



Wavelengths



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Chapter

Executive Committee Column

By Maurice Snyder, IEEE/SEM Junior Past Chair

The New Year 2004 and XCOM Meetings

The new year is under way with a slate of new officers. I encourage all to visit one of our Executive Committee (XCOM) meetings. The business meeting is preceded by dinner so at least you get a free meal. At XCOM meetings, we discuss and plan upcoming events and other business. You can find the times and places below in the events calendar or on our website. They are held at the Univ. of Michigan, Dearborn, once a month, alternating between the first Monday and first Tuesday of the month. I hope you can make it.



Spring 04 Section Conference, March 24, 2004

The Spring 2004 Section Conference was held with a near record attendance of 180. We have held these semi-annual conferences for the past 13 years, and they are a great opportunity to find out about the latest technology and to meet other EE professionals in the area.

Engineers Honored at Spring Section Conference

The following were honored at the Spring Section Conference. Congratulations all!

IEEE/SEM Award Recipients:

Outstanding Engineer

Frank A. Denbrock, PE

Outstanding Section Involvement

Mohamad Berri, Ph.D.

Outstanding Chapter Involvement

Steve Kishok

Outstanding Student Branch

University of Windsor

In addition, the IEEE has awarded Fellow status to the following IEEE-SEM Section members:

EDMUND DURFEE
University of Michigan
Ann Arbor, MI, USA

For contributions to distributed artificial intelligence, multiagent systems, and real-time intelligent control.

MRDJAN J. JANKOVIC

Ford Research Laboratory
Dearborn, MI, USA

For contributions to nonlinear control theory and automotive technology.

DANIEL KODITSCHKEK

University of Michigan
Ann Arbor, MI, USA

For contributions to the theory and practice of robotics and intelligent systems

JING SUN

University of Michigan
Ann Arbor, MI, USA

For contributions to systems theory and automotive powertrain control.

For a complete list of IEEE SEM awardees for the past decade or so, see our website (<http://www.ieee-sem.org/sectionawards.html>).

Chapter VIII Profile

This month, we spotlight Chapter VIII, EMC, one of our most active chapters. Kimball Williams, the current Chapter VIII secretary provided the following answers to my questions.

Q. What is the mission of Chapter VIII?

A. One of the objectives of the IEEE is the training of leadership qualities in its volunteers. By working under the guidance of an experienced Committee Chair, Vice Chair, or Chapter Chair, the volunteer receives a "working education" in how to manage, direct, delegate, track and administer in real world conditions. However, this real world is not as threatening as the working world, and can afford the opportunity for growth, in an environment where asking for help is not treated as a degrading experience, but is encouraged and rewarded with practical assistance.

Engineering education tends to result in personalities who prefer to go it alone when tackling a problem. However, work in the modern engineering field requires smooth functioning teamwork. Chapter workers should resist the temptation to act as a "committee of one" and seek help when needed, delegate when required, gather others and lead when you know the way, train others to assist and follow in your steps and work with others to help us all achieve our mutual goals. The end result of this process is intended to be a better volunteer, a better worker in your chosen field, and a prime candidate for advancement within the structure of the Chapter, the Section, the Division and the Society.

Q. What IEEE technical societies are included in your chapter?

A. Electromagnetic Compatibility Society.

Q. How many members does your chapter have?

A. Approximately 100.

Q. What have been some of the significant meetings and events that your chapter has sponsored recently?

A. The most recent event we sponsored was the Automotive EMC Standards Workshop in February in Dearborn. It drew 175 attendees from all over the world.

Q. What are your plans for future events?

A. Our next big event will be EMCFest2004 on May 6 in Dearborn. Tom Van Doren from the University of Missouri—Rolla will speak on EMI coupling mechanisms and diagnostic techniques, and there will be exhibitors as well. For more information, see our website.

One thing I'd like to mention is that Chapter VIII will host the 2008 IEEE International EMC Symposium in Detroit. We are building our Chapter BOD team now to make sure that event is successful. For more information on how to volunteer to help with this event, please download the information sheet.

Q. Who should members contact if they wish to get involved with your chapter?

A. Scott Lytle is our Chapter Chair, but any of the officers is an 'advocate' for the chapter and its activities. See the officers list on the Chapter VIII website (<http://www.emcsociety.org>).

ESD Calls for Nominations for daVinci Awards

If you are aware of a product or facility whose design innovations have exceeded legally mandated requirements, such as the Americans with Disabilities Act, or an applied research project that promises to help people with disabilities, please pass this information on to the person, organization or corporation involved.

The Engineering Society of Detroit and the National Multiple Sclerosis Society, Michigan Chapter, have created the da Vinci Awards, a nationally recognized award to celebrate universal design and technology that benefit people with disabilities.

The deadline for nominations for the da Vinci Award is May 28, 2004.

For more information visit <http://www.esd.org/davinci/> or contact ESD's Nancy Strodl at 248-355-2910 x152 or nstrodl@esd.org.

Free

Medical Device Review

For New Medical EMC Requirements



Does your medical device comply with the new EMC requirements in the EU's Medical Device Directive 93/42/EEC? Many new tests have been added, as well as changes made to old requirements. These changes will become mandatory November 4, 2004 with no grandfather period given. To make sure your product continues to be compliant and that you eliminate any potential delays in selling to Europe, call D.L.S. now for this free evaluation. Free product reviews will be offered at both Illinois and Wisconsin locations.

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Use These Three Questions to Get More From an Interview

By Doreen Kephart, CPC and Dan Trudeau, CPC

Managers expect job candidates to prepare for an interview by learning something about the company and industry, reviewing their resume, getting a good night's sleep, and making sure his or her shoes are polished.

The interview is just as important to hiring managers, but you may not have as much time to prepare. A glance at the resume and confirming a conference room is often the most that will fit into your busy schedule.

This may get you through the technical portion of the interview, but won't allow you to discover the intangibles that that will tell you if someone will make a great employee or not.

In our experience, you must ask probing questions about work ethic, level of responsibility, ambition, and accomplishment. Addressing these topics in your interview will help you to find the candidate who best fits your organization. Below are three questions you can use right away to add depth to your interviews.

Question #1: In the past several years, what have you accomplished that makes you stand out from your peers?

Clarify: Tell me about a professional success you've had which would show me why you are the person I should hire.

Listen: The answer should describe projects or tasks the candidate did individually, not team accomplishments. If the candidate talks about what the team did, you ask, "And what were your specific contributions?"

Follow-Through: Was the task or project difficult and if so, why? How did you get involved in this? What obstacles did you face and how did you overcome them? Tell me about another accomplishment.

Question #2: In your last or current position, what were the major issues you addressed and resolved?

Clarify: Don't try to clarify this question. Top candidates should be able to get this without help.

Listen: Like the last question, make sure the answer pertains to individual accomplishment. What kind of ownership or pride do they have in their voice as they talk? Are they able to communicate the issues effectively? Did they get to work a project start-to-finish? Do they de-

scribe issues they were assigned or they initiated? Use this question to hear technical experience AND to determine leadership/responsibility level.

Follow-Through: Why were these issues important? Did the resolution of the issues save time? Money? Make money? Is your solution still in place?

How To Add These Questions To Your Interview

You should ask these questions following the introduction and background part of your interview. Use these questions after a warm-up question, such as "Briefly walk me through your work history." During their response, you can clarify information and ask for detail. This gives the candidate a chance to relax, because they are talking from their comfort zone.

When you pop these tough questions on them, ask the question and wait. Resist the urge to help the candidate to answer the question by clarifying or giving them examples. If they don't understand, they should ask you. Their response will demonstrate how they will communicate with teammates when they are on the job.

And finally:

- Use the comments and questions labeled "Clarify" section to re-state the question,
- Use the advice labeled "Listen" for expected outcomes, and
- Use the questions labeled "Follow-Through" to dig deeper.

Question #3: What mistake do you feel you've learned the most from?

Clarify: Candidates may need a little space to think about this one before answering. Give it to them.

Listen: Most people don't want to admit they have made a mistake. The beauty of this question is it has a built in way for them to turn a negative into a positive, so some of the tension is removed and they can concentrate on an honest answer. Everyone makes mistakes - you want to hear how they LEARNED.

Follow-Through: Did it ever happen again? If yes, why?

The Most Common Mistake

The most common mistake hiring managers make in an interview is talking too much. If you aren't prepared to do an interview, the first thing many managers do is talk about what you do know -- what the job will entail and what your company is like. We have had candidates who were at the interview for 60 minutes and spent 50 minutes of it never saying a word!

While it is important to "sell" your company and the job, you can do that later in the interview. Besides, if you give them all the answers up front, you'll never know if they could have answered your questions without the clues. Candidates expect to start the interview talking and proving to you that it is worth your time to

continue. Let them.

Interviewing is an exciting and interesting process from both sides of the table. You can improve your return on the time you invest in interviewing by using probing questions. We advise our candidates they will not get every job they interview for-but, if they have given their best effort in preparation and been allowed to share their story, then both sides have treated the meeting with the respect it deserves. We hope these questions can help you achieve that level of success as well.

Doreen and Dan are teammates at Professional Resource Associates (PRA), Marine City, Michigan. Combined, they have 25

years in recruiting, marketing and communications and are active in IEEE and ISA. They are both Certified Personnel Consultants through the National Association of Personnel Services and have conducted thousands of interviews on behalf of clients involved in advanced control technologies for devices, vehicles and manufacturing.

Events

RoboFest 2004

Saturday, April 24, 2004

8:30 am - 4:30 pm

Robofest is an open contest in which the participants demonstrate their robots while learning problem-solving techniques, mathematics, logic, creativity, teamwork, physics, electronics, mechanics, mechatronics, and computer programming.

For more information, visit their website at <http://www.robofest.net>.

Location: Lawrence Technological University, 21000 W. Ten Mile Rd., Southfield, MI

Contact: Dr. Chung, 248-204-3504, chung@ltu.edu

IEEE SEM Xcom Meeting

Tuesday, May 4, 2004

All are invited to attend.

6:00pm - Dinner

6:30pm - Meeting

Location: Univ. of Michigan, Dearborn Professional Education Center Bldg, PEC 1330. map

Contact: Suleiman (Sam) Barada, sbarada@ieee.org

EMCFest 2004

May 6, 2004

7:30 am

Dr. Tom Van Doren will speak on how reducing electromagnetic interference (EMI) involves a thorough understanding of what path currents take, self inductance and mutual inductance, how to contain electric and magnetic fields, and the reasons for grounding electrical circuits. Incorrect concepts such as; currents go to ground taking the path of least resistance, a single straight wire has self inductance, and the reason for grounding is to return currents to their sources, are the cause of many EMI problems. Most engineers and technicians using or designing electronic systems have not had any formal education concerning electromagnetic compatibility (EMC) principles and design techniques. Learning how to solve EMC problems on the job can be very expensive for the employer and frustrating for the engineer. Most of the electromagnetic and circuit principles involved are very simple. However, the complexity of many systems masks the logic and simplicity of possible solutions.

For more information, visit <http://www.emcsociety.org>.

Location: Dearborn Inn, 20301 Oakwood Boulevard, Dearborn, Michigan 48124. 313-271-2700.

Contact: Scott Lytle. 734-983-6012, s.r.lytle@ieee.org

This article covers only three of eight questions we recommend asking job candidates. If you would like to receive the complete article "Eight Great Interview Questions", send an email request to dkephart@prausa.com, or call 810-765-1181.

IEEE SEM Management Society Meeting

Tuesday, June 1, 2004

6:00 pm

Topic tbd.

6:00pm Socializing and networking, 6:30pm Presentation.

Location: Ford Sustainable Mobility Technologies Lab II (SMTL) building, conference room 16, 15000 Commerce Drive North, Dearborn.

Contact: Mark Ciechanowski, mark.ciechanowski@ieee.org

IEEE SEM Xcom Meeting

Monday, June 7, 2004

6:00 pm

All are invited to attend.

6:00pm - Dinner

6:30pm - Meeting

Location: Univ. of Michigan, Dearborn Professional Education Center Bldg, PEC 1330. map

Contact: Suleiman (Sam) Barada, sbarada@ieee.org

Fall Section Conference

Wed, Nov 10, 2004

6:00 pm

Please join us for an evening of socializing and technical sessions.

Location: bps Training and Conference Center, 31301 Evergreen Road (near 13 Mile Road), Beverly Hills, MI.

Contact: Hassan Hassan, h.hassan@ieee.org.

IEEE SEM Management Society Meeting

Tuesday,

Dec 7, 2004

6:00 pm

Topic tbd.

6:00pm Socializing and networking, 6:30pm Presentation.

Location: Ford Sustainable Mobility Technologies Lab II (SMTL) building, conference room 16, 15000 Commerce Drive North, Dearborn.

Contact: Mark Ciechanowski, mark.ciechanowski@ieee.org

Want to have your event listed?

Fill out and submit the form at
<http://www.ieee-sem.org/eventform.html>

Executive Committee

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Chapter X - Engineering Management

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Chapter XI - Engineering in Medicine and Biology Society

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Chapter XII - Control Systems

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