



IISc AANA Newsletter

Volume 1 Issue 2, December 31, 2013

Indian Institute of Science Alumni Association of North America, Mountain View, CA, www.iiscaana.org

Message from IIScAANA Chair & Co-Chair

Dear IISc Alumni/ Alumnae and Friends;

We want to share our excitement about IISc AANA activities this year. 2013 has been a great year with lots of IISc Alumni/ Alumnae Activities in North America. As you know our mission is 'To Give Back': 1) To our alma mater Indian Institute of Science, 2) To the IISc alumni by helping each other in social and professional networking - job opportunities, entrepreneurship, and business contacts, 3) To the community in which we live, and 4) To rural India towards education and public outreach.

The Midwest Chapter hosted an outstanding 2nd Global Conference in Chicago this summer and IISc-AANA congratulates and thanks Dr. Sunil Kumar, Dr. Muralidhar Ghantasala, Dr. Swaminathan Ramesh and many enthusiastic volunteers who made this possible. More than 250 enthusiastic alumni/alumnae attended the conference including many students and faculty from IISc, Bangalore. Consistent with the Conference goal to 'Build Bridges between IISc, Alumni, and the World', the Global Conference emphasized the following: 1) Work with IISc, IISc-AA, and raise funds for different causes, 2) Internships for Students, 3) Collaborative Research, 4) Entrepreneurship Opportunities, 5) Educational Opportunities for the Underserved, and 6) Alumni/ Alumnae Recognition. For pictures from the Global Conference, please visit <http://goo.gl/qaIFk6>.

The 2nd Global Conference increased interaction with IISc and IISc AA is planning to organize the next global conference at IISc. A memorandum of understanding (MOU) was signed between IISc AA and IISc AANA (details available in this newsletter). Also IISc AANA under the leadership of Dr. Gaj Birur (with support from Dr. Murthy Gudipati) supported the IISc Student Council Activities including Note Book Drive, NSNY- Nurture the Schools that Nurtured You, "Samanway"- National Student Conference, Pravega, and Mentor Program.

During past years IISc Alumni met at several active local chapters including Silicon Valley in Bay Area, Southern California in UCSD and UCI, South Central in Houston and Galveston. A number of new chapters are looking for active members including newly formed North-Eastern and South-Eastern Chapters. We encourage all IIScians to take active part in various Chapters of IISc AANA.

Arkal Shenoy, Chair
Satish Nagarajaiah, Co-Chair

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Dr. Arkal Shenoy exchanging signed MOU* with Mr. Babu Sathian, Chair (2012-13), IISc AA, with Dr. Satish Nagarajaiah looking on.

*Complete MOU is given on Page 4



H. R. Parthasarathy, President, IISc Alumni Association, Bangalore

"We plan to hold the next Alumni Global Conference on IISc campus in Bangalore

-- Cmdr. Parthasarathy, Chair IISc AA, November 11, 2013

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Participants at the 2013 IISc AANA Global Conference in Chicago

Alum* Reaction to First Issue of IISc AANA Newsletter

The first issue of the IISc AANA Newsletter (August 2013) was sent to 445 email addresses of the alums and friends. Thirty-two of them were returned as 'non deliverable' addresses. Twelve of the thirteen feedback comments were very positive. We are very happy to receive these comments, even though we were expecting a larger number of suggestions; we expect to receive more in the future. We look forward to active participation from all the alums. Please send your thoughts, comments, activities, ambitions, and dreams that you want to realize through IISc AANA, IISc AA, and IISc - with a focus on "giving back" to the society where you live and where you come from (newsletter@iiscaana.org).

--Editors

* The word 'Alums' is used as a gender-neutral word for Alumni/ Alumnae in this newsletter

Your tax-deductible donations to IISc AANA help support educational activities of IISc students. IISc AANA Life membership has many privileges: automatic membership as Associate Member of IISc AA, priority accommodation at IISc campus guest house (on availability basis), networking with academics, technologists, and entrepreneurs in the U.S. and India etc.

IISc AANA Global Conference - Students' Perspective

Anubhav Sinha and Pankaj Jain

It was our first US visit, or any visit outside India for all four of us - Krishna, Amrit, Anubhav and Pankaj - and obviously we were very excited. What we were not expecting was to see such a large gathering of Indians, not only Indians, but people from our own Institute in the heartland of America. We don't know whether AANA organizers thought about this or not, but the city of Chicago shares a special connection with India and especially with IISc. Incidentally, it was the city where Swami Vivekananda gave his famous speech; and while travelling to Chicago, he met Jamsheji Tata in his ship and suggested that he set up a research institute in India; what we now call IISc. So coming to Chicago was a lifetime experience in itself, especially as a current student of IISc. Further, meeting our alumni and listening to their inspiring talks added to that experience.

We got to know a lot of alumni/alumnae who were too glad to meet us, and shared their experiences of IISc and life in the US. They would soon get nostalgic about IISc, shared their bittersweet experiences of their student life and all of them were keen to know how IISc is doing these days. It was quite evident that in spite of being so far, all of them had a special place for IISc in their hearts; they cared for it and were ready to extend any possible support to their alma mater to help it grow.

There was also a faculty delegation from IISc attending this conference. To witness and participate in the panel discussions with alumni/alumnae on building bridges between alums and IISc was one of the most useful things that came out of this conference in our opinion. It was especially heartening to see the contributions made by the alumni for aiding education of under privileged children in India. The session was chaired by Dr. Gajanana Birur who was himself involved in various such activities through BEFC foundation. We too got to present similar activities going on in the campus through our group Note Book Drive. There was also a very informative talk by Dr. R Chidambaram who provided the current status of science and technology in India and the efforts made by Government of India to promote science, especially in connecting various institutes the National Knowledge Network. We also had the opportunity to meet with Sam Pitroda, the former chairman of National Knowledge Commission who was at the conference.

Finally, we would like to thank the organizers, especially Prof. Sunil Kumar, Dr. Arkal Shenoy and Dr. Gajanana Birur for inviting us to be part of the Global Conference and funding our US travel and stay in Chicago. We are also thankful to Prof. S. Mohan for coordinating the visit with AANA organizers. Overall, it was a very memorable conference. We hope there can be more such platforms for interaction and may the ties between our alumni and alma mater become stronger by each passing day.

Anubhav Sinha (2014) is completing his Ph. D. in mechanical engineering at IISc and was one of the four IISc students from Bangalore attending the Global Conference in Chicago.

Pankaj Jain (2015) is a doctoral student in molecular biophysics at IISc. He was an invited speaker and a panelist in the session 'Educational Outreach to Underserved Children' at the 2013 IISc AANA Conference.



Pankaj, Anubhav, Krishna, Prof. Sunil Kumar, and Amrit

IISc AANA Global Conference - A Senior AANA Member's Perspective

Lalit K. Das

This was the first time I attended such a conference, having missed the first one held in Bay Area in California back in 2007. I was in India at that time and read in the newspapers that President Abdul Kalam had given inspiring address to our alumni.

I must confess that I was overwhelmed to find IISc alumni from all over the U.S. Many of these alumni were leaders in front line technologies at national labs, at universities and research institutions, and in the industry. They ranged in age from 30 to 80 years and all of them were bubbling with energy and ideas for the future. I felt very proud to see Dr. Chidambaram, Principal Scientific Advisor to Government of India (a 1956-61 IISc alumnus and five years junior to me, 1948-51 ET) and other distinguished faculty members from IISc led by Associate Director Prof. Balakrishnan, who was representing the Director. Prof. Balakrishnan outlined the new proposed undergraduate program and expansion of the expansion of the existing departments. He also gave details of a new campus located about 240 km from Bangalore and spoke of the multi-disciplinary approach such as application of mathematics to life sciences, bioengineering, material sciences, and nanotechnology to solve their problems and the faculty members cutting across red tape and meeting their counterparts and solving problems on person to person basis.

Another high tech development at IISc is networking in India though an optic fibre network connection with U.K. and other European laboratories, soon to be extended to U.S. and Canada. As decided by Government of India, IISc will be the coordinating agency for maintaining this linkage between educational institutions abroad. This system is already in operation and is a singular honour for IISc Bangalore.

The Chicago Global Conference was meticulously planned and executed and Prof. Sunil Kumar and his associates should be fully credited for making our stay and the participation in the discussions and interactions a memorable experience. The food arrangements for breakfast lunch, and dinners were excellent and very healthy and flavourful and kept us full of energy and high spirits. It was a moment of pride and joy to be felicitated as the senior most alumni present in this conference and I could talk to my fellow alumni of various ages with the youngest being from the 2012 batch.

I did not realize earlier, what a heavy crown Dr. Arkal Shenoy, Chair AANA Board has to wear and I wish him success in his ongoing projects. Both Dr. Arkal Shenoy and his spouse Dr. Vasanthi Shenoy were more than gracious and generous to look after this old alumni throughout his stay in Chicago, not only brought him from Midway Airport and saw him off at the Airport. How can I thank them enough!! My prayer: Let IISc grow and develop into a top Global Institute and IIScAANA which has a large number of alumni in North America will play a vital role in the coming years and improve human life worldwide.

Lalit K. Das (1948-51): is an alumnus of IISc. After an impressive engineering career in various countries, he is now settled in the San Diego area of Southern California. He is one of the most enthusiastic members of IISc AANA Southern California.



Vasanthi Shenoy, Guneet Walia, Lalit Das, and Arkal Shenoy

IISc Student Organizations

There are several active IISc student organizations working in the area education outreach to students at IISc and also at other schools. The targeted students range from those in local government high schools around Bangalore to college students from all over India.

Student Org.	Lead/Activity	AANA Contact
Note Book Drive (NBD)	Venkatesh/help mentor govt. high school students in science education	Gaj Birur
PRAVEGA	Milind Hegde (Actg.)/Inspire students for science; show case IISc brand	Arkal Shenoy
SAMANWAY	Javed (Actg.)/Help IISc student career opportunities	Arkal Shenoy
EntIIsc	Javed/Encourage IISc students in entrepreneurship	?
Nurture the School that Nurtured You (NSNY)	Anil/Education outreach to rural primary schools - a cooperative effort by AANA members & IISc Students	Murthy Gudipati



Five IISc NBD students Sushanth (MBU), Anshuman (MBU), Saurabh (Comp.), Pankaj (MBU), and Venkatesh (Materials) at a 'Hands-on Science Workshop for Teachers' organized by BEFC on Nov. 8, 2013

LIFELAB - An Innovative NGO for Science Education Outreach by IISc Alumnus P. Sridhar

LIFE LAB is an NGO cofounded by P. Sridhar (2010) with Rishikesh (2011), and Lewitt (NIT Nagpur 2011) in Pune. Sridhar was the coordinator of NBD at IISc during 2009-2010 at IISc. It was founded in 2012 with the purpose of enabling school educators to create self-sustainable activity based learning platforms for students to maximize learning potential. This approach nurtures team work, problem solving, and interpersonal skill-sets. Life-lab conducts a two year intervention program for the schools, through which, it provides infrastructural & consultancy support to science educators at both planning and execution level & conduct Impact studies to make informed decisions. Life-lab is currently working with 20 schools in Pune district of Maharashtra, India; impacting the lives of more than 10000 children. Life-lab is the recipient of the prestigious Education Innovation Fund For India - '12 award by Hewlett Packard & is supported by Unltd India, Plus Trust, Thermax, Ekya & Teach For India.

Website : <http://www.life-lab.org/>

Please see: <http://youtu.be/W5oGGDJH7fw>



School children learning physics principles with balloons

A visit to Akshaya Patra Kitchen

Nivedita Basu

Ms. Parminder Sawhney, the Akshaya Patra (AP) Coordinator in Chicago was a panellist in the 'Education Outreach to Underserved Children in Rural and Urban Schools' session during the 2013 IISc AANA Global Conference. Her talk inspired AANA members and also IISc NBD students to learn more about the AP kitchen in Bangalore. The visit was coordinated by AP-- Ms Piyali Dutta in the U.S. and Mr N. Krishnamurthy in Bangalore. --- Editor

One fine morning (not the pseudo morning I wake up to every day but the real 5.00 am morning) a few of us from Notebook Drive (NBD), IISc and BEFC, under the able guidance of Dr. Gajanana Birur, visited The Akshaya Patra Foundation kitchen situated at the heart of Bangalore, the power of the meagre four-letter word, food, unfolded in front of us and we could visualize how everything pirouetted around it. The Akshaya Patra Foundation started in June 2000 with the vision that "No child in India should be deprived of education due to hunger", providing mid-day meals to 1500 children spreading across five schools in Bangalore. The overwhelming response thus received led to the impetus growth of the Foundation which now reaches out to 1.3 million children across the country, every day.

And the kitchen at Bangalore North reaching out to over 1, 00,000 children across some 500 schools was no less than a battle field, all prepared for the go. The processing room had vegetable peelers, Sāmbhar makers, and rice boilers all dedicated to provide food for thought. Then there were granaries and cold storage rooms flowing with supplies. With bio-fuel units and large furnaces, the kitchen had literally transformed into a mechanical laboratory. While Vinay Kumar of Akshaya Patra Foundation was taking us through the technical details, I could only hear the merry cheers of the million cherubs when they lay their hands on the food. Their heart-warming smiles and laughs rang clearly in my ears. I could all of a sudden visualize the million happy faces adorned with those twinkling pair of eyes and a joyous feeling percolated through my heart.

The kitchen was a power-house. It was highly mechanized but the purpose of it all snatched away all the limelight. How could anything on earth be greater than providing food to the hungry? But what really struck me was the confluence of science and service to the society. We always tend to keep our educational qualifications for the sole purpose of finding a handsomely paid job. We scarcely try to implement the technical things we learn in the process of obtaining a degree in philanthropic purposes. And at the Akshaya Patra kitchen I could see the opportunity to put the million equations we had learnt to bring another million smiles.

After the tour de kitchen came to an end, the best part came about (yeah, for me it was) - the food tasting session. And the food, trust me, could not have been better. And hence we could safely conclude that The Akshaya Patra Foundation did not compromise quality for quantity. A thousand dreams and as many aspirations, the urge to reach the zenith, the tenacity to make it big, a hope to fly high are all being fuelled by a stomach full of "food".

Three cheers to The Akshaya Patra Foundation for giving happy endings to million stories across the subcontinent. May it grow bigger with each passing day and spread the smile further and wider.



Ms. Nivedita Basu (2017) is a doctoral student in Center for Nano Science and Engineering at IISc. She is a member of Note Book Drive (NBD). Nivedita's first novel "Me and That Extra 'N'" was published in September 2013

Treasured Memories of NASA/JPL Visit

Pankaj Jain

There is one place I always dreamt of visiting. Yes, it was the Jet Propulsion Laboratory of National Aeronautics and Space Administration. The mere entry near the main gate was enthralling. After waiting in the lounge area for a while, I was all set to see the place and the many contributions of this place to the world. We started with a short movie giving general information about JPL and NASA. The fact that the staff was kind enough to screen the movie for the lone visitor more than overwhelmed me.

Dr. Gajanana Birur took me through the various space exploration missions one by one with a brief background of each. We went through models of several missions (Cassini, Voyagers, Mars Pathfinder, etc., etc.). I was quite amazed when Dr. Birur mentioned that the Voyagers have completed their journey through our solar system and are now providing information beyond it. From there we proceeded to the place where engineers were working on the upcoming missions. They were all in their white suits working in the sterile zone. Next was the data collection center. The many monitors displayed provided details about all the current missions of the JPL. While I was already overawed by the things I had seen by then, little was I aware that the biggest surprise of the day was yet to come. As we entered the 'Mars Yard', a wonder was waiting for us. It was the working replica of the Curiosity rover in action on the simulated Martian surface. I experienced the mission through which I came to know more about NASA and JPL and had been hearing about from Dr. Birur at IISc and following closely for the last 2-3 years. The visit concluded at the JPL store with some memorabilia and games. I realized that space research has many technological advances and innovations and benefitted greatly to humankind. This has helped me support more funding for science and technology in general and space research (especially during the recent launch of Indian Mars orbiter mission) in particular in a much better manner. Finally, I would like to thank Dr. Birur for making this visit possible.



Pankaj Jain (2015 MBU) visited NASA/JPL in July 2013 after attending IISc AANA Global Conference in Chicago

MOU between IISc AANA and IISc AA

This Memorandum of Understanding (MOU) between Indian Institute of Science Alumni Association (IISc AA) and Indian Institute of Science Alumni Association of North America (IISc AANA) is aimed at working together in supporting and enhancing the goals of Indian Institute of Science and both Alumni/Alumnae organizations. Specifically the MOU is to:

1. Help connect IISc Alumni/Alumnae with their Alma Mater and other Alumni/Alumnae worldwide
2. Enable IISc AANA Life Members to become IISc AA associate Life Members with payment of 20% (currently Rs. 1000) of the IISc AA membership dues.
3. Help develop entrepreneurship within the Alumni/Alumnae and IISc communities
4. Support interaction between Alumni/Alumnae with IISc department(s), faculty and students
5. Support the organization of global conferences and Alumni/Alumnae get together events
6. Jointly support Student Council activities including student meetings and conferences
7. Support student mentoring programs
8. Help in identifying and choosing Distinguished Alumni
9. Help in joint fund raising activities in support of IISc faculty and students, such as Samanway, Pravega, scholarships, fellowships, travel grants, endowed professorships, and the IISc AANA & IISc AA corpus fund
10. Support the alumni and IISc community in development of US-India dollar offset programs
11. Link web sites of IISc, IISc AANA, and IISc AA
12. Provide guest house accommodation to members of IISc AANA for visits to IISc campus
13. Support alumni members in getting their academic records from the registrar's office
14. Help in updating the alumni database

Signed:

For IISc AA

Babu Sathian, IISc AA

Cmdr. Parthasarathy, Pres-Elect.

For IISc AANA

Arkal Shenoy, Chair

Satish Nagarajaiah, Co-Chair



IISc NBD volunteers and AANA member at the one-day 'Hands-on Science Workshop for Teachers' in Birur Town



IISc NBD student volunteers and AANA member visit Akshaya Patra Kitchen in Bangalore, November 11, 2013

Talks by AANA Members at IISc Campus

Several AANA members visited IISc campus during 2013 and gave talks on their specialty topics to students and faculty. Some of the recent talks are listed below.

Dr. Mahaveer Swaroop Bhojani (1997, Microbiology and Cell Biology), President of Hut-K Nutrilicious (www.hut-k.com), Ann Arbor, Michigan, USA gave a talk on “We and the Machine with us: Understanding Our Fuels and Additives” on November 11, 2013. This talk, on the role of processed food in explosion of life style diseases around the globe and possible solution to this epidemic, was organized by IISc AA. Dr Bhojani can be reached at swaroop@hut-k.com.



Dr. Gajanana Birur (1971, Aero) of NASA Jet Propulsion laboratory, Pasadena, California gave a talk on ‘Mars Rover Curiosity – Latest Science Data from Mars’ on November 12, 2013. The talk was organized by IISc Student Council. Dr. Birur can be reached at gaj.birur@jpl.nasa.gov



Help Needed

- 1 Student volunteers needed for IISc Note Book Drive. Please contact Venkatesh Narayan, NBD, IISc Campus, venkateshnrn@gmail.com
- 2 **NSNY:** Nurture the School that Nurtured You (NSNY) is a new volunteer program of IISc students & IISc AANA. The students provide support to rural primary schools in villages near their home towns during their term breaks. IISc AANA members provide the funds for this program. Please contact, Anil Kumar Jamithireddy, IISc Campus, anil.pcu@gmail.com or Murthy Gudipati, IISc AANA, murthy.gudipati@gmail.com
- 3 Alums interested in volunteering for LifeLab, an NGO co-founded by IISc alums in Pune which is involved with science outreach to primary school students in slum areas, please contact P. Sridhar in Pune, srichallap@gmail.com

NEWS FLASH

IISc AANA congratulates the following IISc Alumni and faculty who were honored by the following awards by Government of India in 2013;

1. Professor C. N. R. Rao (former Professor and Director of IISc) - Bharat Ratna
2. Professor Roddam Narasimha (former Professor of Aeronautics, IISc) - Padma Vibhushan
3. Professor Satya Atluri (IISc Alumnus, Director of Center for Aerospace Research, Univ. of California, Irvine) - Padma Bhushan

Of the eight national awardees of the 2013 Shanti Swarup Bhatnagar Prize for Science & Engineering, three were from the IISc faculty. IISc AANA congratulates the three awardees.

1. Dr. Sathees Chukkurumbal Raghavan (Biological Science),
2. Dr. Vijay Balakrishna Shenoy (Physical Sciences)
3. Dr. Bikramjit Basu (Engineering Sciences)

Upcoming Events

PRAVEGA: The theme of Pravega 2014 is “Exploring the Frontiers of Science.” The entire fest revolves around questions and ideas that will be of global relevance in the coming years. Pravega includes 25 spectacular competitions, a mega lecture series, exciting workshops, and unmatched international exhibitions showcasing cutting-edge research and technological advancements of the 21st century. To top it all off, three professional nights have been planned from January 31st, February 1-2, 2014 in the beautiful sprawling campus of IISc, Bangalore. www.pravega.org

NBD: A workshop for high school science teachers on ‘Hands-on Science Teaching for High School Teachers’. A one-day workshop will be held on IISc campus in mid-January, 2014 for selected science teachers from the NBD supported high schools around Bangalore. If you would like to volunteer for this workshop to help NBD, please contact Venkatesh Narayan at venkateshnrn@gmail.com