

Women in Engineering Chapter at Thapar University, Patiala (ACM-W and IEEE Affinity)

Report: 2015-2016

Team:

Chair: Sukhvir Kaur

Vice Chair: Shaify Kansal

Treasurer: Amandeep Kaur

Secretary: Megha Bhushan

Membership Chair: Avleen Malhi

Faculty Sponsor: Shivani Goel

Report 2015-2016

Name and address of chapter: ACM-W Thapar

(Student Chapter at Thapar University, Patiala, India -147004)

A brief description of your chapter and school including number of chapter members

ACM-W Thapar University student chapter was chartered on February 28th, 2014.

Category: Outstanding Chapter Activities

Number of students at your school who take computer science and related courses:

1000 students at B.E. level each (all 4 yrs),

180 students at M.E. level and

30 students at PhD level take computer science and related courses each year which include nearly 50% female students.

Typical majors of your chapter members:

Software Engineering

Data Mining

Big Data

Cloud Computing

Information Security
Machine Learning
Natural Language Processing

Establishing an ACM-W chapter at Thapar University Patiala aims at bringing all female candidates at undergraduate, postgraduate and PhD levels together to share their knowledge and expand it in best possible ways. The activities we have planned include various learning methods:

- 1. Through listening to other's successful experiences:** For this, lectures by expert women professionals are organized to give an idea of what the successful areas of research could be for the new comers. Also the successful women professionals are honored for contributing to engineering and to the society. The improved web of contacts help our students to collaborate with other institutes well.
- 2. Through expressing themselves through non technical skills:** For this, competitions like poster making and essay writing are organized which allowed the students to express their technical depth of knowledge in an interesting way. This adds a new dimension to the technical details which makes knowledge through their own and other's expressions memorable.
- 3. Through testing your skills:** For this, technical quiz/competitions are organized for which the learning was many folds. The organizers first learned new and difficult things to be put in the quiz. The participants learn for scoring a better position. The audience learn through discussion on all questions included in the quiz. For one such quiz, the topic suggested was C/C++, the most important from view point of technical written examination and interviews.
- 4. Through working by learning :** For this, activities like workshops are needed where experts are available with us who can teach us how to do certain new technical things and we perform in their presence. The feedback can be given by the experts on the spot and correct our mistakes. Workshops are planned on latest topic: Python programming, R programming and Hadoop Installation in May/July 2015.
- 5. Through sharing and learning research:** For this, research paper writing contests are needed which can help students to pursue and present their research in better technical ways as accepted by various national and international conferences and journals. One such contest is planned to be held in June 2015.
- 6. Through making something useful for society:** For this, project competitions are needed where all students can prepare and showcase whatever they have learned in way that is useful to society. This helps others to get new ideas for making some new things and the developers to improve upon whatever they have developed with existing knowledge. Such a competition has been planned to be organized in August 2015.

Essay: Category: Outstanding Chapter Activities (437 words)

Many activities were organized in order to take benefits of the student chapter established at Thapar University, Patiala. Many are still in future plan.

The list of activities performed till date are :

1. A workshop on R programming language was conducted by Dr. Prashant Rana from Thapar University on 29th July 2015. This workshop covered the basics of the R programming language along with introduction to the current research topics on machine learning and data mining. 35 participants attended the conference and they were provided with the study material. An introductory practical session was also conducted.
2. A workshop on Hadoop was conducted by Ayush Gaur, Mr Neeraj and Arvind Jindal (Infosys technologies) from 17-18th July 2015. This workshop covered basics of big data along with pseudo mode hadoop setup in the research lab of the university. 18 research scholars attended it.
3. In December 2015, ACM women chapter Thapar University was awarded a scholarship from ACM India to attend the 8th Grace Hopper Conference for women in computing. This scholarship covered travel reimbursement upto Rs 2000, conference registration, meals and accommodation for two students and a faculty member. The conference was attended by office bearers Avleen Malhi and Divya Pandove from 2-4th December 2015 at Bangalore. This event had more than 2000 participants.

Details of the activities are:

Activity 1: July 2015 Workshop

Workshop on R on 29th July 2015. Speaker: Dr Prashant Singh Rana, Assistant Professor, Computer Science and Engineering Department, Thapar University, Patiala.

Participants: 30 (ME/PhD/Faculty)

Cost to chapter: Nil(\$0)

The workshop was very successful as it gave an in depth knowledge about machine learning and its implementation in 'R'. All students of MEs and PhDs were benefitted in their research work.

Activity 2: July 2015 Workshop

Workshop on Hadoop, from 17th July to 18th July, 2015. In collaboration with ACM, Campus Connect Infosys

Participants: 20 (ME/PhD/Faculty)

Cost to chapter: Nil(\$0)

There were two days for the workshop. On first day, the participants learned about installation of cluster using Hadoop. On the second day, the focus was on using Map Reduce to carry our tasks in parallel. The students also collaborated with two experts from Infosys for their future research projects.

Activity 3: 8th Grace Hopper Conference, India

The Grace Hopper Celebration of Women in Computing (India) is India's largest gathering of women technologists. It is produced by the Anita Borg Institute and presented in partnership with ACM India. GHCI 2015 came out with sessions focused on early career advice, entrepreneurship, management and leadership skills, soft skills and how to get back to work in the booming Indian technology industry. The Student Career Fair was held on 3rd and 4th December at Vivanta by Taj - Yeshwantpur. The Student Career Fair (for women students only) gives bright and dynamic students the chance to meet top recruiters from global technology companies and explore internships and full-time job opportunities.

Main Sponsors: Google, Cisco, Microsoft, Netapp

Cost to chapter: Nil(\$0)

(Dr Shivani Goel)

Faculty sponsor /advisor, ACM-W Thapar (Student Chapter at Thapar University, Patiala)