

the Beacon

Enjoy the Spring!

The Monthly Publication of the Maine Section, IEEE www.ieee.org/maine

Give the Volunteers a Hand

by Dave Potts, Section Chair

A few weeks ago I submitted the Maine Section's Annual Report to IEEE headquarters in Piscataway, NJ, which included a summary of our activities and finances for 2001. In looking over the events that have already been held or planned for 2002, we may very well surpass last years activity while summer's sun is still high in the sky. In a break with tradition, there may be several IEEE functions held over the summer months this year. A truly special event, scheduled for July 11th, is the IEEE milestone dedication ceremony commemorating the 40th anniversary of the first transatlantic satellite television transmission, broadcast from Andover, Maine on July 11, 1962 (see the article on page 3 in this *Beacon* for more information and keep watching for additional details in the coming months).

All of our local activities, including the meetings, seminars, tutorials and even this newsletter, owe their existence to the involvement and dedication of our volunteers. For this, we must offer our appreciation and what better way to do it than by volunteering ourselves? For members of the Communications Society, we have a particularly acute need for volunteers for any/all offices in the Communications Chapter. The Communications Chapter is at risk for decertification if we do not maintain the required minimum of 2 technical meetings per year. The Andover Telstar milestone dedication will count as one for this year, but we need some fresh involvement so it does not prove to be the chapter's swan song. If you could help out or would like more information, please contact the outgoing chair, Andy Perkins (andyperkins@adelphia.net) or the Section Nominating Committee Chair, Brian Conroy (brian.conroy@cmpco.com).

If you are not a Communications Society member, we still have a place for you! I have it on good authority that, after 3 years on the job, the webmaster/electronic Beacon Publisher is interested in handing off duties to a new master (particularly in light of all his other present du-

ties as Section Chair). There is also an opening on the slate for next year's Section Executive Committee for a new Junior Member-at-Large. As always, all of the Chapter and Committee Chairs would welcome your ideas, suggestions or involvement in planning and running activities. If you have ideas or are interested in helping out or just want some more information, please feel free to contact me (potts@ieee.org) or the appropriate chair from the tables below:

Chapter Chairs

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PES/IAS	David Conroy david.conroy@cmpco.com

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Joint Section/PMI Meeting:

**An Introduction to Modeling and Analyzing
Complex Product Development Processes
using the
Design Structure Matrix (DSM) Method**

*Dr. Ali Yassine, MIT Center for Technology, Policy and
Industrial Development*

**Fairchild Semiconductor
May 15, 2002**

The design and development of complex engineering products require the efforts and collaboration of hundreds of participants from diverse backgrounds resulting in complex relationships among both people and tasks. Many of the traditional project management tools (PERT, Gantt and CPM methods) do not address problems stemming from this complexity. While these tools allow the modeling of sequential and parallel processes, they fail to address interdependency (feedback and iteration), which is common in complex product development (PD) projects. To address this issue, a matrix-based tool called the Design Structure Matrix (DSM) has evolved. The DSM method is an information exchange model that allows the representation of complex task (or team) relationships in order to determine a sensible sequence (or grouping) for the tasks (or teams) being modeled. This presentation will cover how the basic method works and how you can use the DSM to improve the planning, execution, and management of complex Product Development projects.

Schedule:

- 5:30 PM Pizza - \$5.00/person
- 6:00 PM IEEE/PMI announcements
- 6:30 PM Program - Speaker Dr. Yassine

Speaker:

Dr. Ali Yassine is a research scientist at MIT Center for Technology, Policy and Industrial Development (CTPID). At MIT, his research involves managing the development process of complex engineering products, design process modeling, and IT-enabled concurrent engineering methodologies. His publications appeared in Management Science, IEEE Transactions on Engineering Management, International Journal of Production research, and several other international journals. He has also consulted on numerous occasions for the automotive (Ford Motor Company) and telecommunications (Global One) industries in the areas of decision analysis and produce development management.

Location and registration:

This talk will be held at Fairchild Semiconductor's Running Hill Road facility at 82 Running Hill Road, S. Portland, ME. To register for this course contact Tom Carbone at: t.carbone@ieee.org or 207-775-4644.

PES/IAS Chapter Meeting:

**Mead-Rumford Plant Tour
and
Historical Society speaker**

May 9, 2002

The Maine PES/IAS Chapter is pleased to announce a meeting at the Mead-Rumford paper plant on May 9, 2002. This rescheduled meeting will consist of an afternoon plant tour of the Mead-Rumford facility, with dinner and an evening talk by speaker Bill Weston, a member of the Rumford Historical Society and a retired maintenance manager and engineer from the Rumford-Mead Mill. Bill will talk on the founding of the town of Rumford and the mill. This should be a talk that would interest both IEEE members and their spouses.

Schedule:

- 1:00 PM Welcome and Tour – Mead Administration Building
- 5:00 PM Conclude Tour
- 5:30 PM Social Time – Madison Motel & Restaurant
- 6:00 PM Dinner
- 7:00 PM Program - Speaker: Bill Weston

Directions:

From the North (Bangor Area): Either take Rt. 2 all the way to Rumford (~108 miles) or travel to Augusta and follow the directions below from Central Maine.

From Central Maine (Augusta Area): From I-95 take Exit 31 in Augusta heading West on Rt. 27 toward Belgrade and Farmington, then take Rt. 2 at Farmington to Rumford. We will meet in the Mead-Rumford Administration Building on the corner of Hartford & Lowell Streets.

From the South (Portland/Lewiston Area): From the Maine Turnpike take Exit 13 in Lewiston heading West on Lisbon St. (Rt. 196) toward downtown Lewiston, turn left onto Rt. 202 and cross the James B. Longley Memorial Bridge, look for signs North on Rt. 4 toward Turner/Livermore, and hang a left onto Rt. 108 at Livermore and continue to Rumford. We will meet in the Mead-Rumford Administration Building on the corner of Hartford and Lowell Streets.

Dinner Details:

Dinner will be held at the Madison Motel on Rt. 2 about 5 miles West of Rumford at 6:00 PM. You will have your choice of chicken, beef or seafood. Registration will be \$20 (\$10 for students) to cover the cost of the meal.

Registration:

Reservations should be made by contacting Curt Beveridge: Tel. (207)623-3521, ext. 2118 or by E-mail to: curtis.beveridge@cmpco.com.

Your support of this program by your attendance will promote this type of meeting in the future.

Come See the Dedication of an IEEE Milestone in Maine

Mark your calendars! On July 11, 2002, between 9:00 a.m. and 11:00 a.m., we will hold the dedication of an engineering milestone in the Town of Andover, Maine!

On July 11, 1962, the first transatlantic transmission of a television signal occurred. The transmission was sent from a Radome in Andover, Maine and received by a twin station in Pleumeur-Bodou, France via the Telstar satellite. The success of the Telstar and earth stations, the first built for active satellite communications, illustrated the potential of a future worldwide satellite system to provide communications between continents. The dedication will be also taking place simultaneously in Goonhilly, England and Pleumeur-Bodou, France, the sites of the other two Telstar earth stations. We plan to link the three sites together via satellite for a short conference and repeat of the original broadcasts.



The antenna inside the radome at Pleumeur-Bodou

Come join us for the 40th anniversary of this historic engineering event and the dedication of an IEEE milestone plaque. The details of the meeting are still being developed, but here are some of the events being planned:

- The dedication of this engineering milestone with a plaque on the town common;
- a live teleconference between Andover, Goonhilly, and Pleumeur-Bodou, the earth stations involved with Telstar;
- a slide show and film footage from the first broadcast;
- a New England Museum of Telephony exhibit with Telstar memorabilia;
- the spare working Telstar 3 satellite on exhibit;
- talks and conversations with engineers that took part in this engineering first; and
- camaraderie and nostalgia enjoyed by everyone!



Close-up of a Telstar model

Telstar 1 was placed in an elliptical orbit (completed once every 2 hours and 37 minutes), rotating at a 45 degree angle above the Earth's equator. The maximum transmission time between Europe and the United States was 20 minutes per pass. On July 11, 1962 the Telstar Satellite transmission was received in Pleumeur-Bodou, enabling the world's first satellite transmission of a short television program from the United States.

Section Annual Meeting Set for May 31 in Portland Old Port and Yarmouth

It is that time of year again! Yes, the IEEE annual meeting will be held on May 31, 2002. The meeting will have two components: First, will be an adventurous boat trip departing from Casco Bay Cruise Lines Terminal located in the Portland Old Port. The boat trip will begin at 12:30 p.m. and end at 3:30 p.m. The tour will highlight all of the points of interest in Casco Bay. Second, will be a social hour followed by speakers and dinner at the Down East Village Restaurant and Motel located in historic Yarmouth (about 20 minutes from both the Old Port and Freeport) on Route 1. The topics that will be covered include the technology behind map making (speakers are from the local firm DeLorme...nobody should be without the DeLorme Maine State map), Micro-Electro-Mechanical Systems, and Biotechnology. The social hour will begin at 4:00 p.m.

For those interested in staying the weekend, we have arranged for an IEEE exclusive discount of 10 percent off of regular rates. If you wish to reserve a room please contact the Down East Village Motel at (207) 846-5161. Further details about the event will be forthcoming on the IEEE web site located at www.ieee.org/Maine. At the web site select the Maine IEEE Calendar for information updates. Further updates will also be available in the next issue of the *Beacon*.

Upcoming Events for the CS/EDS Chapter:

April 18 (tentative): MEMS commercialization

Plans for May—July: “Patent Jamboree”, “Inside the Computer”, and MRAM technology

Please checkout the Maine IEEE calendar at the Section website (www.ieee.org/maine) to obtain the latest information on all scheduled events.

Checkout the Latest Editions of IEEE's Webzines

TODAY'S ENGINEER is IEEE-USA's monthly, career-oriented webzine, offering feature articles and short blurbs with career guidance, tips, strategies and solutions for all sectors of the profession.

POLICY PERSPECTIVES is IEEE-USA's monthly, policy-oriented webzine, offering articles and commentary on the topics that are shaping legislation, the technology work place, and the engineering world.

Both of these publications can be viewed at:

<http://www.todayseengineer.org>

Beacon Publishing

The Beacon is published on a monthly schedule based upon the need to advertise upcoming meetings. All material submitted for the Beacon must be received by the editor no later than the 15th of the month preceding the issue in which it should be included. Sorry, NO EXCEPTIONS!!

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