

WEST VALLEY STEM CLUB

APRIL 2023 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 Grandview Terrace, in the fourth-floor ballroom, at 14515 W. Granite Valley Drive, Sun City West, AZ. Guests are always welcome. Contact Phil Main: maintwin3@gmail.com, 623-826-0101 (cell).

APRIL 7 PROGRAM

STEM Education at Glendale Community

College Continuing on to ASU and a

Career in STEM

Michelle Patterson

MS, Industrial Engineering



Michelle Patterson was a West Valley STEM Club Scholarship winner for the academic year 2019-2020. She completed her BSE in Industrial Engineering in 2021, her MS in Industrial Engineering in 2022, and is currently

working toward a Lean Six Sigma Black Belt Certification. Michelle is now working as a Process Engineer for Banner Health, as well as personal chef, housekeeper and chauffeur to her husband, 6 children and large hairy dog.

Topic Description

My journey began at Glendale Community College, where I completed as many undergraduate courses as possible before transferring to Arizona State University. During my time at ASU, I had the opportunity to lead one of the NASA ASU Psyche Interdisciplinary Capstone projects, followed by a position as project manager for another ASU team that is being funded by NASA to build cube satellites. I continued that work during the first year of my Master's Degree, until November 2021, when I began working for Banner Health as a Process Engineer. As part of this team, I use engineering concepts to solve complicated problems in healthcare, both behind the scenes and directly impacting patient care.

HAVE IDEAS FOR A SPEAKER OR PROGRAM?

If you have recommendations for monthly VEST meeting speakers or programs please contact

Pete Raun: peterauen42@gmail.com or

Jim Schlenvogt: js3820@msn.com

PRESIDENT'S MESSAGE

Jim Schlenvogt

Hi Everyone! I am writing this message in mid-March and Spring has finally arrived. The Club is going on our third month of celebrating a new meeting location. We had 72 guests at our March meeting.

On March 22, 2023, the Scholarship Committee will be interviewing six qualified STEM student scholarship applicants out of the seven students who applied. The student must be entering their Junior year in a qualified four-year STEM program. The winning scholarship students will be invited to speak at our April or May meeting. Also, we are fortunate to have Michelle Patterson, one of the Club's 2019 scholarship winners, speak at our April 7th meeting. Again, we want to say THANK YOU to everyone who donated to the 2023 Scholarship Fund!

The Program Committee chaired by Peter Rauen has recruited speakers to discuss an outstanding list of topics, including:

- The Engineering of the Lake Pleasant Dam (CAP)
- The Past and Future of Electric Vehicles
- James Webb Telescope Project
- Arizona Ground Water Aquifer Replenishment Science

We are still looking for speakers for our October, 2023 luncheon meeting and all of our 2024 meetings. Please let Peter or me know if you know of a good speaker or program.

The Board has scheduled the next Field Trip on Friday, April 14, 2023, at 10:30 am, a tour of the TGen, Translational Genomics Research Institute, 445 N. Fifth Street, Phoenix, AZ. Sign-up is available at the check-in table. The tour will last about one hour with a cash lunch available. In addition, if you know of a location accepting group tours, please let one of our Board members know.

WEST VALLEY STEM April 2023

2023 OFFICERS

President	Jim Schlenvogt
Vice President	George Zieglgansberger
Secretary	Darrell Armbruster
Treasurer	Carol Mungas
Asst. Treas.	Dave Campbell

COMMITTEE CHAIRPERSONS

Programs	Peter Rauen/Jim Schlenvogt
Membership	Philip Main
Reservations	Philip Main
Luncheons	Jim Schlenvogt
Scholarship	Jim Schlenvogt
Member at Large	Hal Lind
Newsletter / Website	Dave and Karen Campbell
Event Audio	Hal Lind/Doug Totel
Event Computer	Paul Scherer
Publicity	Lance Berglund
Field Trips	George Zieglgansberger
Past President	Steve Sumner

Email the Board at: board@engineersaz.com

MAY 5 PROGRAM

The Engineering of the Lake Pleasant Dam Darrin Francom Assistant General Manager, Operations, Maintenance and Engineering Central Arizona Project



Darrin's entire Operations, Maintenance & Engineering group typically comprises a large portion of the CAP workforce, and the Power Programs team he oversees manages the pumping energy rate that accounts for nearly a third of the CAP water rates. After serving as an officer in the U.S. Navy Civil Engineer Corps, Darrin began his career at CAP in 2001 as a Civil Engineer.

During his career at CAP, Darrin has held a number of leadership roles within the Engineering and Maintenance departments, including the Director of Operations, Power and Engineering before his current role as an Assistant General Manager. Other supervisory roles were: Engineering Services Manager; Project Management Division Supervisor, which included management of CAP's planning and execution of capital projects that maintain the reliability of the CAP system; Supervisor for CAP's design engineers; and Centralized Maintenance Manager, which included CAP's two Heavy Overhaul Group (HOG) teams, as well as the Fleet Maintenance, Machine Shop and Headquarters Maintenance departments.

Darrin earned a B.S. in Civil Engineering from the University of Arizona, is a registered Professional Engineer, and a Certified Maintenance and Reliability Professional.

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TREASURER'S REPORT MARCH 2023

General Fund Balance: **\$10,578**

Membership Total: **84**

MARCH 3 PROGRAM

Taiwan Semiconductor Manufacturing Co. Ltd. (TSMC) Arizona Project

Brian Harrison
Senior Vice President
TSMC



2023 MEMBERSHIP DUES

Dues for 2023 are \$25.00 of which half goes to the Scholarship Fund. **Please consider making an additional donation to the Scholarship Fund** (put scholarship in the memo line). Please mail your check(s), made out to West Valley STEM to: Philip Main, 17604 N Buntline Drive, Sun City West, AZ 85375-5148, maintwin3@gmail.com
623-748-8222 (Home)
623-826-0101 (Cell)