

**Fox Valley Electric Auto Association
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March 2012 FVEAA Newsletter

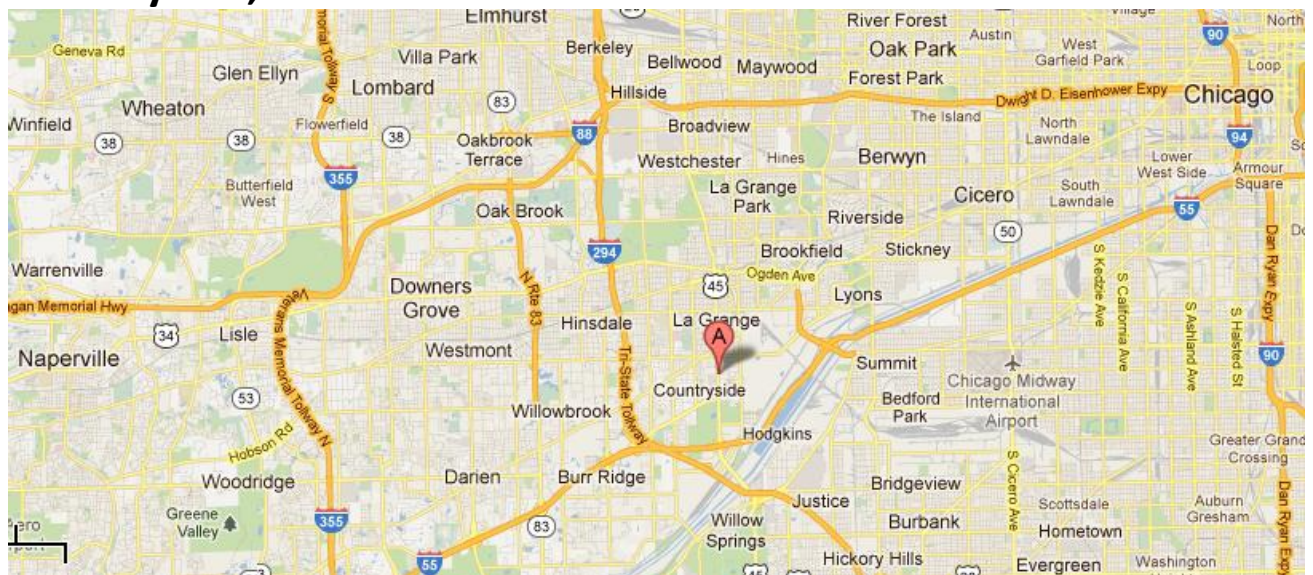
The FVEAA is a Not-For-Profit Illinois Corporation and the Chicago Area Chapter of The Electric Auto Association

Note: New Meeting Place!

Next Meeting

Friday, March 16th, 2012 - 7:00PM to 9:00 PM at

**Continental Mitsubishi at 5800 South La Grange Road in
Countryside, IL**



See directions <http://continentalmitsubishi.com/Map-and-Location/>

Agenda

- Call To Order
- Old Business
- Committee Reports
- New Business
- 3rd in a Series on Controllers by Miodrag Zubic
- Intermission and Program: The Mitsubishi "i" by Dennis Keene, and Test drives
- Close by 9:00

President's Words

Bruce Jones

MARCH 16th NEW MEETING LOCATION THIS MONTH!! Motor Controller presentation, and Test drive an all-electric "i" car!!

The FVEAA will be meeting Friday March 16, at 7:00 p.m. at Continental Mitsubishi at 5800 South La Grange Road in Countryside, IL.

Presentations and test drives of the Mitsubishi "i" will be featured per Dennis Keene who invited us to their showroom. Please pass the word to everyone who may not be a member that you know of. Everyone gets a chance to test drive the all-electric "i"

See directions <http://continentalmitsubishi.com/Map-and-Location/>

The Continental Mitsubishi dealership has just installed three Eaton Level 2 charging stations and has room in their shop for parking EVs that want to plug into 120VAC outlets. We'll start around 7:00 and end a little early, 9:00 p.m. but it should be enough time for everyone to get a ride in one of their three electric "i" cars on site.

Thanks for hanging in with us as we search for permanent digs!!

For all of the build-it yourself fans, Miodrag Zubic will present his 3rd in a series presentations on motor controllers.

Miodrag will cover two topics related to electric motor controllers, the difference between MOSFET and IGBT, as well as AC versus DC.

I understand (thanks to Wikipedia!) that the metal-oxide-semiconductor field-effect transistor or MOSFET is a transistor used for amplifying or switching electronic signals. The insulated gate bipolar transistor or IGBT is a three-terminal power semiconductor device primarily used as an electronic switch that combines high efficiency with fast switching of electric power. Which one is better?? Miodrag will explain.

And he will also address an electric vehicle question that's been on my mind for a long time, the electronics, differences, pros and cons of using AC versus DC.

We'll have all three of his presentations posted shortly on the forums for review. Thanks Miodrag!

See you Friday.

Sincerely, Bruce

A fairly extensive article recently appeared in "Microcar News," a subscription only magazine available to enthusiasts of small and unusual microcars. There is a lot of variation in what people think of as Microcars, but this magazine really addresses cars that are more than 25 years old and have an engine displacement of less than 1000 cc. Original Mini Coopers qualify, but, technically not the original Mini Cooper S (1275 cc) Think about the smallest of Fiats, the old version 500's, the 600's and the 850's. Very few American cars qualify, certainly the most common is the Crosley. Most Microcar enthusiasts apply a fairly liberal definition, and cars with alternate power but sized like the under 1000 cc cars also qualify. That adds several electrics which were produced in the 1970's and '80's, including the Elcar (a rebadged Zagato Zele), the Citicar, and the Commutacar. The article in the current issue of Microcar News details the history of the Citicar and the Commuta-Car, the differences, and the history of their marketing in the US.

But first, you likely need a description of the "Wayback Machine." Most internet savvy folks know the "Wayback Machine" as an archive of old web pages, maintained so that you can go back to the information that was presented on the web at some date in the past. This is an invaluable asset in finding older information, or in searching information about a company that has ceased business. See: <http://www.archive.org/web/web.php>

But the internet archives have repurposed the name from an earlier use. One of my very favorite cartoonists is Jay Ward, whose fertile mind created several comics bundled together in the "Rocky and Bullwinkle" Show. This was a cartoon series about a time-travelling dog (Professor Peabody) and his pet boy, Sherman. Peabody had a "Wayback Machine" and could try to dial up a date in the past for their time transport of the day, in a series called, "Peabody's Improbable History."

If you set your Wayback Machine for 1960, you will find Ward and his partner Alexander Anderson, Jr producing "Crusader Rabbit," and "Rocky (the Flying Squirrel) and Bullwinkle (the Moose)" and "George of the Jungle," and "Peabody's Improbable History" and "Fractured Fairy Tales" and "Dudley Do-Right of the Mounties." Goodness, I have had a toy on my desk of Boris and Natasha for fifteen years or so. Ward was a very successful cartoonist primarily because his work appealed to folks on several levels. Six to eight year olds liked the stories, adolescents found a hint of sexual tension, and adults could read the jokes on many different levels.

But if you set your Wayback Machine for March of 2012, you will find a very informative article by Chris Landers in the Microcar News. The first half of the article originally appeared in the Baltimore City Paper in September 2008, and is found online here: <http://www2.citypaper.com/story.asp?id=16113> (without many of the pictures) The second half of the article details the differences of the Citicar and the Commuta-car which followed it. There are significant differences, in number of batteries, door structure, electric motor used, speed, handling of these two vehicles, although both used the similar wedge shape initiated by the

Citicar. The author nicely moves the Wayback Machine over the time period from the 1960s up to the sale of Commuta-Car assets in 1986. The article discusses the flaws of the various stages of design. (The early Citicar adapted Cessena brakes for the front axle. It turned out to be a poor choice as aircraft brakes are only used for a few 'miles' each year, and the parts are outrageously expensive.) The Citicar used an extremely noisy transaxle with straight-cut gear teeth, but the Commuta-car used a Dana differential with helical cut gears, making a much, much quieter transaxle.

The article compares the two for driving, handling, acceleration and other areas. If you have an interest in these cars, you will find the four page article fascinating.

OK, if you will reset your Wayback Machine to today, we will continue with your "regular programming." I'll bring the Microcar News and a couple of reprints to the meeting.

Meeting Minutes -

Rich Carroll

The meeting was held at the Community Christian Church, Naperville, Illinois. This was a temporary facility, but the auditorium we used for the meeting was well equipped and comfortable. The Church made our visit or stay comfortable at every step of the way.

The meeting was called to order by President Bruce Jones at 7:10 P.M. Our first discussion was to acquaint the members/audience of the past discussions with Ken Packer and the staff at Packer Engineering. Packer is essentially in the process of finishing business, and closing their doors.

No Old Business was presented and no update of CEVC was available.

In committee reports, George Vergara from the Financial Assistance committee handed out an idea sheet, and George asked members to take it home, read it, think about it, and bring it back for discussion at a future meeting.

Rich Hirschberg from the Outreach Committee discussed the Green Technology Organization of Greater Chicago. They may be looking for a screening of the movie, "The Revenge of the Electric Car" for one of their meetings at Harper College.

Rich Carroll mentioned that Hannah Hamstra Etzkorn had a little baby girl; mom, dad and daughter (and grandpa and grandma) are doing well.

George Hamstra is finalizing plans to convert his Bricklin to electric power, and has a videographer Dan Gianneschi planning to document the conversion from early plans to first drive.

Rich Carroll mentioned that there will be a free showing of the "Revenge of the Electric Car:" at the Chicago Cultural Center on March 17, set up by the Independent Television Service.

A discussion of a possible club participation in Green Fest was held, but no decision to participate was made. Among the other upcoming events

were a show in Lake Barrington, several opportunities in Naperville, and the Homer Glen Earth Day/Arbor Day celebration/show on May 19.

Keith Baubkus from Geo. Bancroft Engineering gave an informative discussion of solar energy and charging stations.

After a break, we had a presentation by Ken Adams on the 350Green rollout of Level 2 and Level 3 charging stations. One member of the audience questioned the absence of 110V plugs on the charging stations, but it was suggested that upgrade his charger or create an adapter. Ken shared local projections and national projections during his talk.

The meeting was adjourned at 9:46 PM.

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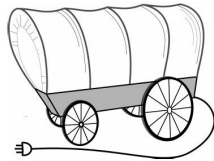
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