

## Activities of IEEE Women in Engineering Affinity Group, Kolkata Section in 2012.

### • June 11-15 — Summer School on Algorithms, Data Structures and Programming

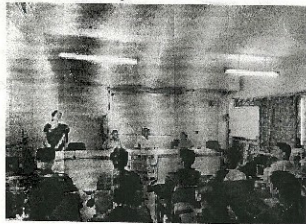
This event was a major activity for the small yet motivated group of women engineers. It was designed to serve as a career booster program. The participants were primarily first and second year undergraduate students (with preference to *motivated women students from weaker socio-economic background*) of computer science, electronics and information technology in the local engineering colleges. The goal was to reinforce their confidence in fundamental concepts of computing and to build a solid foundation in programming skills at the level of top engineering institutions of the world. This would increase their career prospects immensely.

This event was held at Indian Statistical Institute (ISI), internationally famous for its high quality teaching and research in the areas of mathematics, statistics, computer science, natural and social sciences. It comprised lectures in the morning sessions by eminent professors of ISI, and hands-on laboratory sessions in the afternoons conducted by graduate students and a few faculty members of ISI. Around 150 applications were received among which 60 students were selected finally to attend the summer school.

The event began with a test to assess the level of programming competence of the participating students. While the test was being graded, a brief formal inauguration was held where the students had the opportunity to learn about IEEE and were strongly recommended to become student members of IEEE as well as WIE so that they could enjoy many other benefits. Professor Bhargab B. Bhattacharya, IEEE Fellow and Head of Advanced Computing & Microelectronics Unit, Professor Subhas C. Nandy, the Professor-in Charge of the Computer and Communication Sciences Division, Professor Nabanita Das, Immediate Past-Chair of IEEE WIE AG and Professor Susmita Sur-Kolay, WIE AG Chair addressed the gathering.

Based on the outcome of the test, the students were divided into two groups, namely group A with those having the basic skills of programming and group B who were merely beginners. While students in Group A were delivered with advanced programming classes starting from pointers, those in group B were taught from the basics. The lab sessions were held to give them more practical exposure as well as help them in developing programming logics. During the next four days, there were also eight lectures of 90 minutes duration each covering (i) Data Structures, (ii) Algorithms, (iii) Graph Theory, (iv) Graph Algorithms, (v) Program Debugging, and (vi) Notion of Computational Complexity. A special 90 minutes' session was also there on problem-solving in the areas of Discrete Mathematics and Graph Theory. In the laboratory sessions, the students implemented the data structures and algorithms learnt in the lectures.

On the last day, a special lecture was delivered by the respected Director of Indian Statistical Institute. He introduced the basic notion of approximation algorithms with the help of real life application in garbage collection scheduling problem. In the valedictory session, the students were presented with



certificates of participation, and the graduate student volunteers with certificates of appreciation. The speakers were given token mementos. Feedback from the participants were sought. The Director and the Dean of ISI graced the occasion and encouraged the enthusiastic participants to continue their association with this great institute for both summer projects and

higher education.

With immense efforts of the members of the organizing team along with sponsorship from ISI and IEEE Computer Society Chapter, the summer school turned out to be very successful.

- July 1-4— WIE AG sponsored awards for the Best Poster in the PhD Forum of the **16<sup>th</sup> International Symposium on VLSI Design and Test** held at Bengal Engineering and Science University, Shibpur, India: On July 2, a panel of experts led by Prof. Nabanita Das and Prof. Sanghamitra Bandyopadhyay of ISI, evaluated the 15 short oral presentation and the poster demonstration to select candidates for the best and the second best posters. The awards in the form of a certificate and IEEE membership fees for 2013 were declared at the Banquet of the Symposium.

- Dec 17-18— WIE AG sponsored award for the Best Poster by a student at the **5<sup>th</sup> International Conference on Computers and Devices for Communication**. On December 17 and 18, a panel of experts evaluated the 41 short oral presentation and the poster demonstration by full time student authors to select candidate for the best poster paper award and two for certificate of appreciation. The best student poster paper award was given to Prof. Student membership fees for the year 2013.

