

# VALLEY ENGINEERING, SCIENCE & TECHNOLOGY CLUB

November 2018 NEWSLETTER [www.engineersaz.com](http://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 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.

## NOVEMBER 2 PROGRAM

### Meet Olli: The World's First Co-created Self-Driving Vehicle

Lucas Creasy, VP Engineering, Local Motors



Lucas Creasy leads engineering for Local Motors by LMI with over 15 years experience in designing, developing and manufacturing of products for both the commercial vehicle market as well as emerging vehicle and technology markets.

Prior to joining the Local Motors team, Lucas honed his abilities in large scale development project and program management by assembling and leading cross-functional program teams and managing high-performing engineering departments. Lucas has successfully and rapidly introduced new products and product updates to the market, including specialty and military products, at Knapheide Manufacturing Company. Lucas earned his Bachelor of Science degree in Manufacturing Engineering and Technology at Western Illinois University and his Master of Business Administration at Quincy University.

Lucas is currently responsible for Local Motors' engineering team, leading project and program management activities for all product lines across the globe, including the multi-million-dollar pilot program execution of Olli, the world's first co-created, self-driving vehicle.

#### Abstract:

This presentation will provide a high level overview of the Olli vehicle, capabilities, and application for autonomous first mile, last mile solutions in urban environments. Attendees will leave with a better understanding of Local Motors, the Olli vehicle, as well as insights to this vehicle being trialed around the world to change the landscape of mobility solutions.

## DECEMBER 7 PROGRAM

### Mopping up our CO2 Waste

Klaus S. Lackner PHD, ASU



Dr. Klaus Lackner is the director of Center for Negative Carbon Emissions and professor at the School of Sustainable Engineering and the Built Environment of the Ira A. Fulton Schools of Engineering, Arizona State University. Lackner's research interests include closing the carbon cycle by capturing carbon dioxide from the air, carbon sequestration, carbon foot-printing, innovative energy and infrastructure systems and their scaling properties, the role of

automation, robotics and mass-manufacturing in downscaling infrastructure systems, and energy and environmental policy.

In 1999, he was the first person to suggest the artificial capture of carbon dioxide from air in the context of carbon management. His recent work at Columbia University as Director of the Lenfest Center for Sustainable Energy advanced innovative approaches to energy issues of the future and the pursuit of environmentally acceptable technologies for the use of fossil fuels.

Abstract: The use of fossil fuels produces vast amounts of carbon dioxide (CO<sub>2</sub>) waste, which accumulates and lingers in the atmosphere for millennia. This waste management problem represents a huge economic opportunity for those who can dispose of past and future emissions. Technology and storage capacity necessary for disposal exists. Still missing is an affordable technology for recovering the excess CO<sub>2</sub> from the environment. Biomass growth offers one option, but it cannot scale to the necessary size. Direct air capture of CO<sub>2</sub> is a scalable technology that could compensate for past emission as well as all remaining emissions. It also could provide the carbon feedstock for synthetic fuels that store and transport renewable energy. There is no question that CO<sub>2</sub> can be removed from air. It has been done for decades. The challenge is to make the process efficient and affordable. Air capture is still in its infancy and needs to be advanced, demonstrated, and deployed. I will discuss our approach to direct air capture and explain how it can become an affordable and scalable option for reinventing the world's energy infrastructure.

HAPPY  
THANKSGIVING

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## 2018 OFFICERS

President	Tod Hamilton	623-910-2042
Vice President	Steve Sumner	623-544-7775
Secretary	Doris Palmer	623-815-8143
Treasurer	Carol Mungas	763-639-3922
Asst. Treas.	Don Block	623-546-0557

## COMMITTEE CHAIRPERSONS

Programs	Rick Cecil	360-402-1695
Membership	Philip Main	623-748-8222
<b>Reservations</b>	<b>Dave Whitehouse</b>	<b>623-544-0942</b>
Luncheons	Susan Whitehouse	623-544-0942
Scholarship	Ralph Palmer	623-815-8143
Member at Large	Les Sherry	623-975-9081
Newsletter	Dave Campbell	623-518-4871
Event Audio	Hal Lind	623-546-6385
Event Computer	Richard Sarut	480-300-7251
Website	Dave Campbell	623-518-4871
Publicity	Lance Berglund	623-734-3737
Field Trips	Open	
Hospitality	Doris Palmer	623-815-8143
Past President	Jackie Rice	623-572-8089

## 2018/2019 VEST LUNCHEON DATES

December 7, January 4,  
February 1, March 1, April 5, May 3, June 7

## VEST NOTES

**The Board is looking for members who are interested in serving this Club.**

We currently have an opening for someone to serve as Committee Chairperson for Field Trips. This would involve planning and scheduling trip(s) or tour(s). See Tod Hamilton or Dave Campbell for additional information.

Elections of new officers is planned for our December meeting. If you are interested in serving as an officer or Chairperson please talk with Tod Hamilton.

**PLEASE CONSIDER VOLUNTEERING!**

## TREASURER'S REPORT OCTOBER 2018

General Fund Balance:	\$ 8,739.57
Scholarship Fund:	\$ 1,573.00
Membership Total:	147

October 50/50 \$ 36.00 - winner was Chuck Wasik and he donated his entire winnings to the Scholarship Fund!  
Thank You!

2019 Membership dues are now payable—\$20.00

## FUTURE MEETINGS

January 4

Title: Impact of Microplastics on Human Health  
and Environment

Speaker: Rolf Halden PHD, ASU

## LUNCHEON MENUS

**November 2: #1 Yankee Pot Roast or #2 Shrimp Scampi**  
Both entrées will come with Caesar salad, rice pilaf, steamed broccoli and cauliflower, and strawberry shortcake. (**Grilled Vegetable Plate or Fruit Plate also available**)

**December 7: #1 Chicken Marsala or #2 Baked Alaskan Cod**  
Both entrées will come with Spinach salad, Basamti rice, Sautéed Squash w/Onions, and Blondie Brownie. (**Grilled Vegetable Plate or Fruit Plate also available**)

## RESERVATION POLICY

The cost of the monthly luncheon beginning in Jan 2018 will increase to \$22.00 cash or check. The reservation deadline is 6 PM 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 5 PM on Wednesday before the meeting.

Please have cash or make out your check in advance.



**Arizona's a Desert: You're 'Surprised' it's Hot and Dry**

October 2 speaker: Nancy J. Selover, Ph.D. State Climatologist Arizona State University Climate Office

For more information on our speakers, please visit our website at [www.engineersaz.com](http://www.engineersaz.com)