

VALLEY ENGINEERING, SCIENCE & TECHNOLOGY CLUB

www.engineersaz.com

FEBRUARY 2016 NEWSLETTER

Editor: Noelle Jobson

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 related to the engineering or scientific fields. Meetings are held at 11:30am on the first Friday of each month (unless otherwise noted), October through June, at Briarwood Country Club, 135th and Meeker in Sun City West, AZ

Visitors are always welcome - - just call Reservations at (623)546-9112 to let us know you are coming.

February 12 PROGRAM

Gamification in Education and the Workplace

Ben Reichert, Associate Professor
University of Advanced Technology, Tempe,
AZ



We all play games. As companies and schools seek to further motivate and engage their employees, customers and students, game design has become an increasingly popular tool. Whether through using actual games or gamification, institutions are betting big that game psychology taps into universal truths about human behavior and can improve education and bottom lines.

Professor Reichert is a Professor at the University of Advancing Technology and Co-Founder and CEO at the Game CoLab and Abeona Games. He is an internationally published and award-winning entrepreneur with experience in video games, transportation, and conflict management. Previously, Professor Reichert worked on advocacy and fundraising for the international peace building efforts of Nonviolent Peaceforce, developing and managing the European communications strategy for the International Road Transport Union, and served as the first Assistant Director for the ASU Center for Games and Impact.

March 11 PROGRAM

Your Morning Walks Could be in the Comfort of Air Conditioning

Pankaj Sinha, Ph.D. CEO MiClimate



Dr. Pankaj Sinha, Founder and CEO of MiClimate, is an entrepreneur, a technologist, an artist and a philanthropist. His unique experiences while living in geographies with extreme temperatures has helped him with envisioning and applying leading edge technologies to develop viable solutions to improve the way we live every day.

Pankaj received a PhD in Chemical Engineering from the Arizona State University. He is an active CQA auditor and a Six Sigma Black Belt. Combined with his 22 years of experience at Intel Corporation, he strives to combine art and technology in order to realize his vision to provide relief from uncomfortable temperatures for every person on this planet.

MiClimate is a Phoenix, AZ based company. In this presentation we will discuss the market, technology, current status, and challenges. Become part of this revolutionary product that can reduce the impact of climate change on the daily lives of billions of people on this planet, including you.

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NOTES FROM...

President Jackie Rice



As your new president, these notes will be different than the past – because I know nothing about engineering and a little about science. My interests are cosmology and evolution.

Sitting at a desk or toiling alone in a laboratory for years, until - eureka! –insight dawns. That's the myth of how science is done. And it's almost always wrong. In reality, scientific progress comes incrementally, most researchers work in teams, and lone geniuses do not hand the world revolutionary new theories. But Einstein did. December 2 was the 100th anniversary of the publication – in four short pages – of Einstein's general theory of relativity, to this day physicists' fundamental theory of gravity. Governing the universe on the largest scales, general relativity stands with quantum mechanics, which reigns on the smallest scales, as a foundation stone of modern physics. But whereas quantum theory was the achievement of many – de Broglie, Bohr, Heisenberg, Schrodinger, Born, Dirac – general relativity leapt fully formed from Einstein' mind. In 1915, Albert Einstein was a celebrity. His idea of seamlessly interwoven space and time – spacetime – had revolutionized physics and dazzled the world. Then he published his masterpiece: a short paper describing how warped spacetime creates gravity. A century later, that "general theory of relativity" remains a pillar of physics and Einstein a peerless scientific icon.

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FUTURE MEETINGS

April 1, 2016

Title: Internet of Things Innovations & Megatrends
Speaker: Mark Goldstein, President International Research Center

Club dues must be paid before the end of February for 2016. Soon after paying, you will receive a club directory.

[Need Scholarship Committee Volunteer for 2016!](#)

Luncheon Meeting Dates 2016: February 12, March 11, April 1, May 6, June 3, October 7, November 4, and December 2

2016 OFFICERS

President	Dr. Jackie Rice	623-572-8089
Vice President	Tod Hamilton	623-910-2042
Secretary	Doris Palmer	623-815-8143
Treasurer	Marilyn Pettigrew	623-337-4163

COMMITTEE CHAIRPERSONS

Programs	Rick Cecil	360-402-1695
Membership	Philip Main	623-748-8222
Reservations	Dave Whitehouse	623-544-0942
Luncheons	Tod Hamilton	623-910-2042
Scholarship	Len Cohen	623-546-3741
Member at Large	Les Sherry	623-975-9081
Newsletter	Noelle Jobson	623-810-8717
Event Support	Hal Lind	623-546-6385
Event Audio	Richard Stout	623-815-0985
Event Computer	Richard Sarut	480-300-7251
Web Site	Dave Campbell	623-734-3737
Publicity	Lance Berglund	623-546-3364
Field Trips	Lanny Barness	623-518-4871
Hospitality	Doris Palmer	623-815-8143

President's Note Continued

But Einstein had a difficult time accepting quantum mechanics. His quote, "God does not play dice with the universe" is well known. But this quote tells us something about the man and his innermost feelings.

In his own words, "THE MOST BEAUTIFUL AND MOST PROFOUND EMOTION WE CAN EXPERIENCE IS THE SENSATION OF THE MYSTICAL. IT IS THE SOWER OF ALL TRUE SCIENCE. HE TO WHOM THIS EMOTION IS A STRANGER, WHO CAN NO LONGER WONDER AND STAND RAPT IN AWE, IS AS GOOD AS DEAD. TO KNOW WHAT IS IMPENETRABLE TO US REALLY EXISTS, MANIFESTING ITSELF AS THE HIGHEST WISDOM AND THE MOST RADIANT BEAUTY WHICH OUR DULL FACULTIES CAN COMPREHEND ONLY IN THEIR MOST PRIMITIVE FORMS – THIS KNOWLEDGE, THIS FEELING IS AT THE CENTER OF TRUE RELIGIOUSNESS.

TREASURER'S REPORT OCTOBER 2015

General Fund Balance: \$5563.07
Scholarship Fund Balance: \$4930.42

Lottery Proceeds to Scholarship Fund: \$110
January Lotter Winner was Carol Mungas \$110

LUNCHEON MENUS

February 12: #1 Grilled Chicken Cordon Bleu or #2 Baked Cod. Both Entrées come with Salad, Balsamic Rice, Corn O'Brien, & Fudge Nut Brownie w/whipped cream.

March 11: #1 Salisbury Steak, or #2 Orange Roughy. Both served with Salad, Lyonnaise Potatoes, Green Bean Almondine, & Apple Turnover w/ Ice Cream
(Grilled Vegetable Plate or Fruit Plate also available).



Anuraag Kochhar and Trent Rand of PerfOpt Technologies are thanked by Pres. Jackie Rice and Programs Organizer Rick Cecil.

RESERVATION POLICY

The cost of the monthly luncheon is \$18.00 cash or check. The reservation deadline is 6PM Monday before the meeting. **Late reservations cannot be guaranteed the regular meal.** Call Dave Whitehouse to cancel your reservation. Note that the full cost of the luncheon will be charged for "no-shows" and cancellations after 5PM on Wednesday before the meeting. Please have cash or make out your check in advance.
RESERVATIONS Dave Whitehouse (623) 544-0942

WELCOME NEW MEMBERS!

- ◆ Paul Scherer
- ◆ Roger Bouton
- ◆ Frank Reichert

Current club membership is 144

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We have designed and tested a nano air conditioner based on a technology licensed from the US Navy.



Abstract

Extreme temperatures impact comfort, productivity and health. Last century, air conditioning was rapidly proliferated to all levels of dwelling which significantly improved the quality of life and productivity in the industrialized nations. Miniaturized versions were added to vehicles that made travel and commute comfortable. However, the existing climate controls have not scaled to personal level to cover the "last legs" of our daily lives when we are outdoors and away from enclosed space. Our vision is to close that gap by offering wearable personal climate that one can carry everywhere while walking, jogging, riding a motorcycle, or cruising around in a disability scooter or a golf cart.