Our New Metal Printers An Option For Manufacturers, Small Businesses

Thanks to a collaboration with Proto Precision Manufacturing Solutions and GE Additive, The Ohio State University’s Center for Design and Manufacturing Excellence (CDME) has added state-of-the-art industrial metal printers to their additive manufacturing laboratory. Led by a College of Engineering alumnus Sugu Suguness, Proto Precision has placed two recently purchased GE Additive machines at CDME. The industrial-grade Arcam Q10+ and Concept Laser metal printers are capable of printing nickel alloys, titanium, and steel using laser and electron beams, respectively, and are the most recent additions to CDME’s growing additive manufacturing capabilities.

The new metal printers are part of GE Additive’s latest product portfolio. The Arcam Q10+ prints titanium, which can be used for medical implants and aerospace parts. The Concept Laser prints titanium and nickel alloy parts often used in the automotive and aerospace industries. CDME also recently added an ExOne printer, which uses a binder jetting interface with metal powder.

The ability to print using laser, electron beam and binder jetting within one university lab is highly unique according to Ed Herderick, Director of Additive Manufacturing at CDME. “And small businesses and manufacturers can quickly integrate high-end metal printing capability into their operation folds by partnering with us.”

To read the full article and learn more about what CDME’s additive manufacturing laboratory now includes, click here.

Cyber Security: Weekly Tips from Experts

Jamey Dixon, IT Growth Advisor at The Center for Design and Manufacturing Excellence, is our expert in cyberdefense. He is available to reinforce your defense strategy before your company's digital boundaries are compromised, your customers' financial credentials are stolen, and an unreasonable ransom is demanded.

Each week, CDME provides a new cybersecurity tip, tool or resource on our cybersecurity page. Here are Jamey’s April cyber security tips:

- If you aren’t using DMARC for email authentication, you should be (learn more about DMARC here).
- Learn more about the Enhanced Cybersecurity for Small Manufacturers Act, introduced on April 12, 2018 (full article here).

Ohio SBDC is offering a series of webinars on cybersecurity. Topics and registration links are listed:

1. May 15 laptop security
2. May 22 website security

Which is Better - Hiring a Web Developer or Using a DIY Website Builder?

Anita Campbell.

Today, many small businesses get a website up and running in one of two main ways.

1. Hire a web developer to build them a custom website
2. Build their own website using one of the do-it-yourself platforms (Jimdo, Wix, Weebly, SquareSpace, or GoDaddy)

There’s no right method for every business. For some businesses, the right answer will be to hire a web developer to build a custom website to your specifications. For others, the right answer will be the do-it-yourself approach. Which method you choose depends on a number of factors including your budget, needs, timing, and internal capabilities. Take a look at the advantages to help you choose the method of getting a website that’s right for your business.

Advantages of a custom website

3. May 29 email security
4. June 5 mobile device security
5. June 12 legal

Contact Jamey today at dixon.739@osu.edu to discuss your company's cybersecurity health and defense strategy.

CDME Events

Commercialize Your Product: Tools & Resources for Efficiency and Success
Eric Wagner, Senior Collaboration Officer at CDME, will be speaking at Innovate New Albany's Tiger Talk April 27 11:30 am - 1:00 pm
Innovate New Albany
8000 Walton Parkway, Ste 200
New Albany, OH 43054
Register [here](#).

Department of Labor Seminar
May 16 9:00 am - 3:30 pm
Ohio State South Centers
1862 Shyville Road
Piketon, OH 45661
Price: $30 per person
Register by emailing dunn.595@osu.edu or calling 740-289-1605 x301 by May 4th

CDME Open House
May 18 11:00 am - 1:00 pm
Center for Design and Manufacturing Excellence
1314 Kinnear Road
Columbus, OH 43212
Register [here](#).

SBA’s National SBIR Road Tour
Hosted by Ohio State’s College of Engineering, Technology Commercialization Office, CDME, and partner Rev1Ventures
June 20 7:15 am - 5:00 pm
The Ohio Union
1739 N. High Street
Columbus, OH 43210
Price: $55 for non-Ohio State employees
Register [here](#).

Featured Events

EcoChem Partners with CDME to Implement Smart Fuel & Fleet Station Technology

EcoChem Alternative Fuels - HPI (High Performance Innovations) of Dublin, Ohio, in a joint development project with The Ohio State University Center for Design and Manufacturing Excellence, introduces its patented HPCD Smart Fuel & Fleet Station for helping school districts and municipalities modernize their fueling infrastructure. The system includes fuel storage, pumps, and intuitive fuel and fleet management software that connect vehicle data with fuel consumption, an analytics dashboard and EcoChem's patented fuel processing system that re-refines the degraded fuel purifying, stabilizing and enhancing it to its own branded High Performance Clean Diesel (HPCD).

EcoChem partnered with The Ohio State University’s Center for Design and Manufacturing Excellence to implement the technology inherent in the Smart Fuel & Fleet Station. “We are happy to support EcoChem - HPI in their efforts to bring their above ground fuel and fleet management system into the marketplace,” states Eric Wagner, CDME’s Collaboration Manager. For more information, contact Joshua Koch at jfk@ecochem.us. Read the full article [here](#).

Adopting Industrial IoT Enhances an Enterprise's Ability to Compete

• Your website will be exactly what you want, to your specifications. It may include advanced functionality.
• A professional does the work for you

Advantages of a DIY website

• You get professional designs. Most also have mobile templates or responsive designs that display well on all screen sizes.
• Inexpensive! It’s possible to get a “free” website, although you should opt for a paid plan as it won’t have ads and you can use your own domain address. Paid plans typically run less than $30 a month.

For a complete list of advantages and disadvantages of hiring a web developer versus using a DIY website builder click [here](#).


EcoChem Alternative Fuels - HPI (High Performance Innovations) of Dublin, Ohio, in a joint development project with The Ohio State University Center for Design and Manufacturing Excellence, introduces its patented HPCD Smart Fuel & Fleet Station for helping school districts and municipalities modernize their fueling infrastructure. The system includes fuel storage, pumps, and intuitive fuel and fleet management software that connect vehicle data with fuel consumption, an analytics dashboard and EcoChem’s patented fuel processing system that re-refines the degraded fuel purifying, stabilizing and enhancing it to its own branded High Performance Clean Diesel (HPCD).

EcoChem partnered with The Ohio State University’s Center for Design and Manufacturing Excellence to implement the technology inherent in the Smart Fuel & Fleet Station. “We are happy to support EcoChem - HPI in their efforts to bring their above ground fuel and fleet management system into the marketplace,” states Eric Wagner, CDME’s Collaboration Manager. For more information, contact Joshua Koch at jfk@ecochem.us. Read the full article [here](#).

Adopting Industrial IoT Enhances an Enterprise's Ability to Compete

• Your website will be exactly what you want, to your specifications. It may include advanced functionality.
• A professional does the work for you

Advantages of a DIY website

• You get professional designs. Most also have mobile templates or responsive designs that display well on all screen sizes.
• Inexpensive! It’s possible to get a “free” website, although you should opt for a paid plan as it won’t have ads and you can use your own domain address. Paid plans typically run less than $30 a month.

For a complete list of advantages and disadvantages of hiring a web developer versus using a DIY website builder click [here](#).


EcoChem Alternative Fuels - HPI (High Performance Innovations) of Dublin, Ohio, in a joint development project with The Ohio State University Center for Design and Manufacturing Excellence, introduces its patented HPCD Smart Fuel & Fleet Station for helping school districts and municipalities modernize their fueling infrastructure. The system includes fuel storage, pumps, and intuitive fuel and fleet management software that connect vehicle data with fuel consumption, an analytics dashboard and EcoChem’s patented fuel processing system that re-refines the degraded fuel purifying, stabilizing and enhancing it to its own branded High Performance Clean Diesel (HPCD).

EcoChem partnered with The Ohio State University’s Center for Design and Manufacturing Excellence to implement the technology inherent in the Smart Fuel & Fleet Station. “We are happy to support EcoChem - HPI in their efforts to bring their above ground fuel and fleet management system into the marketplace,” states Eric Wagner, CDME’s Collaboration Manager. For more information, contact Joshua Koch at jfk@ecochem.us. Read the full article [here](#).
industrial applications of these processes to future aims of high speed forming.

The Ohio State University
May 13-16 (for itinerary, click here)
Price: $550
Register here

Analysts everywhere are discussing the advantages of smart manufacturing, Industry 4.0, and Industrial IoT. Despite slight differences in terms, these advancements focus on the greater availability of information in the industrial environment.

The adoption of Industrial IoT (IIoT) offers a host of benefits. When sensors, devices or connection points are added to existing machinery or equipment in the field, enterprises can closely analyze data and create processes resulting in reduced downtime, loss prevention, and cost savings. This is Industrial IoT (IIoT). While those benefits are helpful, there are greater advantages for digital transformations and adopting IIoT.

This technology has the power to enhance an enterprise’s ability to compete, prepare businesses for further digital evolution and to help create a customized experience for customers based on insights.

Read about IIoT for Business Survival and its benefits in the entire article here.

Lunch and Learn:
How to Optimize Global Resources in Manufacturing
Thursday, May 24 12:00 pm - 2:00 pm
Center for Design and Manufacturing Excellence
1314 Kinnear Road
Columbus, OH 43212
Register here

CDME was invited to present the MEP model to the the membership of the Buckeye Hills Regional Council’s during their officer election and policy council meeting on Friday, April 6 at their headquarters in Marietta, OH. Buckeye Hills is celebrating their 50th anniversary this year and has been a leading change agent for positive growth in the region over that time. Eric Wagner and Dorinda Byers, MEP Growth Advisor with CDME, met with the members and other constituents to determine how the CDME MEP program can best support the region and existing programs.

Buckeye Hills Regional Council, a voluntary organization representing local governments, focuses on improving the socioeconomic conditions of residents and communities across eight counties in southeastern Ohio.

State of Ohio Rail Plan Survey
The Ohio Rail Development Commission is asking for your input to prepare the State of Ohio Rail Plan. The Rail Plan is intended to fulfill a federal
NCDMM's Annual Summit 2018
May 9-10   8:00 am - 4:00 pm
Chestnut Ridge Golf Resort & Conference Center
132 Pine Ridge Road
Blairsville, PA 15717
Price Varies
Register here

MFG TMW: Barbara A. Trautlein, PhD,
Leadership Strategist, Keynote Speaker,
Host of Women in Manufacturing Podcast,
Founder of Change Catalysts, Author

Kathryn Kelley, Director of Ohio Manufacturing Industry

Manufacturing Tomorrow is a podcast series brought to you by the Ohio Manufacturing Institute at The Ohio State University. Featuring the perspectives of manufacturing leaders, they focus on the advanced manufacturing innovations, solutions and partnerships that exist in our region now and that will propel industry in the future.

Current Podcast Topics:

- change intelligence (CQ)
- change Leadership
- women in manufacturing

Click here to listen to the podcast

The Ohio Manufacturing Extension Partnership (MEP) program is funded in part by the U. S. Department of Commerce, National Institute for Standards and Technology, the Ohio Development Services Agency and local partners including the Center for Design and Manufacturing Excellence. Ohio MEP is driving productivity, innovation and global competitiveness for Ohio manufacturers with a focus on small and medium sized enterprises (SME).

Center for Design and Manufacturing Excellence
The Ohio State University
1314 Kinnear Road, Suite 1533
Columbus, OH 43212
614-292-6888