

WEST VALLEY STEM CLUB

March 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).

MARCH 3 PROGRAM

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

Brian Harrison
Senior Vice President
TSMC



Mr. Brian Harrison is Senior Vice President of TSMC Arizona, a wholly owned subsidiary of Taiwan Semiconductor Manufacturing Co. Ltd. (TSMC). He is responsible for the successful operation of TSMC Arizona including its development, strategy and management and has been crucial in helping to build the Arizona operations from the ground up. He

brings more than 40 years of international, high-technology industry experience, working in large scale companies, covering a diverse set of roles from process engineering and factory management to international marketing and corporate integration.

Prior to joining TSMC, Mr. Harrison served as Chief Operating Officer at View, a leader in smart building technologies, where he was appointed to expand the company's manufacturing footprint and ensure operational excellence. Before this, Mr. Harrison was Senior Vice President, Integration, at GLOBALFOUNDRIES where he was responsible for integrating the IBM Microelectronics business into the company. Harrison was also president and CEO of Numonyx, which comprised of the merged memory businesses from ST Microelectronics and Intel.

Mr. Harrison began his career at Intel where, over a 24-year span, he held various executive leadership positions in manufacturing, sales and marketing, business unit P&L, factory management, engineering and technology transfer, eventually rising to become Vice President of the company's Flash Memory Group. Harrison earned a B.S. in Chemical Engineering at Stanford University and an MBA at Santa Clara University.

Education: B.S. degree in Chemical Engineering, Stanford University, MBA, Santa Clara University

Experience: Senior Vice President, TSMC, Chief Operating Officer, View, Senior Vice President, GLOBALFOUNDRIES President and CEO, Numonyx, Vice President, Intel

PRESIDENT'S MESSAGE

Jim Schlenvogt

Hi Everyone! The Club is going on our second month celebrating a new meeting location at the **Grandview Terrace** located at 14515 W. Granite Valley Drive, Sun City West, AZ. Check-in is on the First Floor near the Receptionist area, and then you will be directed to the elevators and to the Fourth Floor Ballroom. We have scheduled a roomy location, delicious meals and very informative speakers. We had 68 registered guests at our February meeting.

The Scholarship Committee will be taking qualified STEM students scholarship applications. The submittal deadline is February 27, 2023. The student must be entering their Junior year in a qualified STEM program. In March, the committee will be performing the interviews and make our recommendation. 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:

- Taiwan Semiconductor (TSMC) Arizona Project
- The West Valley STEM Club's Scholarship Success Story
- 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 looking forward to providing more value for our members! 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 members are investigating several STEM-related field trip options in 2023. If you know of a location accepting group tours, please let one of our Board members know.

Finally, we have new Club Business Cards with our new monthly meeting location and related information. Please keep one new card and share the other cards with your friends or other people who are interested in attending our monthly meetings. We look forward to seeing you and your guests at our next meeting!

WEST VALLEY STEM March 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

APRIL 7 PROGRAM

STEM Education at Glendale Community College Continuing on to ASU and a

Career in STEM

Michelle Patterson

MS, Industrial Engineering



In 2019, I was awarded one of the VEST scholarships to help support my first year transition from a community college to ASU. In June 2021 I graduated with my BSE in Industrial Engineering! As a parent of 6, earning my degree was difficult enough, but I am even more proud of this accomplishment given the challenges presented by the pandemic. When the school moved to online learning in late 2020 and my kids were sent home too, I very seriously considered putting my degree on hold until things were back to normal. One of the biggest reasons that I chose to finish out the semester was knowing that, between this scholarship, grants, and a few other small awards, I would be finishing my junior year debt free. It was enough to push me through the last several weeks. I am so very grateful that I did, because it led to some fantastic experiences in my senior year.

First, my professors recognized my drive; I earned their recommendations and was accepted for the 4+1 program, thus I completed my MS degree in May of 2022. While at ASU I led one of the NASA ASU Psyche Interdisciplinary Capstone projects. I led a team of Astrophysics, Electrical, Mechanical, and Systems Engineering majors to develop a testbed that would simulate the surface of the asteroid Psyche (complete with simulated reduced gravity system and magnetic field), and a Robotic Explorer that would be capable of traversing it. It was such a challenging but rewarding project. I've included a picture of Dappy (short for ADAPT, the Autonomously Driven Adaptable Psyche Tank).



Dappy

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)

TREASURER'S REPORT OCTOBER 2022

General Fund Balance: \$11,470. 61

Membership Total: 76

FEBRUARY 3 PROGRAM

What You Need to Know about Electric Vehicles (EVs) by Jim Weichel

