



San Francisco Bay Area Section



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SECTION

2011 – 2012 Officers

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November 8, 2011, Meeting Notice

Date	Location
Tuesday, November 8th	Zio Fraedo's Restaurant 611 Gregory Lane, Pleasant Hill, CA. (925) 933-9091

Cost: \$15 NACE members \$25 non-members

Time: 6:00 PM Hospitality • 7:00 PM Dinner • 8:00 PM Program
Please RSVP by **Friday, November 4th** by e-mail to **Dan Day** at danday94@pacbell.net, or by phone at (510) 507-0013.

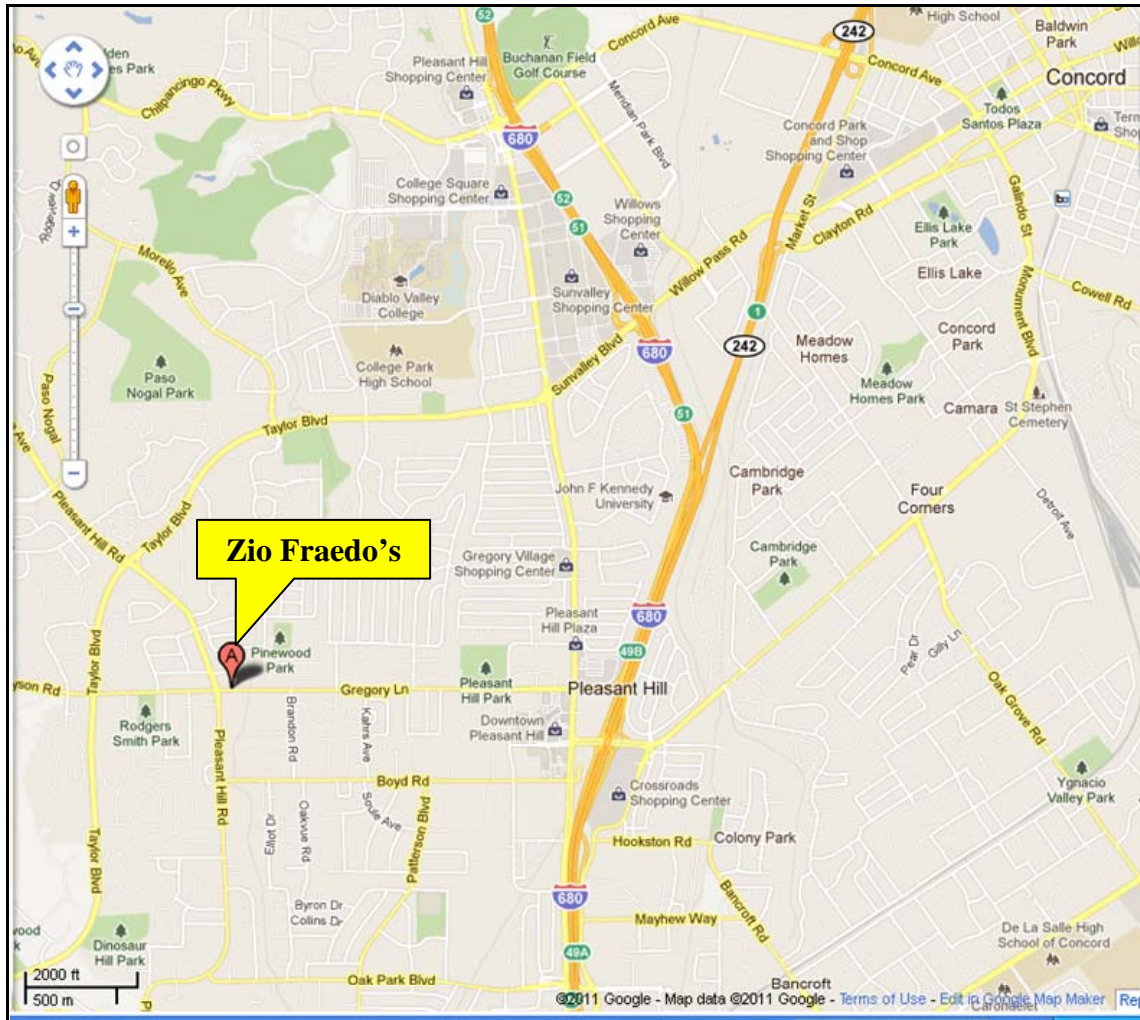
Directions: Take I-680 north to Contra Costa Blvd. Exit 49A in Pleasant Hill and drive north. Pass Monument Blvd. then turn left onto Gregory Lane. Pass Brandon Rd. on left in 1 mile. Look for Zio Fraedo's on the right just before Pleasant Hill Rd.
From I-680 south, take the Gregory Lane / Monument Blvd. exit and continue straight (west) on Gregory Lane. Follow the instructions above. (see map on back page).

Corrosion Sensing and Degradation Detection for Structural Health Monitoring

Presented by Dr. Bernard Laskowski
President, Analatom Inc.

Corrosion Health Monitoring systems are key to assuring the performance and reliability of high value, critical structures. Analatom is developing a multiplexed Structural Health Monitoring (SHM) system that obtains data from several sensors, including its MEMS (Micro Electro-Mechanical System) micro Linear Polarization Resistance (μ LPR) corrosion and strain sensors, in a TI MSP430 microprocessor-operated package a few mils thick to detect, monitor, and predict corrosion rates. This enables localized SHM monitoring for multiple, interacting states of degradation, and early preventative maintenance alert. The μ LPR sensors have been installed on a mock-up bridge cable at Columbia University for a Federal Highway Administration-sponsored project to develop a suspension bridge cable corrosion monitoring system. The sensors were extensively tested in a QFog 1100 Accelerated Corrosion Chamber, before eight were placed inside a full-scale suspension bridge cable mock-up that was successfully placed in a large environmental chamber for one year under accelerated corrosion conditions. The next phase will deploy sensors at two locations on the main cable of the Manhattan Bridge in NYC.

Bernard C. Laskowski has published over 30 papers in International Refereed Journals in micro physics and micro chemistry. As President of Analatom Inc. he has managed 93 university, government, and private industry contracts. He has received the U.S. Small Business Administration Administrator's Award for Excellence. He has licensed MEMS technologies and obtained patents for the Analatom MEMS projects. Dr. Laskowski is responsible for obtaining \$3.5 M in U.S. Air Force, Army, and Navy government seed funding for SHM MEMS projects.



Zio Fraedo's Restaurant, 611 Gregory Lane, Pleasant Hill, CA. 925-933-9091

Directions

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- Take I-680 south, exit at Sun Valley/Willow Pass Rd. Drive west and turn left on Contra Costa Blvd., then right on Gregory Lane. After 1 mile drive past Brandon Rd. on the left; Zio Fraedo's will be on the right before Pleasant Hill Rd. intersection.