

## Chairman's Message



Dear Members

There are two major events in March. The R10 meeting is scheduled for March 5-6 at Yogyakarta, Indonesia. All section chairs or their representatives will meet at one place to deliberate on the IEEE activities and the role of India Council. In view of the experiences in last three years, Section Chairs need to discuss, in particular, the issues related to the process of election of Council officers and representatives of the section on council committee, duration of the elected officers, smoother transition. Another important aspect is the financial viability of Council. The Council needs financial resources to produce quality activities. One of the major expenditure of the council, the newsletter, has now been sorted out thanks to Bangalore Section volunteer. The newsletter outreach is now about 30000 at zero cost (thanks to Dr. Hitesh Mehta who is single handedly producing the newsletter) as against 8-10 thousand when it was being printed.

The second event is the IEEE India Industry Day. Preparation is in full swing for the upcoming IEEE India Industry Day, 2011 scheduled to take place on March 10 and 11, 2011 at Chancery Pavilion, Bangalore, India. This is being sponsored by IEEE MGA, IEEE India Activities, IEEE ComSoc and IEEE Bangalore Section is the host. I would like to invite all IEEE members to this event and request them to actively participate.

The India Info newsletter is hosted on the India Council website

[http://ewh.ieee.org/r10/india\\_council/newsletters.html](http://ewh.ieee.org/r10/india_council/newsletters.html)

With best wishes to you for a rewarding time ahead in professional and personal fronts.

With warm regards

**Kasi Rajgopal**

[kasi.rajgopal@ieee.org](mailto:kasi.rajgopal@ieee.org)



## Editor's Message

Dear Members,

I have been writing this since one year that we should make this newsletter a great platform for interaction among IEEE members in India, including student members but sadly very few have responded among the 35000+ of us!! Let's share our activities, suggestion, vision and mission among our community. I thank Prof Sadagopan and Mr P G Ponnacha for continuously writing interesting articles month after month and I do hope that other members, especially student members will take inspiration from them and come out with their creative flare soon.

All our 11 sections must have had their AGM by now and new committee must have taken over for 2011. I request all sections to submit list of their new office bearers so that we can publish the same in next edition of newsletter.

I am continuously receiving mails from many people complaining that they didn't receive either their membership card or SPECTRUM. I want to tell them that we can not help them in this regard as these things are governed at headquarter. So, best way for them to write an email to [member-services@ieee.org](mailto:member-services@ieee.org) and they surely will get their problem resolved.

Looking forward your comments/suggestion for improvement of IEEE India Info.

**Hitesh Mehta**

Editor

## Message from India Council Secretary



Message from IEEE India Council Secretary

Dear Members,

The out reach sessions organized by IEEE –SA Group in association with local Sections, India Council and Chapters on Cloud Computing, Design Automation and Smart Grid in the cities of Mumbai, Bangalore and New Delhi have been well received and recorded a huge turn out of more than 200 attendees for each of these events. This shows that IEEE attempts in reaching the Technical goals in IEEE India are very successful. It is expected that the same level of participation in various events of IEEE Sections & India Council would prevail in future also.

It is brought to your notice that 28th February, 2011 is the extended final deadline for renewing the IEEE Membership, beyond which the name may miss from the IEEE Membership list and all the benefits extended for the non-renewing members will also be discontinued. Further, IEEE members aspiring to become life members will also face the problem of discontinuity in membership which may lead to non eligibility for becoming a life member. In view of this, request once again that all the non-renewed members of IEEE to renew their Membership right away and continue to be proud members of this elite professional society. In this regard, let me reiterate that all Indian members, if opted for electronic type IEEE membership, are required to pay only USD 55 as annual fee for the year 2011.

Details about many upcoming conferences and technical activities are hosted in the web site of Sections and India Council. The same may be perused for the benefit of all interested IEEE members and friends.

Wish you all a great IEEE time ahead !

Sincerely,

(Ramakrishna Kappagantu)

Secretary, IEEE India Council

Email: [kramakrishna@ieee.org](mailto:kramakrishna@ieee.org)



# Report on

## *One Week Tutorial for Young Engineers on*



**Conducted from January 24 to 31, 2011.**

A 6 day MATLAB tutorial workshop was organized by the IEEE Student Branch, NIT Warangal in association with Electrical Engineering Association (EEA), NIT Warangal and Technical Collaboration from IEEE PES/IAS/PELS Joint Chapter, Hyderabad Section from 24<sup>th</sup> to 31<sup>st</sup> January. It covered all the fundamental aspects of this high level technical language, with a prime focus on educational and industry specific applications. The basic objective of the workshop was to provide the students and young engineers with the essential knowledge of the Matlab interface, command window, basic manipulation, advanced programming, visualization schemes/plotting techniques and to take them to the advanced concept of modeling using Toolboxes like Control Systems, Image Processing, Signal Processing, Communication and Global Optimization toolbox. The event witnessed an overwhelming response of around 600 participants from various colleges and from diverse background like Basic Sciences, Electrical, Mechanical, Civil, Communication and Even Biotechnology Engineers. Many young and senior faculty members from throughout the Andhra Pradesh state attended the workshop.

The first day of the workshop started with the objective of learning MATLAB and its brief history. It was followed by a detailed presentation on various functions of MATLAB, file types, its features and applications. This was organized in our spacious 1000 seater auditorium, so that everyone could bring their laptops and work on various exercises. During lectures the participants were encouraged to simulate different commands in the Matlab interface as they were being taught so as to get them acquainted with Matlab programming environment. The trained IEEE and EEA volunteers, present in large numbers, interacted with the participants and helped them out in their difficulties during the entire session.

On the second day, the toolboxes and scripts available in MATLAB were explained by Mr. Mithun Bhaskar. The Graphics fundamentals like simple plots, subplots, basic 2D, 3D plotting, mesh plots surface plots, patches, contour plots, visualization of images were discussed thoroughly. The participants were amused by the various operations performed on the images. This was followed by a brief introduction to specialized toolboxes encompassed within the Matlab framework viz., Fuzzy Toolbox, Optimization, Neural Network, Image Processing, Digital Signal Processing etc. The day ended with some exercises on MATLAB multiplication, indexing matrices plotting etc. The third session was allotted completely for control systems toolbox.

Third day started with basics of modeling dynamical systems in MATLAB and Simulink, followed by system analysis, simulation and validation of systems using control systems toolbox. The assistance provided by the volunteers along with working out of a few examples helped the participants to overcome the difficulties and gave a good overall view of the control system toolbox. The session ended with a presentation on the overview other Open Source Alternatives for Matlab like Octave, SciLab and FreeMAT and gave the audience an overview of the books available for various engineering streams.

In the fourth session, image processing toolbox was brilliantly covered by Mr. Amarjot Singh. Concepts right from the basics of image processing to Image types, read/write images, Image display, conversion, rotation and resizing were explained in detail. This session ended with the explanation of spatial transformations, Face detection and recognition, gesture recognition etc.

The fourth day was on the Communication Engineering/Signal Processing tools and found many communication and non-communication engineers attending it. Mr. Puli Kishore Kumar unveiled the secrets of the communication toolbox from basics of signal generation and the advanced stages through demonstration of all examples in overhead screen.

The last day's target optimization toolbox which was handled by Mr. Rajashekar. He demonstrated various optimization tools available like Genetic Algorithms and demonstrated many examples.

The participants found the entire initiative very commendable and productive; worthy to attend. "It made us understand the important and fundamental features of Matlab in an explicit and brief way, I found it useful to attend", commented a participant, a view echoed by most of the participants. Online and Paper feedback forms were supplied to the participants and we received an excellent feedback backed by appreciations and kudos. Overall it was one the biggest program initiated at this level on experimental pattern and the response was prodigious; at the end the organizers and participants looked satisfied with gratification. IEEE/EEA is looking forward to conduct many such activities in the

coming future in order to promote research and the zeal for technical progress among the student fraternity.



Mr. Mithun M. Bhaskar in the First Session



Elucidating basic concepts of Matlab





More than 500 participants in the auditorium



Mr. Amarjot Singh in the Image Processing Session



Understanding the Secrets of Images



Faculty Members and Senior Members

The organizers take this chance to extent their unbounded gratitude to all the persons who contributed directly and indirectly to the success of this event. Around 600 young engineers have been empowered and benefited by this program thought out the IEEE Hyderabad Section area and it was one of the most successful events conducted in the recent past in the Quantity & Quality of the course. Special thanks to IEEE GOLD and IEEE GINI for reaching members through their networks.



# That's IT in January 2011

Prof. S. Sadagopan



In the **general developments**,

- American Dialect Society chooses “**App**” as the top word of 2010
- **Wikipedia** celebrated it's 10th Anniversary on January 15, 2011
- Indian Civil Aviation completes 100 years on April 14, 2011
- **Padma Awards** announced on January 25, 2011; notable ones include Infosys CEO Kris Gopalakrishnan, HCL CEO Ajai Chowdhry, NIIT CEO Rajendra Pawar and MIT Dean Subra Suresh
- **President Obama's** State of the Nation talk mentions India!
- Starbucks to enter India thru TATA Coffee
- Telengana issue resurfaces as Srikrishna Committee submits Report on Dec 31, 2010
- Sabarimala temple stampede kills more than 100 on January 14, 2011
- Egypt, Sudan erupt in end January

In the **products** arena,

- IBM gets 5,896 patents in 2011
- Apple iPad arrives on Indian stores on Jan 27, 2011 exactly a year after it was announced (9 months after it reached US Stores)

In the **market-place**,

- Aditya Birla buys US Atlanta-based Columbian Chemicals for \$800 million
- IBM posts turnover of \$29 billion; Apple has \$ 27 billion for the same quarter!
- **Sensex** closed at 18,327 on January 31  
<http://www.bseindia.com/histdata/hindices.asp>

The **Indian IT Companies** continued to do well

- Indian IT Companies to hire 180,000 IT professionals in 2011
- Phaneesh Murthy headed **iGATE** acquires 63% of Patni computers for \$921 Million
- **Infosys** posts good results and estimates \$ 6 Billion for 2010-11
- **TCS** posts great results for Q3 with Rs 9663 crores of top line and Rs 2,370 crores of bottom-line
- Pearson acquires major share in **Tutor Vista**; incubated in IIIT-B today Tutor Vista is valued at Rs 995 crores!
- **HCL Tech** has Rs 3,888 crores in Q3
- **iGATE** has \$ 230 crores turnover in year 2010

**MNC Companies in India** continue to grow their India operations

- **IBM** to offer \$ 1000 ESOPs to all its India employees as part of its centenary celebrations
- **Daimler** to double its investment in India
- **Honeywell** starts Hyderabad operations on Jan 23, 2011
- **Nokia Siemens** expands Chennai delivery Center with 90,000 square feet and

increase headcount from 120 to 1,000

#### In **telecom**

- Airtel launched 3G on January 23, 2011
- Motorola Mobility with Sanjay Jha as CEO starts trading on NYSE separately
- Number Portability starts from January 20, 2011; 1.1 million subscribers switch operators by January 31, 2011

#### In the **Education & Research** front

- IIM Tiruchi gets launched on January 3, 2011 by Prime Minister Dr Manmohan Singh

#### In the **people** front

- HP CEO visits India (Jan 31 – Feb 2, 2011)
- Mindtree Founder and CEO Ashok Soota decides to step down
- Apple CEO Steve Jobs goes on medical leave
- Google founder Larry Page takes over as CEO
- HP board has five new faces with four people leaving; 4 of the 13 Board members are women!
- Wipro co-CEO resign to make way for new CEO Kurien
- AMD CEO resigns
- Ex Microsoft India Head Anandan joins Google India Head
- Cap Gemini India Head has a new face in Aruna Jayanti
- Ashoka Foundation Founder and the celebrated social entrepreneur Bill Drayton, Bluetooth inventor Jaap Haarsten and Opera (Mini Browser) co-founder Jon Tetzchner visit India in January 2011
- Doyen of Hindustani music Bharat Ratna award winner Bhimsen Joshi passed away on January 24, 2011

#### Some interesting **applications**

- UID selects French Morpho for biometric technology
- Fusion Charts from India

#### Some **interesting numbers**

- Uttar Pradesh and Uttarakhand accounts for one third of hardware production in India
- World netizens sent 270 trillion emails in 2010
- Telecom subscriber base at 765 million (730 million mobile & 35 million of landlines) and broadband subscribers at 11 million as of November 30, 2010; 23 million subscriber addition in November 2010; Vodafone, Bharti, Reliance, BSNL & Aircel were the Top 5 (in terms of new additions in November); Bharti, Reliance, Vodafone, Tata and Idea were the Top 5 in terms of market share as of November 30, 2010
- Rupee closes at 45.83 against USD by end January 2011 (RBI)
- Foreign exchange reserves stand at \$ 299 billion by end January 2011 (RBI)
- Sensex (Indian stock exchange index) at 18,327 on January 31, 2011 (BSE)



## Best IEEE Volunteer of Calcutta Section



IEEE Calcutta Section has recognized Mr. SANKARALINGAM S. (SM 80337600) as its BEST IEEE VOLUNTEER for 2010 in appreciation of his notable services and significant contributions towards the advancement of IEEE and the Engineering Profession. This award consists of a plaque, which was handed over to the recipient by the Section Chair, Prof. Kalyan K Mallik at the Section's AGM held at Calcutta Club on 27th January 2011.

Mr. Sankaralingam was one of the organizing committee members of INDICON 2010, an annual conference of IEEE India Council organized jointly by the Council and Calcutta Section at Jadavpur University, Kolkata during 17-19 December 2010. He served as Vice-Chair of AP/MTT Joint Chapter of the Section (2010). He was the Local arrangement Committee Chair of IEEE Applied ElectroMagnetic Conference (AEMC 2009) held at Hotel Hyatt, Kolkata during Dec 2009. He was also listed in the 2009 Honor Roll of Donors published by IEEE Foundation.