

Section Report

IEEE Kharagpur Section India Council IEEE Region 10

PART A – SCETION SUMMARY

A.1 Executive Summary (major event, achievement and highlights)

Major event

IEEE Kharagpur Section organized two International Conferences in the month of December, 2008.

- Regio-10 Colloquium and 3rd international Conference on Industrial Information Systems (ICIIS 2008) during 8-10 December, 2008 held at IIT Kharagpur.
- 6th International Conference on Computer Vision and Image Processing (ICVGIP 2008) during 16-19 December, 2008 at Bhubaneswar, Orissa, India.
(Please see details for the conference in **Annexure – I**).
- Organized two weeks short-term course on “Object-Oriented Programming with C++ and Java” for the students of the local engineering colleges. Total 80 students from 17 different colleges participated in the program.
- We have organized 24 seminars delivered by eminent speakers from different field of engineering throughout the year 2008. Please see the detail list in **Annexure-II**.
- A one-day workshop has been organized by the Kharagpur Section. 43 participants from industries and academia took part in the workshop.

Achievement

- IEEE Kharagpur section completed its 25th years of glorious presence in the history of IEEE. The Section as a unit having started as a sub section in 1983 and elevated to section in 1987.

Highlights

- In the Section, majority of the members are from Indian Institute of Technology (IIT), Kharagpur. IIT Kharagpur is an Institute of international repute and the is the largest & forerunner of the IIT system among the pool of seven IITs in India. This way the section is a unique Section in IEEE global organization, having entire membership formed by academics.
- The Section is the smallest section in India Council, possibly in IEEE R-10. However, has a good track record, since its inception, it always showed the sustainable membership growth.
- The number of members in the Section as on 31.12.2008 is 195 with the following breakup:
Fellow = 01, Senior Members = 24, Members = 88, Associated Members 24, Graduate Student Members = 58
- Overall there is an increase of 24 members since the last year with the following.

- The number of members in the Section as on 31.12.2007 was 171 with the following breakup:
Fellow = 01, Senior Members = 23, Members = 54, Graduate Student Members = 32 and Student Members = 61.

A.2 Financial Report

Financial activities (Please see the **Annexure - III**, Page 1)

Section summary (Please see the **Annexure - III**, Page 3)

PART B – ORGANIZATION ACTIVITIES

B.1 Membership Development Programs

Summary and evidence of work done in the retention of members

Through e-media, meetings and special get-together a number of initiatives have been taken to retain the memberships under the Section.

The Section's office bearers visited Haldia Institute of Technology, West Bengal as part of membership development activities. Now, IEEE Region 10 recognizes a Students chapter at Haldia Institute of Technology under Kharagpur section.

We are in the process of visiting and out reach of IEEE Kharagpur section activities in Patna, Jharkhand, Bhubaneswar, Kolaghat etc.

Summary and evidence of Affinity Group, i.e. GOLD, WIE, ... activities

A wide publicity and a number of notifications have been made among the students member and woman academicians in this regard.

B.2 Professional and Continuing Education Activities

(Summary of Continuing Educational Activities including conferences, technical activities, training courses with attachment table/information)

The Section has organized a number of professional and continuing Educational activities with a summary as stated below. For detail please see the **Annexure - I**.

Continuing Educational Activities = 24

Conferences = 02

Technical Activities = 01

B.3 Recognized Educational Programs

(Summary of Educational Activities including conferences, technical activities, training courses with attachment table/information)

A one day workshop on "Applications and Computation of Signal Value Decomposition" was held on 29th February 2008. In this workshop 43 participants from different parts of India participated and eminent personalities from reputed institutions delivered lectures.

B.4 Student Activities

(Active Student Branch activities including student paper contest, recruitment of students members.)

Petition was filed to approve to make a students chapter at *Halida Institute of Technology (HIT)* and the petition is approved by IEEE Region 10.

B.5 Awards

Section Award program and Award issued

The Section awards its members to attend conference/symposia etc. In the year 2008 two students have been awarded registration supports to participate two international level conferences.

B.6 Chapter Activities

Summary of Chapter activities with attachment table/information (Please also see the **Annexure -- II**)

The Control System Chapter of the Section has organized the following.

Seminars = 02

Workshop = 01

B.7 E-mail and newsletter Activities, Home Page

(Contacts with section members including the number of Newsletter issues, email Newsletter, regular updates of Section, Chapters and Student Branches Web Page)

All members are strongly connected through a 100 MBPS LAN connections and e-media. Also the Section has hosted a web page with URL: <http://www.ieeekgp.iitkgp.ernet.in/> .

PART C – OTHERS

C.1 Relationship with National Societies

Control Chapter of the section has been organizing all activities jointly with System Society of India local Chapter, Kharagpur .

C.2 Special Events

A social event has been organized on 16 August, 2008. The IEEE members and their family participated in the event.

C.3 Problems to be Anticipated

The increase in the IEEE membership under the Section is not as expected.

The existing IEEE benefits/advantages are not so attractive to the students.

Little involvement of IEEE members to the different activities for tremendous workload of the member and non-members.

Lack of students' initiative and woman participations.

Out reach to people is not yet up to the expected level.

PART D – GOALS AND PLANS

D.1 Continuation of project/activity in progress and their implementation

Organizing more seminar, conferences, students paper contest, design contest etc.

An initiative already been taken to open Circuits and System Chapter under the Section.
Membership development drive in the neighboring engineering colleges and industries.
Field trip to enhance industry-academic collaborations.

D.2 Goals and Future Plans

Organizing more seminars, conferences, students paper contest, design contest etc.

Membership development drive in the neighboring engineering colleges and industry people.

Organizing Students Congress of the India Council Students activities in November 2009.

In the year 2009, section will organize two international conferences: Automation and Information Technology in Iron and Steel Making Process (AITISM-09) during 02-04 December, 2009 at Ranchi as a technical sponsor and 3rd International Conference on Power Systems (ICPS-2009) during 27-29 December, 2009 at Kharagpur.

Annexure – I

IEEE R-10 Colloquium and 3rd International Conference on Industrial Information Systems Design (ICIIS-2008), December 8-10, 2008 at IIT Kharagpur.

IEEE Region 10 Colloquium Talks

1. High Power High Performance Industrial Drives- A Technology Status Review

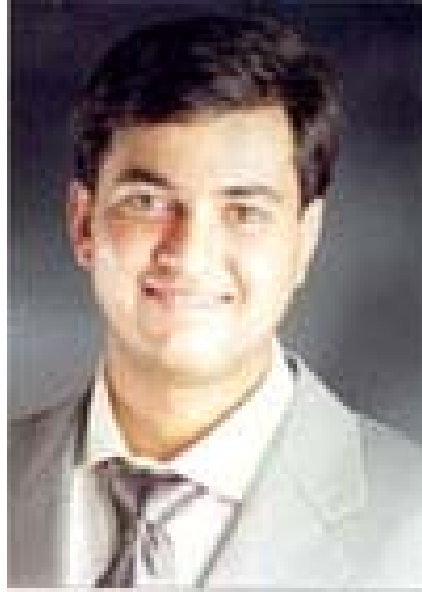
Speaker: **Professor Ajit K. Chattopadhyay**, Bengal Engineering and Science University, Howrah-711 103, India



Prof. Ajit K. Chattopadhyay

2. Future Internet Design- Restructuring the Internet Economy

Speaker: **Professor Ashwin Gumaste**, IIT Bombay, India



Prof. Ashwin Gumaste

- 3. Distributed Streaming Data Processing in Sensor Networks**
Speaker: **Professor Bhabani P. Sinha**, ISI, Kolkata, India



Prof. Bhabani P. Sinha

4. System of Systems- Innovations for 21st Century

Speaker: **Professor Mo Jamshidi**, The University of Texas San Antonio, Texas, USA



Prof. Mo Jamshidi

Invited Talks at ICIIS-2008

1. **Digital Microfluidic Biochips: Design and Testing** by **Prof. Bhargab Bikram Bhattacharya**, ISI Kolkata India



Prof. Bhargab Bikram Bhattacharya

2. **Approaches to Design Intent Verification** by **Prof. Partha Pratim Chakrabarti** IIT Kharagpur India



Prof. Partha Pratim Chakrabarti

3. **Model-Mismatch Instability in Adaptive Control Systems** by **Prof. Michael G. Safanov**, University of Southern California, USA



Prof. Michael G. Safanov

4. **Light Electric Vehicles** by **Prof. Guiseppe Buja**, University of Padova, Italy



Prof. Guiseppe Buja

5. **Computational Structure of Correlative Type Higher Order Neural Units with Applications** by **Prof. Madan M. Gupta**, College of Engineering, University of Saskatchewan Saskatoon, SK, Canada, S7N 5A9



Prof. Madan M. Gupta

6. **Human-Computer Interaction** by **Prof. Anirudha Joshi**, IDC, IIT Bombay, Mumbai 400076, India



Prof. Anirudha Joshi

7. **Decision Support Systems for Improving the Quality of Medical Care** by Dr. Biswadip Ghosh, Department of Computer Information Systems Metropolitan State College of Denver Denver, Colorado



Dr. Biswadip Ghosh

Participations

- Number of delegates: 278
- Number of submissions: 568
- Number of papers accepted: 250
- Proceedings published by: IEEE Xplore

For more details please look at: <http://www.ieeekgp.iitkgp.ernet.in/>
<http://conf05.iitkgp.ac.in/iciis08/>

6th International Conference on Computer Vision and Image Processing (ICVGIP 2008) during 16-19 December, 2008 at Bhubaneswar, Orissa, India.



Venue of ICVGIP -2008, Hotel Swasti Plaza, Bhubaneswar, Orissa, India



Chief Minister, Govt. of Orissa inaugurating the ICVGIP 2008 Conference



A delegate presenting his paper in ICVGIP 2008

Participations

- Number of delegates: 188
- Number of submissions: 368
- Number of papers accepted: 120
- Proceedings published by: Springer Verlag, LNCS

For more details please look at: <http://www.ieeekgp.iitkgp.ernet.in/>
<http://conf05.iitkgp.ac.in/icvgip08/>

IEEE Kharagpur Technical Activities, 2008

Date	Topic	Speaker
15 th January,08	Secure Power Delivery Through Autonomous Microgrids	Dr Joydeep Mitra New Mexico State University Las Cruces, New Mexico 88003, USA
16 th January,08	Numerical Solutions of Takagi-Sugeno Fuzzy Model State Equations via Block Pulse Functions	Ms. Vertika Singh Ms. Vertika Singh. Student Branch, IIT Kharagpur
15 th February,08	Linear Electromagnetic stirrer for Metallurgical Applications	Prof. V Ramanarayanan IISc Bangalore
10 th March,08	Power Quality Improvement	Prof. Bhim Singh
13 th March,08	Introducing Worlds First LCI Driven Variable Speed Elec Blowers for New Blast Furnace at Tata Steel	Mr. S.K. Basumallick Tata Steel, Jamshedpur
30 th May,08	Integrated Vehicle Health Management for Automobiles	Dr. Steve W. Holland General Motors R&D, Warren, USA
30 th May,08	Sensor-Based Diagnosis and Prognosis	Dr. Mutasim Salman General Motors R&D, Warren, USA
16 th June,08	Circuit Simulation for Power Electronics	Prof. Mahes Patil IIT Bombay
30 th June,08	Appication of optical tomography and elastography in early detection of cancer	Prof. R.M. Vasu Indian Institute of Science Bangalore.
30 th June,08	Numerical and Optimization Methods for Active Vibration Control	Prof. Biswa Nath Datta, Northern Illinois University
16 th July,08	Fractional Calculus and Its Applications	Prof. O. P. Agarwal Southern Illinois University, Carbondale, USA
4 th August,08	Power Quality Enhancement with an Optimum Unified P.Q. Conditioner	Dr. S. P. Das IIT Kanpur

19 th August,08 19 th	When Control Theory Meets Neuroscience	Dr. Iven Mareels Fellow, IEEE Dean of the Melbourne School of Engineering
20 th August,08	State estimation in power distribution networks	Dr. Bikash Pal Imperial College, London
21 st August,08	Low Complexity Decoders for V-BLAST	Prof. V. U. Reddy I.I.Sc, Bangalore
1 st October,08	Estimation of Switching Overvoltags for Restoration of EHV Lines	Prof. D. Thukaram I.I.Sc, Bangalore
29 th October,08	Brain Modeling	Dr. A.S.Mandal C.E.E.R.I. Pilani, Rajasthan
12 th November,08	Graph Colorings and Channel Assignment Problems	Prof. Renu Laskar. Clemson University
12 th November,08	CMOS 60GHz Digital Radio : the intersection of gaming and connectivity	Prof Joy Laskar Georgia Tech
27 th November,08	Design and Verification Challenges in Automotive Software Development	Prof. S. Ramesh GM R&D, Bangalore
6 th December,08	C.T.I.F and Convergence	Dr. Ramjee Prasad C.T.I.F. Aalborg University, Denmark
18 th December,08	Evaluation of Non Conventional Lightning Protection Devices	Mr. Shreeharsh Mallick

CONTROL SYSTEMS CHAPTER ACTIVITIES, 2008

The following activities were organised for the year 2008:

- 29th February,08 Workshop on “Applications and Computation of Signalr Value Decomposition”by Prof. C. Neahak, Prof. G. Saha, Prof. A. Routhroy, Mr. A. Bhattacheyay.
- 30th May,08 Seminar on “Numerical and Optimization Methods for Active Vibration Control” by Prof. Biswanath Datta.
- 19th August,08 Seminar on “When Control Theory Meets Neuroscience” by Dr. Iven Mareels.

Annexure – III

IEEE Kharagpur Section Financial Report 2008

Income and Expenditure Account, for the year 2008

Dr.

Cr.

Expenditure	Amount (Rs.)	Income	Amount (Rs.)
To <u>Program Expenses</u> :		<u>Section Rebate</u>	
To Meeting Expenses	69,378.00	By Annual Contribution from IEEE Hd. Qtrs.	1,34,245.00
To Int. Na. Conference :ICHS2008	50,000.00	By Programe Revenue from IEEE Hd. Qtrs.	11,278.00
To S.T.C. on C++ and Java	1,75,800.00		
To Seed money : NLIASSC	5,500.00	By Interest form bank :	21,554.00
To <u>Management and General Exp.</u>		S.B. A/c Rs. 2041.00	
To Section Congress 2008	1,48,866.00	F.D. A/c Rs. 19513.00	
To Salary and wages :	49,500.00	By Member Contribution	520.00
To Maint. of office building	82,340.00	By S.T.C. : C++ and Java	1,80,000.00
To Computer accessories and Consumables	41,827.00	By Int. Na. Conference on ICHS2008	54,468.00
To Bank Commission	988.00	By Int. Na. Conference on Indicon 2004	22,000.00
To Depreciation :		By Registration fees ACSVD workshop	2550.00
Computer Rs.15,817.00		By Excess of Expenditure over income	2,15,562.00
Furniture Rs. 2161.00	17,978.00		
Total Rs.	6,42,177.00		6,42,177.00

IEEE Kharagpur Section Summary

Receipts and Payments Account, for the year 2008

Dr.			Cr.
Receipts	Amount (Rs.)	Payments	Amount (Rs.)
To Opening Balance :		<u>Program Expenses</u> :	
Cash in Hand – Rs. 82.00		By Meeting Expenses	69,378.00
Cash in Bank – Rs.2,29,515.66	2,29,597.66	By Intr. Na. Conference :ICIIS2008	50,000.00
To Members' Contribution	520.00	By S.T.C. on C++ and Java	1,75,800.00
To <u>Program Revenue</u>		By Seed money : NLASSC	5,500.00
To Short Term Course (STC) C++ and Java	1,80,000.00		
To Int. Na. Conference on ICIIS2008	54,468.00	<u>Management and General Exp.</u>	50,000.00
To ACSVD workshop	2,550.00	By Advance for S.T.C. ICVGIP 2008	1,48,866.00
To Programe Revenue from IEEE Hd. Qtrs.	11,278.00	By Section Congress 2008 (at Quebec)	49,500.00
To Annual Contribution from IEEE Hd. Qtrs.	1,34,245.00	By Salary and wages :	82,340.00
To Int. Na. Conference on Indicon 2004	22,000.00	By Maint. of office building	41,827.00
To Interest form bank S.B. A/c Rs. 2041.00		By Computer accessories and Consumables	988.00
F.D. A/c Rs. 19513.00	21,554.00	By Bank Commission	
To Maturity value of F.D A/c	2,68,663.00	<u>Closing Balance</u>	2,50,676.66
		Cash in Hand Rs. 82.00	
		Cash at Bank Rs.2,50,594.66	
	9,24,875.00		9,24,875.00