

ENGINEERS CLUB OF THE WEST VALLEY

MARCH 2012 NEWSLETTER

www.engineersaz.com

The Engineers Club is a social organization which meets regularly for lunch with a speaker on a technical topic. Spouses are invited and many attend regularly. Short field trips are occasionally scheduled. Membership is open to anyone who has worked in or had close ties to the engineering or scientific fields. Meetings are held at 11:30am on the first Friday of each month, October through June, at Briarwood Country Club, 135th and Meeker in Sun City West, Arizona.

Visitors are always welcome - - Reservations are required - - Just call (623)544-0942 to let us know you are coming.

MARCH 2 PROGRAM

Underwater Recovery

Dr Dave Conlin, Chief
National Park Service Underwater Resources



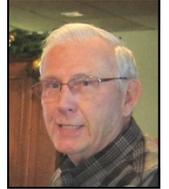
Dave completed his undergraduate degree at Reed College in Portland, Oregon, and received a master's degree from Oxford University in Aegean and underwater archeology. He followed that with a Ph.D. in anthropology and archeology from Brown University in Providence, Rhode Island.

While at Brown University, Dave began working with the National Park Service's Submerged Cultural Resources Unit at Dry Tortugas National Park. He then took an underwater archeologist position with the Park Service, on detail to the U.S. Navy where he helped plan and execute the recovery of the world's first successful combat submarine, the Confederate submersible H.L. Hunley, lost off Charleston, South Carolina, in 1864. He has since been involved with the search and discovery of many historic underwater wreckages.

Dave will present a review and discussion of the engineering evidence related to the sinking of the Royal Mail Steamer, the Titanic, - 100 years after the fact.

NOTES FROM...

President Les Sherry



Last month we had one of the largest turnouts for our monthly luncheon that we have had in several years, 148 people including eight new members and 22 visitors. Our Board is not exactly sure why this bump in attendance did occur but it has raised the point that we should have a better feel for our members likes, dislikes, areas of interest, etc. that influences your participation. We have been very fortunate to have had high quality programs and turnouts in the past due to the efforts of our past officers and Boards.

Some of you may be thinking that the socially acceptable saying that "If it ain't broken don't fix it" should be used here. I don't think so. I think that a trait of most good engineers and scientists is that they believe everything can be improved. Think where we would be technologically today if that were not the case. I think our automotive industry is a good example of what can happen when you begin to think "it isn't broken." The Japanese obviously do not feel that way. On the other hand, I am well aware that there are areas that should not be tinkered with. I learned this in the fourth month of my marriage when I ignored my Methods professor's dire warnings and proceeded to do an efficiency study on my wife's arrangement of our kitchen. When she came home one afternoon from teaching I had already totally rearrange the kitchen. I made a most elegant presentation of my findings showing that her work in the kitchen would be easier and that she could save 26 minutes a day. I even offered a suggestion of what we could be doing during those saved 26 minutes! Her response was total silence.....for three days, during which time she showed me how she could save 100% of her time in the kitchen! She has an innate ability to house train an engineer.

That being said, your board feels there may be room for some improvement in our various programs if we can get an objective overview of our members and spouses likes or dislikes and areas of interest. In short, your Board is working hard to, for lack of a better word, "engineer" a relevant questionnaire that will allow all of you to help determine and improve our future venues. We hope to be able to "launch" the questionnaire at our next luncheon, April 6. Be sure to be there.

APRIL 6 PROGRAM

Shifting to Improved Self Diagnostic Testing at Home

Dr. Jeffrey T. LaBelle
Arizona State University



Dr. LaBelle is a biomedical engineer whose research interests include the development of medical devices such as biosensors for personalized medicine and clinical disease diagnosis. Health care technologies have improved dramatically in recent years, but, as we have seen, many technologies are not deliverable to patients at home, or in rural developing countries or do not take into account the patient requirements.

As more and more tests become higher tech, the cost of health care skyrockets drastically. However, a transformative shift can be made in delivering more technologies to the patient in the comfort of their own home. One example of this shift is the self monitoring of blood glucose. Dr. LaBelle will describe many of the technologies now being developed at his lab to answer this personalized need.

The objective is to provide faster, more comfortable, simple to use and easy to understand diagnostic tests. All of these projects are being used to teach undergraduate and graduate students the importance of innovation, as well as impact and serve as a reminder on how to keep the patient in mind while designing medical devices.

MAY 4 PROGRAM

Widefield Imaging Surveys from Space

Paul A. Scowen, PhD
Arizona State University

2012 OFFICERS

President	Les Sherry	975-9081
Vice President	Bob Farrell	810-5095
Secretary	Jodie Lawrosky	238-5256
Treasurer	Bob Latvalla	546-7801

COMMITTEE CHAIRPERSONS

Programs	Daryl Lund	271-7337
Programs	Bob Farrell	810-5095
Membership	Bob Kessler	910-7054
Reservations	Dave Whitehouse	544-0942
Luncheons	Doug Keeler	480-8476
Luncheons	Hal Clemett	546-4941
Scholarship	Don Porter	556-1754
Scholarship	Don Johnson	975-1657
Scholarship	Gerry Montag	546-7963
Member at Large	Fred Scheske	556-2892
Newsletter	Bill Harrison	546-4943
Event Support	Ralph Palmer	815-8143
Web Site	David Campbell	518-4871
Publicity	Maurice Hoyt	533-4213
Field Trips	Keith Morrow	546-3080
Past President	Don Block	546-0557

BOARD EMAIL ADDRESS: board@engineersaz.com

TREASURER'S REPORT 2-20-2012

General Fund Balance:	\$7,396.32
Scholarship Fund Balance:	\$ 1,316.61

LUNCHEON MENUS

March 2: Pork Cutlet Grilled Golden with Pan Gravy, Butter-milk Mashed Potatoes, Chef's Vegetable and Fudge Nut Brownie with Whipped Cream.

(Entrée Option: Fruit Plate or Grilled Vegetable Plate)

April 6: American Beef Stew with Tender Braised Beef, Chef's Vegetables and Corn Bread with Butter and Apple Turnover with Vanilla Ice Cream.

(Entrée Option: Fruit Plate or Grilled Vegetable Plate)

RESERVATION POLICY

The cost of the monthly luncheon is \$17.00 per person.

The reservation deadline is 5 PM Monday before the meeting.

Late reservations cannot be guaranteed the regular meal.

Call Dave Whitehouse if you cannot keep your reservation.

The full luncheon cost is due for "no-shows" and cancellations after 6PM on the Wednesday before the meeting.

RESERVATIONS Dave Whitehouse (623)544-0942

WELCOME NEW MEMBERS

Bob Bass, Bob Benoit, Rich Boyles, Bill Fiestz,
Tom Hinkes, Jerry Miller, Tom Penkauskas
and Norm Swanson

Club Membership is 155

**North Dakota Oil Update
By Don Porter**

Two new US, very large, oil fields are helping cut oil imports--- The Bakken in ND and the Barnett in TX. The Bakken has oil at 9 to 11,000 feet down in shale now available by "fracking" technology which is horizontal drilling for 5 to 10,000 feet, and blasting with a high pressure water solution to break up the shale.

ND has over 200 (and growing) rigs drilling (and hitting oil!), producing over a half million barrels per day. That is about 5% of the amount of oil being imported or 2% of US oil usage. Estimates of total oil in the Bakken vary wildly and range from 20 to 200 bbl with about two to four billion of it recoverable with current and foreseeable technology. The resulting economic boom has made ND a very rich state with 3% unemployment, and negative unemployment in the Bakken area.

At \$100 per barrel, ND has a sunny future. Break even is below \$50 per barrel. Most oil geologists think this boom is sustainable and that it will produce about 30 to 35,000 wells over the next several decades supporting about that many high paying jobs.

Infrastructure support jobs will be even greater, a prosperity boon to a state with about 600,000 people. Labor is in such short supply in Dickinson and Williston that fast food joints are paying \$16 to \$20 per hour to high school kids! Drillers are paying about \$80,000 per year for over night guards to sit in trucks to protect the drilling rigs.

Technical and economic data can be found under Bakken on Google.

RAFFLE RESULTS AND DONATIONS

The winner of the February raffle was **Karen Campbell** who received \$134 with an equal amount to the Scholarship Fund.



Dr. David Ferry receives a certificate of appreciation from Les Sherry for his presentation on the world of micro-computers and some amazing applications of Nanotechnology.