

ANNUAL REPORT
2012-13

INTRODUCTION

IISER Kolkata, a premier institute for science and education and research in India, saw the rise of a new chapter in its history with the establishment of SPIE Student chapter IISER Kolkata. This chapter was established in 18 October, 2012 with aim of promoting optics and photonics not only amongst IISER-K community but also in nearby areas. SPIE Chapter at IISER-K witnessed huge participation with more than 100 members in its inception year and became one of the largest SPIE chapters. The chapter being in its initial phase required immense dedication by the office bearers. The office bearers worked whole heartedly to make it one of the largest active chapters buzzing with activities. We hope to see similar growth of the chapter in the coming years.

OFFICE BEARERS 13-14

Dr. Ayan Banerjee
Faculty Advisor



Amit Kumar
President



Argha Mondal
Vice President



Harshit Lakhota
Secretary



Debanuj Chatterjee
Treasurer



Mayank Shreshtha
Public Relation Officer



Rajashik Tarafder
Webmaster



OFFICE BEARERS 12-13

Name	Position
Dr. Ayan Banerjee	Faculty Advisor
Argha Mondal	President
Amit Kumar	Vice President
Harshit Lakhotia	Treasurer
Ananya Mondal	Secretary
Juhi Rajhans	Public Relation Officer
Avinash Kumar Gupta	Webmaster

MEMBERS 2012-2013

- Anees A
- Priyom Adhyapok
- Amal Alex
- Arsalan Ashraf
- Asha Babu
- Ankan Bag
- Abhishek Banerjee
- Chitram Banerjee
- Sudipta Bera
- Rajarshi Bhattacharyya
- Ankan Biswas
- Partha Biswas
- Tanmoy Biswas
- Arnab Chakrabarti
- Debanuj Chatterjee
- Shubham Chaudhry
- Sujeet Choudhary
- Bidyut Deka
- Shubham Deolka
- Sayandip Dhara
- Drisya Dileep
- Jhuma Dutta
- Sharon Felix
- Naveen Gaur
- Jeetsagar Ghorai
- Shouvik Ghorai
- Sohitri Ghosh
- Soumik Ghosh
- Bapun Giri

- Avinash Gupta
- Ratnesh Gupta
- Roopam Gupta
- Iris Himal
- Anjana K
- Ranjibul Kazi
- Rishabh Khare
- Kishan Kishan
- Manoj Kovalam
- Ananya Krishnan
- Abhishek Kumar
- Amit Kumar
- Avinash Kumar
- Kaushalendra Kumar
- Neeraj Kumar
- Rahul Kumar
- Sanjeet Kumar
- Komal Kumari
- Debojoti Kuzur
- Harshit Lakhota
- Leya Lopez
- Modumudi Madhav
- Prakash Mandal
- Subrata Mandal
- Suman Mandal
- Shampy Mansha
- Ashutosh Mishra
- Subhajit Mishra
- Subhradeep Misra
- Sonali Mohapatra
- Ananya Mondal
- Argha Mondal
- Anirban Mukherjee
- Payel Mukhopadhyay
- Sri Bhavya Muvva
- Abhishek Nag
- Pamir Nag
- Cyrin Neeraj
- Kuntal Pal
- Subham Pal
- Vivek Pareek
- Abhilash Paswan
- Mahashweta Patra
- Aravind Pazhayath
- Poorvi Pitta
- Vikash Prasad Kamal R
- Juhi Rajhans
- Ashlin S
- Arindam Saha
- Sudipta Saha
- Tanumoy Saha

- Titli Saha
- Riya Samanta
- Ronit Sarangi
- Sourav Sarkar
- Anindya Sengupta
- Prasoon Shandilya
- Mayank Shreshtha
- Jalpa Soni
- Shiladitya Swarnakar
- Saran T
- Rajashik Tarafder
- Akash Verma
- Vikas Verma

CHAPTER ACTIVITIES

This year's activities were mainly directed towards promotion of newly formed SPIE chapter within the institute and neighboring institutions. Various talks and seminars were conducted for this purpose. SPIE chapter IISER-K associated itself with more established organizations like the Science Festival of IISER Kolkata named 'Inquivesta' for its promotion.

- Lectures by faculty members of IISER Kolkata regarding working in optics and photonics for educating and motivating students towards optics:-
 - Dr. Ayan Banerjee gave a talk on ***“Optical tweezers and its applicaition”***.
 - Dr. Bidisha Sinha motivated students with her talk on ***“Biophotonics”***.
 - Dr. Nirmalya ghosh gave a talk on ***“Exotic optics”***, among others.



Dr. Ayan Banerjee motivating students to join SPIE Chapter and actively participate in its activities

- 30 of our members participated in the Optics Flair event organized in Goa to promote collaboration in optics at the national level.

- Conducted an Educational Outreach Activity for school students in IISER-Kolkata campus for over 200 students from across different schools of Bengal. Students were introduced to cutting edge research in photonics such as **“Precision Spectroscopy”**, **“Atomic Force Microscopy”** and **“Tera-Hertz Spectroscopy”**.
- **Lab Visit :**
 - **“Micromanipulation Laboratory”** of Dr. Ayan Banerjee
 - **“Biophotonics and Nanooptics Lab”** of Dr. Nirmalya Ghosh
- Chapter was promoted in “Inquivesta-13” India’s largest Science festival held at IISER Kolkata. Chapter was associated with poster presentation competition at Inquivesta which is one of the prime and most participated events in festival. Moreover a separate stall dedicated to SPIE chapter IISER Kolkata was installed at the festival. Laser game **KHET** was also organized as informal event at the festival.
- Funds were provided for the development of:-
 - **Low Cost Optical Tweezer**
 - **Tera Hertz Wave Detector**
 All projects were developed by student members of the Chapter.
- The first steps were taken to organize a Winter School on Photonics at a national scale. The topic for the first edition is **“Bio-photonics and Bio-imaging”**. The event is scheduled to be held between 26th - 29th December, 2013.
- The chapter obtained grants for an **Outreach Program** which is predicted to benefit close to **20000 students** across East India.

FINANCIAL STATEMENT

Funds	in (INR)
SPIE Activity Grant	96567.91
Interest on Bank Balance	1275.57
Expenditure	
Inquivesta ‘13	10000
Demonstration Equipment	4671
Refreshments during General Body Meeting	8230
Outreach Activity at Kalyani, Nadia, West Bengal	3487
Stationary Costs	1138
Prize Money for Regular Quizzes	1856
Experiment Grants	15670
Total Expenditure	45052
Balance Amount	52791.48

ACKNOWLEDGEMENT

This chapter is thankful to all its members for working whole heartedly and actively participating in its activities. We express our sincere gratitude to **Tasha Chicovsky** for her undying support, whenever needed. Chapter is especially thankful to our International faculty advisor Dr. S Mohanty and other guest lecturers Dr. P K Gupta, Dr. S Umapathy, Dr. S Maiti. We are also thankful to our faculty advisor Dr. A Banerjee, Dr. N Ghosh and Dr. B Sinha. Last but not the least chapter is thankful to its first set of office bearers who made all this possible.