

ENGINEERS CLUB OF THE WEST VALLEY

JUNE 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.

JUNE 1 PROGRAM

Arizona Highway and Transportation Issues

Brock J. Barnhart

Assistant Communications Director, ADOT



Mr. Barnhart is responsible for coordinating communication strategies to maintain a positive relationship between the Arizona Department of Transportation and the many elected officials at all government levels. He has been a part of the Arizona Department of Transportation's communication team since 2004.

While directing public involvement and partnering programs in Maricopa and Pinal counties, Brock supports the delivery of ADOT's Five Year Transportation Facilities Construction Program and also the Maricopa Association of Governments' Regional Transportation plan.

His work is accomplished by involving communities, elected officials, stakeholders and the general public throughout every step of the transportation process.

Prior to joining ADOT, Brock held other leadership roles in the private sector. He received a Bachelor's Degree in Business from Eastern Oregon University.

The presentation will focus on some of the projects that are directly associated with the West Valley community.

Leonardo de Vinci—The Engineer

Although Leonardo da Vinci is commonly remembered as a great artist, he was also known for his scientific knowledge and inventions.

He was born in 1452 in Vinci, Italy and died in 1519. His two most famous paintings were the Mona Lisa and the Last Supper. But he also provided drawings and designs for flying machines some 400 years before the Wright brothers' first flight. He designed and built a variety of mechanical devices including war machinery. Leonardo recorded some 13,000 pages of notes and drawings on a wide variety of a scientific nature.

Anatomy was one of his many interests and his detailed drawings of the vascular system and organs plus the bone and muscular structure of the human body were some of the first ever recorded. One of his last commissioned works was a mechanical lion that could open its chest and reveal a bouquet of lilies.

This month in Engineering History

June 5, 1783 - The first sustained flight occurred as a hot-air balloon was launched at Annonay, France, by brothers Joseph and Jacques Montgolfier. Their 33-foot-diameter globe aerostatique ascended about 6,000 feet. In September, they repeated the experiment for King Louis XVI, using a sheep, rooster and duck as the balloon's passengers.

SPECIAL NOTICE

The Engineers Club does not have luncheon meetings during the summer months of July, August and September.

Information regarding the speakers beginning in October will be available on the club website at www.engineersaz.com as soon as they are confirmed.

SEE YOU IN OCTOBER

RAFFLE RESULTS AND DONATIONS

The winner of the May raffle was **Ken Saelens** who received \$130 with an equal amount also added to the Scholarship Fund.

Some Thoughts to Ponder

- A clear conscience is usually the sign of a bad memory.
- I wonder how much deeper the ocean would be without sponges.
- Gravity is not just a good idea, it's the LAW!
- The early bird gets the worm, but the second mouse gets the cheese.

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 5-19-2012

General Fund Balance:	\$7,322.05
Scholarship Fund Balance:	\$1,888.10

LUNCHEON MENUS

June 1: Chicken Pot Pie. All white chicken with peas and carrots in a creamy sauce and baked in a pie to a crispy golden brown. Peppermint Ice Cream and Cookie. (Entrée Option: Fruit Plate or Grilled Vegetable Plate)

October 5: Pork Cutlet Grilled Golden with Pan Gravy, Buttermilk Mashed Potatoes, Chef's Vegetable and Fudge Nut Brownie with Whipped 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 5PM on the Wednesday before the meeting.**

RESERVATIONS Dave Whitehouse (623)544-0942

WELCOME NEW MEMBERS

Dane Cheney, Edwin Poe, Jim Hale
and
Harvey Mickelsen

Club Membership is 147

CREATING GRAVITY

By
Dr. Robert E. Farrell

Most people are not aware that gravitational fields are produced by means other than a corporeal particle of matter. Einstein realized that when he developed his General Theory of Relativity. He showed an interaction between electromagnetic (EM) fields and gravity and in fact predicted that a beam of light (EM) from a star would be deflected 1.75 arc-seconds as it passed the rim of the sun. That prediction was verified by Sir Arthur Eddington in 1919 during a solar eclipse.

If gravity can alter an EM field then it is reasonable to expect the opposite to be true. In 1934, R. C. Tolman derived in his textbook, *Relativity, Thermodynamics, and Cosmology*, (pages 274 to 285) a relationship between the gravitational field generated by light and that produced by a particle of mass. He concluded that a "pencil" of light was twice as effective as mass in producing a gravitational field.

Louis Rancourt published a paper entitled "Effect of Light on Gravitational Attraction", Physics Essays: December 2011, Vol. 24, No. 4, pp. 557-561. The paper reported the results of his experiment in which he was able to detect a gravitational effect from a 30 deg laminar beam from a 1.5 Watt red laser. He discovered that when the beam passed close to a freely moving single mass on a torsion pendulum, the mass moved toward the light beam.

At a joint conference on propulsion by AIAA-ASME-SAE-ASEE, Dr. Dan Brasoveanu and Dr. Constantin Sandu presented landmark papers on gravity propulsion using light for artificial gravitational field (radiation) generation. Their peer reviewed papers on propulsion (AIAA 2007-6203, AIAA-2007-5128, AIAA-2007-5119, and AIAA-2007-5120) were also published in the proceedings of these two International Conferences and can be downloaded from the AIAA electronic library. Details of their proposal and the amazing experiments being conducted by Dr. Eugene Podkletnov and his team at the Tampere Institute of Technology (Finland) and Dr. Giovanni Modanese in Italy will be reported in a later article.



Dr. Paul Scowen receives a certificate of appreciation from Les Sherry for his presentation on Widefield Imaging Surveys of deep space.