



# IISc Alumni

Newsletter of IISc Alumni Association

Volume 5 Issue 3 September 2012

## President's Desk



Dear Colleagues,

Through this Newsletter, I would like to extend a very warm welcome to the new entrants into the portals of this great Institution. I wish them all the best and I am, sure, many of them will be a great nation Builders, bright Technologists, eminent Scientists, very successful Entrepreneurs and Innovators. On the part of the Alumni Association, we should extend them every possible support to make their stay in the Institute memorable and fruitful.

On the Indian Institute of Science part, it was a great gesture to encourage them to become members of the Alumni Association at the admission time itself. Nearly 1000 students joined Indian Institute of Science for various disciplines during this session which looks to be a record.

I would invite your suggestion and participation from all the members of Alumni Association about the activities and programmes we should initiate to make the students feel at home and support them in different activities which will go a long way.

Your association should support many of the student initiatives and programmes more generously and wholeheartedly. It is heartening to note that Institute authorities are extending their support to Alumni Association in a good measure and we, in turn, should initiate the activities that will enhance the Institute environment and enthusiasm.

We have been very fortunate to have the privilege of honouring a Distinguished Centenarian Alumnus, Shri. B. S. Doraiswamy Iyer, whose profile should always inspire young students.

The present Executive Committee and Office Bearers of Alumni Association have completed One Year Term and it is time to introspect and move forward. I welcome your suggestion more so your criticism openly which will help us to analyse and improve.

V Babu Sathian



Group photograph on the occasion of Annual General Body Meeting

## Awards and Achievements

### Department of Materials Engineering

1. Prof. Vikram Jayaram - Awarded J C Bose Fellowship from DST
2. Mr. Chandan Mondal - ERP Student - 'Acta Student Award' for his paper on 'Texture in Rolled Al-alloy'

### Department of Microbiology and Cell Biology

TWAS, the academy of sciences for the developing world to Prof. V. Nagaraja, Chairman, Department of Microbiology and Cell Biology, IISc, Bangalore

## Editorial

Dear reader,

The 37<sup>th</sup> Annual General Body Meeting held on August 2012 was a spectacular event. We congratulate all the Distinguished Alumnus Awardees for their contribution. The presence of more than hundred members and their active participation and discussions have resulted in undertaking new initiatives for the future.

Dr. Shyam Vasudeva Rao, Founder of Forus Health, IISc alumnus, distinguished innovator and accomplished academician internationally has developed an indigenous medical device called 3nethra, an ophthalmic screening device which can detect in less than five minutes five major eye diseases - cataract, diabetic retina, glaucoma, cornea issues & also measure refractive index. Today more than three and a half lakh people have gone through the tests and got benefitted. The tests are conducted at rural camps, PHC's, health kiosks by which eye screening is moved to almost at the patients door step. The device integrates tele medicine and cloud based data centre, which has enabled easy scale, offer remote diagnosis and suggest proper treatment.

Thanks to the authorities of the Institute for facilitating the enrollment of new students as IIScAA members. We welcome the new students to the centre of knowledge and excellence and wish them all the very best of luck in their future endeavours. The IIScAA lifetime membership fees and any contributions can be electronically wired using the wire transfer instructions provided at [http://www.iisc alumni.com/downloads/Wire\\_Transfer\\_Info\\_IIScAA.pdf](http://www.iisc alumni.com/downloads/Wire_Transfer_Info_IIScAA.pdf). Please feel free to express your views about our newsletter by email: [iiscaanlg@yahoo.com](mailto:iiscaanlg@yahoo.com)

H K Anasuya Devi

## Enrolling New Students

IIScAA decided to aggressively pursue students to sign up as Alumni members as they entered the institute. The motto was to "catch them young" and not to wait until the students left the Institute and spread across the world when it becomes a lot more difficult to sign them up. The AA president Mr. Babu Sathian wanted the awareness about the Alumni Association to increase among the student community as they entered the Institute.

We believe this student enrollment is one step towards collecting the IIScAA membership fee automatically during the student enrollment. Other premier institutions such as IITs, NITs and ISB are collecting Alumni Membership fee automatically from the students. We are hoping this will happen soon enough at IISc.

IISc had about 975 students enroll in 2012 for various programs such as M.E, M.Tech, M.Des, M.Mgt, Ph.D (Science), Ph.D (Engineering), M.Sc (Eng), QIP, Integrated Ph.D, B.S and an Interdisciplinary / Sponsored Programs. Most of the students received some form of scholarship varying between Rs. 5,000 and Rs. 18,000 a month.

The student enrollment happened over a 3-day period July 28<sup>th</sup>, 30<sup>th</sup> and 31<sup>st</sup> 2012. IIScAA setup a booth in the Faculty Reception hall for 3 days

and had a number of EC members as volunteers in the booth to explain the students the benefits of becoming a member of AA and sign them up. The volunteers included Mr. Sohan Ranjan, Dr. L.N. Satapathy, Lt. Col. Rajaram, Prof. H.N. Shankar, Dr. K.R. Srinivasan, Mr. N. Sivakumar, Mr. K. B. Anand, along with Alumni Staff, Student Council members. As a part of this enrollment a new 4-page brochure cataloguing all IIScAA activities was created. We had discounted the life membership fee to be Rs. 4000 for the students instead of the usual Rs. 5000.

The administration (Mr. Mohan Das and Mr. Vishwanath) was kind in giving us a consent form when signed off by the students would allow the administration to deduct the IISc AA membership fee automatically from their scholarships either from the first month or subsequent months. During these 3 days, we were able to collect the consent form from over 500 students out of which 325 have agreed for the automatic deduction of membership fees.

We are hoping to repeat this membership drive every year. We would like to do similar membership drives during convocation programs too when students leave the Institute.

N Sivakumar

## IIScAA Science Forum – Popular Lecture Series

### The Twenty Sixth Lecture (June 23, 2012)

Topic : "Biotechnology-Science and Strategies for Commercialization"

Speaker : Prof. G. Padmanaban, NASI-Platinum Jubilee Chair/ Distinguished Professor, Department of Biochemistry, IISc

Moderator : Prof. M.R.S. Rao

Abstract: Prof. Padmanaban discussed the bio-technology landscape in India, the strategies for commercialization, strategies used by Govt of India to support the sector; discussed the possibility and challenges of India having the potential to assume leadership in areas such as Vaccines, Bio-generics, Diagnostics, modern agriculture and Bio-informatics.

### The Twenty Seventh Lecture (July 21, 2012)

Topic : "Fifty five years of Computing in India"

Speaker : Prof. V. Rajaraman, Honorary Professor, Supercomputer Education and Research Centre, IISc

Moderator : Prof. R. Govindarajan

Abstract: Prof. V. Rajaraman, Father of Computer Science in India, talked about History of Computing in India starting from 1955 when first computer HEC-2M arrived at ISI, Kolkata without any manuals to year 2010 when 2.4 million direct and 8.5 million indirect jobs were provided by the IT industry.

### The Twenty Eighth Lecture (September 1, 2012)

Topic : "Leveraging Technology-CVC's Project Vigeye"

Speaker : Shri. R. Sri Kumar, Vigilance Commissioner, Central Vigilance Commission, Govt. of India, New Delhi

Moderator : Shri. M.N. Krishnamurthy

Abstract: Shri. Sri Kumar talked about \*Central Vigilance commission's \*VigEye program, CVC launched on 09.12.2010. He spoke about how it was providing a user-friendly online platform for interaction between the CVC & citizens and for filing complaints on corruption over the mobile and the web. By sending an SMS (VIGEYE) to 9223174440, a citizen gets a software application downloaded to his/her mobile. The citizen can lodge a complaint to CVC by capturing and uploading evidence in the form of picture/video/ voice or handwriting in respect of any complaint of corruption troubling the citizen in his/her neighbourhood. The complainant can track the progress of CVC's action through the web: [www.cvc.nic.in](http://www.cvc.nic.in) or [www.vigeye.in](http://www.vigeye.in).



H R Parthasarathy

## Article from Alumnus Distinguished Innovator and Acadamecian - Dr. Shyam Vasudeva Rao

### Forus Health

(Dr. Shyam Vasudeva Rao is an alumnus of IISc and innovator of "3nethra" established Forus Health Pvt. Ltd. in January 2010 focuses on creating innovative products in healthcare which can touch the lives of several millions in the emerging countries and promote and enable wellness for all)

If populous countries like India focused aggressively on preventive healthcare, most of which can easily be done off-site, state hospitals wouldn't get so overloaded. Most patients waiting at state-run hospitals come from satellite towns and rural areas, usually in advanced stages of a disease, by which time intense treatment becomes inevitable, and both costs and mortality are higher. What if these millions could be caught at beginning stages before the first symptoms manifest and much before the disease has proliferated — without overworking existing doctors?

This is exactly what my start-up called Forus Health Pvt Ltd is trying to do.

Forus, founded by Dr. Shyam Vasudeva Rao, IISc alumnus and K. Chandrasekhar, in 2010, focuses on the preventive healthcare space. Its first product — a prescreening ophthalmic device called 3nethra — can detect five common eye problems non-invasively even before one can realize. All this is done within 5 mts as against half a day in today's setup, going through several modalities. There is no waiting time after the test as there is no need to dilate the pupil using eye drops. And added to this, 3nethra's robust design makes it highly portable and reliable. The user interface is so simple and intuitive that even a driver can operate this device and take good images. With 3nethra we are in a position to achieve "preventive eye care" and also move the "hospital to the patients" instead of "patients go to Hospital" as in today's scenario. This is what we need to promote and motivate people to go for preventive care and at the end the cost of health care reduces drastically and overall life style and productivity increases drastically by reducing loss of productivity due to blindness.

"India has a third of the entire world's blind population. "Over 80 percent of that is easily preventable." If that isn't shocking, "Diabetic retinopathy, cataract, glaucoma, cornea and refraction problems constitute 90 per cent of all blindness. Our ophthalmologist to patient ratio is approximately 1: 70,000. This is much worse in our villages — because of which only 10 per cent of people at various stages of blindness are screened and treated today." With 63 million diabetic in India, 20 % of this population are susceptible to have diabetic retina. To avoid them get

blind, the only solution is to screen then twice a year, this will result in 126 million screening a year in India alone. Say each screening costs Rs. 50, this is a 125 m\$ business and can lead to lots of rural employment and immense service to mankind. Similarly we can apply this to other chronic diseases of the eye (tracoma, glaucoma, age related macular degeneration etc) and diabetes (nephropathy, neuropathy and cardiopathy).

Such improvisations help funnel patients to the required specialists, making treatment more effective, detecting diseases before they get critical thus taking some pressure off hospitals. These and hundreds of new ideas are stirring up some serious action in the medical field — eye diagnostics is one.

"3nethra does retina and cornea imaging, refraction index measurement and intelligent image processing to classify whether the patient needs to visit an eye doctor or just a optics shop. If an eye doctor — a diabetic retina specialist, glaucoma specialist or cataract surgeon?" "All this can be done without pupil dilation or local anaesthesia, making it easy and safe to use. Plus its tele-medicine-enabled using cloud storage, making it best suited for remote diagnostics." and costs a tenth of all the devices currently being used for this purpose.

Forus is focusing on reaching out quality healthcare to the needy through health kiosks, vision centers and camps, which also increases accessibility. With more than 50 installations all over India, we have not only proven this concept of pre screening for eye care, but also touched the lives of more than 3,75,000 people and created 10 rural entrepreneurs who have setup health kiosks using 3nethra.

Forus has received several awards and recognition for their innovation. Some of them are DST Lockheed Martin Gold medal for technology innovation, Sankalp award for social innovation, Primal award, Anjani Meshalkar Inclusive innovation award and host of CNBC awards. Recently when US Secretary for State Hillery Clinton visited India, 3nethra was selected as one of the three innovation under the DST L&M Growth program to showcase it to her in Delhi.

**Shyam Vasudeva Rao**

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## IIScAA Activities

### IIScAA Awards-2012

The followings awards were presented by Prof. N. Balakrishnan, Patron, IIScAA, on Saturday, August 11, 2012 at the Faculty Hall, IISc.

#### I) Distinguished Alumnus Awards-2012

i. Dr. Subhash Mahajan  
Distinguished Professor and Special Advisor to the Chancellor University of California, Davis



ii. Prof. Ramesh Ramamoorthy\*  
Plato Malozemoff Professor of Materials Science and Physics University of California, Berkeley

\*(Could not attend the function)

iii. Dr. H. R. Nagendra, Vice Chancellor, Swami Vivekananda Yoga Anusandhana Samsthana (S-VYASA), Yoga University



#### II) Prof. S. K. Chatterjee Award – 2012

i) Prof. Chanda J. Jog,  
Dept. of Physics, IISc.

The Awards Function was followed by Lunch at the Lawns of the IIScAA Office.



### Music Programme by IIScAA & IIT Alumni Club Bangalore



For the first time, IIScAA in association with IIT Alumni Club Bangalore organized a Music Programme – “An Evening of Ragas and Soul Stirring Music” by Shri. Shrinivas Joshi, an IIT Delhi Alumnus and son of Bharat Ratna Pandit Bhimsen Joshi on Saturday, June 23, 2012 at the J. N. Tata Auditorium, IISc. The Programme received an overwhelming response and well attended by IIT and IISc Alumni. Shri. Doraiswamy Iyer, a Centenarian Alumnus of IISc, was honoured during the programme.



Shri. Doraiswamy Iyer

### Aerospace Alumni Reunion ( Batch 1972-74 )

The get together of 1972-74 ME (Aero) Batch Alumni was held in the Choksi Hall at IISc on 21 July, 2012 under the auspices of the IISc. Alumni Association. This batch was the largest in the history of the Aerospace Engineering Dept with a special Rockets and Missiles Stream introduced just that year and many sponsored candidates from Govt. organizations. Fourteen alumni, few faculty members and the President of IIScAA along with a few other members with family participated in the event. The chairman of Mechanical Sciences Division graced the occasion to represent the IISc management. In the evening, there was an excellent cultural programme which was enjoyed by all.



Aerospace Alumni Reunion ( Batch 1972-74 )

### 37<sup>th</sup> Annual General Body Meeting (AGBM)

The 37<sup>th</sup> AGBM of IIScAA was held on Saturday, August 11, 2012 at 10 a.m. in the Faculty Hall, IISc. The Meeting was well attended by more than 100 members. The Secretary's Report for the year 2011-2012 was presented by Dr. L. N. Satapathy. He pointed out that IIScAA membership as on 31<sup>st</sup> July 2012 stands at 8900.

Shri. V. Babu Sathian, President, addressed the gathering and greatly appreciated the support extended to him by Executive Committee Members and Office Bearers Team towards organising various activities. He thanked the IISc authorities, especially, for waiving off the entire fee of the booking of J.N.Tata Auditorium for a music programme jointly organized with IIT Alumni Club, Bangalore in June 2012 and also agreeing to enroll students as IIScAA Members during admission itself and the selection of Distinguished Alumnus Awardees for the year 2012.

The Balance sheet for the period - April 1, 2011 to March 31, 2012, was presented by Shri. K. B. Anand, Treasurer, IIScAA, presented the Balance sheet.

L N Satapathy



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