



THE WAVEFORM



Society of
Manufacturing
Engineers



The Newsletter of SME,
Society of Manufacturing Engineers
Front Range Electro-Mechanical Chapter No. 354
January 20, 2004 Volume 9 Number 1

Chapter Business Meeting, With Louisville Middle School E Lab Demonstration & Presentation

Tuesday, January 20, 2004

Mr. John Kettling is the Advisory Engineer to Louisville's Middle School E Lab. His task is to acquire and maintain the interest of 6th, 7th, and 8th Graders in any appropriate activity that helps the students learn and apply special topics in Mathematics, Science and Technology. And he will be giving us some insights to his "secret techniques".

See the latest in *Splatter Graphing Techniques*, featuring *Baked Chickens* flying into simulated airplane windshields.

Observe simulated cell depolarization and the formation of cam structures in our 7th Grade Neurological Dynamics Simulator.

If non-co-linear calibration is your area, consider the E Lab miniature speed boat with rudder calibration from remote measuring stations.

Mr. Kettling maintains that the E Lab is "managed" by the 8th Graders. The bulk of the work is done by 7th Graders and the 6th Graders are trying to figure out what it's all about.

Without a doubt, this will be a wonderful evening with young people in a fascinating lab that is full of energy and creativity!

SEE THE SPECIAL INSTRUCTIONS IN THE BULLETIN BOARD! REGISTER NOW!

From The Chair

The SME Chapter Effectiveness Report for 2003 is due in January. If you have a copy (hard or soft) of any of the Bulletins please forward them to me: Gbigot@attglobal.net or for hard copies call me at 303 652 1461 for mailing/faxing instructions.

Chair-Elect, Don Larsen, is leading the Exec Comm in an effort to focus on Chapter revitalization and growth. Stay tuned to his column for details and insights.

Your Exec Comm is also working hard to prepare an interesting group of monthly meetings. January, February and March are already set. See the new calendar format.

DON'T MISS this month's meeting at the Louisville Middle School E Lab. You won't believe what "Engineering" is going on in MIDDLE SCHOOL!

If you are unemployed, under-employed, the friend of someone who is unemployed, or thinking about what you will do if you become unemployed look in the appropriate section (The Workers Corner) of this Bulletin. What's missing? Please let me know if you want this section of the Bulletin to continue.

Chapter Exec Committee Meeting Tuesday, January 13, 2004, Details by Don Larsen. RSVP, please, to Don.Larsen@mcddata.com

George Bigot
303 652 1461
gbigot@attglobal.net

From The Chair Elect

As we close one year and look ahead to the new one, it's traditionally a time of reflection and goal setting. Admittedly I'm pretty cynical about the whole New Year's resolution thing. The only time, in fact, that I can recall benefiting from this practice is the year that, in keeping with the expectation that most people break their resolutions, I resolved to gain weight and ended up losing 7 pounds. With this shameful past, why would I even bring up this topic? Two reasons: first – we've just installed our chapter officers for the coming year and it's expected that this will be accompanied by a certain amount of change and improvement and, second – the whole face of manufacturing is changing and along with that the SME international organization is changing in some very significant ways. As an Executive Committee we recognize that if SME in general, and Chapter 354 specifically are to be relevant, we must adapt to this new environment. While we have resisted the urge to make a list of resolutions, we are strongly committed to the idea of strategic planning. This involves looking ahead to where we want to be at the end of the year and then trying to figure out what will take us there. Admittedly this is not an easy thing, but we're trained professionals and this is how we justify our large SME salaries. However, recognizing that our chapter is made up of lots of other highly trained professionals, we're convinced that we'll get better results if you help. So please accept this open invitation to contribute your thoughts. I'll welcome any and all input on things that pertain to the long-term viability of Chapter 354.

Here's wishing each of you and your loved ones a happy and prosperous new year.

Don Larsen, Chair Elect
don.larsen@mcddata.com

SME Chapter 354, Program Calendar

January 20 Louisville Middle School E Lab. See details in this Bulletin	February 17 Dinner followed by Technical presentation on Mass Customization by Mark Gordon. Details in February Bulletin.	March 16 Tour of NYPRO, plastic injection molding, arranged by Don Powell
April 20 Technical presentation or plant tour	May 18 Technical presentation or plant tour	June 15 Annual picnic at the Little Thompson Observatory. The LTO Staff is looking forward to this and has promised better weather than last year.
July	August	September 20 (tentative)
October 18 (tentative)	November 15 (tentative)	December 7 or 14 ? Schedule around Christmas events and Student finals

January Bulletin Board

Chapter 354 SME Business Meeting

Tour & Presentation

Louisville Middle School, E Lab

Louisville Middle School
1341 Main Street
Louisville, CO 80027

Date TUESDAY, January 20, 2004

Time 6:00 – 6:30 PM Social/Networking

6:30 – 7:00 Cold Cuts Buffet, \$3.00/Member, \$5.00/Non-Member

7:00 – 7:30 Chapter Business Meeting

7:30 – 8:30 Tour & Presentation

Special Instructions: Reservations will be accepted until Friday January 16

Please place your reservations with

Chuck Otoupalik, 303 939 5862, cotoupalik@ball.com

DIRECTIONS:

From the NORTH--- I 25 South to the CO 7 exit, (229), toward Lafayette. Turn RIGHT onto Baseline Road. Turn LEFT onto US-287 South. Turn RIGHT onto W South Boulder Road. W South Boulder Road becomes South Boulder Road. Turn LEFT onto Main Street. School is on West side of Main Street, 0.2 miles from intersection with South Boulder Road.

From the SOUTH--- I 25 North to the CO 7 exit, (229), toward Lafayette. Turn RIGHT onto Baseline Road. Turn LEFT onto US-287 South. Turn RIGHT onto W South Boulder Road. W South Boulder Road becomes South Boulder Road. Turn LEFT onto Main Street. School is on West side of Main Street, 0.2 miles from intersection with South Boulder Road. **OR,** US 36 West toward Boulder. Exit StorageTek Dr/ Interlocken Loop. Turn RIGHT onto StorageTek Dr/S 96th St. Continue to follow S 96th St which becomes County Rd. County Rd becomes Front St. Turn LEFT onto Caledonia St. Turn RIGHT onto Main Street. School is on West side of Main Street, less than 0.1 miles from intersection with Caledonia St

From the WEST, (Boulder)--- Come EAST on South Boulder Road. Turn RIGHT onto Main Street. School is on West side of Main Street, 0.2 miles from intersection with South Boulder Road.

The Workers' Corner:

Employees: If your Employer has openings, please contact us about posting them here.

Individuals interested in networking opportunities, we will post the following information for you:

Your Name

Your Contact Info

Your Professional field

Don Powell

(303) 420-1022, don.powell@comcast.net

Process development, remanufactured product systems, production tooling, off shore production transfers, outsourcing, alternate Sourcing, new product development and implementation, facilities management and xerography. Experience in injection molding, sheet metal, mechanisms, machining, circuit boards, and harnessing.

Working with Collectivenet to bring Chapter 354 members into the network. We will need volunteers to help populate the database with resumes and monitor companies for openings. (That's "the price of admission" participate in the network by supporting ALL those who are in it.) Contact George Bigot, 303 652 1461 GBIGOT@attglobal.net

Job Openings

None submitted.

University of Colorado at Denver
Continuing Engineering Education Program
Spring 2004

Call 303-556-4907 or visit www.cudenver.edu/engineer/cont and click on the **Course Information** link to learn more about these courses.

F.E. and P.E. Review Courses

NCES 8030: Fundamentals of Engineering (FE) Examination Refresher Course

Designed for those who need a review before taking the National Fundamentals of Engineering (FE) Examination, this course offers 44 hours of instruction. This course is designed to cover the morning session of the exam and the general section in the afternoon. Each of the eleven sessions covers a different examination subject area and each is conducted by a different instructor. Instructors are drawn from the University faculty and private industry. Michael Lindeburg's *Fundamentals of Engineering Review Manual* (1st edition, 2002, Professional Publications) is the recommended text.

Class will meet eleven Saturdays, January 17 through April 3, 2004; from 8:30 a.m. to 12:30 p.m. on the Auraria campus in downtown Denver. The cost is \$525; review course only. \$575; includes the review course and the recommended texts.

NCES 8070: Professional Engineer's Examination Refresher Course for Mechanical Engineering

NCES 8070. This course is a review of subject matter related to the National Principles and Practices of Engineering Examination for mechanical engineering, with each four-hour Saturday morning session covering a separate exam subject area. The course is designed for those who will be taking the exam, or for those who would simply like a review of the included topics. A different instructor conducts each session and uses representative problems and supplementary material when necessary. Michael Lindeburg's *Mechanical Engineering Reference Manual for the PE Exam* along with the *Solutions Manual for the Mechanical Engineering Reference Manual* (11th edition, 2001, Professional Publications) are the recommended texts.

Class will meet eight Saturdays, February 7 through April 3, 2004; from 8:30 a.m. to 12:30 p.m. on the Auraria campus in downtown Denver. The cost is \$425; review course only. \$575; includes the review course and the recommended texts.

Mechanical Engineering

Professional Development

NCES 8180: Geometric Dimensioning and Tolerancing

This course introduces the concepts of Geometric Dimensioning and Tolerancing based on the ASME Y14.5 M - 1994 Standard. This two-day course consists of lectures and exercises using state of the art measuring equipment, problem solving, and case studies. The objective is to provide participants with the hands-on skills needed for the immediate application of GD&T concepts to engineering specifications.

Class will meet Thursday and Friday, March 18 and 19, 2004; from 8:00 a.m. to 5:00 p.m. on the Auraria Campus in downtown Denver. The course instructor is Rafael Sanchez. The cost is \$495.

NCES 8182: Advanced Geometric Dimensioning and Tolerancing

The objective of Advanced Geometric Dimensioning and Tolerancing is to provide participants with an in-depth, hands-on practice of the ASME Y 14.5 GD&T Standard. This two-day seminar focuses on the application of advanced GD&T principles to parts and assemblies and consists of lectures and extensive exercises using state of the art measuring equipment, problem solving, and case studies. Basic knowledge of GD&T concepts is required.

Class will meet Thursday and Friday, May 20 and 21, 2004; from 8:00 a.m. to 5:00 p.m. on the Auraria Campus in downtown Denver. The course instructor is Rafael Sanchez. The cost is \$495.

Management Courses

Professional Development

NCES 8999: Bullet Proof Project Management: A Detailed Review of Current Project Management Methods and Preparation for the PMP

This course is intended to provide students involved in executing projects with the skills necessary to manage those projects. Emphasis will be on techniques for the challenges presented by today's complex, technology-dependent projects and focus on the use of modern tools to accomplish project goals. We encourage students from diverse industries and project experiences to participate in the course, knowing that people with different perspectives and experiences may bring solutions to project management problems not obvious to the rest of us. The instructors bring an interactive environment to the classroom, relying on discussions among the students and instructors, examples and exercises from the real world, and case studies based upon actual projects.

The Project Management Institute's (PMI) *A Guide to the Project Management Body of Knowledge (PMBOK)* forms the foundation for the course material. The course is a thorough review for the Project Management Professional (PMP[®]) certification exam.

Class will meet Thursday evenings, January 22 through May 13, 2004; from 6:00 to 9:00 p.m. on the Auraria campus in downtown Denver. The course is team taught by Ken Cressman and Bruce Gilland. Both instructors are PMP certified. The cost is \$1,995 and includes the recommended text.

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