



Engineers' News

May 2015

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www.FortWayneEngineersClub.org

May Tour – RSVP Required

BAE Systems, Electronic Systems

Northwest Corner of Airport Expressway and Ardmore Avenue, Fort Wayne, IN

Thursday May 21st at 4:00 PM (note the earlier tour start time)

BAE Systems (www.baesystems.com) is a global defense, aerospace, and security company employing around 88,200 people worldwide. BAE's wide-ranging products and services cover air, land, and naval forces, as well as advanced electronics, security, information technology, and support services.

In May 2014 BAE Systems broke ground at its new Fort Wayne facility (<http://www.arconational.com/2014/08/arco-breaks-ground-on-new-bae-systems-manufacturing-facility/>); the FWEC will have a chance to tour the new building. BAE Systems' Fort Wayne operations produce engine controls and flight controls for commercial and military aircraft, and flight deck systems, cabin systems, electrical distribution, and wiring harnesses for commercial aircraft. The company employs more than 1,000 people in Fort Wayne in engineering, management, operations, and production positions.

The tour is limited to 20 attendees, please RSVP to info@fortwayneengineersclub.org. The building is still under construction and attendees will be provided hard hats. Open toe or shoes with heels are prohibited.

April Tour – New June Date

Personal tour of in-progress RV-12 kit airplane
Jim Stark's house: 9841 N 750 E, Ossian, IN 46777
Thursday June 4th at 6:00 PM

Jim Stark (father of current FWEC Treasurer Ryan Stark) is building a kit plane in his garage. The plane is an RV-12; a two-seat, low wing all aluminum aircraft made by Van's Aircraft Company. This aircraft kit can be purchased in parts and Jim is on the third part. The first was the tail and empennage, and second kit was for the wings, and the third is for the fuselage. Pizza, chips, beer, and pop will be provided and there will also be a bonfire going in case it gets cold.

See this link for more info: <https://www.vansaircraft.com/public/rv12.htm>

Directions from Fort Wayne: Take Winchester Road to the town of Poe. In Poe, turn Right on Poe Road (the last road before you leave town) and head south into Wells County. In Wells County, once you pass 1000 N, look for a large blue house on the East side of the road. A white MINI Cooper will be parked by the end of the driveway.

Open Board Positions

for the 2015-2016 Membership Year

The FWEC will have open positions for the next membership year. Open positions are available for a vice president and two 1st year board members. The vice president assumes the president role the following membership year. 1st year board members would serve their first of three consecutive membership years in 2015-2016. Board members are expected to attend monthly board meetings that generally occur on the first Tuesday of the month on the Indiana Tech campus. Help determine future FWEC tour venues and shape the direction of the club! More information about the board can be found in the FWEC constitution (<http://fortwayneengineersclub.org/constitution.pdf>) or by contacting us at info@fortwayneengineersclub.org.

Fort Wayne Regional Maker Faire

The Fort Wayne Regional Maker Faire® (<http://makerfairefortwayne.com/>) is scheduled

for August 8 & 9, 2015. This is the fifth Faire to be held at the beautiful Headwaters Park East - Lincoln Pavilion.

This family friendly event is so unique. It combines traditional fair fun like entertainment throughout the weekend, and handmade items and local food for purchase, with the rare chance to see projects from Makers of all kinds and from a wide variety of backgrounds and disciplines. Makers who specialize in metal, wood, fire (we hope), electronics, fabric, paper, and more will be there. The motto is one of everything and five of nothing at Maker Faire Fort Wayne.

Guests get to try their hand at welding for free; learn basic soldering techniques (for a small fee), see weird vehicles, "ride rides", Make & Take things, and have all kinds of fun. As importantly, Makers will be making at Maker Faire or at least help folks understand tools, materials and tricks used in their special projects. Everyone who comes walks away with smiles on their face and the desire to make something new.

The FWEC is again planning on hosting a membership booth at the Faire. If you attend please stop by and see us to say Hi.

TekVenture Spring Renaissance Workshops

Summary by FWEC's Rod Vargo from flyer by TekVenture (<http://tekventure.org/workshops/>), which is a volunteer engineering organization with "clubhouse" at 1800 Broadway. Rod found TekVenture to be important in testing his son's potential interest in and perception of engineering prior to college. Helpful for adults as well. Register for choice of workshop(s) at www.eventbrite.com or call 260.432.1095 (i.e., TekVenture's Greg Jacobs). For ages 12 and adult.

April 25 (Saturday) - Learn to Solder taught by K. VanZullen. \$36 including a \$6 kit at 9 a.m. and \$40 including a \$10 kit at 1 p.m. (Vargo's note: Do not underestimate the basic importance of this skill, especially in an age saturated with micro-electronics.)

April 29 (Wednesday) at 7 p.m. - Super Cool Workshop taught by Scott Pond. Levitate a magnet, make ice cream with liquid nitrogen, and emulate a rail gun (navy's replacement for gunpowder and explosives). \$40 including a \$10 kit.

May 2 (Saturday) at 9 a.m. - Electronic Textiles: Beginning taught by D. Clossen. Use multi-meter to plan conductive and nonconductive materials into a series circuit wearable on your wrist.

May 2 at 1 p.m. - Electronic Fashions. Parallel circuit with mixed LEDs, explore LillyPad Arduino microcontroller, and add a parallel circuit to item of clothing you bring to the workshop. \$60 including \$30 kit.

May 6 (Wednesday) at 7 p.m. - Building My Electric Vehicle. Scott Pond and Scott Rizzo teach aspects of converting their adult pedal car or electric kiddie car into noteworthy electrics. \$30.

May 9 (Saturday) at 9 a.m. - Meet Microcontrollers: Arduinos taught by P. Simunek and J. Merz. \$30. Participants must supply own Arduino and laptop.

May 9 at 1 p.m. - Meet Microcontrollers: Raspberry Pi. Powerful microcomputers intended for promoting basic computer science. \$30. Participants must supply own Raspberry Pi and laptop.

May 13 (Wednesday) at 7 p.m. - Beginning With Hand Tools taught by C. Loew. \$30.

May 16 (Saturday) at 9 a.m. - Cold Molding Fundamentals taught by M. VanDiepenbos. Create a mold and cast a small object. \$30.

May 16 at 1 p.m. - Rotational Casting & 3D Molding. Experiment with different casting materials and molding methods including where 3D printing may fit. \$30.

May 20 (Wednesday) at 7 p.m. - The World of Vacuum Cleaners taught by R. Vanover. The TekVenture-Skaggs Collection is toured with an expert and collector. \$20.

May 23 (Saturday) at 9 a.m. - Introduction to Basic Electricity taught by P. Bolakowski. (Impressively broad overview of AC and DC.) \$36 including \$6 kit with multi-meter, battery stick, and light bulbs.

May 23 at 1 p.m. - Build and Control Your DC Motor. (Impressively broad overview.) \$35 including \$5 kit.

May 27 at 7 p.m. - Do I Need A Patent? Taught by EE and Patent Attorney Jacque Wilson. Includes patenting process. \$30.

May 30 (Saturday) at 9 a.m. - Scanning For 3D Printing taught by R. Gingrich. \$30 plus \$25/scan and \$25/3D print.

Also, May 30 is the Annual TekVenture Garage Sale & Bazaar.

Autodesk Design Software – Free to Students and Teachers!

FWEC secretary notes that Autodesk, an engineering and maker software firm, has made their design software available in full versions to students and teachers. For more information and software downloads visit:

<http://www.autodesk.com/education/home>.

Students, Are you an aspiring designer, engineer, digital artist, maker, other? Autodesk believes in you, so we're giving you free access to the tools you need to succeed.

Teachers are eligible for free access to Autodesk software and teaching resources to help students succeed academically and in their future careers.

2014-2015 FWEC Board Members

Below are the 2014-2015 FWEC board members. Board positions are crucial to the planning of tours and events for the FWEC. Please consult the FWEC constitution (<http://fortwayneengineersclub.org/constitution.pdf>) or contact us at info@fortwayneengineersclub.org for information on specific duties on board positions.

Current 2014-2015 Membership Year Board

President: Marna Renteria

Vice President: Rod Vargo

Treasurer: Ryan Stark

Secretary: Elizabeth Garr

1st Year Board Member: Mike Magsam & Jack Phlipot

2nd Year Board Member: John Magsam & Rob Cisz

3rd Year Board Members: Dan Delaney & David Momoh

SAFETY EXPERTISE & ANALYSIS

Interested in a review of manufacturing process or equipment to ensure safe operation/OSHA compliance, call Jake for a complimentary review. He has over 20 years of Manufacturing Engineering experience and would be happy to review your applications. Sidener Engineering offers control reliable pneumatic and hydraulic valves, lock out tag out valves, safety rated category 3 & 4 interlock switches, hinge switches, common & uniquely coded RFID switches, light curtains, and safety mats.



Contact Jake for all your **FLUID POWER, SAFETY** and **AUTOMATION** needs at 797-9819
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FWEC Membership

The FWEC exists through funding of its membership. Please forward your copy of the Engineers' News to prospective members and encourage their attendance at tours. Remember, the FWEC is the best deal in town, annual membership is \$10. We offer free monthly tours September through May. Please be sure to recommend FWEC membership to your colleagues and friends.

Sweetwater GearFest

Fort Wayne business Sweetwater will hold its annual GearFest (<http://www.sweetwater.com/gearfest/>). This June 12 and 13, join thousands of people from all over the USA in Fort Wayne, Indiana at Sweetwater's GearFest — THE destination for two days of gear mania!

GearFest includes free workshops, hands on demonstrations of audio and musical equipment, live performances, a musicians' flea market, and free guitar restringing.

Chapter

The Fort Wayne Engineers' Club is committed to networking and showcasing local sister societies. The Project Management Institute Northeast Indiana Chapter (www.pmi-neic.org) will have their next meeting on May 27. Please see the below link for more information on their chapter meeting.

Link to May 2015 Chapter Meeting: http://www.pmi-neic.org/web/index.php?option=com_content&view=article&id=209:register-for-our-2015-05-27&catid=38&Itemid=257

Link to Register for PMI-NEIC Chapter Events: www.tinyurl.com/neicregister

Sign up for our PMI-NEIC Monthly Newsletter: www.tinyurl.com/neicsignup

Advertise in the Engineers' News

New for the 2014-2015 membership year! The FWEC will be selling advertising space within the Engineers' News. Advertisements are \$10 per issue and limited to ½ page of content. For submissions please contact info@fortwayneengineersclub.org.

FWEC Board Meetings

Fort Wayne Engineers' Club board meetings are open to all FWEC members. The next FWEC board meeting will be Tuesday June 2nd at 7:00 PM. Board meetings are held on the Indiana Tech campus in the Academic Center in room ACC-201 (<http://www.indianatech.edu/wp-content/uploads/map-color-large.png>).

Engineers' News Past

The FWEC has a significant history; Treasurer Ryan Stark and his wife were able to

find past Engineers News documents dating back to 1938! Here is an excerpt of the past newsletter (a scanned copy of the entire newsletter is available through the FWEC website): <http://fortwayneengineersclub.org/newsletter/194405FWECnewsletter.pdf>

THE BOSS HAS NOTHING TO DO

As Everbody knows - the boss has practically nothing to do - that is - except - to decide what is to be done - not to be done - why it should be done by somebody else - or why it should be done in a different way - to prepare arguments in rebuttal that shall be convincing and conclusive -

To follow up to see if the thing has been done - to discover that it has not bee done - to listed to excused from the person who should have done it - and did not do it - to follow up a second time to see if the thing has been done - to discover -

That it has been done but done incorrectly - to point out how it should have been done - it may as well be left as it is - to wonder if it is not time to get ride of a person who cannot do a thing correctly - to reflect that the person in fault has a wife and seven children - and that certainly -

No other boss in the world would put up with him for another moment - and that - in all probability - any successor would be just as bad - and probably worse - to consider how much simpler and better the thing would have been had he done it himself - he would have been able to do it right -

In twenty minutes - but that as things turned out - he himself spent two days trying to find out why it was that it has taken somebody else three weeks to do it wrong - and then realized that such an idea would strike at the very foundation of the belief of all employees that -

The Boss has nothing to do!