



New CSDP Testing Sites Open in 2005

The IEEE Computer Society recently announced the addition of 31 new Certified Software Development Professional exam administration centers in Western Europe, Central Asia, and the Balkans. The CSDP certification program is unique in the software engineering field, offering exposure to recent advances in engineering theory, gains in employment distinction, and career opportunities. Experienced software developers who desire external validation of their skills are invited to take the exam.

The IEEE Computer Society CSDP credential offers developers the opportunity to demonstrate their understanding of software engineering practice. The 180-question, 3.5-hour CSDP examination is intended for mid-level professionals and carries the brand, reputation, and standards of the IEEE Computer Society.

BROAD-BASED CERTIFICATION

Product-specific requirements form the foundation of many recent technical certification programs. For example, an expert in Novell, Microsoft, or Linux systems can seek a certificate that reflects expertise in those particular environments. Other technical certification programs are often driven by project- or occupation-specific requirements. The IEEE Computer Society has recognized the need for one broad, objective certification program that acknowledges a level of advanced skill in all facets of software development.

The skills tested during the CSDP exam process are not vendor-specific and should prove relevant far into the future. CSDP certification not only serves to further the careers of those who take the test; it also provides a real measure of return-on-investment for a project manager or employer.



CSDP TEST DETAILS

CSDP candidates must hold a baccalaureate degree and must have at least two years of software engineering experience within the four-year period prior to the application. Candidates must also have a total of at least 9,000 hours of relevant experience. CSDP certificate holders are required to renew their certification every three years by completing 30 units of professional development work and submitting a \$150 recertification fee.

The CSDP examination consists of 180 multiple-choice questions gleaned from 11 topic areas, including software construction, maintenance, and quality. Exam questions are based on concepts that should be familiar to engineers with six or more years of experience.

CSDP examinations are administered by Prometric, which performs live, computer-based testing at hundreds of locations throughout the world. In addition to the 31 new test sites, the CSDP exam is offered at locations in Asia, Europe, India, North America, and South America.

SPECIAL PREP COURSE AND TESTING OPPORTUNITIES

The IEEE Computer Society provides several opportunities to prepare for the CSDP exam. In addition to recommended books and online coursework, CSDP organizers have arranged for instructor-led tutorials in the com-

Rutgers' James L. Flanagan Receives 2005 IEEE Medal of Honor

The IEEE has bestowed its prestigious 2005 Medal of Honor upon James L. Flanagan, who recently retired from his position as vice president of research and director of the Center for Advanced Information Processing (CAIP) at New Jersey's Rutgers University. Flanagan's award cites his "...sustained leadership and outstanding contributions in speech technology."

Flanagan joined Rutgers in 1990 after a 30-year career at Bell Labs, where he directed research in speech recognition, speech synthesis, digital coding, electroacoustics, robotics, and artificial intelligence. During his 14 years as director of CAIP, Flanagan worked to promote cooperation among academia, industry, and government in computer applications research.

Flanagan's other honors include the 1986 IEEE Edison Medal, the National Medal of Science, and election to the National Academy of Sciences, the National Academy of Engineering, and the American Academy of Arts and Sciences. In 2004, the IEEE established the James L. Flanagan Speech and Audio Processing Award, which honors an outstanding contribution to the advancement of speech or audio signal processing by an individual or small team.

Nominations for the 2006 IEEE Medal of Honor are due by **1 July**. Nomination forms are available at www.ieee.org/about/awards/sums/mohsum.htm.

ing months. Candidates can participate in a CSDP training class at the 2005 Systems and Software Technology Conference (SSTC) in Salt Lake City. Conducting the course, set for 16-18 April, will be author Richard Thayer, the original developer of training materials for the CSDP. Following Thayer's onsite course, IEEE Computer Society officials will administer a CSDP examination at SSTC on 22 April. The prep course and exam are priced at \$300 each for conference registrants. To take the CSDP exam at SSTC, first register for the conference at www.stc-online.org, then complete and submit the CSDP application form by **7 April**.

Thayer will also lead a three-day version of the course on three separate occasions: 21-23 March in Los Angeles; 30 March-1 April in San Francisco; and

5-7 April in Portland, Oregon. Fees for the West Coast courses are \$995, with a guaranteed pass-or-don't-pay refund policy. See www.wyzzk.com for details.

For software engineers in other parts of the world, the Computer Society also offers a CSDP training course called Software Engineering Overview in the Distance Learning Campus. The course, available to members for \$395 at www.computer.org/certification/DistanceLearning, provides a comprehensive review of essential software engineering principles.

Applications for the Spring 2005 testing window, which is open from 1 April to 30 June, are due by **15 April**. For the Fall 2005 testing window, which is open from 1 September to 30 November, applications are

due by **1 September**. CSDP application and examination fees are \$450 for IEEE or Computer Society members and \$550 for nonmembers. Recent federal action has classified CSDP testing fees as reimbursable to veterans under the GI Bill.

Two to three weeks after an application is accepted, approved candidates will be mailed an *authorization to test*. Candidates must receive the authorization before scheduling an appointment to take the exam. Further application information is available at www.computer.org/certification/apply.htm. ■

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CSIDC Participating Schools for 2005

The goal of the Sixth Annual Computer Society International Design Competition (CSIDC) is to advance excellence in education by having student teams design and implement computer-based solutions to real-world problems. CSIDC teams work over the bulk of an academic year to build their systems, following a process that mimics the evolution of a commercial product. By mid-January, each team supplies a working title and, by mid-February, teams submit interim reports to a panel of CSIDC judges. Volunteers from academia and industry judge the reports for adherence to contest rules and for competitive viability.

Based on these reports, the judges select the projects that seem most likely to have commercial potential and notify teams of their standing by 11 March. Teams that remain in contention must prepare a final report by 23 April.

Participants in CSIDC 2005 come from every part of the globe and are listed by IEEE region.

Region 1

DeVry Institute of Technology, Long Island City
State University of New York, Potsdam
Union College, Schenectady
Worcester Polytechnic Institute

Region 2

Denison University

Region 3

Florida Atlantic University
Florida Gulf Coast University
Georgia Southern University
Morehouse College
North Carolina State University

Region 4

Anoka Ramsey Community College
Bradley University
DePaul University
Iowa State University
Lake Superior State University
Purdue University, Calumet
University of Nebraska, Lincoln
Wayne State University

Region 5

Front Range Community College
Louisiana State University, Baton Rouge
University of Denver

Region 6

California State Polytechnic University, Pomona
California State University, Long Beach

Region 7

Carleton University
Polytechnic School of Montreal
University of British Columbia

Region 8

American University of Beirut (2 teams)
American University of Sharjah
Aptech Computer Education, Abuja
Aristotle University of Thessaloniki
Athens University of Economics and Business
Budapest Polytechnic
Cairo University
Cape Verde University
College for Teachers of Technology, Tel Aviv

Cosmos High School, Windhoek
 Eastern Mediterranean University
 Fatih University
 Hantoub High School
 Ibadan Polytechnic
 Institute of Computer Studies and Services
 Iran University of Science & Technology
 Kharkiv National University of Radioelectronics
 Middle East Technical University
 Modern College of Business & Science
 Moscow Institute of Physics and Technologies
 Polytechnical University of Bucharest
 Poznan University of Technology
 Shalom IT Center College
 Slovak University of Technology
 Technical University of Braunschweig
 Technical University of Iasi
 Technical University of Plovdiv
 University of Coimbra
 University of Jordan
 University of Kocaeli
 University of Lagos
 University of Pretoria
 Yaba College of Technology
 Yildiz Technical University

Region 9

Autonomous University of Aguascalientes
 Bangladesh University of Engineering and Technology
 Catholic University of Andres Bello
 Greater National University of San Marcos
 Industrial University of Santander
 Military Institute of Engineering
 Military School of Engineering, La Paz
 National Technological University, Cordoba
 Pontifical University of Bolivariana, Medellin
 Technological Institute of Merida
 University of Cauca
 University of Francisco Jose de Caldas

Region 10

Banaras Hindu University
 Beijing University of Posts and Telecommunications
 Beijing University of Technology
 Dwarkadas J. Sanghvi College of Engineering
 Fr. Conceicao Rodrigues College of Engineering
 ICFAI Institute of Science and Technology, Hyderabad
 Indian Institute of Technology, Guwahati
 Indian Institute of Technology, Kanpur
 Indian Institute of Technology, Kharagpur
 Institute of Technology, Varanasi
 International Institute of Information Technology
 Jawaharlal Nehru Engineering College
 Jaypee Institute of Information Technology, Noida
 Kathmandu Engineering College
 Kongu Engineering College
 Lahore University of Management Sciences
 Malaysia University of Technology
 Meiji University
 Motilal Nehru National Institute of Technology
 Nanyang Technological University
 National Chiao Tung University
 National Taipei University of Technology

National Taiwan University
 National University of Computer and Emerging Sciences, Karachi
 National University of Computer and Emerging Sciences, Lahore
 Nepal College of Information Technology
 Nepal Engineering College
 Northern Taiwan Institute of Science and Technology
 Shri Guru Gobind Singhji Institute of Engineering and Technology
 Sikkim Manipal University
 Sir Syed University of Engineering and Technology
 Sri Siva Subramaniya Nadar College of Engineering
 Sri Venkateswara College of Engineering
 Thadomal Shahani Engineering College
 Thigarajar College of Engineering
 Tribhuvan University, Pulchowk
 University of Engineering and Technology, Lahore
 University of Visvesvaraya
 Usha Mittal Institute of Technology
 Vasavi College of Engineering
 Vision International College of Computer & Management Sciences
 Vivekanand Education Society Institute of Technology

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<http://www.ieee.org/renewal>

CSIDC 2005 Selects Contestants

Student teams from undergraduate institutions around the world have begun the battle for a top slot at the June 2005 Computer Society International Design Competition Finals in Washington, D.C.

Since 2000, CSIDC's first year, the number of participating teams has continued to expand due to increasing international interest and to a simplified contest structure. This year's competition attracted 300 entries from more than 100 institutions. University of Teesside professor Alan Clements has chaired CSIDC since 2001.

Currently, teams operate under a \$400 spending limit that serves to discourage the use of sophisticated system peripherals.

COMPETITION

Teams competing in CSIDC use a

PC, laptop, handheld computer, or other off-the-shelf device combined with additional low-cost hardware and software to create a computer-based solution to a real-world problem. A primary goal of the competition is to encourage student teams to create projects that perform a socially useful function.

CSIDC 2004 winner, Poland's Poznan University of Technology, met last year's challenge of "Making the World a Safer Place" by creating "Lifetch," a GPS-based wilderness tracking and rescue system. Teams from Poznan University have finished in the top three at all but one of the past four CSIDC events, including a first-place finish in 2001.

The theme of CSIDC 2005 is "Going Beyond the Boundaries." Contest organizers encourage innova-

tive entries that have real-world applications extending well beyond the confines of digital technology.

Teams taking part in this year's competition are listed in the "CSIDC Participating Teams for 2005" sidebar. A change in the rules for this year's event has opened the competition to allow teams to recruit one member from a discipline outside computing.

Early in the year, CSIDC teams are required to submit an interim report on their projects. A team of judges evaluates the interim reports and invites the most promising teams to submit a final report that details the project in its completed form. Because only one team from any institution can submit a final report, colleges or universities with more than one team in play must devise internal methods of determining which team will represent the school. After reviewing the final reports, CSIDC officials will announce the top 10 projects on 24 May, inviting four members from each of the 10 teams, along with their faculty mentors, to participate in the 27-29 June CSIDC 2005 World Finals in Washington, D.C.

At the CSIDC World Finals, teams demonstrate their projects in formal multimedia presentations and interactive Q&A sessions. Judges review the finalists' entries for originality, technical excellence, social usefulness, evidence of teamwork, feasibility and practicality, system integrity, and quality, including the caliber of presentation materials and delivery.

PRIZES

Changes to the 2005 competition have allocated more prize money to the top 10 finalists. Members of the first-place team at the CSIDC World Finals will split a \$20,000 cash prize. Members of the second- and third-place teams will divide \$15,000 and \$10,000 prizes, respectively. Each of the remaining seven teams receives an honorable

IEEE Computer Society Seeks Merwin Scholarship Applications by 31 May

The IEEE Computer Society encourages active members of its student branches to apply for the 2005-2006 Richard E. Merwin Student Scholarship. The scholarship honors a past president of the Computer Society and recognizes leaders in Society student branch chapters who show promise in their academic and professional efforts.

Up to 10 scholarships of \$4,000 each are available, paid in four quarterly installments that begin in September. Winners of the Merwin Scholarship serve as IEEE Computer Society Student Ambassadors for their IEEE regions. Student Ambassadors collect and disseminate information to Computer Society student chapters in their region and serve as liaisons to the Chapters Activities Board.

Active members of Computer Society student branch chapters who are juniors, seniors, or graduate students in electrical or computer engineering, computer science, or a computer-related field of engineering are eligible to apply. Applicants must be full-time students and are required to have a minimum 2.5 GPA. Merwin Scholarship applications are due by 31 May.

Other awards and scholarships that the Computer Society offers to students include the Lance Stafford Larson best paper contest and the Upsilon Pi Epsilon/Computer Society Award for Academic Excellence, which is administered jointly by the IEEE Computer Society and the Upsilon Pi Epsilon international honor society.

For more information Computer Society student scholarships and awards, visit www.computer.org/students/schlrshp.htm.

mention and a \$2,500 shared prize. All finalists also receive a complimentary one-year individual subscription to any IEEE Computer Society magazine.

In addition to the main awards, teams who place in the top 10 at CSIDC 2005 will be eligible for two

special prizes. The \$3,000 Microsoft Multimedia Award goes to the team whose presentation makes the most interesting, innovative, exciting, and appropriate use of multimedia. The \$3,000 Microsoft Award for Software Engineering recognizes the project that

best exemplifies the application of good software engineering principles to the design and testing of a device prototype.

CSIDC is sponsored by Microsoft. For more information on CSIDC, visit www.computer.org/csfdc/. ■

Three Award Nominations Due by 31 July

The nearly two dozen honors granted each year by the IEEE Computer Society include three awards that recognize individuals and faculty groups for their outstanding contributions to computer science, engineering, and education.

In 1992, the Computer Society established the Sidney Fernbach Memorial Award to recognize individuals who have made notable strides in developing applications for high-performance computing. Sidney Fernbach was a pioneer in the use of high-performance computers for solving large computational problems. Nominations for the honor are evaluated by awards committees associated with the SC 2005 high-performance computing, networking, and storage conference. The Fernbach award winner receives a certificate of recognition and a \$2,000 honorarium.

The Seymour Cray Computer Science and Engineering Award recognizes individuals whose innovative contributions to high-performance computing systems best reflect the creative spirit of supercomputing pioneer Seymour Cray. Recipients of the Cray Award receive a crystal memento, an illuminated certificate, and a \$10,000 honorarium. Recent Cray honorees include John Hennessy, Monty Denneau, and Burton J. Smith. Winners of both the Cray and Fernbach awards accept their honors during a special ceremony at SC.

The Computer Society also awards the annual Undergraduate Teaching Award in Computer Science & Engineering to a professor or faculty group who demonstrate an enduring and sig-

nificant commitment to undergraduate education through teaching and professional service. The award can also acknowledge efforts to increase the Society's visibility. Honorees receive a plaque and a \$2,000 honorarium.

The IEEE Computer Society awards program recognizes technical achievements, contributions to engineering

education, and service to the Society or the profession. Nominations for the Fernbach, Cray, and Undergraduate Teaching Awards are due by **31 July**. Nominations for most other Society awards have a **31 October** deadline. To obtain nomination materials for any IEEE Computer Society award, visit www.computer.org/awards/. ■

Computer Society and IEEE Foundation Sponsor More Than \$15,000 in Intel ISEF Prizes

Each year, both the IEEE Computer Society and the IEEE Foundation sponsor special awards for outstanding high school students at the Intel International Science and Engineering Fair, which takes place this year from 8-14 May in Phoenix, Arizona. At ISEF, students from grades nine through 12 compete for more than \$3 million in scholarships, scientific trips, tuition grants, and scientific equipment. The annual event draws competitors from more than 40 countries, making it the world's largest international high school science and engineering competition.

At ISEF, the Computer Society typically sponsors six to eight individual and team awards that range from \$300 to \$700. Computer Society winners at ISEF receive a framed certificate and a one-year free subscription to an IEEE Computer Society magazine of their choice. A group photo of the winners will be published in an upcoming issue of *Computer*.

For the sixth year, the IEEE Foundation will sponsor an IEEE Presidents' Scholarship at ISEF. IEEE 2005 President-elect Michael Lightner will present this year's scholarship in recognition of an outstanding achievement in the research and presentation of engineering knowledge in electrical engineering, information technology, or other IEEE field of interest. The winner will receive \$2,500 during each of four years of undergraduate study, as well as an IEEE student membership and student society membership. A framed certificate and an engraved plaque accompany the award.

For further information about the IEEE Presidents' Scholarship, visit www.ieee.org/education/precollege/scholarship/index.html. To learn more about Intel ISEF, see www.sciserv.org/.