Student Design Teams Compete for $20,000 Prize

Teams of undergraduate engineering students from colleges around the world meet in Washington, DC, each year to compete in a computer design event that caps off two semesters of extracurricular effort. To participate in the IEEE Computer Society International Design Competition, students design and implement computer-based solutions to real-world problems.

The 2005 competition focuses on the theme “Going Beyond the Boundaries.” Accordingly, organizers have expanded this year’s competition to include one contestant per team who is an undergraduate in a field outside computing.

An international panel of judges has selected 10 teams from nearly 200 original contenders to face off for two intensive days of competition. In May, judges reviewed project reports that contained specifications for the systems, including engineering considerations and implementation plans. A number of the original teams failed to pass an interim report stage in February, were eliminated through intraschool competitions, or dropped out before submitting the required 20-page report. CSIDC rules allow only one team per school to advance to the final stages of the competition.

Entries on display at the World Finals include an animal tracking system, several solutions for blind or deaf people, and a flood prediction device. The “CSIDC 2005 Names Top Ten Finalist Teams” sidebar lists the CSIDC 2005 World Finals teams and project names.

Said Alan Clements, chair of the CSIDC Committee for five years and a professor at the University of Teesside in England, “The success of earlier CSIDC competitions has been due to the wide range of projects that have been submitted. CSIDC 2005 expands this theme by encouraging teams to include members who are not computer science majors. This expansion and interdisciplinary approach has not only provided an exciting set of finalists but has also challenged the teams to work together despite the increased diversity. This is critical because teams are judged not only on technical merits but also on teamwork.”

Clements also made note of the increased expectations of CSIDC judges, “Year by year, I have seen the quality of the reports submitted improve. Teams are sending in final reports that are remarkable for the quality of their presentation skills. However, it is now necessary to raise the standards by which reports are evaluated; in fact, we now expect students to appreciate the legal implications of their projects.

CSIDC 2005 Names Top Ten Finalist Teams

These 10 teams have been selected by an international panel of judges to present finished versions of their systems at the 2005 IEEE Computer Society International Design Competition World Finals live event. CSIDC organizers require that undergraduate teams work cooperatively in creating their entries. This year’s competition theme is “Going Beyond the Boundaries.”

- American University of Sharjah (United Arab Emirates), “ABBAS: Automobile Black Box for Accident Simulation”
- Beijing University of Technology (China), “Sporting Personal Assistant”
- Iowa State University (USA), “Lost in the Information World”
- North Carolina State University (USA), “NEAT: Networks for Endangered Animal Tracking”
- Politehnica University of Bucharest (Romania), “NOMAD Positioning System”
- Poznan University of Technology (Poland), “Read IT: A Portable Text Reading System for Blind People”
- Shanghai JiaoTong University (China), “Currahee NetMeeting System”
- Sir Syed University of Engineering Technology (Pakistan), “Boltay Haath—Pakistan Sign Language Recognition”
- SSN College of Engineering & Panimalar Engineering College (India), “VISION: Engineering Solutions for the Visually Challenged”
- Pontificia University of Bolivariana (Colombia), “ISPI: Intelligent System to Predict Inundations”
For example, judges might ask, “Who does this data belong to?” or “What happens if your system fails?”

Success at CSIDC pays handsomely. Prizes range from $20,000 for first place to $10,000 for third place, plus honorable mention awards of $2,500. The competition also includes two $3,000 special prizes: the Microsoft Award for Software Engineering and the Microsoft Multimedia Award.

Primary financial support for CSIDC 2005 is provided by Microsoft, which has provided $1 million in funding for CSIDC until 2006. Zurich-based ABB Group has provided additional financial support.

2005 Ombudsman Serves as Member Advocate

In an effort to provide a single point of contact for member service issues, the IEEE Computer Society Board of Governors has established the position of ombudsman. Each year, the Society’s Board of Governors appoints a volunteer to this post. The Computer Society ombudsman is charged with reviewing and responding to member complaints regarding service and subscription issues.

The IEEE Computer Society Policies and Procedures Manual contains a detailed description of the ombudsman’s role, reproduced here, in part:

Section 26: Membership Committee

26.1 Ombudsman

26.1.1 Background

The idea of an ombudsman was raised at an Executive Committee meeting after hearing of a number of complaints from members such as not receiving the journals or magazines that they had ordered, or not having their membership-dues status acknowledged.

26.1.3 Duties and Functions

26.1.3.1 A copy of all Computer Society-related complaints received by the IEEE or Computer Society should be sent to the ombudsman. A standard form could be generated which indicates: the name/address of the member, the nature of the complaint, and the action instigated to rectify the problem. The ombudsman would not normally be involved with normal non-fulfillment complaints, except to receive a copy of the form.

26.1.3.4 Members are invited to write directly to the ombudsman if they have reason to believe their original complaint has not received the attention it deserves. The ombudsman is responsible for:

a. immediately acknowledging receipt of the complaint.
b. investigating the nature of the complaint and investigating whatever action is necessary to rectify the problem.
c. responding to the member with details of the actions taken and inviting he/she to correspond further if either this action does not solve the problem or if he/she still remains dissatisfied.

26.1.3.5 The ombudsman should report to the Membership Committee but has direct access to the Board of Governors with respect to any unusual or otherwise important complaints which are not readily rectified, except that this shall not apply to those portions of Computer Society operations where procedures for appeal already exist.

2005 Ombudsman Fiorenza Albert-Howard

Serving as ombudsman in 2005 is Fiorenza Albert-Howard of Capilano College in North Vancouver, Canada. She praised Computer Society staffers for handling complaints efficiently, while suggesting an expanded role for the ombudsman.

Said Albert-Howard, “The majority of our members are consulting the ombudsman only to report wrong addresses or ruined issues of the magazines to which they are subscribing. While this is an important part of the ombudsman’s responsibilities, the staff of the Society handles the resolution of these issues very efficiently. The ombudsman also serves as a liaison between members, volunteers, and staff. Members should consider the ombudsman to be an accessible and approachable contact within the Society when they need help with an unresolved complaint.”

Highlighting her personal commitment to the position of ombudsman, Albert-Howard continued, “I’m also available to field questions about the Society’s bylaws, procedures, or rules and regulations and to provide other information about the Society that would be helpful to members.”

Members can contact Albert-Howard at ombudsman@computer.org.
IEEE Computer Society Election Update

Each year, all members of the IEEE Computer Society have an opportunity to vote for the officers who will plan new activities and direct the Society’s operations in the coming year. Volunteer positions include leadership roles for the Publications, Educational Activities, and Electronic Products & Services Boards and membership on the IEEE Computer Society Board of Governors. The volunteers selected this year will serve under 2006 President Deborah Cooper, chosen last year as president-elect.

Society members can become candidates for office in one of two ways: by Nominations Committee recommendation or by petition. The Nominations Committee accepted member recommendations of candidates until April. At a June meeting, the current Board of Governors approved the following slate of candidates brought forward by the Nominations Committee.

**PRESIDENT-ELECT AND VICE PRESIDENT CANDIDATES**

The Board-approved candidates for 2006 president-elect/2007 president are Michael Williams and Yervant Zorian. The president supervises decisions that affect the Society’s programs and operations and is a nonvoting member on most Society program boards and committees.

Candidates for first vice president are Rangachar Kasturi and Murali Varanasi. The second vice president candidates are Susan (Kathy) Land and Kathleen Swigger. After the elections, 2006 President Deborah Cooper will appoint the two elected vice presidents to oversee two Society boards. At her discretion, Cooper will select appointees to head up the Society’s other governing boards.

**BOARD OF GOVERNORS CANDIDATES**

Members of the Board of Governors serve rotating three-year terms. The 14 candidates for 2006 to 2008 terms on the Board of Governors are Donald Bagert, Denis Baggi, Michael Blaha, Antonio Doria, Richard Eckhouse, James Isaak, Gary McGraw, James Moore, Sorel Reisman, Stephen Seidman, Robert Sloan, Pradip Srimani, Makoto Takizawa, and Stephanie White. The seven candidates who receive the most votes will assume seats on the Board starting in January 2006.

The IEEE Computer Society election window begins on 8 August, when paper ballots are mailed to all Society members, and ends on 4 October. All members will have the opportunity to vote via mail or online at www.computer.org/election/.

The paper ballots, the election area of the Society’s Web page, and the September issue of *Computer* will provide biographical sketches and candidate position statements for each nominee. The biographical sketches will detail the candidates’ IEEE Computer Society and other professional activities, current employment, professional experience and accomplishments, degrees and majors, awards, and honors.

We encourage all members to take part in electing the Computer Society’s leaders.

Certification Testing Opportunities Resume on 1 September

Recognizing that, in a sea of product-based certifications and credentials, a standards-oriented proof of software engineering capabilities was needed, the IEEE Computer Society developed the Certified Software Development Professional program. Software engineers who earn the IEEE Computer Society CSDP credential can use it to verify their skills to current or potential employers.

Each year, the Computer Society offers two opportunities for members to take the CSDP exam: April through June, and September through November. Software engineers who hold a bachelor’s degree and have a minimum of 9,000 hours of experience in the field are eligible to apply. In addition, candidates for certification must have had at least two years of software engineering experience within the four-year period prior to application.

Thomson Prometric administers the CSDP exam at test centers throughout the world, and new centers were added earlier this year (see “New CSDP Testing Sites Open in 2005,” *Computer*, Mar. 2005, pp. 75-76). For IEEE or Computer Society members, 2005 CSDP exam fees total $450, including a $100 application fee and a $350 test administration fee. In 2004, the GI Bill Education Benefits Program approved CSDP credentialing fees as a reimbursable expense.

A CSDP study group online Yahoo forum, linked from the CSDP Web site, can help potential examinees to prepare. Resource materials and an online test preparation class are also available.

Applications for the 1 September through 30 November testing window must be postmarked by 1 September. The application form is available online at www.computer.org/certification/bulletin.htm. For general information on the IEEE Computer Society CSDP program, visit www.computer.org/certification/.

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