

## Listen, . . . Solve, . . . Craft

The rapid pace of change in market requirements has put companies in the mist of what might be called a "Technological Storm" -- too much change, constant, with no let up. There is, however, a way to herd these storm clouds, get control of the situation -- and even get ready for the next storm so that you aren't surprised by it.

The answer? We've tried something new at IBM -- and it's working. In October of 2002, the corporation launched IBM Engineering & Technology Services. Said simply, this business continues IBM's thrust into services. However, there's a big difference. With E&TS, you have "innovation on demand" via more than 1,100 engineers skilled in technology integration, chip design and system design. In other words, outsourcing, calling on experts for help in product design. I will discuss the types of projects these engineers already are engaged in and show how this new frontier in outsourcing is catching on.

This approach of IBM collaboratively working with our client would enable them to differentiate themselves and lead in an ever changing market place. I will talk about Engineering and Technology Services, one of IBM's newer divisions, formed to assist our clients to address these "Technological Storms".

The talk will also describe examples of what E&TS has done in this area where technology can take us and what will be required from our most important resource; "People", to address this need.

## Biometrics and the Threat to Civil Liberties

In the post-9/11 world, various government agencies have proposed or built several data systems that significantly affect civil liberties. As system designers and developers, we might not be aware of how the decisions we make when implementing such systems could threaten civil liberties. Thus, we need mechanisms or procedures to help us make technical decisions that respect human rights. Biometrics is an area in which this need is especially important. For the complete article, visit <http://www.computer.org/computer/homepage/0404/profession/index.htm>

## Are Career Events Worth Attending?

While more and more job seekers use the Internet to submit their résumés to prospective employers, career events such as job fairs still have their place in the job-seeking market. What can you do to make the most of job fairs and get your foot in the door — in person?. For more on this topic, see:

<http://www.todaysengineer.org/Apr04/career.asp>.

## U.S. Science and Engineering Careers Outlook: Are We Looking at the Future in the Right Light?

The National Science Board (NSB) considers U.S. strength in science and engineering as being in "potential peril." NSB has endorsed an imperative for the federal government to ensure the adequacy of the U.S. science and engineering workforce, partly by increasing the number of Americans pursuing science and engineering studies and careers. Is this strategy really the way to go? For more on this topic, visit:

<http://www.todaysengineer.org/Apr04/outlook.asp>

## The Collyers and the Web

Estimating the number of pages being added daily to the Internet to be between five and 10 million, are we becoming swamped with information we can't process? How can we find good content without getting "caught in the Web?"

<http://www.todaysengineer.org/Apr04/backscatter.asp>

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Featuring:

Samuel Prabhakar,  
Director, Worldwide System Solutions  
Engineering and Technology Services  
IBM

Monday, May 10<sup>th</sup>, 6:30 pm  
Mayo Medical Sciences Building  
(321 3<sup>rd</sup> Avenue SW, Rochester)

► Pizza at 6:30; Meeting at 7:00 ◀

Samuel Prabhakar graduated with a Bachelor of Science Degree in Electrical Engineering from the College of Engineering Guindy, Madras, India. Following graduation, he worked for Philips India as their Training Officer for the Southern Regional Audio / Video Service Centers. Samuel then moved to the United States, where he earned his Master of Science degree in Electrical Engineering from Ohio State University in Columbus, Ohio. Upon leaving the University, Samuel was an assistant professor at Sinclair Community College in Dayton, Ohio, in the Electronics and Electrical Technology department.

In 1984, Samuel joined IBM in Rochester, Minnesota. His work has included VLSI chip design and diagnostic software programming for workstation controllers. His work on a diagnostic tool for the AS/400 resulted in a U. S. patent for the design. Samuel moved into management in 1989, and his responsibilities have included leading / managing teams in North America, Japan, India, Canada, and Germany.

Most recently, Samuel has focused on developing customized solutions for customers through IBM's new business unit, Engineering and Technology Services. Drawing upon IBM's extensive patent portfolio and technologies, Samuel's team identifies solutions where IBM technology can enhance/differentiate customer's products and services.

Samuel enjoys all forms of sports; especially tennis, badminton, table tennis and soccer. He plays competitively and for enjoyment with his two sons. He has served on the board of directors of United Way of Olmsted County and is currently on the board of directors of the Minnesota High Tech Association. Samuel is also active in his church community; when needed, Samuel plays the drums during Sunday Services.

## Professional Development Course

IEEE is offering the Reactive Power Compensation and Voltage Stability Short Course on **Thursday, May 13, 2004** in Davenport, IA. It is worth 7 professional development hours. The registration fee is \$80. For more details, visit the Iowa-Illinois Section Website at: <http://ewh.ieee.org/r4/iail/>

## IEEE approves Cryptography standards

The IEEE Standards Association has approved a new standard that contains additional common public-key cryptographic keys to supplement an IEEE standard published in 2000

[http://standards.ieee.org/announcements/pr\\_computerstds.html](http://standards.ieee.org/announcements/pr_computerstds.html)

## IEEE COMMUNICATIONS SOCIETY

All aspects of the advancement of the science, engineering, technology and applications for transferring information between locations by the use of signals. This includes: sources and destinations involving all types of terminals, computers and information processors; all pertinent systems and operations to bring about this transfer; guided and unguided transmission media; switched and unswitched networks, and network layouts, protocols, architectures and implementations.

## IEEE COMPUTER SOCIETY

The purposes of the Society shall be scientific, literary, and educational in character. The Society shall strive to advance the theory, practice, and application of computer and information processing science and technology and shall maintain a high professional standing among its members. The Society shall promote cooperation and exchange of technical information among its members and to this end shall hold meetings for the presentation and discussion of technical papers, shall publish technical journals, and shall through its organization and other appropriate means provide for the needs of its members. The scope of the Society shall encompass all aspects of theory, design, practice, and application relating to computer and information processing science and technology.



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The theory, design and application of Control Systems. It shall encompass components, and the integration of these components, as are necessary for the construction of such systems. The word 'systems' as used herein shall be interpreted to include physical, biological, organizational and other entities, and combinations thereof, which can be represented through a mathematical symbolism. The field of interest shall include scientific, technical, industrial or other activities that contribute to this field, or utilize the techniques or products of this field, subject, as the art develops, to additions, subtractions, or other modifications directed or approved by the IEEE Technical Activities Board.

## IEEE SIGNAL PROCESSING SOCIETY

The theory and application of filtering, coding, transmitting, estimating, detecting, analyzing, recognizing, synthesizing, recording, and reproducing signals by digital or analog devices of techniques. The term "signal" includes audio, video, speech, image, communication, geophysical, sonar, radar, medical, musical, and other signals.

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**Have a GREAT summer!**