



IEEE ComSoc Annual Report, Kolkata Chapter

i. This year the ComSoc activity started very early in the month of January 2018. IEEE COMSOC Kolkata Chapter Organized **IEEE Lecture meeting On 8th Jan 2018**, Venue: Room No T-3-13, ETCE Department, Jadavpur University and Time: 4.00 pm, Dr. Amar Nath Ray from USA, Ex-Director of networks for Teletch team (T3), now a company owner of ATTC delivered lecture on the topic of **"Advancement in Communications over Packet Based Networks"**, where about 60 participants were there. It was a very live interactive session. Prof. Ray later discussed the possibility of some collaborative work in Wireless Communication in my Department and specially talked with few students.



Prof. A. K. ray during his session on 8/1/18



Participants in the lecture

ii. On AGM day on Jan 15, 2018, COMSOC Kolkata Chapter awarded two best volunteers with framed certificates who worked throughout the year for the advancement of ComSoc Kolkata Chapter for which this chapter received the 5th time Chapter achievement award. The names of the awardees are Mr. Tanumay Manna, PhD Scholar of ETCE, a CSIR fellow under Prof. Iti Saha Misra, and Mr. Arkodeb Bannerjee from the MSIT ComSoc Student Branch Chapter.

ii. RAIT -2018, ComSOC Technical Sponsor International Conference: 16 March 2018

The fourth international conference on recent advancement of Information Technology was held in the Computer Science department of ISM (IIT) Dhanbad during 15-17 March 2018 in which comsoc Kolkata chapter was one of the technical sponsorship. Prof. Iti Saha Misra , ComSoc chairperson was present as a representative of ComSoc on 16 March 2018 to address the audience on ComSoc. She also delivered an invited talk on Cognitive Radio on 5G communication aspects.



Rait-2018 Participants



Prof. Iti Saha Misra delivering invited lecture

iii. Comsoc Circuit Design Model Contest on 3rd April 2018, in association with Jadavpur University Science Club:

It was a wonderful experience in organizing the ComSoc Circuit design model contest on analog communication "WIRED". Among the contestants there were students of BE second and fourth year from ETCE, EE, IE departments of Jadavpur University and neighbor engineering colleges in Kolkata. Just at the verge of semester sessional completion, we decided to keep the enthusiasm of the students in the analog communication based circuit and design. We are thankful to Jadavpur University Science Club students, few of the members from ETCE department came forward and jointly organized the event. There were all total 5 groups at the final contest. Contestants were asked to design the model and demonstrate. Prof. Salil Kumar Sanyal, retired Prof. of the ETCE, JU and ComSoc executive committee member along with all other executive members present on that day have seen the demonstration and evaluated based on the completeness and complexity of the design the participants have handled. We have declared two prizes first and second. The first prize winner received Rs. 1000 and Certificate, second prize winner received Rs.

700 and Certificate. All the participants were given the certificates of appreciation including the volunteers.



All the contestants and ComSoc members at Communication Lab of ETCE Department, Jadavpur University



Ms. Akansha Rai and Mr. Swastik Chakrobarty of ETCE Jadavpur Univ, receiving the first prize. They successfully Designed and demonstrated the FM demodulator using PLL



Sayantan Maity of ECE, Techno India College, Kolkata receiving the 2nd prize on Generation of Square Wave



Prof. Salil Kumar Sanyal evaluating the design models in analog communication

iv. ComSoc Industry Interface programs on 30 April and 3rd May 2018 , at the Broadband Wireless Communication Laboratory under Prof. Iti Saha Misra, Annexe Building, first floor, ETCE Department, Jadavpur University.



Working with SDR System on 30 th April 2018



Working with Channel Emmulator, 3rd May 2018

ComSoc Industry Interface programs 1. On 30 April 2018, Dr. Satish Thakre of Scientech technology Pvt. Ltd from Indore demonstrated the Software defined radio system and 2. On 3rd May 2018, Dr. Thakre worked on and demonstrated SDR based system on Channel Emulator for video communication in Broadband Wireless Communication Laboratory of ETCE Department, Jadavpur University, Annex Building, First Floor. The Masters and PhD Scholars were the participants for the program. It was a very research intensive discussions and future research

direction using the SDR system and Channel Emulator which are the two advanced equipments in wireless communication domain.

v. Membership Development drive and opening of ComSoc Student Branch Chapter at NIT Silchar, 18 May 2018

Membership drive program at NIT Silchar, several new student members of ECE have petitioned for ComSoc Student Branch Chapter, on that day 18 May 2018, Mr. Sumit Misra, Technology Head and Innovation delivered lecture of data stream analytics and applications in communication and computing. Prof. Fazal Talukdar of ECE department provided the inaugural program and necessity of IEEE activity. He also pointed out the IEEE activities in the past in his department and the dormant situation now which is needed a thrust for the benefit and advancement of research community. Prof. Iti Saha Misra, ComSoc Chair delivered lecture on the various activities of comsoc Kolkata Chapter , the winning of the Chapter Achievement awards and the benefits of joining the IEEE for continuous development of an individual through networking, organizing events under IEEE.



Participants for the Lecture



Mr. Sumit Misra delivering his lecture

Vi. Jadavpur University TEQIP-III Sponsored One day Seminar on “Towards 5G Developments”, in association with IEEE ComSoc, Kolkata Chapter

The Broadband Wireless Communication Lab of ETCE Department organized the one day seminar financially supported by TEQIP-III and technically sponsored by IEEE ComSoc Kolkata Chapter on 6th July 2018, in the Seminar Room of ETCE, 4th

Floor. Prof. Iti Saha Misra of ETCE Dept. Was the coordinator and Mr. Nirmoy Modak was the co-coordinator of the seminar.

The one day seminar was very successful in respect of good number of participants from Jadavpur University itself and neighbourhood engineering colleges along with a very good coverage of 5G developments happening worldwide. There were all together 50 members in the seminar; 13 from organizing committee and speakers, other 35 participants from Jadavpur University (15), Heritage Institute of Technology (5), Narula Institute of Technology (5), Techno India Saltlake (6), Meghnad Saha Institute of Technology (2), Govt. College of Ceramic Technology (1), TCS, Kolkata (1) from various position of masters students, research scholars, faculties and industry professional. Ms. Kasturi Bhattacharjee, IoT Establishment Director of Ericsson and Ms. Indrani Roy, of Ericsson also attended the whole day seminar.

Eminent industry experts were among the speakers. There were three lectures, in the morning session Mr. Tarun Gupta from National Instrument, India, Business Manager spoke on Prototyping 5G using standard Off-the Shelf tools giving thrust to massive MIMO and Cloud RAN, in the after lunch session there were two lectures, first one was delivered by Mr. Indrajit Sanyal from Ericsson, Senior Director and Head of Cloud & Core, Business Unit Digital Services, on 5G - Out of the lab into the neighborhood, this was about actual 5G deployment scenario. The last lecture was delivered by Dr. Tamal Chakroborty, alumnus of ETCE, Jadavpur University, delivered on IoT based solutions for Intelligent Transportation System in Urban India by enabling key 5G Technologies.



Mr. Tarun Gupta, NI



Mr. Indrajit Sanyal, Ericsson



Dr. Tamal Chakraborty, FIEM



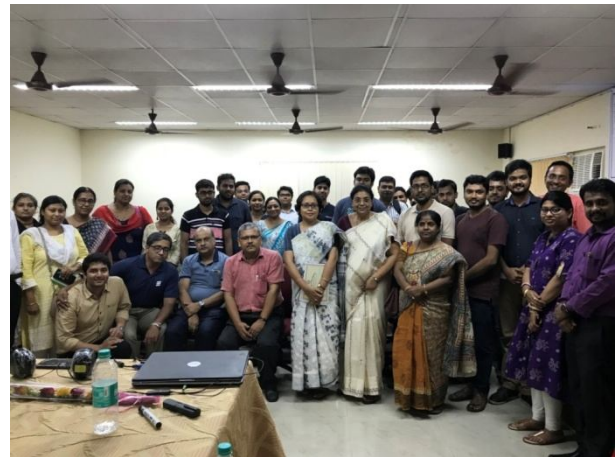
Prof. I. Saha Misra delivering the Welcome address



TEQIP-III coordinator: Prof. Chiranjib Bhattacharya addressing the participants



Nirmoy Modak, Co-coordinator delivering valedictory speech



Participants, speakers and the organizers at the seminar

Vii. DLT Program:

Distinguished Lecturer Tour Program (DLT) on [Data Center Networking](#) held on 23rd July 2018, delivered by Prof. Suresh Subramaniam, IEEE Fellow, Professor and Chair, Department of Electrical and Computer Engineering, George Washington University, Washington DC at Room No. T-3-7 of ETCE Department, Jadavpur University. There were 40 student participants and research scholars on this DLT. It was a wonderful experience of attending Prof. Suresh lecture. There was an arrangement for outside lunch followed by city tour.



Prof. Suresh Subramaniam delivering DLT and the Participants

Viii. One day Seminar _ HIT 23 rd Nov 2018

A 1-day Seminar had been organized at the department of Computer Science and Engineering, Heritage Institute of Technology, Kolkata on the topic “Advanced Graph Theory and its Applications in Wireless Networks” with the technical and financial support of IEEE ComSOC Kolkata Chapter on 23 Nov 2018. The speakers were Dr. Rogers Mathews, Asst. Prof from IIT Kharagpur, and Dr. Anindita Kundu Asst. Prof. from Heritage Institute of Technology, Kolkata. Prof. Iti Saha Misra , ComSoc Chairperson of Kolkata Section has delivered motivational talk for participating the IEEE programs. She also linked the ComSoc association and the theme of the seminar for that day. About 55 under graduate Computer Science and Engineering student of HIT have participated the one day seminar.

Invited Talk 1

Speaker: Roger Mathews from IIT Kharagpur

Topic: Bisecting families for set systems.

Dr. Rogers Mathews has made his specialization in the field of Combinatorics and Graph Theory and with his subject of research he gave a delightful talk on Bisecting families for set systems.

Invited Talk 2

Speaker: Prof. Anindita Kundu, Heritage Institute of Technology, Kolkata

Topic: Applications of Graph Theory in Communication.

Ms. Anindita Kundu has delivered a talk on Applications of Graph Theory in Communication. She discussed how the basic concepts of Graph Theory can be applied in the field of communication engineering. Firstly, she gave a brief description of the wireless cellular networks followed by discussing two problems of Femto Base Station (FBS) placement and adaptive power control of the FBSs. As a solution to the first problem she showed how graph based clustering algorithms can be applied in identifying the position for FBS deployment in the indoor environment.



Participants of the one day seminar at HIT



Token gift is given to Dr. Roger Mathews and to Dr. Anindita Kundu

ix. ComSoc Kolkata Chapter Participation on International Conference “INFOSEC GLOBAL 2018” at Park Hotel Kolkata on 16 Nov 2018.

This International Information Security Summit was driven by InfoSec Foundation, a non-profit Platform dedicated to Cyber Security. This initiative is supported by WB Govt - IT Dept., NASSCOM, STPI, CIO Club and IEEE Comsoc, Kolkata Chapter.

Mr. Pallab Ganguly, Vice-Chairman (IEEE COMSOC, Kolkata) mentioned the role of IEEE-Comsoc in the Kolkata section and the latest security researcher in the field of 5G & Smart grid Communications.

Mr. Rana Pratap Sircar from Ericsson has delivered the IEEE-Comsoc lecture on 5G Security. He is the Lead - Innovation in Service Delivery Unit of Ericsson BA Digital Services. He also received an award from the organizer and is an IEEE member.



Vice Chair, ComSoc, Mr. Pallab Ganguly

Mr. Rana Pratap Sircar receiving gift

X. IEEE Technical Lecture –

Delivered by Ms. Anindita Kundu on 6 th Dec 2018 on the topic of “Design and Analysis of Macro/Femto Based Cognitive BWA Networks for Efficient Resource Management” at Broadband Wireless Communication Lab, ETCE Building, Annexe Building.

xi. Industry Association Program with Student Branch Chapter NIT Silchar on 5-6 th Dec 2018

The ComSoc Student Branch Chapter at NIT Silchar hosted an Industry Association Programme with Mathworks in association with Technical sponsorship of IEEE ComSoc Kolkata Section. Mr. Tabrej Khan, Senior Engineer, Mathworks India Pvt.

Ltd was the resource person who has deliberated a wonderful talk on Matlab® preparation to tackle various issues related to 5G. There was a hands on demonstration on how communication protocols developed on Matlab® could be embed on FPGA board for hardware implementation. The session also displayed some important features of Matlab® for researchers to work on and overall it was quite an interactive session that the participants have enjoyed learning. The internship opportunity in Mathworks on NS-3 and Antenna design issues were also discussed and were appreciated by the participants. Prof. Iti Saha Misra, Chair, IEEE ComSoc Kolkata Section appreciated the event and motivated the organizer to pursue such events in future.



SBC, NIT Silchar members, Teacher Mentor and CoMSoc Chair

Xii. Executive committee Meeting:

1. 1st EXECOM meeting held on 23.2.2018 (Friday) at 6.15 pm , Venue :OPNET Lab, Annexe Building of ETCE Dept, Jadavpur University
2. 2nd EXECOM meeting held on 6.7.2018 (Friday) at 6.00 pm , Venue :Seminar Room, ETCE Dept. , Jadavpur University.
3. 3rd EXECOM meeting held on 29.11.2018 (Thursday) at 6.30 pm , Venue :OPNET Lab, Annexe Building of ETCE Dept, Jadavpur University
4. ComSOC AGM on Monday January 15, 2018 at 6-45 PM at 'The Lalit Great Eastern' 1,2,3 Old Court House Street, Dalhousie Square, Kolkata – 700 069



ComSoc AGM on 15 Jan 2018



Mr. Tanumay Manna receiving ComSoc Best Volunteer Award 2017 from the Chair, Prof. Iti Saha Misra
