



June 2017 FVEAA Newsletter

Fox Valley Electric Auto Association

The FVEAA is a Not-For-Profit Illinois Corporation and the Chicago-area chapter of The Electric Auto Association

Next Meeting

JUNE 16, 2017 7:00 p.m. to 9:30 p.m.

Community Christian Church

1635 Emerson Lane
Naperville, IL 60540

[Google Map](#)

Agenda

- 6:30 Doors open -> Sign-in Sheet
- 7:00 Call To Order, Welcome and Introductions
- 7:15 Planning National Drive Electric Week and July & August meetings at Tesla showroom and Small Wonders Micro/Mini Car Museum
- 7:45 Break and EV showings
- 8:15 Club news and business.
- 8:30 Jeffrey Miller: Update on home charging infrastructure, 400 Amp service installed
- 9:15 Close

President's Words

Michael Willuweit

It's a shame our little newsletter doesn't have a wider circulation as this month's issue again features a gem by our own Rich Carroll on the perils of hacking in our ever increasing technological world. It's most worthy of your time. Speaking of time this newsletter is coming a bit later than usual as we wanted to confirm a few things before sending it out. Unfortunately Hunter Hamstra will not be presenting at this month's meeting as Netgain's new motor is still undergoing testing before it can be unveiled but John Emde will be saying a few words about what we can expect from Netgain.

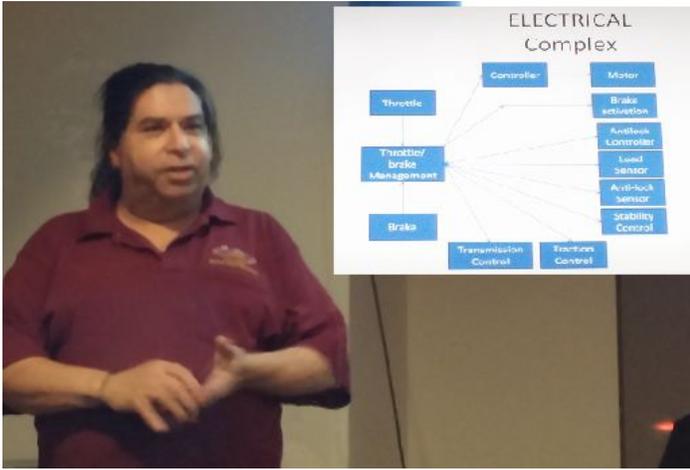
Also in the works is having our July meeting at Tesla's new Westmont showroom. Besides checking out the facilities Tesla will offer plenty of test drives and ride alongs. Tesla is even optimistic they may even have a Model 3 to bring to our National Drive Electric Week. Please look for next month's newsletter for details.

In August our club will meet in Crystal Lake at the Small Wonders Micro/Mini Car Museum. Bob Baker has made the arrangements for this special meeting and will share some of the details at this month's meeting. And not far from Crystal Lake is Jeff Miller's home where he will update us this month on his progress in his home charging undertaking, which perhaps is one of the biggest residential EVSE projects in the world.

Hope you can make it this Friday!

Photos of Last Meeting May 20, 2017

Bruce Jones, Michael Willuweit



Marty Belovicz on System Integration



Marty discusses System Integration using fast model electric cars that he races



Recent events like Earth Day



Bob Baker and his Nissan LEAF w backup



Record seven EVs at the May meeting including Nick's BMW i3, Fred's Smart4Two





AURORA GREEN FEST 6/10/2017



Rich Rezny w Ford Focus Electric
 Mike Willuweit w Toyota Rav4 Electric
 Bruce Jones' Plug-in Hybrid Hot Rod Hupmobile
 Rob Schwartz and his Electric Three wheeler ⇒



Cars displayed by Individuals and Dealers at the Aurora Green Fest:
 Red Chevy Volt, Gold Chevy Bolt, Blue Prius, Red Prius Prime and Red Tesla Model X

Yes the Chevy Bolt w 238 miles range is available - in limited numbers here in the Midwest. This one cost \$39,690 all-in as configured with options



And from Left to Right, Red Tesla Model X, Red Plug-in Prius, Light Blue Prius, Gold Chevy BOLT, Red Chevy Volt



New Chevy BOLT



New Chevy Volt



A Tesla Model X brought by owner Colleen

FVEAA Facebook Page - Like Us!

Grant Gerke

<https://www.facebook.com/FoxValleyElectricAutoAssociation>

FVEAA Facebook Group - Join Us!

Ted Lowe

In October 2015, i created a Facebook group for the FVEAA and invited all the past and current FVEAA members i know that are on Facebook. There are 47 members so far. If you're on Facebook but not in the group, yet please join us! If you're not on Facebook yet, please consider joining so you can join our group there! This group will help to replace our forums because it is much easier to use, read, post pictures and videos and get notifications. Please let me know if you have any questions/comments/suggestions. Hope to see you there! <https://www.facebook.com/groups/889497691136309/>

Rich's Ramblings

Rich Carroll

Security issues continue to rear their ugly heads, sometimes in the most unlikely places.

White Scope, an online security consulting company, has published a frightening paper, dealing with the ability to hack into people's pacemakers, and gain control. For those of you who not familiar with most pacemakers, they are inserted surgically, and the data read and modified by the physician (an electrocardiologist) in the office. Physicians are able to set parameters, including what triggers the pacemaker, and how it reports. Almost all pacemakers in the US have a radio frequency signal that they transmit to a monitoring device, commonly given to patients and placed next to the cardiac patient's bedside. An a schedule, (one time daily, or a couple of times a week) the pacemaker connects with the monitoring device and downloads it's history.

That monitoring device may be connected by a wired phone line, a cellular phone line, a Wi-fi connection, or one of several other means of connecting to the internet. A report is sent to the company that sold the pacemaker system, and a digest of the patient's information is transmitted to the cardiologist. Most pacemakers can be reprogrammed through the same system. White Scope purchased several monitors from public auction sites, and determined that:

- There is no authentication used. Any pacemaker programmer can reprogram any pacemaker from the same manufacturer.
- Pacemaker programmers do not require physicians to authenticate to the programmer.
- All pacemaker systems had unencrypted filesystems on removable media, making initial analysis relatively straightforward. Patient data, Social Security Numbers, physician contacts and medical diagnosis information were found on most devices, and none of the files and none of the filesystems were encrypted.
- They discovered over 8,000 known vulnerabilities in third party libraries across four different pacemaker programmer from four different manufacturers.

So, anyone can purchase equipment to connect to YOUR pacemaker freely on public auction sites. The software used does not encrypt the data, nor does it check in any way to see if re-programming is done by the physician. With minimal work, a hacker can purchase the device, interrogate your device, obtain your information, and send you a ransom note that indicates they can remotely shock you or terminate your life unless you comply with their demands. See the White Scope article on understanding the problem at <http://blog.whitescope.io/2017/05/understanding-pacemaker-systems.html> and see the original article evaluating the security of pacemaker systems at: https://drive.google.com/file/d/0B_GspGER4QQTYkJfaVIBeGVCSW8/view

And, just about the time, you think this is related to 'real hackers.' be aware that simple, easy to modify 'scripts' of computer code are reasonably available. The industry even has a term, used for simple hacking scripts, especially in the hands of relatively untrained and undisciplined coders. A "script kiddie" is a relatively untrained computer neophyte, who easily obtains some malicious code, inserts their name and uses it in a dangerous way. Today's report includes a 14 year old from Japan who was arrested in Osaka, Japan for publishing malware. See:

http://thehackernews.com/2017/06/japanese-ransomware-malware.html?utm_source=feedburner&utm_medium=feed&utm_campaign=Feed%3A+TheHackersNews+%28The+Hackers+News+-+Security+Blog%29&_m=3n.009a.1509.ra0ao09se7.wg6

And also in the news is the story of a young person arrested for leaking NSA secrets to the Russians.

http://thehackernews.com/2017/06/nsa-russian-hacking-leak.html?utm_source=feedburner&utm_medium=feed&utm_campaign=Feed%3A+TheHackersNews+%28The+Hackers+News+-+Security+Blog%29&_m=3n.009a.1509.ra0ao09se7.wgc What caught her? Yellow Dots.

She passed on top secret NSA files to "The Intercept" who has been publishing NSA documents leaked by Edward Snowden. She took the .pdf files, printed them, copied them, and gave them to The Intercept. She was not aware (nor was I) that most newer printers add nearly invisible yellow dots that describe the exact time and location where the pages were printed. Please read:

<http://blog.erratasec.com/2017/06/how-intercept-outed-reality-winner.html#.WTbYKHXYuw4>

(there is an interesting discussion in the comments below the article about whether the US Government has a right to make you write yellow dots when you print.) (Right on)

If you think that I have become paranoid about several hacking and security issues, you have missed the point. I am a pharmacist, which is where you go to fill those anti-anxiety prescriptions! ;<)

We currently have **64 active paid-up** members, **up 2** from last month! Please renew and recruit new folks!



FVEAA Membership Report

as of 2017-06-13 04:58:06

Count of Members by Type

Membership Type	Count	Paid Up
BusinessStd	1	1
Family	6	6
Individual	55	54
LifetimeInd	3	3
Totals	65	64

Other Statistics

Statistic	Value
% Paid Up	98.5%
Avg. Paid Up Days	195.3 days
% With Email	93.8%

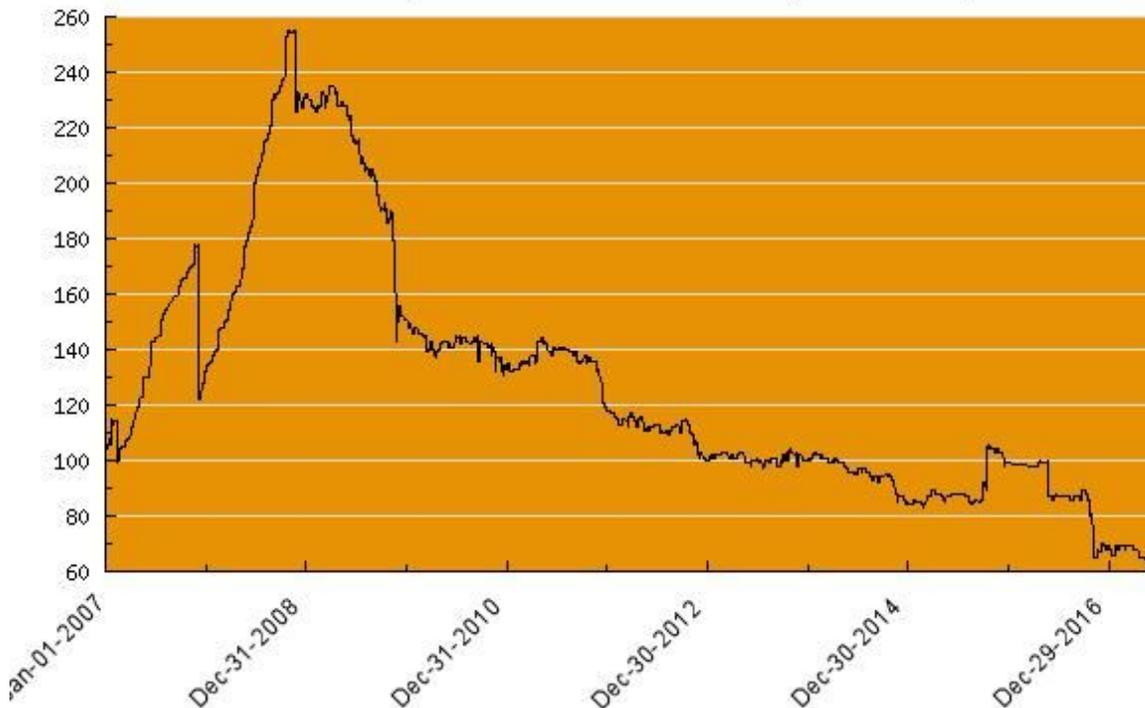
Encouraging Our Membership To Grow in 2017 and Some History

Ted Lowe

We live in a large metro area with 8 million people and EVs are the latest buzz so we should be able to grow the FVEAA! **Please invite your friends, neighbors, family, colleagues**, etc. to FVEAA meetings and EVents. Volunteer to attend EVents on behalf of the FVEAA (with or without an EV)! Your ideas on how to help grow the FVEAA are welcomed at anytime, thanks! Howard Hansen had a **great idea**... giving an FVEAA membership as a gift!

Here is a time-varying graph of our membership size from 2007 to now. Note that we peaked at about 255 members in the Summer of 2008 when gas was nearing \$5 per gallon. We were also attending lots more invitational EVents with our EVs. **Let's get out there and grow the FVEAA in 2017!!!**

FVEAA Paid Up Members as of June 13, 2017 12:05pm



Our membership system sends out “renewal reminder emails” before your membership is due. You will receive up to 3 before being marked “not renewed” (inactive). The sooner you renew, the fewer emails you will receive :)

So please pay attention to your email from the FVEAA and renew online using this link (for the easiest approach for all of us):

<http://www.fveaa.org/renew>

THANK YOU for your continued support of the FVEAA!

Meeting Minutes - May 19, 2017*Bruce Jones*

The meeting opened at 7:00 !!

- President Mike Willuweit opened the meeting right at 7:00 due to the packed agenda, and everyone who came Introduced themselves.
- Mike presented last month’s photos, then the World of EVs, what was trending and beyond.
 - His topics also included his experience at Green Drive\$ Chicago, Workhorse plug-in pickup truck, Chrysler pacifica hybrid and many others
 - As of last Nov 2016 there were 538,083 EVs sold, but as of May 2017, up to around 640,000
 - Before, Tesla provided free supercharging but now only 400kWh is included
- Rich Hirschberg described the upcoming outreach events
 - 5/20 ISC Chicago Science Fest at the Merchandise Mart with science and EV presentations
 - 6/10 Aurora GreenFest, Saturday, Times: 10 am to 4 pm Location: 150 W. Illinois Ave., 60506
 - 8/19-20 IREA Sustainability Fair (IL Renewable Energy Assoc) Location: Oregon, IL 61061
 - National Drive Electric Week Dates: Sept. 9 to 17 Locations:
 - EEvent 1- possibly Springhill Mall in West Dundee Sat 9/09 tentative
 - EEvent 2 - Naperville Test Track 9/17. Setup 12:00 noon, open 1-4, take down /pizza after

8:30 Break

- There were 7 Electric Vehicles to see
- 4 Nissan Leafs, 1 BMI i3, 1 Smart4Two, and Mike’s newly purchased Toyota Rav4 EV

8:50. Marty Belovicz presented on Systems Integration

- Electrical concepts from basics to complex
- Intricacies and complexities of early technologies compared to new technology
- He described how the CAN bus is used- A Controller Area Network (CAN bus) is a vehicle bus standard designed to allow microcontrollers and devices to communicate with each other in applications without a host computer. Ted mentioned it is good in noisy environments like engine compartments
- Relating principles of integration with 1/10 scale electric cars

Meeting Adjourned at 9:30 p.m.

FVEAA Membership Application Form - Version 2014-01-01

Name: _____

Address: _____

City, State Zipcode: _____

Phone: _____ Phone Type: Home ___ Work ___ Cell ___

Email: _____

Please check one: New Member _____ Renewal _____

How did you hear about the FVEAA ? _____

Membership Types and Annual Dues (please circle one):

Individual	\$20
Business	\$100
Premier Business	\$250
Charter Business	\$500

Newsletter Delivery Type (please circle one): No Newsletter Electronic

Please make checks payable to "FVEAA" and postal mail it with this membership application form to:

FVEAA**PO Box 214****Wheaton, IL 60187-0214**

Attn: Membership



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Web: hourlypricing.comed.com

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It is great having near zero, or sometimes even negative, rates to fill up my car for nearly free or even better!

—Daniel H., Hourly Pricing participant since 2015

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