**

One of the major inputs into this policy is the formulation of a new Energy Management Standard under ISO / International Standardization Organization. BIS (Bureau of Indian Standards) with support from industry and BEE (Bureau of Energy Efficiency) is likely to introduce this measure called ISO 50001 Energy Management Standard, into the Indian Market by the middle of 2011. Similar to the ISO 9000 Standards, which revolutionised the Indian industrial sector way back in the nineties, ISO 50001 Energy Management Standard is slated to drive the energy efficiency market into high gear, enabling India to meet its international obligations.

**Criticality of Metering**

One of the important facets of the new standard is the role of energy audits to quantify energy savings and establish the energy savings potential of the process. Having established this benchmark exercise, it envisages maintenance of energy efficiency through close control of the process and other quality measures like fuel quality/quantity, energy output quantity/quality, wastage quantity/quality. These measures necessitate accurate measurement of fuel flow if it is a liquid or gas or weight in case of solid fuels, output flow like steam flow or compressed air or electrical energy metering etc. In today’s technology management of waste gases or hot condensate is also an important part of the measurement process.

Thus metering is a very important aspect of energy efficiency measures any where. In earlier applications of process control instrumentation, measurement of flow as a parameter constituted over 65 % of all measurements. In the newly emerging energy management regime, flow is expected to constitute over 80 % of all measurements.

**Membership Drive at Sri Krishna College of Engineering and Technology**

SKCET IEEE student branch organized the IEEE Membership Drive on 23rd Dec 2010.

Prof. Muthuraman Ramasamy, Branch Counselor inaugurated the program. He emphasized on the need for a professional membership like IEEE. He advised the students to join IEEE and to volunteer with the activities of student branch. He also asked the student members to renew their membership for the year 2011 before 31st of December.

Mr. N. Krishna Prakash and Mr Nandala, Student branch faculty advisors, briefed about the value and benefits of IEEE membership and Branch operation at SKCET. About 60 students of different departments attended the session.

_N Krishna Prakash, IEEE Student Branch Advisor, krishnaprakash@ieee.org_

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**IEEE Day Celebrations at Sri Ramakrishna Engineering College**

The IEEE student Branch of Sri Ramakrishna Engineering College celebrated the IEEE Day on 8th October, 2010.

On this day, Debate, Musical Chair and In-Out events were conducted. The IEEE members participated in these events and made this day a grand success.

At the end, Sunita Sundaram, Chairperson of the branch, addressed the members and motivated them to pursue beneficial activities, making effective use of the IEEE membership.

Report by: R. Shanthigasundaram, IEEE Faculty Coordinator & Asst. Professor, rss_is@ieee.org

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**Workshop on Research Methods**

19-20, Feb 2011 at Chennai

**Organized by**

Computer Society of India, Chennai Chapter

IEEE Computer Society, Madras Chapter

IEEE Professional Communication Society, Madras Chapter

**The workshop sessions will cover:** Research Preparation and Planning; Research Sources and Review; Academic Writing & Oral Presentation; Research Ethics & General Advice; Quantitative Methods for Data Analysis.

**Resource Persons:** Dr. Narasimhan Sundararajan, Former Professor, School of Electrical and Electronic Engineering, Nanyang Technological University, Singapore & Former Scientist, ISRO; Dr. V. Sankaranarayanan, Director, University Project, B.S.A. University, Chennai & Former Chairman, Faculty of Information and Communication Engineering, Anna University, Chennai; Dr. Usha Mohan, Asst. Professor, Dept. of Management Studies, IIT Madras, Chennai.

**Traget Audience:** The workshop is designed to cater the needs of junior academic faculty members, students of master degree aspiring to do research and industry professional interested in getting in to research.

**Dates & Timings:** 19-20, Feb 2011 – Saturday & Sunday: 10.00 to 17.00 hrs

**Venue:** Conference Hall, Anna University Alumni Centre, Anna University, Guindy, Chennai – 600025

**Workshop Fee:** Academic Faculty: Rs. 1000=; Industry Delegates: Rs. 1250=; Students & Research Scholars: Rs. 800=; Members of CSI / IEEE: Rs. 800=. The fee includes Workshop Kit, Course Material, Lunch, Tea on two days and Certificate of Participation

**Registration:** Registration will be done on “FIRST COME FIRST SERVED” basis. As seats are limited, early registration is recommended. DD/Cheque to be drawn in favour of “COMPUTER SOCIETY OF INDIA – CHENNAI CHAPTER” and payable at Chennai. Please mail your registration form with the payment immediately to: Dr. P. Sakhthivel, Chairman – CSI - Chennai Chapter, Asst. Professor, Dept. of ECE, Anna University, Chennai 600025.

**For further assistance, please contact:**

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Dr. R.M. Suresh, Vice-Chairman CSI Chennai, rmsuresh@hotmail.com

Mr. H.R. Mohan, Chairman, CSI Div IV IEEE CS & PCS, hrmmohan.csi@gmail.com

Website: http://www.csi-chennai.org/ ws- rm/ index.html
Report on Energy Conservation Day & Seminar

With explosive increases in the prices of fuel especially crude oil, the crisis faced on energy front of our country is becoming serious with no quick solution insight. This being the national scenario, the energy situation in Tamilnadu is no way different. It is still in precarious condition. Our state depends on wind energy a seasonal energy source and we all know how scarce power situation in our state is with power cuts and load shedding. One of the immediate measures to meet this situation is “Energy Conservation.” Considering the significance of Energy Conservation and to create an awareness amongst the consumers about the difficult power situation.

Energy conservation day has been celebrated on 14th Dec 2010 at Chennai. We all know that it always pays to be different. On recognizing the valuable contribution made by the captive power generation in facing the difficult power situation and also the importance of Energy conservation in HT Industries and M/s Cummins India Ltd, Chennai have jointly organized a Technical Seminar on these topics at Chennai on 14th Dec 2010. The salient features of this seminar are brought out as follows.

Thiru K. A. Venkatasamy, President TNEIEA delivered the welcome address. Thiru S. Appavoo, Chief Electrical Inspector inaugurated the seminar and delivered the inaugural address. The chief guest briefly explained the significance of Energy conservation in all sectors and the need for utilizing energy efficient products.

On this occasion, Dr. G. V. Rao, chairman, Product Safety Engineering Society of IEEE, USA have made a presentation and explained the benefits that would accrue by becoming a member in the above society. His presentation mainly focused on the need for the safety in the design and operation of all electrical equipment and devices.

In the ensuing technical session three presentations were made.

1. **Energy conservation in HT industries:** by Mrs. K. Selvam, Electrical Inspector (Tech), Chennai. This presentation mainly focused on the benefits that would accrue to the industries by Energy Conservation and the areas in which energy savings could be achieved in adequate measures. Among the areas covered are:
   - Power delivery system
   - Motive power load
   - Compressed Air System
   - Lighting
   - Refrigeration and air conditioning
   - Pumps

   The speaker then dealt in detail the losses caused by Harmonics and the methods to eliminate it.

2. **Captive Power Generation—Emerging Trends in DG Sets:** by Mr. S. Shankar, Regional Manager, Cummins India Ltd. The speaker mainly focused on the issues that require attention while selecting a DG set. Among them are:
   - Generation and load mismatch
   - Unclear understanding of the nature of the load
   - Improper installation
   - Inadequate ventilation
   - Inadequate maintenance
   - Operation at low load levels
   - Maximum voltage drops (Starting and running)
   - Maximum frequency Dip
   - Incorrect specification of ambient temperature and altitude
   - Use of Capacitors in DG sets for Improving the Power Factor.

3. **Ideal installation guidelines for DG sets:** by Mr. V. Lakshmanan, BDM HHP TN&KL. The speaker explained the issues connected with the installation of DG sets with case studies and pictures. The maintenance aspects of DG sets were also explained in detail.

Finally the seminar was concluded with a questions and answers session. There were lively discussions. Thiru K. Sridharan, Vice President from Powerica while thanking the participants and others, he specially mentioned Mrs. K. Selvam, Electrical Inspector, for the excellent speech in connection with the Energy Conservation and Harmonics. He also mentioned Mr. S. Shankar, Regional Manager – HHP and Mr. V. Lakshmanan – BDM, HHP – TN & KL from Cummins, for their valuable presentation for selecting the DG sets and other information. Nearly 100 participants have attended this seminar.

The attendees of this seminar have got very useful information on Product safety engineering, Emerging trends in Diesel Generating Sets, Ideal installation of DG sets and Energy saving measures in HT Industries.

Seminar on “Network Security And Ethical Hacking” at AVIT

Mr. Ankit Fadia, Certified Ethical Hacker, Computer Security and Digital Intelligence Consultant, Silicon Valley, California, USA focused the Importance of Networking and explained the essential aspects of Hacking and its Varieties.

Dr. (Mrs.) N.R. Alamelu Principal, AVIT, delivered the presidential Address. Dr. A. Anthony Iruhayaraj Dean (IT) AVIT welcomed the gathering and briefed the importance of Network Security.

Faculty members and students from various departments participated and benefited by this seminar. Mr. C. Karthikeyan, HOD (IT) delivered the vote of thanks.

IEEE Presidents’ Change the World Competition

This competition recognizes students who develop unique solutions to real-world problems using engineering, science, computing and leadership skills to benefit their community or humanity. Submissions should highlight positive impact they have made on the world.

The grand prize is US $10,000. Runner-up prizes include US $5,000, US $2,500, and US $1,000 awards.

The submission for entries in the competition is open now and closes 31 January 2011. Entries must be submitted using the online form on the competition web site. For details and eligibility requirements, please visit http://www.ieee.org/changetheworld.
INCOCCI-2010: International Conference on Communication and Computational Intelligence at Kongu Engineering College

The International Conference on Communication and Computational Intelligence (INCOCCI-2010) was conducted during 27-29 Dec 2010 at Kongu Engineering College, Perundurai. The conference was jointly organized by the School of Communication and Computer Sciences and the School of Computer Technology and Applications of the College.

The Conference attracted good response from researchers, faculty, students and other stakeholders from various parts of India and abroad. Out of over 400 papers received, after scrutinizing by the technical committee, 120 papers were short listed.

The conference was inaugurated by Prof. Dr. K. Karunakaran, Vice-Chancellor, Anna University of Technology, Coimbatore. The special address was given by Prof. Dr. P. Thirumurthy, President, Computer Society of India. The keynote address was given by Prof. Ir. Dr. Ahmad Fadzil Mohamad Hani, University Teknologi Petronas, Malaysia. There were four plenary talks given by experts from abroad on varied topics like Latest Trends in Embedded Systems, Sensing for Better Life, Smart Media and Medical Systems and Latest Trends in Broadband Optical Communications.

The technical papers were presented under the following six sub-domains in three parallel sessions: Advanced Networks; Communication and Embedded Systems; Information Systems and Security; Computational Intelligence; Internet Technologies and Advanced Computing.

The valedictory address was given by Prof. Dr. P.A. Venkatachalam, Former Professor, Anna University, Chennai, University Teknologi Petronas, Malaysia and Asian Institute of Technology, Thailand.

There was intense interaction in the conference among the delegates and participants and it provided a good opportunity for the stakeholders to deliberate on the various developments in the emerging technology areas with a view to chalk out course of action for the future.

Report by: V.R. Saraswathy, AP/ECE

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Posted On: 24th January 2011
Posted at: Egmore RMS (Patrika)