

VALLEY ENGINEERING, SCIENCE & TECHNOLOGY CLUB

November 2019 NEWSLETTER www.engineersaz.com

The Engineers Club is a social organization which meets monthly for lunch with a speaker on a topic of interest. Spouses and guests are invited and many attend regularly. Short field trips are occasionally scheduled. Membership is open to anyone who has worked in or has an interest in Engineering, Science or Technology. 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

NOVEMBER 1 PROGRAM

Water: Past, Present and Future

Hal Lind



Our speaker, Hal Lind, a long time member of our club, has spoken to our club before.

Hal has a BS from the University of Illinois and an MS from USC, both in electrical engineering.

He served as an Army Communications Officer in Korea. His career at Hughes Aircraft Company was in Research and Development where he designed military communications equipment, managed the Advanced Development Laboratory and was the Technical Director of major programs in their Communications Division. Hal holds five patents in circuits and systems.

After GM acquired Hughes Aircraft Co., Hal worked with GM Research and GM Advanced Engineering. He helped build and test a solar powered race car that won a race across Australia. He designed and installed electronics in racecars at Indy and other tracks around the country. He retired from Hughes Communications Division with the title of Chief Scientist.

Hal has also been active in the Sun Cities. He has served as Vice President of the Governing Board, President of PO-RA, President of the Engineering Club, and on many other Boards.

Abstract

We all appreciate that water is necessary for life to exist. This talk looks at water from the large perspective, from the time it arrived during the formation of the earth to the prospects for adequate water far into the future. It has shaped the topography of land, it has covered the entire planet with ice ("snowball earth"); glaciers have covered the sites of New York and Chicago. We are currently between ice ages. Sea levels have fallen 400 feet and then risen again, as they are doing today. The "Water Cycle" supplies a never ending source of fresh, clean water. Will it be enough? The present situation, focusing on Arizona, is discussed, and the future sources for a growing population are identified.

FROM PRESIDENT STEVE SUMNER

Welcome to the November 1, 2019 Luncheon Meeting of the Valley Engineering, Science and Technology Club.

Today we are taking nominations for the four Board positions for which we will vote at our December 6th meeting. I am willing to serve as President for the 2020 calendar year. If anyone would like to nominate another candidate, please feel free to do so at our meeting today. Carol Mungas also is willing to serve as Treasurer for the upcoming year. However, we are still open to a nomination for Vice-president and Secretary. The continuing existence of our Club depends upon new people to step up to these Leadership roles. Please consider volunteering today to serve on our Club's board.

Also the Board has decided to keep our luncheons here at Briarwood for the remainder of the season which runs through our June, 2020 luncheon. We will, in the meantime, be exploring options for the 2020-2021 season. If you have any contacts for other locations which we may consider, please advise.

DECEMBER 6 PROGRAM

Title: Energizing the Southwest

Speaker: Kory Raftery, Palo Verde Nuclear Station, APS



Mr. Raftery is the communications department leader at the Palo Verde Nuclear Generating Station. He came to PVNGS from Exelon Generation, where he managed public affairs for the Calvert Cliffs Nuclear Power Plant in the Washington DC area. He also worked for Pacific Gas and Electric Company at the Diablo Canyon nuclear power plant in San Luis Obispo.

Abstract

Mr. Kory Raftery, will discuss the basic operation of a nuclear power plant and the future of nuclear energy in the Southwest. The Palo Verde Nuclear Generating Station has been the largest energy plant in the U.S. since 1992. The 4,000 acre plant has three combustion engineering pressurized water reactors and can produce up to 4000 mW of electricity. It supplies about 35% of the electricity generated in Arizona.

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2019 OFFICERS

President	Steve Sumner
Vice President	Open
Secretary	Doris Palmer
Treasurer	Carol Mungas
Asst. Treas.	Dave Campbell

COMMITTEE CHAIRPERSONS

Programs	Rick Cecil
Membership	Philip Main
Reservations	Chuck Wasik
Luncheons	Jackie Wasik
Scholarship	Jim Schlenvogt
Member at Large	Peter Rauen
Member at Large	David&Susan Whitehouse
Newsletter / Website	Dave Campbell
Event Audio	Hal Lind
Event Computer	Paul Scherer
Publicity	Lance Berglund
Field Trips	Eric Muhly
Hospitality	Doris Palmer

Email the Board at: board@engineersaz.com

RESERVATION POLICY

The cost of the monthly luncheon is \$24.00 cash or check. The reservation deadline is 6 PM Monday before the meeting.

Late reservations cannot be guaranteed the regular meal. Call Chuck Wasik to cancel your reservation.

Note that the full cost of the luncheon will be charged for "no-shows" and cancellations after 5 PM on Wednesday before the meeting.

Please have cash or make out your check in advance.

2019 VEST LUNCHEON DATES

December 6, January 3, 2020

FUTURE MEETINGS

January 3

Title: Solar MiniGrids

Speaker: Nathan Johnson, PhD, ASU

TREASURER'S REPORT OCT 2019

General Fund Balance:	\$ 10,807.81
Scholarship Fund:	\$ -749.00
Membership Total:	143

May 50/50 was \$ 47.00 - Congratulations to winner Lee Schlaubach !
2019 Membership dues are now due.

LUNCHEON MENUS

November 1: #1 Teriyaki Chicken Breast with Steamed Basmati Rice & stir fried vegetables **or #2 Blackened Salmon Caesar Salad** with romaine, parmesan cheese, house made croutons & Caesar dressing. Both entrées include a scoop of Mint Chocolate ice cream. (**Grilled Vegetable Plate or Fruit Plate also available**)

December 6: #1 Stuffed Boneless Pork Loin stuffed with savory Apple Sage Stuffing & drizzled with herb Demi House Mashed Potatoes and Parmesan Broccoli **or #2 Pan Seared Salmon** with lemon dill cream sauce, Savory rice pilaf, Chef's choice of vegetables. Both entrées include Spumoni Ice Cream. (**Grilled Vegetable Plate or Fruit Plate also available**)

SOME WATER PUNS!

1. H₂O is water, but what is H₂O₄?

It's for swimming and drinking, of course.

2. What do you call a tooth in a glass full of water?

A one molar solution.

From <https://thoughtcatalog.com/>

HAPPY
THANKSGIVING



The Science Behind the "Mummies"
October 4 Speaker: Dr. Robert E. Farrell