KOLKATA CHAPTER

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DESCRIPTION

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Kolkata is a vibrant chapter with about 652 alumni.

Executive Committee Members of Kolkata chapter:

Name	Designation	Hostel	Degree
Bhibuti Kundu	President	13	B.Tech. '67 CivE
Debesh Choudhury	Secretary	1	Ph.D '96 Phys
Vinay Gupta	Treasurer	1	B.Tech. '93 CSE
Prantik Mahajan	Outreach Coordinator	12	M.Tech. '10 EE
Chandrima Banerjee			Ph.D '93 HSS
Abhishek Mohta		8	B.Tech. '08 ME
Chandan Mazumdar		1	Ph.D '95 Phys
Debashis Mukherjee		8	M.Tech. '80 MetE/MatSc
Tejas Kolhe		3	Dual Degree '15 EScE

Past Chapter Events

Lecture Meeting on “Evolution Process Congruent Thinking and Household Food Production” - November 27, 2016

Prof. ChandraSekhar Roychoudhuri of University of Connecticut was on a Lecture Tour to India during November 21 through December 9, 2016. Prof. Roychoudhuri was visiting Kolkata, Mumbai, Ahmedabad and Kanpur. Kolkata happens to be his home town. He finished his BS and MS in Physics from Jadavpur University; although he briefly attended Presidency College as an undergraduate. After teaching at Kalyani University for three years, he went to USA with a Fulbright Scholarship and finished his PhD from the world renowned Institute of Optics, University of Rochester. He worked for National Institute of Astrophysics, Optics and Electronics, Mexico, during 1974-1978. He then worked for industries in USA (TRW, Perkin Elmer and United Technologies) for 14 years. Then he joined the University of Connecticut. Currently he is retired. But he is engaged in a wide variety of fundamental research as Gratis Research Professor at the same university.

" Aquaponics as a small eco system: A potential tool in every family to educate the children to become eco-savvy".

Prof. Roychoudhuri was not new to us. Earlier we had a mini workshop “Urgency of Evolution Congruent Thinking” by him on September 13, 2014 at the Salt Lake City Centre, Kolkata. The topic of his talk clearly indicates his broad interests, not just in the foundational aspect of physics, but also in the aspects of transformational need for our society.

This time, on November 27, 2016, Prof. Roychoudhuri chose to start where he had finished in the half day mini workshop in 2014. In his own words:

“The observable universe is persistently evolving through diverse interaction processes, mostly invisible to us. The innate biological intelligence, starting from single cells to multi-cellular humans, reflect the remarkably stable and sustainable evolution, for about 3.5 billion years; all are trying their level best to do better than their current best.. But over the last few hundred years, human species have developed socio-political paradigms; which have been consistently overriding the needs for biospheric stability, ignoring evolution congruent biological intelligence. Global warming is a minor problem compared to the effective de-evolution of the minds of humans who have become the persistent exploiters of the biosphere, rather than its active sustainer; while over-riding our evolution congruent innate biological intelligence, individual and collective”.

After introducing the aspects of urgency of evolution process thinking, Prof. Roychoudhuri envisaged how the

common citizens can be empowered in this evolution process. India is affluent in natural resources. Still a decent percentage of the population are struggling for food subsistence. Prof. Roychoudhuri raised a question, “Can we help them producing some of the necessary basis food in their homes?” The answer to this question is positive. He has proposed to exploit a process called, “Aquaponics”, which is being experimented now in many countries.

Aquaponics is a simple process that can help one to produce fish and vegetables with minimum resources. Aquaponics is a symbiotic integration of aquaculture, fish farming and hydroponics. It is a productive means of growing food within a compact physical space in side or around a house. A large aquaponics system can help growing plenty of plants and fish, thereby opening a way to earn money. It can be an ideal social entrepreneurial project that can empower the rural citizens to raise their economic status in a great way.

Prof. Roychoudhuri said that the idea of aquaponics is not new. The food and agricultural organizations of the United Nations noted aquaponics as a unique system for small scale household food production. There are a lot of people in the world who have been trying aquaponics in their balconies, terraces or gardens. In urban India, aquaponics could be an educational tool as a hobby for the children. Indirectly people also would get organically grown fish and vegetables. The rural citizens of India could be introduced to aquaponics. We can try financial help from the government. We can also help privately through NGOs. There is a great possibility in improving the present day aquaponics. There comes the need for “Household Food Production Research” by the agricultural and fishery universities. Innovative aquaponics system can yield a large variety of fishes and vegetables.

Prof. Roychoudhuri and his research collaborator are now developing sensor systems to automatize the maintenance of the aquaponics system through a mobile device. This will allow sending proper instructions to individual families and help them maintain their system at peak functional level. This will also provide immense educational benefits to the children of these families. The children will learn the scientific basis behind maintaining a small echo system. This, in turn, will also help them appreciate the necessity of understanding the very complex echo system, our biospheres, which is under severe stress due to rampant human exploitations of nature.

Prof. Roychoudhuri appreciated the interest of the Kolkata Chapter of IITBAA for holding this meeting. He informed that he already made presentations to a couple of local universities in and around Kolkata including the West Bengal University of Animal and Fishery Studies, Kolkata. He wished that the system would be adopted in many Indian homes, both in urban and rural areas.

The Lecture Meeting was attended by Mr. Bibhuti Kundu (the host and the president of the Kolkata Chapter), Mr. Debashis Mukherjee, Debesh Choudhury and Udaya Lokre. Since the meeting was held in a home, we got ample opportunities for extensive interactions with Prof. Roychoudhuri. The deliberation was informal and very lively. The meeting was video recorded by an amateur photographer Mr. Partha Shankar Nayak. The edited video will be uploaded in an appropriate media channel very soon.

~Reported by Debesh Choudhury (debesh AT iitbombay DOT org), December 8, 2016
On behalf of Kolkata Chapter, IITBAA