IEEE ComSoc WCET Certification

Customers are the potential certificate holder and the employers of certificate holders.

Chosen demographic is the 3-5 year engineering practitioner, with degree in EE or related discipline.

June 2007, on schedule ---->
Practice Analysis Task Force (PATF) 2-3 Face to Face Meetings, Teleconferences

- 4-5 December 2006, meeting with 16 of 20 PATF members to develop initial draft delineation of Domains of Responsibility, Tasks, and Knowledge for the certification initiative. (12 industry, 4 academic, from 7 different countries.)

- Teleconferences

- 21-22 May 2007, meeting with 16 of 20 member PATF to incorporate focus group and independent reviewer feedback and finalize the delineation.
Regional Focus Groups

Schedule for 2007 Regional Focus Groups

- Feb 15/16 Barcelona, 2 groups @ 3GSM
- Mar 7/8 Lima, 2 groups @ IEEE Region 9
- Mar 14/15 Hong Kong, 2 groups @ WCNC
- Mar 22/25 Kuala Lumpur & Kota Kinabalu, Malaysia @ IEEE Region 10
- March 27/28 Orlando, 2 groups @ CTIA Wireless
- April 14 Sofia, Bulgaria @ IEEE Region 8
Focus Group Participation

- Organized by Jack at 3GSM, John at WCNC, Celia at Regional meetings, Rolf Frantz (Industry consultant) at CTIA

- 7-14 at each session

- Typically > than 90% from industry

- Sessions scheduled for 2-3 hours have run 3+ hours with high level of interest and participation.

- Celia ran Regional meetings, Sandy Greenberg (PES) ran the others.
2007 Progress

As a result of the President's Page in the December and January issues, we are now welcoming proposals for topics to be featured in the 2007 Progress column. This column provides a platform for IEEE Communications Society members to share their experiences and insights on various topics related to the field of communications technology. It is an opportunity for members to contribute to the broader community, share their knowledge, and promote the advancement of the field.

The column features articles written by leading experts in the field, covering a wide range of topics, from cutting-edge research to practical applications. Each article is designed to be informative, engaging, and accessible to a broad audience, offering valuable insights and perspectives that can help shape the future of communications technology.

If you have a topic you would like to share or a proposal you would like to submit, please contact the column editor, Dr. Jane Smith, at communications@ieee.org. We welcome ideas from all members of the IEEE Communications Society and strive to provide a platform for everyone to contribute to the growth and development of the field.

Thank you for your continued support and participation in the IEEE Communications Society.

Certification Corner

Wireless Communications Engineering Technology: An Update on Certification

Rolf Farnitz

As the global demand for wireless communications technology continues to grow, there is a growing need for qualified professionals who can design, implement, and maintain wireless networks. To meet this demand, the IEEE Communications Society has developed a series of certifications to recognize the expertise of professionals in this field.

The certification process involves a comprehensive examination that covers the core knowledge areas of wireless communications technology. The exam is designed to test the candidate's understanding of the fundamentals, as well as their ability to apply this knowledge to real-world scenarios.

The certification process is overseen by a panel of experts from the wireless communications community, who are responsible for ensuring the quality and relevance of the exam and the certification itself. The panel includes representatives from academia, research institutions, and industry, ensuring that the certification is up-to-date and relevant to the needs of the field.

If you are interested in obtaining a wireless communications engineering technology certification, we encourage you to visit the IEEE Communications Society website for more information on the certification process and to register for the exam.

The certification process is an opportunity to demonstrate your expertise in wireless communications technology and to enhance your career prospects. We encourage all interested parties to take advantage of this opportunity and to contribute to the growth and development of the field.

Thank you for your interest in the IEEE Communications Society and our efforts to advance the field of wireless communications technology.

References


Independent Reviewers

- A task force of 55 independent (volunteer) reviewers currently active in the Wireless Communications industries began work on 23 March 2007.

- Independent reviewers each had a 2-3 hour task. Their input and the focus group results was reviewed on 21st and 22nd at the PATF2 meeting in NYC.
Technical Experts

- A Validation Survey based on the final version of the Delineation will be sent to over 5000 industry professionals with the purpose of validating the Delineation against actual work experiences captured in the Survey.

- Using the validated delineation as a framework, technical experts throughout the industry will write questions based on selected portions.

- A base of 600+ questions will be compiled, from which a predetermined number of questions will be selected for each testing session.
Throughout the process of developing the certification exam, a board of advisors will be recruited consisting of senior members of both large and small companies in the wireless industry. This board will provide guidance as to the needs of their companies and how they intend to make use of the certification. Industry input and support will be invaluable to the success of any certification project. Most important (Critical) Goal: A substantial list of “early endorsing” companies
Phase One: Development of Test Specifications

- Validation Survey
  - Pilot Version – Review Pilot Results
  - Fine Tune Survey
  - Mass Distribution Version, 5000+ on-line mailings

- Finalization of Validated Delineation

- Prepare Test Specifications

- Create “Style Guide” Item Writers - includes how to write good “wrong” answers also known as “distracters”
Next Steps - Phase Two

Phase Two: Item and Exam Development

- Create Glossary of Terms
- Determine Test Reference Materials
- Create Item Database – Up to 100 SMEs
- Review and Validate Items – Item Review Committee
- Compile Examination – Exam Committee
- Give initial test, determine Passing Point for Exam
Upcoming Deliverables

- WEBOK: A Wireless Engineering Body of Knowledge will be created as a study tool for the exam. This BOK will not directly reference the exam in order to comply with the requirements set forth by ANSI regulations.

- Certification Candidate Handbook: Will be available to anyone looking for information about the WCET. Included application process, reference materials lists, and descriptions of areas of knowledge included in exam.

- Practice Tests: There will be two sorts of practice tests created. The first available will be samples of the types of questions that could be used on the actual exam. The second that will eventually become available will be created from actual questions that have been used on the exam but have since been retired.
THE “PATF”

A Practice Analysis Task Force (PATF) comprised of 16 wireless professionals from around the globe met in December 2006 to develop a draft delineation of the domains (areas of responsibility), tasks, and knowledge that might be expected of engineering practitioners seeking WCET certification. This draft delineation underwent a detailed review (see “Soliciting Feedback” below) by industry experts and experienced wireless practitioners. (Click here to see a list of the PATF members and photos.)

In May 2007, the PATF reconvened to discuss all of the comments from the Focus Groups and Independent Reviewers. They revised the delineation in numerous ways, benefiting from the detailed and thoughtful comments they received. The revised delineation will soon be tested via a Pilot Survey. Click here to indicate your interest in participating in this Pilot Survey.

SOLICITING FEEDBACK

As part of the development of the delineation, feedback was solicited through Focus Groups held at industry and IEEE meetings around the world, and through detailed comments provided by Independent Reviewers.

Focus Groups consisting of experienced wireless practitioners discussed the delineation in sessions lasting two hours and longer, and shared their detailed suggestions regarding its structure and content. These groups met during the following industry conferences and IEEE Regional meetings:

- 3GSM, Barcelona, Spain, February 15 & 16
- IEEE Region 9, Lima, Peru, March 7
- WCNC, Hong Kong, March 14 & 15
- IEEE Region 10, Malaysia, March 22 & 25
- CTIA WIRELESS, Orlando, Florida, USA, March 27 & 28
- IEEE Region 8, Sofia, Bulgaria, April 14 & 15
- IEEE Region 8, Sofia, Bulgaria, April 14 & 15

In addition, a dozen industry experts provided feedback as Independent Reviewers. They each spent several hours reviewing the delineation and providing very detailed feedback on both the organization of the delineation and the individual task and knowledge statements. (List of Reviewers)
Want to participate, keep up to date?

- To participate: http://www.comsoc.org/cert and follow the link to the *Pilot Survey*,

- To stay current: click on copies of monthly “Certification Corner” column in Communications Magazine

Or Email…

- Celia, c.desmond@ieee.org or
- Jack, j.howell@comsoc.org