

Engineers' News

February 2020

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Find us on 

February Tour



UNITED STATES
POSTAL SERVICE®

United States Postal Service

Date: Thursday, February 27

Time: 7:00 pm

Location: 1501 S Clinton St Fort Wayne, IN 46802

Tour the Fort Wayne United States Postal Service branch to see how they use automated equipment used to sort and ship our mail. We will get to see the evening receiving, sorting, and shipping complex that serves our region. Guests should park in the customer space in front of the building and enter into the front lobby. Shoes should be enclosed with good traction and avoid loose fitting clothing.

Upcoming Events

March Tour: Embassy Theater (Organ)

Date: Monday, March 23

Time: 6:30 pm

Location: 125 W Jefferson Blvd, Fort Wayne, IN 46802

*Must be 18 years or older and able to climb ladders, catwalks with minimal or no railings, and tight spots. Limited to 30 guests. If interested please RSVP to info@fortwayneengineersclub.org.

April Tour: Indiana Tech (Geothermal and Wind Energy Systems)

Date: Thursday, April 23

Time: TBD

Location: 1600 E Washington Blvd, Fort Wayne, IN 46803

May Tour: TBD

Date: TBD

Time: TBD

Location: TBD

January Tour Summary



(Above: FWEC President John Magsam in a Therma-Tru factory classroom-showroom. Photo taken with permission.)

A tour of Therma-Tru Doors in Butler, IN, on January 23 was attended by ten members whose interest generated considerable conversations and an extensive tour during daytime operations. We signed nondisclosure agreements, legitimately

needed in this case, but some information is public knowledge. Several of us owned Therma-Tru doors. Another facet of interest was obvious and significant continuous improvements in operations, safety, and capacity compared to our tour of six years ago.

This facility manufactures 9,000 to 13,000 exterior-grade doors per day utilizing nearly 1,100 employees working up to three shifts in nearly 650,000 square feet. Operations are coordinated with other facilities in the region, specifically a warehouse and distribution location, a sales and technical support office, a separate research and development "innovation" center, an administrative office near Toledo, and a destructive-testing laboratory. Discussions implied that all the locations have quality assurance stations and labs.

These exterior doors are intended to supply diverse nationwide businesses ranging from basic big box warehouse stores to custom-building. Therma-Tru may or may not supply the jams but does provide a complex range of options including interior components, wood grain impressions, finishes, sidelights, insets such as windows in the doors, and transoms. Very basically, three levels of quality are produced with vinyl exteriors and one level of steel exterior. Vinyl has significantly surpassed steel in durability, strength, cost effectiveness, finish, and other considerations. Their best exteriors are manufactured with thicker vinyl of higher-grade resin, combined with fiberglass, which in many ways resembled the durability and damage resistance of extremely rugged leather. There are also different levels available in strengths of hinges, internal rigid foam cores, perimeter framing components, intruder resistance, safe rooms, and more.

Doors built to hurricane-type building codes may include steel within a strong rigid foam core and moisture/rot "proof" composite laminated perimeter frame, all hidden within a fiberglass-impregnated heavy vinyl exterior. Window inserts in hurricane code doors are very strong laminated and tempered glass.

There are a great many details and innovations since our last tour in products, productivity, and elimination of waste. There are a large number of door variations. Straight forward controls are in place and clear quality assurance and testing, all clearly being kept simple on the surface but complex beneath and continuously improved. Our tours reveal all of these factors are mandatory for success in the 21st Century. Large presses provide initial vinyl-fiberglass or steel door skins of various types and finishes. The dies are managed with forklifts reminiscent of Sherman tanks including their road wheels, skins of 2" thick steel, and counterweights resembling gun mantlets. The dies do not permanently retain quality impressions of wood grain and must be refurbished.

Cleanliness and air quality received many spontaneous positive comments from our members. Even the tops of the presses, which can be 2-3 stories high, were clearly

clean. Floors were clear and footing good despite our moving amongst dense ongoing rapid manufacturing. Safety markings and meeting stations were well maintained and laid out. An obvious continuous process was improved workstations throughout the plant and minimizing repetitive motions. Individual worker suggestions underlie much of this, yielding improved productivity, safety, and worker retention. Injury rates displayed at various safety stations showed a good workplace and believable data. (Editor: It would be a compliment to share more info, but I'm not sure what would be considered confidential. My wife was a forty-year professional safety manager of food and beverage facilities this size.) The efficiency and worker attitudes here were impressive. A lot more work and materials are involved in each successively higher quality of door.

Our very sincere thanks to Therma-Tru Doors and our very effective tour host.

Interested in hosting a tour?

Contact us at info@fortwayneengineersclub.org

FWEC Board Meetings



The FWEC board meets eight times a year to plan and organize tours for our members. These meetings are open for anyone to attend. We are always looking for new members to join our team! If you are interested in being a board member please attend our next board meeting or contact us at info@fortwayneengineersclub.org.

Next Meeting

Date: Tuesday, March 3rd

Time: 7:00 pm

Location: [Indiana Tech McMillen Library](#) Room ACC-201

FWEC roster for FY2019-2020

President: John Magsam

Vice President: Nate Berndt

Treasurer: Ryan Stark (info@fortwayneengineersclub.org, or phone 456-0809)

Secretary: Marna Renteria

First-year Board Members: John Renie, Craig Welch

Second-year Board Member: Rob Cisz, Bert Spellman

Third-year Board Member: Dave Gordon, Morgan Miller

Editor of Engineer News: Morgan Miller

Membership and Contact Chair: Dave Schaller

Northeast Indiana DiscoverE Chair: *****OPEN*****

Local Opportunities

Ivy Tech Seeking Engineering Technology Adjunct Faculty

Ivy Tech Engineering Technology is looking for Adjunct (part-time) faculty to teach students in a variety of courses including C/C++ Programming, CAD in Mechanical Design, Mechanical Documentation, and Electrical Engineering Technology. Adjunct faculty assist students in reaching their goals by providing effective instruction and assessment within the framework of common syllabi provided by the school. If you're interested in teaching the future engineering workforce, reach out to Cait Cramer at ccramer15@ivytech.edu. Applicants must have a bachelor's degree in Engineering or Engineering Technology and availability at least one night a week.

TekVenture Meetings Open to The Public

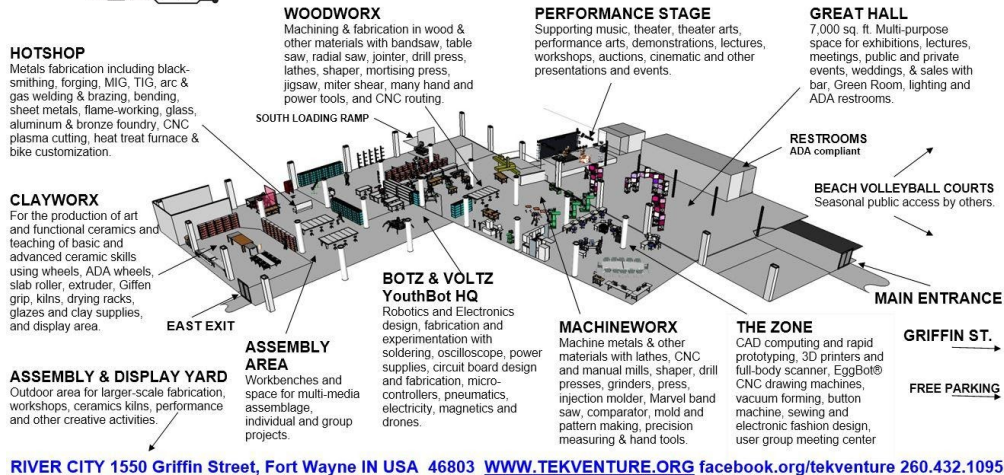
TekVentue holds a free public Open house and Social with pizza and drinks every last Friday of each month at 6 pm. All ages welcome. The first floor is 15,000 sq. ft and entirely handicap accessible. Various clubs meet there. The clay working area is booming. Computers are available. There are a stage and some theater. Productions each year. Some underutilized space is available for working on motor vehicles, near their machine shop.

Got something you want to make, a technique you want to learn or a tool you want to use? Come to TekVenture and start Making your future! See tekventure.org. This location has also substantially lowered their overheads and costs of membership.



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