



EEVC NEWSLETTER

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Affiliated with EAA

WINNER OF THE 2016 EEVC OVERALL BEST JR. SOLAR SPRINT CAR, "THE MEME MACHINE" by Oliver Perry

The 2016 Junior Solar Sprint, for the first time in a long, long while, had to be postponed a day, from Saturday to Sunday, due to rain.

This inconvenienced many, especially if they had previous plans for Sunday. And the rain on early Sunday morning no doubt influenced some not to attend.

For the first time in our history our award winner was not available for an interview at the closing. However, the winning car passed by our inspectors earlier in the day and was chosen as definitely the "Best" in terms of overall performance, construction, and technical merit. It was the only car, that Al Arrison, the head EEVC inspector, found with actual ball bearing wheels. In Al's words, our winner was clearly in a league of its own. There was no question that it was the best.

We asked our winning student VJ to provide us the



VJ Taveran, winner of the 2016 EEVC Overall Best Car Award in the 2016 Jr. Solar Sprint, shown with father.

details of the project.

"When I was in forth grade, my sister, Danielle Taverna, participated in the Jr. Solar Sprint and did very well. She won her races and ended up racing in Massachusetts. All around, she had a really good experience with the Jr. Solar Sprint. When our gifted and talented program teacher mentioned the race, I was eager to be a part of it. I was ecstatic to build my car and see how I did. My dad is a mechanic and my mom an engineer, so creating a car is practically in my genes. First off, my dad told me to find the best gear ratio for the car, which I found to be 1:2.

"The actual construction of the car was delayed a lot. My dad and I got to work on the car roughly a week before the actual race. We began ripping pieces of Danielle's car for testing on the Meme Machine. The hardest part was getting the bearings onto the axles, to

do so, I used a hydraulic press and a cylinder to press only the bearing onto the axle. As you may have noticed, the Meme Machine was not aesthetically pleasing. I felt as though all of the aesthetics were unnecessary since it was only a race. I added a very lacking paint-job mainly just popular jokes on the internet, hence "the Meme Machine." For the most part, there were no problems along the way, we practically knew exactly what we were doing. The only issue we encountered along the way was the bending of one axle, luckily we had an extra axle and were able to replace it immediately. The time frame allotted was not long enough for many trial runs, so we just made sure it ran. Everything worked on the first try, miraculously. I had never done anything like this, so I enjoyed the creation a lot.

"Currently, I am in 8th grade at Perkiomen Valley Middle School East. I have two sisters, Danielle and Nicole (my oldest sister). I have a lot of interest in the science field and look into various careers in it quite often. My favorite subject would either be math or science because math comes easily to me and science is very interesting. I love to ride my bike and talk to my friends about various scientific theories and facts. For the most part, I don't participate in extracurricular activities because I like to have full control over my schedule."

JUNIOR SOLAR SPRINT

Oliver Perry

Friday, May 20th Director Joe Bruno was faced with having to make a difficult call. The weather for the weekend was not too promising. The forecast for Saturday predicted a very rainy Saturday beginning early in the morning. Sunday was supposed to be much better with periods of clear sky. In light of the forecast Joe decided to postpone the 2016 Jr. Solar Sprint from Saturday, May 21st, to Sunday, May 22nd.

Early Saturday morning turned out to be dry and overcast. However rain came in about 11:00 A.M. Had the Jr. Solar Sprint been held the final races would have been rained out.

Sunday began with cold and wet overcast skies. The 2016 Jr. Solar Sprint began with a water soaked track. After some rain the water had to be pushed off the eight rubber runways. However after the rain delay the Sprint races were able to resume. As the morning

wore on conditions improved. The sun never really came out but the cars ran well on battery power.



David DeMena, student from Asbury University in Wilmore Kentucky helps set up for the judging portion of the 2016 Jr. Solar Sprint.



EEVC member Al Arrison stands next to the Jr. Solar Sprint banner hung on the porch of the GridSTAR Solar Home.



EEVC members Ken Barbour and Al Arrison begin judging the Jr. Solar Sprint cars for technical merit.



David DeMena holds the umbrella to keep Ken and Al dry during a rain break.



A student with a battery pack on top of his solar panel waits for the start of the race. Another student is attaching his race car to the wire guide line that runs across the top of the rubber racing mat.



"Dune Buggy" Entry # 72
Zander King
gd 8 Colin
Schurek gd 8,
Stetson MS
West Chester,
Pa. Teacher:
David Kelly
First Place,
Technical
Merit.



"Solar Gerbil" entry #1 Kelly McKenzie gd 7, Jane Huston gd 7 Perkiomen Valley MS East, Collegeville Pa. Teacher: Melissa Kashey Third Place, Artistic Merit.



"Dream Boat" Entry #75 Sarah Weare gd 8, Grace Higgins gd 8, Allyssia Mauch gd 8, Stetson MS West Chester, Pa. Teacher: Melissa Kashey. Second place, Artistic Merit.



"Coca Cara" Entry # 65 Noorie Dhingra , Allan Gift, (Merci Tesfaye not pictured) Wyndcroft School, Pottstown, Pa. Teacher: Kristen Haugen. First Place, Artistic Merit, First Place, Recycling Award.



"Earth" Entry # 53 (left) Audry Jones, gd 4, (right) Ami Shallapi gd 4, A.S. Jenks, Philadelphia, Pa. Teacher: Jeanne Farrell. 3rd place, Recycling, 3rd Place, Innovation.



Entry # 52 (left) Ami Shallapi gd 4 (right) Audry Jones, gd 4, A.S. Jenks, Philadelphia, Pa. Teacher: Jeanne Farrell. 2nd Place, Recycling Award



"Tinker Tank" Entry # 61 Mikayla Henry gd 6, (not pictured Shane Reynolds gd 6, Ally Ng gd 6) Stratford Friends, Newton Square, Pa. Teacher: Richard Schultz. 3rd Place, Speed



"Track Star" Entry # 46 (left) Drew Moreland (right) Christopher Luk gd 8, Makye Daniels gd 8, Cedarbrook MS Wyndmoor, Pa. Teacher: Beth Kenna, 2nd Place, Speed.



"5-Star" Entry # 3 Damian Antao gd 7, Raymond Dessreau gd7, Bishop Kashock-Marenda gd 7 Cedarbrook MS, Wyndmoor, Pa. Teacher: Beth Kenna. 2nd Place, Innovation



"Polar Power" Entry # 32 (left to right) Sarah Parker gd 8, Isabelle Beatus gd 8, Abby Tabas gd 8, Cedarbrook MS Wyndmoor, Pa., Teacher: Beth Kenna. 1st Place, Innovation.



"Ares" Entry # 5. (left) Zhao Gu Gammage gd 7; (right) Rachel Hanes gd 7; Brianna Freeman gd 7 (not pictured). Cedarbrook MS, Wyndmoor, Pa. Teacher: Beth Kenna. 1st Place, Speed, 3rd Place Technical Merit.



"X-Ray" Entry # 49 Kolby Gaither, Cedarbrook MS Wyndmoor, PA.. Teacher: : Beth Kenna.. 2nd Place Technical Merit.

21st CENTURY AUTOMOTIVE CHALLENGE MAY 21-22, 2016 James Natale

The 21st Century Automotive Challenge celebrated its tenth anniversary by moving to the Philadelphia Navy Yard and holding its activities around the Junior Solar Sprint. The two day event was hosted at Penn State's GridSTAR home. The Methacton Electric Car Club designed a rally through Philadelphia

while the EEVC designed a timed rally around South Jersey, The Jersey Journey. The weather forecast for the weekend was marginal so the JSS chose to run on Sunday.

Saturday started off with a breakfast provided through Methacton. The rally was scored on time. A perfect score of 70 would be achieved by completing the course on time. A point would be deducted for every minute late and two points deducted for every minute early. The route was divided into seven segments that started at the GridSTAR and ended at an undisclosed location that most deduced was Cugini's Pizzeria in Deptford.

Competitors were sent off one at a time receiving directions only to the next stop which included the distance and time as well as a sealed packet that contained the address and coordinates that could be opened if one were completely lost. Each segment was worth ten points and the penalty for a broken seal was the points for the segment.

Ken Barbour and Denny Stichter were the first team off. Ken set the time for the route as he designed it and Denny affixed envelopes containing directions and sealed packets at each stop. The envelopes were affixed to or near charging stations so I believe many of us learned there are more stations than we realized.

I was the last car off so I could collect the envelopes left behind and sweep the course for stragglers. Leg One was uneventful. I was a bit surprised that they were hidden in plain sight-on the back side of the charging station. Good job. Drivers had to use some deductive reasoning as the directions would only get them to

| The Jersey Journey | | | | | | | | | | | | |
|------------------------------|-------|-------|-------|-------|-------|-------|-------|----------------|------------|----------|-------------|--|
| | Leg 1 | Leg 2 | Leg 3 | Leg 4 | Leg 5 | Leg 6 | Leg 7 | Total Distance | Total Time | Time Adj | Total Score | |
| Ken Barbour & Denny Stichter | 10 | 10 | 10 | 10 | 10 | 10 | 10 | 44 | 2.22 | 0 | 70 | |
| Nick Ott | 10 | 10 | 10 | 10 | 10 | 10 | 10 | 44 | 2.2 | -2 | 68 | |
| Ed & Jim Kriebick | 10 | 10 | 10 | 10 | 10 | 10 | 10 | 44 | 2.4 | -9 | 61 | |
| Dan Monroe | 10 | 10 | 10 | 10 | 10 | 10 | 10 | 44 | 2.4 | -9 | 61 | |
| Paul Kydd & David | 10 | 10 | 10 | 10 | 10 | 10 | 10 | 45 | 2.42 | -10 | 60 | |
| Al Arrison | 10 | 10 | 10 | 10 | 10 | 10 | 10 | 44 | 2.43 | -11 | 59 | |
| Denys Kelly & Ann Monroe | 10 | 10 | 10 | 10 | 10 | 10 | 10 | 46 | 2.82 | -30 | 40 | |
| Methacton Minivan | 10 | 10 | 10 | 10 | 10 | 10 | 10 | -76 | 3.2 | -49 | 21 | |
| James Natale | 10 | 10 | 10 | 10 | 10 | 10 | 10 | 46 | 3.25 | -52 | 19 | |
| Lorax | 10 | 10 | 10 | 10 | 10 | 10 | 10 | 50 | 3.4 | -59 | 11 | |
| Ollie & Dottie Perry | 10 | 0 | 10 | 8 | 10 | 10 | 10 | 54 | 3.65 | -72 | -14 | |

the address. The final instruction was “Look for charging station” and the hint for this leg was “Where’s Mr. Atoz when you need him?” If you know your Star Trek, he’s at the library which is next to the charging station.

My adventure began on Leg Two. I was surprised when I saw a blue LEAF parked on the shoulder as I was so far behind everyone. I pulled into a parking lot and waited, giving the driver some time to get ahead of me. I caught up to him again then lost him in traffic.

Once again, I saw a blue LEAF on the highway. Could it be one of “our” blue LEAFs? I pulled alongside. Yup. I followed until he pulled into a fire department’s driveway. I went around the corner and waited. He left so I decided to cruise around the neighborhood just to ensure I didn’t see him. I took this opportunity to inform Ken at the Undisclosed Location that “Tail End Charlie” had encountered a “Lost Sheep.”

This leg looped around a park. I reversed the course to pick up the envelope from the Boathouse, expecting the Lost Sheep to pass me in the other direction. When that didn’t happen I drove around the park. I found “Lost Sheep” in another parking lot and ended up following him. After missing the turn for the next location I finally caught up to him at the end of the park. It started to rain as we talked. I gave him directions for the next leg and told him that I’ll follow.

The next destination was on the highway. Hint: The answer is, “Built after four houses.” There is more than one building that uses that turn off from the highway. Where’s the charging station?

The “gotcha” on the next segment was that the turn from the highway on to the side street. You have to follow the signs and go around the block. “Lost Sheep” skipped a line in the directions and was heading back for the highway. I intervened to get him on course as I didn’t want to be following him around Cherry Hill looking for a way to turn around. The landmark was the covered bridge on Covered Bridge Rd. Sometimes our street names are very creative. To my surprise he found the charging station at left near playground. The hint: “Kyle could be there” helped as the Jewish kid on South Park would play at the Jewish playground.

The next location was easy. The hint, “For-

rest Gump could have visited after speaking with Kennedy” identifies the four charging stations next to the urologist’s office. Although “Lost Sheep” visits that office he didn’t know about the charging stations because he parks on the other side. I figure now that he knows exactly where he is the problems are over. He takes off and I don’t see him.

This charging station is in a shopping center that he is known to frequent. The hint is “The answer is, “The place to find Dinah with someone.” Believing that he is long gone I pull the envelopes from the cluster boxes next to the charging station. As I’m calling Ken to let him know that I am on my way there is a tapping on my window. “There’s no envelope.” How can you get off course on a 2.3 mile leg in your own neighborhood? I give him the directions that get us to Cugini’s.

This would have been the end of the adventure but I get a call from Ken. “Where are you? People are concerned.” I’m at the traffic light on the corner. “Lost Sheep” made the light. I didn’t. A 2:25 ride was almost 3:40.

Those sealed directions now revealed another purpose. Directions at three locations included playing cards. Those three cards when combined with the two community cards I pulled from unclaimed packets formed a poker hand. A few teams were able to make a pair but leave it to the Biodiesel team of Ed & Jim Kriebick to win the Grand Prize with a pair of Kings. The prize enabled them to move into the world of EV ownership with their very own RC 4X4.

21st CAC rookie Nick Ott won the Jersey Journey in his Model S even after incurring a penalty for arriving a few minutes earlier than the target time. The Pennsylvania based team of Ed & Jim Kriebick in their biodiesel Jetta tied with South Jersey native Dan Monroe and his LEAF. Following closely behind was Dr. Paul Kydd with rookie navigator David in the oldest car entered and Al Arrison solo in his converted S-10. Denys Kelly with rookie navigator Ann Monroe in Denys’ Prius c would have arrived sooner if not for a bathroom break and a quick beverage stop. Even so, they outscored Methacton’s second chase vehicle. The thoroughly soaked Methacton team demonstrated the all-weather capability of their open cockpit three wheeled Lorax EV.

After consuming large amounts of pizza

and soda and swapping tall tales and downright lies about the day's events, the "lost sheep" in the blue LEAF finally arrived. There was lots of clapping and cheering when they finally entered the restaurant. Preliminary results were announced and most teams were headed for home with full bellies and some nice parting gifts. I was impressed with the trivial knowledge shown by the Methacton kids. The hardest hint was "built after four houses."

The tightness of this year's pack is an indication that the organizers have to step up their game and devise a more challenging route for the next event. There was one record that was set that may never be broken. Of a possible 70 point score "Lost Sheep" scored -14. So, if you are ever driving around in South Jersey and you see a blue LEAF on the road, wave. You may found our "Lost Sheep."

Sunday morning was rainy. Methacton again arranged for the breakfast. The idea was to hold the display event during the Junior Solar Sprint. A few people walked around to check out the cars. Nick Ott brought the Display Class into the Digital Era by using a battery and an inverter to power his display.

After the Junior Solar Sprint packed up we had Methacton's catered lunch followed by the Drivers Meeting for the Philadelphia rally. The route simulates a day of errands by going to the ball park, Reading Terminal Market, the Art Museum, Fairmount Park, The Zoo, and back to the Navy Yard. The scoring was based on the energy used.

We discovered that some of us printed the original routes while some printed the final routes. What we did not account for was that the routes were planned for a Saturday drive. It's Sunday, the Phillies are in town, and it is a 1:35pm game. Talk about having to play the "Confusion Now" or "Confusion Later" envelope on the Amazing Race.

The first adjustment came at Citizens Bank Park when we found our road closed because of the game. We also experienced road closures throughout Fairmount Park so we had to find our own routes to the Zoo. As we drove through the park we passed a few members and ran together for some distance. Those who completed the route (or at least a route) early enough didn't experience real traffic. Those that found themselves on Broad

St. after the game found all the traffic. It wasn't a question of who would return last. The question was when and if we would have to go out looking to find him. Perhaps next year we'll have GPS trackers so we'll be able to follow the cars in real time.

Looking back, the first two years were dominated by the Honda Insight. All of the EVs and plug in hybrids were conversions. Now the field is mostly production EVs composed of LEAFs with the odd Tesla Model S. Al Arrison's Chevy S-10 and Methacton's Lorax are the last conversions. Only Methacton can't charge from a J1772 connector.

Here's a big THANK YOU for everyone that helped to make this fun and safe event a reality.

Additional comments by Oliver Perry

I would only MAYBE add that the newcomer Nick Ott with the Tesla won the Jersey journey even after incurring a penalty for arriving a few minutes earlier than the target time. And the PA based biodiesel team of Jim and Ed Kriebick tied with South Jersey native Dan Monroe's Leaf for second place. A minute behind the second place finishers was The Doctor — Dr. Paul Kydd, that is — with his rookie navigator David (Ollie and Dottie's grandson). A minute behind them was another SJ native Al Arrison with his S-10 and I believe no navigator. They were so close to the target time they must not have missed any turns. This group was so close together you could have thrown a blanket over all of them. Arriving shortly after the leaders was the Hybrid team of Denys Kelly and navigator Ann Monroe. They would have arrived even sooner but rumor has it they stopped for a bathroom break and a quick beverage stop. Also arriving in an orderly fashion was the thoroughly soaked Methacton team in their open cockpit three-wheeled electric Lorax. The gasoline powered Methacton team also arrived at Cugini's pizzeria long before the last competitor. After soda, pizza and tall tales the lost sheep in the blue Leaf finally arrived. There was lots of clapping and cheering when they finally entered the restaurant. Preliminary results were announced and most teams were headed for home with a full belly and some nice parting gifts from Jim Natale.

NATIONAL DRIVE ELECTRIC WEEK AND MUSHROOM FESTIVAL

Ken Barbour reminds us that “It’s about that time to register for the Mushroom Festival and drive electric week event. We had a lot of fun last year and they invited us back to display our EVs. Jurgen, Al, and I had a great time along with Mark from mdvolt.org and others. Why don’t you make plans to join us this year!”

ANOTHER BAY AREA CAR MAKER? By California Pete



Faraday Future, which has been alternately alive and dead for some time, recently announced that, in addition to the manufacturing plant planned for Nevada (see the April Newsletter), the company “has been in discussions with Vallejo officials to build a factory

on the former Mare Island naval base, the city reported Tuesday,” according to the *San Francisco Chronicle*. Vallejo officials are excited, and plan to give the land to the company for free, since current estimates give the land a negative value due to the costs of demolishing existing buildings and providing modern infrastructure.

We’ll keep an eye on this and let you know if anything comes of it.

The silly season is indeed here

In this rather unusual election year — one in which California is relevant for the first time in ages — the San Francisco Board of Supervisors have decided that things would be much better (and voter turnout would increase) if 16-year-olds were allowed to vote, and have voted to put such a measure on the November ballot. How mature, thoughtful and knowledgeable about public affairs the average person of that age might be is, apparently, irrelevant.

There has already been an increase of 850,000 in voter registrations in the state as a whole, “with 37 percent under 25 and 64 percent 35 or younger,” according to the *Chronicle*. “Many of the older voters are probably new citizens or people who have

moved to California from other states.” And as might be expected, nearly a third of the new voters are Latino.

The drought is still on, but go ahead and water your lawn

While this year’s winter rains were greater than last year’s the outlook is for continued dryness in California, according to the U.S. Climate Prediction Center, but that hasn’t stopped the local authorities from reducing restrictions on water use. While hosing off your driveway is still banned, it’s now legal to water lawns more often. Good news for the grass, I guess, but not so good for the reservoir levels.

NEWS UPDATE

Tesla survived its own mistakes

A May 31 article by David Baker in the *Chronicle* reports that Elon Musk recently informed shareholders that Tesla Motors was founded on several false assumptions that nearly caused it to die aborning.

The first had to do with the basic technology: “Tesla had licensed the technology of an earlier company, AC Propulsion, that had designed an electric sports car but didn’t want to manufacture it. Tesla tried to marry that technology to an existing chassis from luxury automaker Lotus, thinking that basing the Roadster on a vehicle already on the market would be cheaper than designing an electric car from the ground up.

“That assumption turned out to be wrong, Musk said. Three suppliers provided Tesla transmissions that didn’t really work. As a result, the first Roadsters shipped had a transmission locked in second gear, he said. AC Propulsion’s technology, meanwhile, turned out to be ill-suited for a consumer-oriented car.

“And Tesla quickly realized it had to redesign many of its cars’ components specifically for the Roadster, doing as much of the work in-house as possible. The early Roadsters, Musk said, weren’t what they needed to be. And every Roadster sold before the second half of 2009 cost more money to design and build than its price, Musk said.”

This just goes to show that, even if you make a mistake at the start it’s still possible

to make a go of it.

Hyperloop propulsion test

Another of Musk's dreams, the Hyperloop, recently passed a significant test. As reported by Heather Kelly on CNN Money on May 12, "A skeletal metal sled accelerated down a track at 2.5 times the force of gravity, hit 116 miles per hour, and crashed into a sand pit, sending a cloud of dust dramatically into the air.

"It was the first public test of Hyperloop One's acceleration technology, an early step toward building a new kind of high-speed transportation system.

"I would really like to note that all of that happened on purpose!" said a giddy Brogan BamBrogan, Hyperloop One's cofounder, after the test was over.

"First proposed by Elon Musk in 2013, the Hyperloop envisions sending passengers on levitating pods through partially pressurized tubes at more than 700 miles per hour. Musk open-sourced the idea and now a number of startups are competing to make the technology their own.

"Hyperloop One was cofounded in 2014 by BamBrogan, a former SpaceX propulsion engineer, and venture capitalist Shervin Pishevar. The company recently raised \$80 million in funding and has more than 150 employees. It changed its name from Hyperloop Technologies this week to avoid confusion with the next closest competitor, Hyperloop Transportation Technologies.

"Based in Los Angeles, the company started building its test track on a patch of desert 30 minutes north of the Las Vegas Strip just six months ago. On Wednesday, it bussed in reporters, employees, partners and family members to watch the blink-and-you-missed-it test run from a grandstand.

"Down the hill, a control room of engineers counted down the launch. All employees cleared the track area, which was alive with 7,000 volts of electricity.

"The 1,000-yard open-air track is just the first part of a larger test track that Hyperloop One is building here. Sections of giant empty tubes sit nearby, each 3.3 meters in diameter and branded with the Hyperloop One logo.

"They'll be used to build a 1.5 kilometer enclosed track. Then the company will start

testing technology that will allow the sleds to levitate. Because the sleds will glide, passengers will only feel the initial acceleration, similar to the start of an airplane ride.

"The company is moving fast.

"All of this is to get us into a position to run this full scale, full system test later this year," said Pishevar.

"Hyperloop One's ambitious plan is to start moving cargo by 2019, and carrying passengers by 2021. It recently announced partnerships with a number of well-known transportation companies around the world and is looking into locations for its first commercial track.

"Wednesday's test run didn't break any speed records or even look particularly dazzling up close, but for the Hyperloop One employees who have been working 12 hour shifts around the clock for months, it was a momentous occasion.

"This is rad, and it's going to get a lot rad-der from here," said BamBrogan."

More on floating photovoltaics

Last month we reported that Researchers at the Vienna University of Technology have designed a system of floating solar panels that supposedly can be used in the open sea, despite waves and storms. While that does seem far-fetched, a project in Japan seems more realistic. According to an article by Erica Goode in the *New York Times* for May 20, "An expanse of blue solar panels stretches across part of the Yamakura Dam reservoir in Japan's Chiba Prefecture.

"In two years, if construction goes as planned, 50,904 panels will float atop the reservoir, generating enough electricity to power almost 5,000 homes, according to Kyocera, the company building the solar plant.

"The project, once completed, will be the largest installation of its kind in the world. But floating solar arrays are becoming more popular, with installations already operating in Australia and the United States, and more planned or under construction.

"The growing interest is driven in part by huge growth in the solar market in recent years, as the cost of the technology has dropped quickly.

"Floating solar arrays — they are often

referred to as “floatovoltaics,” a term trademarked by one company — also have advantages over solar plants on land, their proponents say. Renting or buying land is more expensive, and there are fewer regulations for structures built on reservoirs, water treatment ponds and other bodies of water not used for recreation.

“Unlike most land-based solar plants, floating arrays can also be hidden from public view, a factor in the nonprofit Sonoma Clean Power Company’s decision to pursue the technology.”

COMING EVENTS

WAVE TROPHY 2016

June 11-16, from the North Sea to the Alps.
www.wavetrophy.com/en/

Webinar: Are PEVs Really Green?

June 14; go to <https://cleancities.energy.gov/webinars#636>

IEEE Transportation Electrification Conference and Expo 2016

June 27-29, Dearborn, MI. Go to <http://itec-conf.com/>

2016 American Solar Challenge

July 22 - Aug 6, traveling through seven states from Brecksville, OH to Hot Springs, SD. <http://americansolarchallenge.org/the-competition/ascfsgp-2016/>

National Drive Electric Week and Mushroom Festival

Sept 10-18, Kennet Square, PA. For information on participating, go to <https://driveelectricweek.org/>

8th Annual IEEE Energy Conversion Congress and Exposition (ECCE 2016)

Sept 18-22, Milwaukee. Go to www.ieee-ecce.org/

SAE 1016 Convergence; Theme: Personal Mobility – Creating a Smart and Autonomous Journey

Sept 19-22. Detroit. <https://www.sae.org/events/convergence/>

SAE 2016 North American International Powertrain Conference

Sept 21-23, Chicago. Go to www.sae.org/events/naipc/

SAE 2016 New Energy Vehicle Forum

Sept 21-22, Shanghai. Go to www.sae.org/events/nev

Paris Motor Show

Oct 1-16, Paris. Go to <http://www.nextgreen-car.com/event/6929/paris-motor-show/>

SAE 2016 Range Extenders for Electric Vehicles Symposium

Nov 2-3, Knoxville, TN. Go to www.sae.org/events/rex/

IEEE – ESARS ITEC 2016

Nov 2-4, Toulouse, France. Go to stx.wtx.esars-itec.org/

SAE 2016 Vehicle Electrification and Connected Vehicle Technology Forum

Nov 30-Dec 1, Shanghai. Go to www.sae.org/events/vept/

SAE 2017 Hybrid and Electric Vehicle Technologies Symposium

Feb 7-9, 2017, San Diego-Mission Valley, CA.

NOTICE ON DUES

Annual dues are \$20 with electronic delivery of the Newsletter, or \$25 for a printed copy. Make checks payable to EEVC and mail to James Natale, 3307 Concord Dr, Cinnaminson NJ, 08077, or pay via PayPal to www.paypal.me/EEVC.

MEETING SCHEDULE

Meetings are held in Room 49, Plymouth-Whitemarsh High School, 201 East Germantown Pike in Plymouth Meeting, PA, and begin at 7:00 p.m.

The June, July and August meetings will be at Cugini’s Pizzeria on Clemens Bridge Rd in Deptford, NJ. There is no charging available there, but there are two free J1772 stations a mile away at Ken Barbour’s charging oasis.

July 13

August 10

September 14

October 12

November 9