

**STUDENT PAPER AND DESIGN MODEL CONTEST
ON
ELECTRONIC DEVICES COMMUNICATION AND COMPUTERS
(EDCC -08)**

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A Report
By

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The one-day student paper and design model contest on **Electronic Devices Communication and Computers (EDCC-08)** was held on June 20, 2008 at institute of Radio Physics and Electronics, University of Calcutta, jointly organized by IEEE Women in Engineering (WIE) Affinity Group, IEEE Calcutta Section and IEEE Calcutta University Student Branch with patronage and sponsorship from IEEE Calcutta Section.

The Inaugural program was started at 10:00 AM in the Meghnad Saha Auditorium of Rash Bihari Siksha Prangan (Rajabazar Campus), University of Calcutta with several dignitaries on the dais. Prof. Siddhartha Dutta, Honorable Pro-Vice Chancellor of Jadavpur University as chief guest of the program, honorable chairman of IEEE Calcutta Section, Prof. Salil Kumar Sanyal, Head of the department of Department of Radio Physics and Electronics, University of Calcutta Prof. Goutam Ghosh as the chairman of the inaugural session, Dr. Iti Saha Misra, Chairperson of WIE, Affinity Group, Prof. Nikhil Ranjan Das, IEEE Calcutta University Student Branch Councilor and general co-chair and Prof. Susmita Sur Koley, program co-chair.

Prof. Sur Koley first briefly described the necessity and about the program.



Prof. S. Dutta, Pro-VC of Jadavpur University delivering his inaugural speech

Prof. Siddhartha Dutta, the Pro-Vice Chancellor of Jadavpur University, in his address as a chief guest, pointed out the need for intensifying such awareness and educational program among modern day students and introduction of research activities at early stage of engineering curriculum. The honorable chairman of IEEE Calcutta Section, and HoD of ETCE Dept. Jadavpur University, Prof. Salil Kumar Sanyal mentioned the basic activities and focus of IEEE Calcutta Section. Prof. Nikhil Ranjan Das pointed out the IEEE activities in the University of Calcutta. Dr. Iti Saha Misra, WIE Chairperson spoke about the scope of IEEE Women In Engineering and the need for opening such different affinity group. She pointed out the significant contribution of

WOMEN engineers in the past and present and welcome the young women students and faculties to join the IEEE WIE for strengthening the activities under this platform. Finally Prof. Goutam Ghosh, the chairman of the inaugural session delivered the presidential address.



WIE Chair delivering her speech

WIE, Affinity Group, Calcutta Section awarded as the IEEE Women In Engineering 2007 Year of the Award among the world. On this occasion, at the end of inaugural session, the official letter and the award certificate sent by IEEE Head Quarters, N.J., USA was officially handed over by the respected chairman of IEEE Calcutta Section, Prof. Salil Kumar Sanyal to Dr. Iti Saha Misra, the chairperson of WIEA Group, Calcutta Section.



Prof. S.K. Sanyal , IEEE Calcutta Section Chair delivering the award certificate to the WIE Chair Dr. Iti Saha Misra

The first invited lecture on *“Recent trend in Terra Hertz Electronics and Communication”*. was presented by Prof. Prasanta Kumar Basu, senior professor, Department of Radio Physics and Electronics and senior IEEE member. Prof. Manish Mukherjehe, emeritus professor of Institute of Electronics and Management, Salt Lake City, chaired this session.



Prof. P.K. Basu delivering his technical lecture

The second invited lecture in the post lunch session was presented by Mrs. Indrani Ghosh of Tata Consultancy Services (TCS), Kolkata, on *“e-Governance: Role in process automation and communication”*. Prof Pradip Kumar Saha of Department of Radio Physics and Electronics, University of Calcutta, chaired this session.



Prof. P.K. Saha introducing Ms. Indrani Ghosh

There were two parallel student technical paper presentations in the post lunch,

categorized in to two sections: Computer and Electronics and Communication. The first one chaired by Prof. Susmita Mitra from Indian Statistical Institute, Kolkata and second one by Prof. Debotosh Guha from Department of Radio Physics and Electronics, University of Calcutta. Each section had a panel of judges for performance evaluation of papers presented by several students of different institutions. The judges are mostly from Department of Radio Physics and Electronics, University of Calcutta, Department of Electronics and Telecommunication Engineering, Jadavpur University and Indian Statistical Institute, Kolkata.

In both the technical sessions, there were six student papers as given under:

Computer science category:
 Lisa Priyanka, Indian Statistical Institute (ISI), Kolkata: "Area Efficient Drawing of Binary Tree with Dominance Constraint on a Planar Grid"; Megha Sangtani and Pritha Banerjee from ISI, Kolkata: "Floor planning for Partial Reconfiguration in FPGA with Heterogeneous Resources"; Onkar N. Tiwari and Debasis Mitra, ISI, Kolkata and West Bengal University of Technology (WBUT), Kolkata: "Multi-cycle droop fault in combinatorial circuits"; Soumitra Banerjee and Bigyan Bhar, Department of Computer Science and Engineering, University of Calcutta: "A new Optimization Technique in the Application of Antenna Problem: Adaptive Bacteria Foraging Algorithm"; Tanumay Datta, Electronics and Telecommunication Engineering (ETCE) department, Jadavpur University; Kushal Sarkar, Computer Science and Engineering department, IEM, SaltLake City: "An Information Security System using a new Steganographic Scheme".



Technical paper presentation

Electronics and Communication category:
 Kalikivayi Suresh, Department of ETCE, Jadavpur University: "Application of Markov Chains in BWA Networks"; Pulak Kr. Roy, Distributed Mobile Computing Laboratory, Jadavpur University: "Performance Evaluation of Voice over WLAN (VoWLAN) in 802.11b Network under Roaming Scenario"; Somak Bhattacharyya, Department of Radio Physics and Electronics, University of Calcutta: "Design, Analysis and Implementation of a Broadband Link for GMRT"; S. Gangopadhyay, C.Roy Chaudhuri, ETCE Department, Bengal Engineering and Science University (BESU): "Design, Fabrication and Testing of a Portable Embedded Signal Conditioning Unit For Ultra Low-Q Capacitive Biosensors"; Arpan Kumar Chakrabarty, Ashutosh Gadodia Avishek Pal Chowdhury, Balaram Dutta, IEM, Salt Lake City: "Designing of NOVEL DUAL BAND RING ANTENNA"; Sattam Kumar Datta, Sambuddha Kumar and Tanmoy Chatterjee, Department of ETCE, Jadavpur University: "Saturation Throughput Analysis of IEEE 802.11g: A Polynomial Approximation".



Technical paper presentation

The final session was on design model contest, where, the participants were as follows: Amul Kumar Saha, Prasun Ghosal, BESU: “*A Novel Game Programming in DOS*”; Jashoswi Baidya, Sneha Kumar Singh, Heritage Institute of Technology, Kolkata: “*Photobot Light Sensitive Robot*”; Abhijit Roy, Birbhum Institute of Engineering and Technology, Birbhum: “*I.D.I.A. a chess playing computer program*”; Abhijit Kundu, Robotics Laboratory, IEM, Salt Lake City: “*MERP: Hardware and Software Architecture*”; Soumya Maity, Swarnava Ghosh, Saptarshi Ghosh, IEM, Salt Lake City: “*GAMEDGE: Education and Entertainment in 3D World*”.

A large number of students and faculties of different universities and institutions attended the entire day program.

At the end, there was a valedictory and prize distribution ceremony. There was a tie for the winners in each of the categories of Computer Science and Electronics and Communication. In Computer Science category, Lisa Priyanka Research Scholar of ISI, Kolkata and Tanumay Dutta, final year student of Department of ETCE, Jadavpur University have given the best paper presentation award. Pulak Kumar Roy, MTech Student of Distributed Mobile Computing, Jadavpur University and Sattam Kumar Datta, Sambuddha Kumar and Tanmoy Chatterjee, Second year students of Department of ETCE,

Jadavpur University have given the best paper award for Electronics and Communication category. Abhijit Kundu and Pratik Guha Sarkar Final year Btech Students, IEM, Salt Lake City were managed to bag the best title for the design model competition on “MERP: Hardware and Software Architecture”.

The EDCC-08 Committee received more than 20 papers and a good number of design models, among which the reviewers’ committee selected only 6 papers in each category and 5 design models for competition



Students presenting the design model



Judges and Audience in the design model contest

Apart from the Technical Program Committee, other committees, viz, faculties of the several institutions of the city Kolkata constituted organizing Committee and Program Committee.

The technical sessions, paper and design model contest sessions, were managed by student volunteers of IEEE Calcutta University Student Branch (mainly from Radio Physics and Electronics) very efficiently. There were almost 120 people participating in the one – day program.

The EDCC-08 committee is really thankful to every student volunteers for their efficient management and responsibilities, namely Soumya deep Misra, Indranil Dutta, Dhiman Mallick, Biplab Chakrabarty and Rickmantra Basu. Our sincere thanks to all the program committee members for their excellent way of selecting comprehensive papers and the organizing committee members to organize such a nice, valuable event to create proper awareness among the students.