

IEEE Kharagpur Section Annual Report for the Year 2014

SECTION SUMMARY:

Section Executive Committee Member List:

- Dr. Raja Datta (Chair)
 - Dr. Pabitra Mitra (Vice Chair and Treasurer)
 - Dr. Alok Kanti Deb (Secretary cum Student Councilor and Control System Society Chair)
 - Dr. Prabodh Bajpai (Past Chair)
 - Dr. Amitabha Bhattacharjee
 - Dr. Chitta Ranjan Mondal (M. D. Chair)
 - Dr. Debdoot Sheet (Web-Media Information In-charge)
 - Dr. Sudip Misra,
 - Mr. Santanu Das (HIT, SB Councilor)
 - Dr. N. K. Kishore (Standing Execom Member)
 - Dr. Prabir Kumar Biswas (Standing Execom Member)
- Dr. Pabitra Mitra (Dept. of CSE, IIT Kharagpur) was the Vice Chair and Treasurer. Mr. Sandip Ojha acted as the Branch Councilor of the Haldia Institute of Technology student branch.
 - Dr. Alok Kanti Deb (Dept of EE, IIT Kharagpur) was the Secretary and Student Activities Chair and Branch Councilor of the IIT Kharagpur student branch.

Major Events (International, National)

- IEEE Students' Technology Symposium (IEEE TechSym 2014) was organized during Feb 28 – Mar 2, 2014 at IIT Kharagpur. It received a record-breaking 410 paper submission in 8 regular tracks from India and abroad. The acceptance rate was 9.7% for oral presentation and 23.4% for poster presentation. With the aim of encouraging female students for participating in research activities, the symposium also put WIE Affinity Kharagpur Section on an international map of events.
- HIT Student Branch organized Robotics Conclave during March 22-24, 2014 where 250 participants attended. They also organized few other events like Circuitrix on 28th April, 2014 and VOICE on 12th February 2014 where around 500 people have attended.
- The IEEE Student Branch organized a seminar on “Deep Learning - What's the Buzz all About?” on August 5, 2014. The seminar was delivered by Dr. Debdoot Sheet, Department of Electrical Engineering, IIT Kharagpur.

- To mark the celebrations of IEEE Day 2014, a Document Typesetting (LaTeX) workshop was organized by IEEE Student Branch of IIT Kharagpur, EMB Student Club and IEEE WIE Affinity Group of Kharagpur Section on October 21, 2014.
- Our IEEE Student Branch also formed the Kharagpur Data Analytics Group (KDAG) to promote Machine Learning, Data Analytics and Programming amongst its members and students on campus. They organized a Guest Lecture by Prof. Gérard Huet from French Institute for Research in Computer Science and Automation (INRIA), France on Natural Language Processing.
- The IEEE STAR (Student-Teacher and Researcher) programme was introduced in the Section for the first time by WIE.

Technically Co-Sponsored Events of IEEE Kharagpur Section:

- International Conference on VLSI and Signal Processing 2014 organized by Department of E&ECE, IIT Kharagpur during January 10-12, 2014.
- 2nd International Conference on Business and Information Management organized by National Institute of Technology Durgapur during January 9-11, 2014.

Seminars:

- A total of ten (10) Seminars on various technical topics were organized.
- Student Branch of Haldia Institute of Technology organized four (4) Seminars, four workshops and one (1) Industrial Tour.
- Major Chapter Activities: Six (6) seminars were organized by Control System Society Chapter.

Awards:

- Subhamoy Mandal, Praful P. Pai and Tanvi Ranjan are the recipients of 2014 IEEE Student Enterprise Award from IEEE USA.
- The 2014 WIE Kharagpur Executive Committee Chair, Ms. Rajlaxmi Chouhan, was awarded the IEEE Region 10 Women in Engineering Student Volunteer Award 2014.
- Dr. Alok K Deb, recipient of cash award of \$800 from the IEEE Computational Intelligence Society, IEEE Symposium Series on Computational Intelligence 2014, Orlando Florida, USA.

- Two members of the WIE AG Kharagpur Executive Committee, Ms. Rajlaxmi Chouhan (July 30, 2014) and Ms. Sabita Langkam (August 13, 2014), were recognized as *IEEE Student of the Week* by the IEEE MGA Student Activity Committee.

IEEE Kharagpur Section Members updated list:

- The Number of members in the Section as on 31-12-2014 is 318.
 - Life Fellow: 1
 - Fellow: 1
 - Life Senior Member: 4
 - Senior Member: 25
 - Member: 96
 - Associate Member 2
 - Graduate Student Member 131
 - Student Member 58

Financial Statement for the year 2014:

The accounts for the year 2014 have been audited. The auditor's report is enclosed herewith.

IEEE Student Branch, IIT Kharagpur

ACTIVITY REPORT 2014

Technical Activities - 2014

- The IEEE Student Branch organized a seminar on “Deep Learning - What's the Buzz all About?” on Tuesday, August 5, 2014 by Dr. Debdoot Sheet, Department of Electrical Engineering, IIT Kharagpur.
- The IEEE Student Branch organized a “Linux Install Fest” on Saturday, August 9, 2014 in collaboration with the Kharagpur Linux Users' Group (KLUG). The session was open to participants from all backgrounds and was held to help promote the use of Linux and Open Source Software amongst the entire student and research community at IIT Kharagpur.
- The IEEE Student Branch organized a seminar on “Art and Craft of Effective Scientific Writing and Communication” on Tuesday, August 19, 2014 by Dr. Debdoot Sheet, Department of Electrical Engineering, IIT Kharagpur. The seminar was open to all students and was aimed at helping the research community at IIT Kharagpur to communicate effectively when preparing scientific manuscripts.

- An “IEEE Xplore Webinar & IEEE Day Quiz” was conducted on Thursday, October 9, 2014 by the IEEE Student Branch with the help of Dhanu Pattanashetti, the Client Services Manager, IEEE. The seminar was aimed at improving the use of IEEE Xplore amongst participants and the student community by highlighting the benefits of IEEE and features offered by IEEE Xplore. The webinar was held as a part of the IEEE Day celebrations and ended with a quiz on IEEE and its activities.
- The IEEE Student Branch conducted a workshop on Document Typesetting using LaTeX on Tuesday, October 21, 2014. The workshop was open to all students from all backgrounds and was attended by more than 200 participants. The workshop had an initial demonstration of LaTeX and its capabilities followed by hands on practice at a computer terminal for Journal Paper Writing and Report Writing.
- The IEEE Student Branch proceeded to form the Kharagpur Data Analytics Group (KDAG) to promote Machine Learning, Data Analytics and Programming amongst its members and students on campus.
- The IEEE Student Branch organized a Guest Lecture by Prof. Gérard Huet from French Institute for Research in Computer Science and Automation (Institut National de Recherche en Informatique et en Automatique - INRIA) France on Natural Language Processing. The lecture was held in conjunction Kharagpur Data Analytics Group (KDAG) and provided attendees with an overview of the Zen Toolbox for Computational Linguistics.
- The IEEE Student Branch organized a seminar on “An Introduction to Image Segmentation using Machine Learning” on Thursday, November 13, 2014 by Phani Krishna Karri, a PhD Student at the School of Medical Sciences and Technology, IIT Kharagpur. The Seminar Series was open to students from all backgrounds to present a general talk upon topics they were working on.
- The IEEE Student Branch technically co-sponsored the Winter Workshops organized by Technology Robotix Society of IIT Kharagpur. This workshop was aimed to enhance technical know-how of robot making amongst undergraduate students at IIT Kharagpur.
- The IEEE Student Branch technically co-sponsored Eureka, the paper presentation event at Kshitij 2015 to enable students to present their ideas and get feedback about them and promote IEEE amongst students and participants.

Activities Planned

1. IEEE Boot Camp to promote IEEE, EMBS Student Club and WiE Affinity and increase membership amongst the students of IIT Kharagpur.
2. Workshops on Open Source Software – Linux
3. Workshops on Open Hardware – Arduino, BeagleBoard, mbed Boards
4. Workshop on Tools to Empower Research

- a. Research Management Software - Mendeley, JabRef, and ReadCube.
 - b. Document TypeSetting - LaTeX
 - c. Graph Plotting - GNUPlot
 - d. Statistics - R
 - e. Images / Graphics – GIMP
5. Seminar Sessions on:
- a. Research Writing - Paper Writing
 - b. Scientific Presentations
 - c. Research Proposal Writing
6. Short Term Workshops on Computational Languages and Tools
- a. General - MATLAB & Simulink
 - b. Statistics - R
 - c. Graphical Programming - LabVIEW
 - d. Simulation - COMSOL
 - e. Mechanical Design - SolidWorks
 - f. Simulation - ANSYS
7. PEER Lectures and Webinars with eminent speakers from academia and industry.
8. International Level Technical Symposium - TechSym 2017
9. Partial Funding Programs - For Student Members towards IEEE Conferences
10. Local Newsletter - Highlighting Ongoing Research, Teaching, and Technical Activities at IIT Kharagpu

IEEE Women in Engineering Affinity Group, Kharagpur Section

Activity Report 2014

The slate of office bearers of Executive Committee 2014-15 for the IEEE WIE Affinity of Kharagpur Section was announced on April 5, 2014. The Executive Committee 2014 comprises Rajlaxmi Chouhan (Chair), Manjula R. (Vice-Chair), Sabita Langkam (Secretary) and Tanwi Mallick (Treasurer).

Specific goals of the Affinity Group for 2014

1. Increasing WIE membership in Kharagpur Section
2. Showcasing the activities of the WIE AG with international exposure
3. Providing students with an opportunity to enhance their professional experiences by planning and organizing social and technical activities on campus.
4. Preuniversity outreach program – IEEE STAR

Technical Activities during 2014

IEEE Students' Technology Symposium (IEEE TechSym 2014) Feb 28 – Mar 2, 2014, IIT Kharagpur

IEEE Students' Technology Symposium (<http://techsym.in/>) is an annual event organized by IEEE Student Branch of IIT Kharagpur, the Women in Engineering Affinity and IEEE Kharagpur Section since 2010. The proceedings of TechSym are indexed in IEEEExplore Digital Library.

The third version of the event, in 2014, hosted oral and poster sessions showcasing original contributions from students and young professionals. TechSym 2014 received a record-breaking 410 paper submissions from India and abroad submitted to 8 regular tracks. Finally 40 papers were selected for Oral presentation with acceptance rate of 9.7% and 56 papers were selected for Poster session with acceptance rate of 23.4%.

This year's theme was "Translating Engineering for Humanity". Among the submitted papers, 61 entries were received for the Best Paper Award in the Women in Engineering Track, out of which 13 were shortlisted for presentation, and one paper won the award. Original contributions having 50% and more participation of women with student affiliation including the first author of the article qualified to this awards category. The review process involved rigorous and dynamic editorial review in first pass to help more and more papers qualify for expert reviews. With the aim of encouraging female students for participating in research activities, the symposium also put WIE Affinity Kharagpur Section on an international map of events.

The total number of registered participants was 89. The event was a massive success with overwhelming participation from across the country, and papers from around the world.

IEEE Seminar Series 2014

Technical writing is one the most important aspects of research communication. The IEEE Student Branch of IIT Kharagpur and WIE AG of Kharagpur Section have been organizing talks/seminars as a part of the Seminar/Webinar series.

"Art and Craft of Effective Scientific Writing" by Dr Debdoot Sheet (on-going Seminar Series by IEEE SB of IIT Kharagpur and WIE AG)

IEEE Student Seminar Series 2014

Students of various disciplines of IIT Kharagpur were invited to give talks on their research areas. The seminars were attended by several interested students, and provided a good opportunity of showcasing their work, sharing ideas, and developing presentation skills.

IEEE Day Celebration: IEEE Workshop Series on Document Typesetting Using Latex October 21, 2014

To mark the celebrations of IEEE Day 2014, a Document Typesetting (LaTeX) Workshop was organized by IEEE Student Branch of IIT Kharagpur, EMB Student Club and IEEE WIE Affinity Group of Kharagpur Section on October 21, 2014.

The technical session followed an introductory session on membership benefits of IEEE and WIE. Two parallel lab sessions were conducted, each one running for nearly 3 hours. The sessions comprised practical hands-on training of paper writing and report writing using LaTeX. The workshop witnessed overwhelming participation from nearly 200 students across various disciplines of IIT Kharagpur. This event was a part of the on-going document typesetting/LaTeX workshop series. A Linux Install Fest was organized on August 09, 2014, as a part of the open source workshop series.

Non-technical Activities during 2014

Annual General Meeting

July 23, 2014

The IEEE Women in Engineering Affinity Group of Kharagpur Section, in conjunction with the IEEE Student Branch and EMB Student Club of IIT Kharagpur, held its Annual General Meeting (AGM) on July 23, 2014. The 2013 Activity Report and Financial Report of the year 2013 were presented by the outgoing Executive Committees. Official charge handover resolutions were signed by the incoming Executive Committee members. The activity plans for the coming year were presented by the respective incoming 2014 Chairs of Student Branch and WIE AG. Outgoing executive committee volunteers were presented with certificates of appreciation. About 100 participants, including student members, graduate student members, members from the Kharagpur Section attended the meeting. The AGM was followed by a gala dinner.

New Developments and Achievements during 2014

1. The new IEEE WIE KGP website (<http://ewh.ieee.org/r10/kharagpur/wie/>) was successfully launched on May 16, 2014. On July 3, 2014, the WIE KGP website was linked to the local involvement page of the official IEEE Women in Engineering website. The website regularly posts updates on the events and activities of the WIE AG.
2. Multifold increase in number of WIE members in IEEE Kharagpur Section, addressing the stark gender imbalance in membership. The membership has risen from 9 (in Dec 2013) to **34** (in December 2014).

| Year | 2010 | 2011 | 2012 | 2013 | 2014 |
|-----------------------------|-------------|-------------|-------------|-------------|-------------|
| # WIE Members in KGP | 8 | 13 | 15 | 9 | 34 |

3. To mark *20 Years of WIE* in 2014, the WIE Affinity Group has instituted a WIE KGP Travel Grant for female WIE student members. This grant shall currently be limited to partial financial assistance towards registration of an academic conference.
4. The IEEE STAR (Student-Teacher and Researcher) programme was introduced in the Section for the first time. The execution of this pre-university outreach program that aims at encouraging school children, especially girls to take up science and technology as career options, is under preparation, and expected to be executed in Jan – Feb 2015.

5. The 2014 WIE Kharagpur Executive Committee Chair, Ms. Rajlaxmi Chouhan, was awarded the IEEE Region 10 Women in Engineering Student Volunteer Award 2014.
6. Two members of the WIE AG Kharagpur Executive Committee, Ms. Rajlaxmi Chouhan (July 30, 2014) and Ms. Sabita Langkam (August 13, 2014), were recognized as *IEEE Student of the Week* by the IEEE MGA Student Activity Committee
[<https://www.facebook.com/IEEEStudents>]
7. The official social networking page of the WIE Kharagpur AG (<https://www.facebook.com/ieewiekharagpur>) has 260+ followers, and has increased the exposure and outreach of the AG significantly.

IEEE HIT STUDENT BRANCH ANNUAL REPORT 2014

Event Details:

| Sl. No. | Name of the Events | Date | Expenditure Rs. | Collection /Income (Rs) | Number of Participants | Resource Persons |
|---------|---|---|-----------------|-------------------------|------------------------|---|
| 1 | Industrial Tour to TATA STEEL | 30.01.2014 | 9595 | 0 | 50 | Organised by IEEE SB and Faculties of EE Dept , HIT |
| 2 | Vedic Oasis for Inspiration Culture and Education (VOICE) "CHEER AMIDST FEAR" | 12th February, 2014 | 4000 | 0 | 500 | Prof. BIMAL SUD |
| 3 | Workshop on Robotics | 15th and 16th February 2014 | 3404 | 19966 | 87 | Pradeep Kumar Sharma |
| 4 | ROBOTICS CONCLAVE | 22 nd -24 th March,2014 | 1,01,141 | 41,300 | 250 | Dr. C.S.Kumar Dr.Sandipan Bandhyopadhyay Mr. Vinay Mahendra Dr.S.Bhaumik |
| 5 | How to Grab Internship | 15 th April,2014 | 0 | 0 | 110 | Final year and pre-final year students of HIT |
| 6 | Organising Circuitrix Event | 28 th April,2014 | 15,000 | 0 | 150 | IEEE HIT SB |
| 7 | Workshop on PSPICE | 26 th -27 th July | 13590 | 25000 | 130 | Faculties of EE Dept HIT |
| 8 | Workshop on MATLAB | 2 nd -3 rd August,2014 | 4129 | 14700 | 74 | Faculties of EE Dept HIT |
| 9 | Workshop on PHOTOSHOP | 12 th -14 th November, 2014 | 1117 | 1500 | 10 | Sourav Kumar Das of CSE Dept, HIT |

Grants/sponsorships received

| Details | Amount Received (Rs) |
|---|----------------------|
| Grant from IEEE KGP Section (By CC 20/3/2014) | 20,000.00 |
| Total Grant/sponsorship (Rs): | 20,000.00 |

Overall deficit to conduct events in IEEE HIT Student Branch during 2014:

= (1,51,976-1,02,466) = Rs. 49,510/-

Number of IEEE student Members under IEEE HIT Student Branch:

o No. of new student member in 2014: 32

o No. of renewed Student member in 2014: 14

o Overall IEEE Student members in 2014 : 46.