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Boston Section EMS Chapter Earns Recognition Award for Outstanding Revitalization Effort

Your EMS Board of Governors is committed to supporting our Chapters and helping them achieve their important local management objectives. We particularly want to promote “cross-fertilization” of our many chapters, to help you all know what other groups are doing and how they’ve been successful in serving their local membership. To this end Chapters Coordinator Cinda Voegtli and your EMS Member Services Team under VP David Kemp, is planning to present chapters with recognition awards throughout the year, to both publicize and reward the efforts and results of improved EMS Chapter activities.

Our first recognition award goes to the Boston, Massachusetts, USA chapter. After being fairly dormant for several years, local EMS member, Harry Heflin, took it upon himself to revitalize the chapter. He and his officers (Jim Britt - AT/Com <jimwb@channel1.com>, Debashis Mallick - Boston College <mallickd@hermes.bc.edu>, Gene Bridgers - M/A COM <gbridgers@aol.com>, Dave Greenburg - TIAC (The Internet Access Company) <dgrnbrg@tiac.net>, and Gene Lambert - M.P. Dumont Associates <elambert@delphi.com>) lined up an outstanding array of local programs for the 1995-1996 program year. Their efforts made available to members in the Boston area some very interesting management education and excellent opportunities for meeting and exchanging ideas with between 20 and 60 colleagues at each EMS Chapter meeting.

In Harry’s words, “These meetings are all pretty free-wheeling, and we encourage a spirited dialog between the presenter and the audience. We also usually have a dinner with the presenter before the meeting to get to know them better.”

“This year (96/97) we are going to do a series intended to train engineering managers who work in small companies and startups that do not have internal professional development programs for their managers. The objective is to promote excellence in engineering management and develop networking.”

“We do have a Boston EMS Web page (see URL at end of this article) and that seems useful in spreading information about the meetings. We collect E-mail addresses at each meeting and then send meeting announcements directly to those persons a few days before the meetings as a reminder.”

“All things considered, I’m pretty happy with the way last year went, and excited about the prospects for this coming year!”

In recognition of these efforts, the Boston chapter is being presented with a $500 recognition award from the EMS Board of Governors that they may use to fund a program this year, help with a speaker’s expenses or fund a special seminar offering, or provide something in the way of celebration of their recognition, such as a special dinner at one of their meetings. Great work, Harry and the rest of the Boston chapter, and we hope to get more great ideas and inspiration from your future efforts!

With more than twenty five years experience in the high-tech industry, this Chapter’s sparkplug, Harry Heflin, holds a M.E.E. from Colorado State University and a B.E.E. from Purdue University. He has held positions as Technical Director of Reliability Engineering, Director of Display Products Operations, Director of Customer Satisfaction, R&D Section Manager, Production Manager, and Manufacturing Engineer Manager, and is currently a principal at INTERSYS, a consultancy focused on excellence of the new product development process.

For further information about the Boston Engineering Management Society activities, contact Harry Heflin at (508) 486-4068, E-mail a specific question to <h.heflin@ieee.org>, or you can point your Web browser to <http://www.ultranet.com/~hheflin/ems.htm>. A recap of Boston Section EMS Chapter activities can be found on page 2.
Boston Section EMS Chapter Activities
Summary 1995-1996

The newly revitalized Boston EMS Chapter is pleased to share with you some ideas for the coming year, and a summary of the topics of the meetings it held this past year, in the hope that you can use some of our ideas in your own Chapter activities.

Engineers are the most vital human resource in technology companies. Hardware and software engineers define and develop new products, support manufacturing, support the sales staff, install and maintain products in the field, and support customers who have problems using the products.

No one ever considered that engineers are easy to manage, and some even say that the term engineering management is actually an oxymoron—the two words just naturally fight each other. Engineers do in fact have a unique perspective on life and work, and engineering (mis)management can certainly be a major problem leading to project delays, cost overruns, quality problems, and in the worst case even crucial staff resignations.

But engineers are very responsive to the right set of management principles. Harry Helfin’s talk to the Boston Section Chapter of the EMS on “Engineering Management—The Keys to Excellence” will present the best practices in topics like creativity, innovation, performance evaluation, objective setting, work environment, project scheduling and checkpointing, recruiting and hiring, and staff professional development.

Topics of other successful Boston Section EMS Chapter Engineering Management Series include:

- September 19, 1995—T. Trefonas—Software Productivity Tools: what works and what doesn’t
- October 17, 1995—Jeremy B. Brightman—Leadership and the Learning Organization
- November 21, 1995—Stephen C. Wielwigt—Building Consistently Effective Project Teams
- December 12, 1995—David C. Walden—The Systematic Development of Engineering Skills
- February 20, 1996—Thomas H. Lee—Rationalizing the P浴hets of Management Tools

NEW CHAPTERS FORMING!

The following new chapters are starting on or in the middle of the formation process and welcome your participation at the local level. Please contact them listed below:

- Austin, Texas; Darius Samani <asamani@uts.cc.utexas.edu> or (512) 795-6176
- Detroit (Greater Michigan); Prakash Srivastav at (586) 986-2286
- Oakland/East Bay, California; Khy Nguyen at <knguy@pacbell.com> or (510) 823-2886

If other members are interested in forming chapters, please contact Harry Helfin at (415) 966-1650 or <ceego@fioserve.com>

March 19, 1996 — Harry Helfin—Forging a World-Class New Product Development Organization
April 16, 1996—Bradford J. Goldense—Metrics For Measuring Product Development
May 21, 1996—Shields Mello (first speaker)—Concept Engineering: a method of better understanding the customer’s criteria
May 21, 1996—Ben Holmes (second speaker)—Engineering and Engineering Management at HP

ProjectWorld 1996

ProjectWorld Summer ‘96

Here’s what EMS Chapters Coordinator Cindy Voegli has to say about our participation in ProjectWorld Conference. "IEEE EMS had a booth at the 2-day ProjectWorld Summer ‘96 exhibition in Washington, DC, August 5-9, 1996 and appreciates the help of members of local IEEE Consultants’ Network members Peter Solles and Bill Westcott who assisted in booth duty. Our EMS booth again had great traffic. We gave away 75 membership brochures, around 400 copies of the Engineering Management Review, and 75 copies of the Transactions. IEEE Press magazine books were on display, we provided people with IEEE Standards catalgues and IEEE Financial Advantage brochures, a flyer on EMS, a directory of the consultants’ network in the DC area, and the DC section publication.

ProjectWorld Winter 1996

The Winter ProjectWorld Project Management Conference and exhibition will be held again this year at the Santa Clara Convention Center, from December 9-13, 1996. The IEEE Engineering Management Society is a co-sponsoring society, along with other professional organizations such as Project Management Institute, Society of Women Engineers, and the Product Development and Marketing Council. ProjectWorld Conferences are designed to provide information on the latest advances in project and program management for technical and executive-level professionals who work in technology-supported organizations. ProjectWorld Winter will include 14 pre-conference workshops; an exhibition with 80 booths highlighting state-of-the-art developments in project management, groupware, consulting, and training; and 8 paper tracks presented by experienced industries in the planning and organizing process. Subjects will include:

- functional and team building
- reducing time-to-market
- implementing project management
- project management in software design and systems integration
- strategies for coping with super-urgent demands
- business process re-engineering
- establishing and maintaining a project management culture
- managing megaprojects and programs.

Special Discount for IEEE Members

IEEE members will receive a $100 discount off the conference fee. To obtain more information about ProjectWorld, including a full catalog of conference workshops and paper sessions and exhibitors, call toll-free (888) 943-4444, E-mail to <projectworld@projectworld.com> or visit our web site at <http://www.projectworld.com/projectworld/>.

Virtual Organizations: Implications for Engineers and Engineering Managers

President’s message

Times of change are times of anxiety and stress, but they cannot live without change. At the same time these times of change are also times for exploiting opportunities, opportunities that may be both reactive, and organizational. Identifying and exploiting these opportunities requires developing some new insights.

The Engineering Management Society has just completed a conference in Vancouver, BC on "Managing Virtual Organizations." Researchers and practitioners associated with the conference have been asked to manage virtual organizations in one way or another. The process will continue. Many other factors in addition to technology have driven this change. To mention a few:

- Competitiveness
- Globalization
- Changing social structures
- Lower expectations
- Too much emphasis on self-esteem—enough on personal relationships, accomplishment which are the basis for self-esteem

The virtual organizational model of the CEO located someplace on a mountain top or in the Mediterranean and managing the activities of thousands of people located at thousands of different points on the globe is science fiction. Organizational change will evolve and will include the more or less vertically structured type to the more fluid type where people with the specific required competencies are located as needed. Organizational change is an inevitable business reality. The word "virtual" made the business headlines. The way we view the new world in mind is that the word management goes beyond application to people who hold the title "manager." Engineers from newly minted to the highest levels at least at the highest levels of the organization, are managing the organization. The new graduates often make technical decisions with very little experience, but they understand the technology.

We welcome all engineers to join us in this pursuit of determining and working on the issues that will transform work processes in the future.

I firmly believe that a dynamic global society requires that engineers and their managers respond in a proactive manner not only in their particular discipline but with an extended focus on the business realities. That requires foresight, breadth of knowledge and experience, continuous learning in many different forms, and not only accepting challenges, but creating them — creating opportunities — opportunities that require vast amounts of creativity.

Gus Gaynor, President of the Engineering Management Society, and can be reached via E-mail at <g.gaynor@ieee.org>.
Engineers Give Their Managers Feedback

By Joseph Bellefleur, Member EMS BOC

Kozos and Pooner point out in their book "Transformational Leadership" (1987) that transformational leaders pay attention to customers, actively foster employee participation, and solicit ideas and input from others. One way to keep from "boxing themselves in," companies provide "upfront feedback" to train managers to be leaders and employees to be ideal followers. In fact, the term follower is used in this book, depicting a process in which managers receive feedback from those who report to them. The author of this article has considerable experience in an upward feedback process developed, as well as in giving and receiving upward feedback in a variety of processes and situations.

There are three compelling reasons for utilizing upward feedback as a learning tool. First, employees are a valid source of information because they are in the best position to observe managerial and leadership behaviors of their bosses. Second, gathering feedback from different angles, from several, if not all, of the employees improves the accuracy over a single source. Third, a formal upward feedback system is compatible with employee empowerment, commitment and involvement (Bernardin & Beatty, 1987). The first two reasons benefit the manager who receives the upward feedback. The third helps enhance organizational culture. In a study of IBM, RCA, Syntex, Libbey-Owens-Ford and a state highway patrol department, Bernardin and Beatty (1987) showed that the use of an upward feedback improve: managerial effectiveness, evaluation and promotion of personnel, implementation of strategic planning and the cost of promotions. What happens when you incorporate these approaches, there are many similarities to the AT&T and Chrysler experiences. Some of these organizations have been uniquely repeatable for several years. Bernard and Beatty conclude that there are some guiding principles that increase the probability of acceptance and effectiveness of upward feedback. Here they are:

- The program objectives should be carefully and meticulously articulated. Questions to be asked include: "Why do the things you say may set in. Third, as a consultant you will need to stay current in your field. Subscribe to a couple of trade journals in your field and become active in the local chapter of your trade association."

If consulting isn't your thing, maybe you want to start your own business. You can start from scratch, or you can buy an existing business or buy into a franchise. Either of these options you are thinking of, is the key to research, research, and more research. Take advantage of outsiders who can chalenge your thinking. Look for people who are already pursuing the course you are considering. Often they may help you from your mistakes.

Fast turnaround is essential. Feedback data "ages" very rapidly.

Vital to the success of upward feedback programs is third party facilitation. Bernard & Beatty do not specifically spell out the use of third party facilitators in their guidelines. Chryssas uses process facilitators and the author's experience at AT & T confirms this.

Elections come from an Engineering Business Analyst for a major corporation: "Part of my job involves analyzing business flows, identifying appropriate CAD and CAM system to meet these needs. I am, however, unfamiliar with some of the terminology and issues related to CAD/CAM systems in general. Any educational resources recommendations?"

EM Transactions Editor Dr. Kundur F. Kocoglu who is also Director of the Engineering Management Department Postland State University <kocoglu@emp.pdx.edu> responded: "There is a wide range of research activities and educational resources available. I think it would be most beneficial for you to have two contacts for your information needs.

Dr. Gerald Gerwin <gerwin@carleton.ca> at Carleton University Engineering for the management of manufacturing systems in IEEE Transactions on Engineering Management, knows what is happening in the field with more depth than anyone I know. His contact is more tailored to your interests. He can direct you in the right direction.

Dr. Alan Majzechek <macenzhen@cfsc.ucsc.edu> is a professor at University of California Santa Cruz. He is the guest editor for a joint EM/Ellis Horwood/IEEE Transactions on Engineering Management issue special issue that we published on Social Implications of CAD/CAM Systems a few years ago."

Another e-mail from Marco Forcone refers to some strange things that happened to his job that raised some interesting ethics and professional questions for him. Briefly, an engineer that left the company (moving back to Ireland) left many skeletons in the closet, many of which came to light in the midst of selling off a $50 million dollar trainee to the government. Including: bad design, bugs, had government drawings, had outright fraud (lying about hardware working). The story had a happy ending as his team were in a machne room trying to get the machine to work. What could cause an honest, conscientious engineer to go completely "FIMG0?" Personally, I believe there was more involved than just leaving the company. I've changed jobs a few times or three years and their definition of a conscientious employee of FIMG0 before leaving a company, I could not see leaving behind the mess that we found. Even if you're mad at the company you're leaving it, you're your co-workers that end up paying the price.

I think a big contributing factor was the under utilization of engineering talent in our group. While there is always a struggle to get work done at any company, my group has a lot more grunge work than it should. In a creative and thinking field (like engineering) doing thankless, monotonous, meaningless paperwork day after day will inevitably cause some degree of lack of caring for the tasks. Checking production board assemblies, prints, and documentation are all tasks that should be left to a technician, and only in the event of a problem should the engineer become involved. Unfortunately, our group leader is of the mentality of "if it ain't broke, I don't fix it." We've had several discussions over this, I've never been able to get my point across. I'll talk more of him later. In my opinion, an engineer takes on too much of the job of engineers, documentation, demo software, or 'playing in' the lab than buzzing a board (I think that progressive companies tend to realize this). How can a professional engineer lose the motivation when confronted with seemingly endless mindless tasks?

Your 1996 EMS Board of Governors

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The Venue
PICMET '97 will be held in the beautifully remodeled Portland Hilton, right in the middle of downtown at the center of activities. NikeTown, Saks Fifth Avenue, Nordstrom, Pioneer Courthouse Square, Pioneer Place, Portland Center for the Performing Arts, Portland Art Museum, Oregon History Center, Arlene Schnitzer Concert Hall, the Waterfront Park, the movies and dozens of upscale restaurants where you can taste the best of Northwest cuisine are within walking distance. Hilton has special rates for PICMET participants but space is limited. Although the cut-off point for the special rates is June 1, 1997, we recommend that the reservations be made much earlier than that. Portland is at its best in July and August and it attracts an extremely large number of people from all over the world. Hotel space is at a premium during those two months. There is a high probability that no rooms will be available in the proximity of the conference once the blocked space at Hilton is sold out. Reservations can be made by mailing or faxing (1-503-220-2560) the attached form to the hotel, by calling Hilton's central reservation number (1-800-HILTONS or the Portland Hilton) (503-220-1611) and specifying that you are a PICMET participant.

The Portland Hilton Welcomes you to PICMET '97
Phone: 1-800-HILTONS
Portland Phone: 1-503-220-1611 Portland Fax: 1-503-220-2565
Please note: Rooms may not be available for check-in until after 4:00 p.m. Earlier occupancy subject to availability. All reservations must be accompanied by first night's deposit (Room rate plus tax). Payment or deposit can be made by check or accepted credit card number (American Express, Carte Blanche, Diners, VISA, MasterCard, Air Canada, Eurocard, JCB, Hilton). Guests checking out prior to the confirmed departure date will result in a $50.00 administration fee. Up to two children, regardless of age, may stay free when occupying the same room as their parents. Limited number of handicapped rooms are available upon request. Special PICMET rates shown below are effective until June 1, 1997. After that date reservations will be on an availability basis.

Name: Please check preference
SINGLE (one person, one bed) $129
DOUBLE (two persons, king bed) $139
TWIN (two persons, two queen beds) $139
TRIPLE (twin plus one add-on) $174
QUAD (twin plus two add-ons) $209
Deposit Enclosed $5
For suites please contact the Portland Hilton directly.
or Accepted Credit Card #:
(9% City room tax will be added).
Expiration date
Hiltoners #

Want to help out? Your EMS is always looking for a few good volunteers.
Contact EMS President Gus Gaynor, g@gaynor.ieee.org

PICMET '97 REGISTRATION FORM
Send to: PICMET, Engineering Management Program, Portland State University, Portland, OR 97207-0751, USA
Phone: 1-503-723-3525, Fax: 1-503-723-4667, E-mail: picmet@emp.pdx.edu, URL: <http://www.emp.pdx.edu>

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Notes:
(1) If you are registering as a student, obtain your professor’s verification of the student status.
(2) If you are registering for one-day, please indicate which day: ☐ Mon. ☐ Tue. ☐ Wed. ☐ Thu.
(3) Early registrations must be postmarked by March 1, 1997.
(4) Indicate if you are Author/Co-author, Session Chair or a Panelist at PICMET '97.
(5) Member of IEEE ☐ Member of INFORMS ☐ Member of IJSSPRM ☐
(6) Please indicate your preference for the banquet dinner: ☐ Salmon ☐ Steak ☐ Vegetable ☐

Name: Phone: E-mail: Spouse’s Name (If attending PICMET '97):

Address:
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IEEE Engineering Management Newsletter, Third Quarter 1996
Cooperating Societies: IEEE Engineering Management Society; IEEE - Oregon Section; INFORMS Technology Management Section; JSRRP (Japan Society for Science Policy and Research Management)

Corporate Sponsors: PICMET'97 is pleased to acknowledge the support of the following Corporate Sponsors: Tektronix, Inc.; Intel Corp.; OCATE (Oregon Center for Advanced Technology Education); Wacker Siltronic and Merix, Inc.

Plenary Speakers
Plenary sessions are scheduled every day. The plenary speakers are listed below:
Daniel Berg – Professor and Former President, RPI - USA
Joseph Bordogna – Acting Deputy Director, NSF - USA
Hans Danielmeyer – Vice President, Siemens AG - Germany
Robert Davis – Vice President of Technology, Boeing Corp.– USA
Gunnar Hambraeus – Director, Swedish Royal Academy of Engineering–Sweden
Eiichi Maruyama – Exec. Director & Gen’l. Director of Research Center, Angstrom Technology Partnershi–Japan
Steven McGeady – Vice President, Intel Corporatio–USA
Graham Mitchell – Asst. Secr. for Technology Policy, Dept. of Commerce–USA
Thomas J. Murrin – Dean, School of Business, Duquesne University
Tsune Nakahara – Vice President, Sumitomo Electric Industries–Japan
Judith A. Ramaley – President, Portland State University–USA
Yasutsugu Takeda – Senior Executive Managing Director, Hitachi Ltd.–Japan
Curtis J. Tompkins – President, Michigan Tech. University
Michiyuki Uenoara – Executive Advisor, NEC Corporation–Japan

Authors from more than 40 states and 48 foreign countries have submitted more than 550 paper abstracts and 42 panel and session proposals (approximately 700 papers) which are being reviewed for acceptance. About 2/3rds of these will become the actual paper sessions and panel discussions at PICMET’97. Parallel tracks will address technology management on a wide range of issues including the following topics listed in alphabetical order: Collaborative Issues; Concurrent Engineering; Cultural Issues; Decision Making; Educational Issues; Emerging Technologies; Engineers & Scientists; Entrepreneurship; Health Technologies; Information/Knowledge; Innovation Process; International Issues; Manufacturing; Organizations; Policy Issues; Products; Productivity; Projects/Programs; Quality; R&D; Resources; Service Technologies; Strategic Issues; Technology Market; Technology Transfer

Tutorials
Over 40 tutorial proposals, on a wide range of topics, have been received and about 15-20 of these will be presented by experts on Sunday, July 27, 1997. Most of the tutorials are half-day long (8:00-12:00 or 13:00-17:00). Some are full-day (8:00-17:00). Lunch is included for guests registering for a full-day tutorials or two half-day tutorials.

Proceedings
PICMET’97 Proceedings will include the refereed papers, some as full-length papers, some as expanded summaries. In addition, a CD-ROM containing full-length of all papers accepted for presentation at the Conference will be provided. Both the book version and the CD version will be available as part of the registration packet.

Registration
You can register for PICMET’97 by mailing or faxing the Registration Form on Page 7 to PICMET (Phone: 1-503-725-3525, Fax: 1-503-725-4667), by sending an e-mail to PICMET <picmet@emp.pdx.edu>, or by visiting the PICMET homepage at <http://www.emp.pdx.edu/picmet>. Members of the IEEE-EMS will receive a $100 discount.

Newsletter Deadlines
Month of Issue Quarter Deadlines
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October 1997 Fourth 13 August

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