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# MONITOR

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September

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**PERIODICAL**  
TIME SENSITIVE MATERIAL

# Chairman's Column



First, I must set the record straight. In my opinion the next millenium starts on January 1, 2001. I apologize if I left anyone with an impression other than that. I do believe, however, that many people, rightly or wrongly, will equate the millenium with Y2K and that there will be more extravagant New Years parties on 12/31/1999 than 12/31/2000. I stated this before, but it was not meant to imply that I believe the millenium and Y2K are synonymous. Hopefully, reality will catch up to perception and prove me wrong about the parties, but I doubt it.

I would like to thank all of you who not only read my articles over the last year, but also took the time to reply; some verbally and some written, some agreed with what I said and some didn't, but all were important. It was nice to hear from some of you whom I see fairly often and it was really nice to hear from some of you whom I haven't seen for a while.

The last reply I received was one of the best, because not only did it critique my article, the author offered to help. That is always good.

**If there is anyone else out there who would like to get involved, to learn, to grow, to help, please contact me.**

This is my last column as chairman of the New York Section of the IEEE. Is that cheering I hear in the background? I hope not! The one common thread I have found in talking to many people in different areas of employment is that the 90's were not much fun. The 70's were ok, the 80's were good, but the 90's were just not fun. There were cutbacks, downsizing, mergers, absorptions and many more euphemisms for people being out of work. Those of us who were working found incredibly aggressive schedules in all aspects of the projects and buyers who felt that everything should cost less than they were asked to pay. This phenomenon was not limited to engineering, but seemed to pervade all the workplaces. Everyone I spoke to had essentially the same comments.

However, most of us seemed to survive. Hopefully the next year will bring with it a more amiable workplace. Now that we've past the 80's and the 90's what's next? The aughts? I guess just the two thousands; at least until we get to the teens (year 2013). Send in your comments and maybe the next chairman will let me reply. If not - it has been fun. Keep those cards and letters coming. The *Monitor* will not print again until September, so have a healthy and happy summer and **above all – volunteer for something.**

William Perlman, Chairman  
New York Section

# Feedback

Bill Perlman,

I have read Frank Logan's letter to you in the February Monitor wherein he "attacks" your January Column. I have to agree with him. Let me show you why: -

<u>Month</u>	<u>Day</u>	<u>Year</u>	
01	01	01	Beginning of 1st month of 1st year - when "time" began - start of 1st Millenium.
12	31	01	Ending of 12th month of 1st year.
12	31	02	Ending of 12th month of 2nd year.
12	31	100	Ending of 12th month of 100th year.
12	31	1000	Ending of 12th month of 100th year - end of 1st millenium.
01	01	1001	Beginning of 1001st year - beginning of 2nd millenium.
12	31	1001	Ending of 1001st year.
12	31	2000	Ending of 2000th year - ending of 2nd millenium.
01	01	2001	Beginning of 2001st year - beginning of 3rd millenium.

QED!

However, there is one statement that Frank Logan made that I take issue with. He said that some "religious engineers... might have to sit up there (on some mountain top) for an extra 365 days". Frank, supposing it was a Leap Year?

Bill, I have a confession to make. I'm really sorry this whole Y2K issue came up. You see, I established the above system of dates, because as Historian, I was there as "time " began. I knew then that the computer was coming. But our calculations indicated it wouldn't be until the 3rd Millenium!

Now let me explain what happened and why it was misinterpreted.

Back then - when our "time" was first established - we used our fingers and toes - so counting to 20 was fairly easy. We could count to 40 by having two of us stand sided by side. But counting to 1000 presented more of a challenge - it took 50 of us side by side. (How did we know we had 50 people? - That's our secret!)

Believe it or not, we were quite inventive. We had wireless before Marconi - we called them "tom-toms". We even had telephone before Alexander Bell. (We Italians still claim Antonio Meucci as the inventor.) We stretched a long piece of hemp (string not invented yet) between two distant clamshells. (Campbells soup cans not around yet.) This system only worked as long as the "caller" could see the "callee"!

Now, to get back to how the Y2K date was misinterpreted and thus the present fiasco.

One of our mathematicians, a well-recognized and well-respected primate, knew it was very difficult at times to get 50 people to stand together to count up to 1000, so he invented the abacus. But since there were no beads around, he used peas and kidney beans for the counters.

Sometime later I used his abacus to determine when Y2K would be. To my dismay I found out all too late that my mathematician had had a sudden pang of hunger and ate one of the beans - the bean that threw my calculation off by one year - and thus the present dilemma about Y2K.

I'm truly very, very sorry. I assure you that Y3K will not have this same confusion.

Respectfully,  
Frank Farinella  
Historian

# Professional Activities Information Page

This page dedicated to member professional activities information

This will be the last column before the summer break. It is the time that I start to plan for the 1999-2000 NY Section year and develop a schedule for PACE meetings and conferences. Based on the response, or lack of, to the meetings and past seminars, I feel that our members are not taking advantage of PACE programs that IEEE-USA has made available and have placed recent efforts and emphasis on.

A few years ago an opinion survey of NY Section members was conducted and with a list of top issues. The issues and concerns of members at that time and the top five issues in priority order were as follows: lack of jobs, corporation downsizing, retraining needs for laid-off members, professional status of engineers, number of engineers being graduated. PACE programs, meetings and seminars were oriented towards helping members with those issues.

At present a number of the issues may have been resolved, or seem irrelevant to our members, because of changes in economic conditions, employment and personal situations. *Therefore, I am asking for your opinion of current top issues and things that PACE can help you with.* Remember that this will be used to provide programs and seminars for PACE activities in the section. Please respond by telephone, fax or e-mail to:

Peter Greco PACE Chairman  
Tel.: 212-614-3357 Fax: 212-529 5237  
e-mail: p.j.greco@ieee.org

New York Section PACE Calendar of Upcoming Events. The following are proposed Section activities for the remainder of the current section year.

May: 19 Election Meeting  
June: 9 General Meeting

## IEEE - USA EMPLOYMENT ASSISTANCE

Job-hunting, *like engineering*, is an exact science. **Be Employed for Life. Conduct** an electronic job search and locate great jobs. Find "search tools" other than the newspaper. **Learn** how to write a new "searchable resume that showcases your experience and skills. **Network**, everyone talks about it. Learn how to create and use a career network. Consider consulting as an employment alternative.

*The Engineers Guide to Lifelong Employability.* Features over 200 pages of in-depth text that will allow you to master the engineering job search..

**IEEE Members: \$19.95**

IEEE-USA National Job Listing Service:

Gives members free information on job openings in every region of the country. To obtain current job listing, set your ewb browser to URL **www.ieee.org/jobs.html**. This service now includes a new searchable format for jobs, as well as a separate Entry - Level Job Listing Service at:

**www.ieee.org/usab/EMPLOYMENT/entry.html**

Electrotechnology Resume Referral Service:

IEEE-USA cosponsors Resume Link at 614-529-0429 or at Web URI **www.resume-link.com/**.

# **The Engineering in Medicine & Biology Society (NY/North J/LI Chapter)**

What's brewing at EMBS?

Here are some of the talks we are planning for Fall 99:

1. We expect to have Jay M. Gould, Director of the Radiation and Public Health Project, in September. During the years 1945-65 there was a fifty-fold increase in the strontium-90 levels in baby teeth. Baby teeth are now being collected for additional studies re the current cancer epidemic in the U.S. A major news release is planned for late May 99. Check out [www.radiation.org](http://www.radiation.org)
2. A presentation on 3-D sonograms is being planned.
3. A joint meeting with The NY Academy of Medicine re telemedicine and "rehab telemedicine" is in the works.
4. A joint presentation with our computer group on "moving from C to C++" is being considered. This would be aimed at those who already know C and want to take their first step into some of the features unique to C++ (use of cout instead of printf, use of cin instead of scanf, and creating your own class of objects i.e. "object oriented programming.") This talk would be given, in part, by EMBS chairman Prof. J.H. Levitt who teaches C++ to graphic artists at Pratt Institute.

In order to finalize these meetings we need a show of interest from the membership. If you are interested in any of these meetings, and feel it likely that you would attend please let us know which meetings are of interest to you. Please let us know during May.

Important Note: For your local chapter to survive, active participation by the members is crucial. You can have a major impact on what we present and how often we present by becoming a chapter officer or a member of the planning committee. Nominations are now being accepted for the next EMBS election. If you are ready to nominate a candidate, or wish to indicate willingness to serve as an officer, or as a planning member, please call or e-mail.

Contact Information:

Prof. Joel H. Levitt 212-479-7805 (24 hr voice-mail); e-mail: [jlevitt@pratt.edu](mailto:jlevitt@pratt.edu)

# SPREAD THE WORD

The Half-Year Dues Payment Period has begun...and it's a great time to recruit! Beginning 1 March and extending through 15 August, all new applicants to IEEE and its Societies can join for half of the full annual dues rates. This is an ideal opportunity to encourage IEEE membership, as new applicants will receive service throughout 1999 at reduced rates. You may want to consider displaying applications for guests at your next Section meeting if it is not already being done.

In addition, IEEE Society membership and the Societies' optional publications are half price. If you are a renewed IEEE Member who has been considering trying a new Society membership, what better time than when lower rates are available?

Potential IEEE and Society members can go to the IEEE home page at [www.ieee.org](http://www.ieee.org) and select the link for IEEE Membership for information and an interactive application. If the Web site is not available to you, contact IEEE Member Services Department.

## **1998 KEY CONFERENCE RECOMMENDATIONS**

Based on the results of conference audits conducted by the IEEE Operations Audit Department during 1998, the following recommendations are suggested to IEEE conference organizers:

- Conference bank accounts should be closed when all outstanding payments have been received and all outstanding disbursements have been made. (Any late receipts or expenses, received after the bank account has been closed, can be deposited to or paid from the conference surplus account at IEEE.)
- All conference checking accounts must have the IEEE Staff Director of Financial Services as one of their authorized signatories.
- Exhibitor revenues and expenses should be reported separately in the income and expense portions of conference final financial reports rather than being netted in the income portion of the report.
- Multi-year conference management service contracts should clearly state the fee schedules applicable to each year, the reports required and the support needed for reimbursed expenses, if such expenses are to be paid on an actual cost basis.
- All conference loans should be processed through IEEE and the co-sponsoring entity (geographic unit, non-affiliated society) rather than advancing funds from one Conference to the next.
- The IEEE Tax Compliance Office should be contacted during the planning process for non-US conferences to assure that all tax issues are addressed before the conference takes place.
- All grant and award requests should be processed through the Tax Compliance Office's grant administrator.
- Memorandums of Understanding that are negotiated for conferences, co-sponsored with non-

affiliated societies, should be specific with respect to such issues as grants, loans, taxes, surplus distributions and audits.

If your Section or one of its Chapters is involved with organizing a conference, please note that following these procedures will help avoid these items becoming issues when it's time to close the conference. For additional information, contact Ken Maze - IEEE Operations Audit.

### **WELCOME!**

The Section/Chapter Support (S/CS) group of the IEEE Regional Activities Department welcomes Maria Vuolo to the team. Maria succeeds Myrna Mendez who was promoted to Administrator, IEEE Strategic Planning and Institutional Research Department.

Maria's responsibilities as S/CS Administrative Assistant include editing the Dollars & \$ense newsletter, administration of Section Bylaws and maintaining the S/CS Web site. Although new to the IEEE, Maria is catching on remarkably fast to our special jargon (Sections, Chapters, Rebates, etc.) and our many acronyms (RAB, SAC, SAMIEEE, etc.) We are sure you will join us in welcoming her!

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# Calendar of Upcoming Events

## **May, 19, 1999**

Election Meeting

For more information call Ralph Tapino at (718) 904-4526

## **June 9, 1999**

New York Section Executive Meeting

For more information call Ralph Tapino at (718) 904-4526

## **July 14, 1999 (Wednesday) 12:30 PM**

New York Section Executive Meeting

For more information call Ralph Tapino at (718) 904-4526

## **August 11, 1999 (Wednesday) 12:30 PM**

New York Section Executive Meeting

For more information call Ralph Tapino at (718) 904-4526

Congratulations to the following New York Section members  
upon their elevation to senior member Grade

Raymond F. Ghajar  
Guang Yang  
Nicholas Caputo  
David Korn

## Deadlines for information to be placed into future issues of The Monitor

September Issue .....	July 23, 1999
October Issue.....	August 20, 1999
November Issue.....	September 24, 1999
December Issue .....	October 22, 1999

## **Section Consultant Committee Chair Wanted**

The New York Section seeks a new chair for its consultants' network by June 1, 1999. The Consultants' Network Committee provides an agenda and activities appropriate to enhancing this vital area of engineering.

The responsibilities of the consultant's network, which should be delegated among its members, include the following:

- Selecting speakers and other activities for meetings.
- Recruiting members.
- Reviewing and approving an agenda.
- Scheduling activities.
- Holding meetings and providing an informational resource to our industry.
- Preparing an annual budget.
- Attending executive board meetings.

The current chair has not been active for some time due to other responsibilities. If interested please contact:

Michael A. Miller, Operations Chair  
C/o Con Edison, room 1006-S  
4 Irving Place  
New York, New York 10003  
E-mail: [MillerM@ConEd.Com](mailto:MillerM@ConEd.Com)

## **Section Life Member Committee Chair Wanted**

The New York Section seeks a new chair for its Life Membership Committee by June 1, 1999. The Life Membership committee provides an agenda and activities appropriate to enhancing and providing activities for our life members. The responsibilities of the life membership committee, which should be delegated among its members, include the following:

- Selecting speakers and other activities for meetings.
- Recruiting members.
- Reviewing and approving an agenda.
- Scheduling activities.
- Holding meetings and providing an informational resource to our industry.
- Preparing an annual budget.
- Attending executive board meetings.

This is a proposal for a new committee. If interested please contact:

Michael A. Miller, Operations Chair  
C/o Con Edison, room 1006-S  
4 Irving Place  
New York, New York 10003  
E-mail: [MillerM@ConEd.Com](mailto:MillerM@ConEd.Com)

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# IEEE North Jersey Section Course

## Internet Programming/Web Application Development

Tuesday and Thursday Evenings, May 25 through June 24, 1999  
(May 25, 27, June 1,3,8,10,15,17,22, and 24)  
GEC Marconi, Plant 11, 164 Totowa Road, Totowa, NJ  
(Checks **should not** be mailed to this address)

The IEEE is offering an evening course entitled "Internet Programming/Web Application Development." The course will run for 5 weeks. Each session will run for 2 ½ hours with a short break approximately in the middle.

- ◆ Anyone who is interested in developing web sites
- ◆ Windows programmers making a transition to Internet technology
- ◆ Database personnel wanting to migrate to web development using web servers

### TOPICS

- ◆ *Fundamentals of Internet/Intranet*
- ◆ *HTML(HyperText Markup Language)*
- ◆ *FrontPage97/98 and other HTML editors*
- ◆ *Extensive use of Graphics/Image tools*
- ◆ *Integrate Multimedia in Web Pages*
- ◆ *Database Concepts - MS Access and MS SQLServer*
- ◆ *Database Integration with Web Applications*
- ◆ *Application Development : Introduction to JavaScript & VB Script*
- ◆ *Designing an Effective Web Site*

Class size will be limited to a maximum of 25 with a minimum of 15. Early registration is recommended. Phone reservations will NOT be accepted. Applications postmarked after May 14th will require an additional late fee of \$25. No applications accepted after May 18.

**WHERE:** GEC-Marconi, Plant 11, 164 Totowa Rd, Totowa NJ. (Checks **should not** be mailed to this address)  
**WHEN:** Tuesdays and Thursdays:: May 25 through June 24 1999 - 6:30-9:00 PM  
**COST:** IEEE members \$250; Non-members \$350  
**CONTACT:** Bhanu Chivakula (973) 751-4879 (leave message) or Gabe Silberman at silberman@ieee.org.

### REGISTRATION: Internet Programming/Web Application Development

To: Mr. Naz Simonelli, 68 Woodmont Drive, Randolph, NJ 07869-3740 (Checks **should be mailed to this address**)

Name: / Mr. / Mrs. / Miss / Ms. / \_\_\_\_\_

Nonmember

IEEE Member Member #: \_\_\_\_\_ Member of \_\_\_\_\_ technical society

Employer: \_\_\_\_\_

Address: \_\_\_\_\_

Home Address: \_\_\_\_\_

Business (day) telephone #: \_\_\_\_\_ Home telephone #: \_\_\_\_\_

Please enclose required fee payable to: **North Jersey Section IEEE**

Registration status will be mailed after May 14, 1999. Phone inquiries concerning registration will NOT be honored. In general, the effective date of the application corresponds to the date when BOTH a fully completed application & payment are received.

Tuition receipt will be mailed only if this box is checked Signature: \_\_\_\_\_

# The IEEE LEADERSHIP WIRE

## WEB RENEWAL PILOT

The Web Renewal Pilot was offered in response to member requests for more convenient and efficient ways of conducting business with the IEEE.

Here are some of the key highlights of this program.

On 12 Oct. 1998, the Web Renewal Pilot opened to Region 3 (Southeastern United States) and Region 8 (Europe, Africa and the Middle East). On 1 Dec. 1998 the Web Renewal Pilot was opened to all IEEE members and society affiliates, excluding life members. As of Feb. 1999, over 32,000 IEEE member and society affiliates have renewed via the Web, over 5,400 have updated their contact information and over 66,000 have registered for a Web account.

In accordance with the By Laws, the 1999 membership renewal period for members in Regions 1-7 will close at the end of February. As a result the Web Renewal Pilot will also close to members in these areas. Members and society affiliates outside the United States and Canada will continue to have access to the Web Renewal Pilot until 30 April 1999.

The Web Development Team is evaluating the results of the pilot program and identifying areas where we can make enhancements for the year 2000 Annual Membership Renewal.

Members wishing to reinstate their IEEE membership or society affiliate membership for 1999 are invited to contact Member Services at 800-678-4333 (US), 732-981-0060 (worldwide) or by e-mail, "[member-services@ieee.org](mailto:member-services@ieee.org)".

If you have questions regarding the termination of the Web Renewal Service for Regions 1-7 please contact Marianne Schmidt at "[m.schmidt@ieee.org](mailto:m.schmidt@ieee.org)" or by telephone at 732-562-5546.

## NEW IEEE WEB SITE FEATURES VIRTUAL READING ROOM

The IEEE Educational Activities Department announces the release of its Online Education Reading Room at "<http://www.ieee.org/eab>".

Once inside the virtual room, viewers can click on any book in the best-selling IEEE Selected Readings series or Engineers' Guides To Business Series, and "flip through" the full text of its pages. Titles up for browsing include "Cellular Radio And Personal Communications," "Smart Antennas," "Recent Developments in Power Electronics," "Marketing for Engineers," "Working In A Global Environment," "Writing For Career Growth," and more!

Logical and user-friendly in its design, the reading room features:

- Keyword, title, and author search options
- Full table-of-contents displays for each title
- Navigation tools that enable viewers to move from page to page and section to section, and to zoom in for a closer look at diagrams and formulas

- Online ordering options

"Having a reading room on the Internet gives visitors the opportunity to browse through books before buying them, just as they would in a traditional bookstore," says Alan Trembly, Business Development Manager for IEEE Educational Activities. "A distribution medium such as this really enhances the IEEE's image as practitioner of the technology of the future." For more information about the reading room contact Alan Trembly at "[a.trembly@ieee.org](mailto:a.trembly@ieee.org)".

### **BEST-SELLING IEEE BOOK SERIES GOES ELECTRONIC**

Now available on one CD-ROM from the Educational Activities Department is the best selling "Engineers Guides to Business Series." Originally published as 11 separate books, this series seeks to develop within the business-minded engineer an awareness of non-technical skills. Titles include "Winning the New Product Development Battle," "Working in a Global Environment," "Starting to Manage: The Essential Skills," "Marketing for Engineers," "Practicing Engineering Ethics," and more. The IEEE member price is US\$79.99.

For more information or for a complete list of the titles included on this CD-ROM, contact Jill Bagley, Educational Activities, at "[j.bagley@ieee.org](mailto:j.bagley@ieee.org)".

### **ADMINISTRATIVE MEETINGS CALENDAR**

Notice of IEEE board, society and committee meetings is published in the IEEE Technical Activities Administrative Meetings Calendar. The listing is updated monthly, and is located at <http://www.ieee.org/organizations/tab/tabcalen.html>".

For information on the calendar and/or to submit information, contact Lauren Lawson - IEEE Technical Activities Department - tel. 732-562-3851; fax 732-981-1769; Mail To: "[l.lawson@ieee.org](mailto:l.lawson@ieee.org)".

### **IEEE HISTORY IN THE MAKING**

The IEEE is publishing a limited edition book titled "ENGINEERING TOMORROW: Today's Technology Experts Envision the Next Century." This full-color, coffee table style book includes interview-based essays from over 50 IEEE visionaries who envision what the technologies of the next century will bring. Filled with full-color photographs and contributions from technology leaders such as Robert W. Lucky and Nobel prize winners Arno A. Penzias and Charles H. Townes, "ENGINEERING TOMORROW" is edited by Janie Fouke, a former IEEE society president, director of Division X, and professor at Case Western Reserve University. It is written by journalist Trudy E. Bell, formerly of Scientific American, Omni and IEEE Spectrum Magazine.

All surplus funds from the sale of ENGINEERING TOMORROW will be donated to the IEEE Foundation to support engineering educational activities. To find out more information contact "[engineeringtomorrow@ieee.org](mailto:engineeringtomorrow@ieee.org)".

## **PUBLICATION TO SUPPORT IEEE FOUNDATION**

The IEEE Foundation supports the future of engineering through funding for engineering educational activities. In order to aid the IEEE Foundation in accomplishing this goal, the IEEE plans to take all surplus funds from the sale of "Engineering Tomorrow: Today's Technology Experts Envision the Next Century" and donate them to the IEEE Foundation.

A full-color, coffee table style book, "Engineering Tomorrow" includes interview-based essays from over 50 visionaries who will help you imagine what the technologies of the next century, developed by the engineers of the future, will bring.

For more information on "Engineering Tomorrow," please contact Judy Brady at "[j.brady@ieee.org](mailto:j.brady@ieee.org)" or Barb Soifer " [b.soifer@ieee.org](mailto:b.soifer@ieee.org).

## **IEEE-SA AND TECHNICAL SOCIETIES**

One of the strategic goals of IEEE-SA in 1999 is to improve relations with IEEE Societies. To augment an understanding of the IEEE-SA, presentations will be given to the highest level committees or boards within those societies that develop standards. Greater emphasis will be placed on communication, including the writing of IEEE-SA updates for the societies' newsletters. For more information, please contact Terry deCourcelle at [t.decourcelle@ieee.org](mailto:t.decourcelle@ieee.org).

## **MILEAGE**

Effective Thursday, 1 April, the new mileage reimbursement rate for personal vehicles used in business will be 31 cents a mile to match that authorized by the Internal Revenue Service. The 1999 electronic expense report form has been updated to reflect this change. To receive this updated form, send an email message to Mail To: "exrprt@ieee.org".

## **IEEE EDUCATION DELIVERS ITS FIRST WEB COURSE**

The Educational Activities Department has teamed up with the University of Illinois at Urbana-Champaign to offer its first-ever Web-delivered course, the subject of which is antennas and propagation.

The four-week course, designed to serve as a refresher for practicing engineers, began on 1 April and will run through 30 April. Eleven people - a mixture of both industry and university professionals from the U.S. and other countries - have signed up to take this course, which will be instructed online by Dr. Eric Michielssen. Participants who successfully complete the course will be awarded 3.6 IEEE Continuing Education Units (CEUs).

For more information about the course, contact Peter Wiesner, Educational Activities at [p.wiesner@ieee.org](mailto:p.wiesner@ieee.org) or got to <http://www.ieee.org/eab/distance.htm>.

## **New IEEE Video Series Captures Engineering As Profession**

PISCATAWAY, NJ, 15 March 1999 - Now available from the IEEE is the *Engineering Profession Videotape Series, Volume II*. Included in this volume are the six lectures that were recently given at North Carolina State University as part of the school's engineering graduate program. The six-videotape series seeks to prepare graduating seniors and recent graduates for entering new careers in industry and government. The following topics are presented:

- Engineering Ethics
- Maintaining Professional Vitality
- Employee Benefit Options
- Safety Engineering
- Managing Investments & Financial Planning
- Intellectual Property Protection

The series also includes a PC disk containing abstracts and authors' biographies, and PowerPoint presentation notes.

1999/6 hrs./6 VHS Tapes

IEEE order numbers: NTSC – EV5533-QVE; PAL – EV5534-QVE

IEEE List Price: \$155.00; IEEE Member price: \$125.00

Volume I of the *Engineering Profession Videotape Series* is also available for purchase from the IEEE.

Order from the IEEE Customer Service Department, 445 Hoes Lane, PO Box 1331, Piscataway, NJ 08855-1331, USA. For single sales, call 1-800-678-IEEE (1-732-981-0060 outside the USA and Canada); for company or institutional sales, call 1-800-701-IEEE; or fax 732-981-9667. Shipping and handling charges apply. E-mail: [customer-service@ieee.org](mailto:customer-service@ieee.org)

# From Under the Rock

## It Is About Processes

The new buzzword in management today is "process". Gone are the task-centered jobs. What we are moving to is process-centered work. This does not mean that assembly lines will be dismantled, but they will only be used where they truly can provide value to the customer. For example, in building a car an assembly line is useful, but in processing an insurance claim, the "assembly line" for white-collar workers will be history. All too often in the white collar world papers are shuffled while the customer fumes.

Even the New York PD is emphasizing the process in tracking perpetrators. No longer does the patrolman just gather some facts and hand off the work to a detective. He follows through the very day the crime was committed, seeking witnesses and other evidence.

In his recent book, *Beyond Reengineering*, Michael Hammer does an excellent job in describing what this process-centered work-world will be. To his credit Hammer spot lights the Engineer as the professional who is process centered. For a product to have value it must provide a service to the customer when he wants it. When you get into the car it must start, whether it is cold weather, hot weather, dry weather, or wet weather. In this new business jargon the engineer is referred to as a process performer.

The process performer reports to a process manager. It is the manager's job to make sure that all the performers are in sync. For example, for a product to be developed you need aside from engineering: finance, manufacturing, marketing, etc. The Edsel is an example of engineering without marketing. Ford produced a quality car that nobody wanted. In this example it is the process manager who failed. There is a famous process manager from the same company who succeeded. His name is Lee Iacocca. The results of good engineering and marketing produced the Mustang. The first year in production, almost 500,000 were sold, an incredible number for a first production in the auto industry.

Hammer points out that an engineering education is excellent for process training. He also discusses that it will be difficult for task people to make it in a process world. Although it is not stated explicitly in the book, the reason is simple. A process requires thinking and thinking is hard work. Both Thomas Edison and Henry Ford stated that thinking is man's hardest labor. That is why you find such few people engaged in it. According

to Hammer the premise on which modern organizations were founded is the idea of specialization of labor. By breaking processes down into small tasks it was easier for the workers to accomplish the tasks. By doing this however, the worker can't see the forest from the trees, resulting in diminished value to the customer.

Of course you want people to think. But thinking requires decision-making. If workers are not given the power to make decisions they can't add value to the product. In Robert Townsend's 1970 bestseller, "Up the Organization", he states, "Anyone who makes over \$150 a week should be allowed to set his own office hours. People have different metabolisms. If you work better from noon to midnight and your job makes those hours appropriate, you should be able to do it."

An interesting point is made by Hammer that a football team is in fact a process-centered organization and that we have much to learn from its management. In football the players are the implementors and the offensive and defensive coaches are the process owners. The plays are designed by these coaches. The role of the head coach is that of a process manager who motivates and supports the other coaches as well as the players. The interesting point in the football analogy is that the customers are the fans. To give the fan value their team must be a winner, if not all the time, at least most of the time. Many head coaches lose their jobs if their teams don't win frequently enough.

The players or implementors are judged based on their performance. Too often in the business world there is no attempt to measure the productivity or skill of the workers. What would Joe DiMaggio be today without his stats? He is the only ball player to hit safely in 56 consecutive games and set a record that is 58 years old. Also he only struck out 339 times in 13 years, with a lifetime batting average of .325. Would Joe be revered if these records weren't kept? We remember Joe's stats and Iacocca's 500,000 Mustangs but we make no effort to measure our workers except for their years of employment, much like a prison sentence. Although Hammer never mentioned the need for work measurement, he does state, "It is fundamentally degrading when one person's compensation depends on another's opinion." If our workers are to succeed in this new world, the boss can't act like a warden, and the office can't be viewed as a prison where you are released every night at precisely 5 o'clock and paroled on weekends for good behavior.