

Penn State College of Engineering Accepting Learning Factory Project Submissions

written by Lauri Moon | November 14, 2019



The Learning Factory at Penn State provides undergraduate engineering students the opportunity to tackle real-world design problems utilizing classroom engineering design knowledge and tools. PennTAP provides Learning Factory engagement opportunities with businesses and organizations across Pennsylvania. These projects, scoped and presented by sponsors, allow students to practically design or improve an idea that a business may not have the resources or manpower to tackle. Over the years, these engineering design capstone projects have provided proof-of-concept and prototype designs that have made a significant impact across the commonwealth.

Through collaboration with the Learning Factory program, PennTAP can provide needed technical assistance to help move company ideas forward through design, proof-of-concept and prototype assistance. There is a \$3500 donation needed to sponsor a team of 4-6 senior engineering students for a 15-week semester project (approximately 400-600 hours of student work.) Additionally, intellectual property protection and non-disclosure agreements can be procured if requested by the sponsor.

Through Learning Factory's support, PennTAP can provide clients an opportunity to engage with Penn State across most engineering disciplines including, but not limited to, computer science and engineering, biomedical, mechanical, electrical,

material science, energy, chemical and industrial engineering.

Project submission deadline is December 13th! EARLY BIRD DISCOUNT of \$250 if project is submitted by November 22nd.

Contact PennTAP at 814-865-0427 or penntap@psu.edu to learn how your business can collaborate with the Learning Factory by sponsoring a team project.

Recent Meeting of PA Manufacturing Caucuses

written by Lauri Moon | November 14, 2019

Directors of the Pennsylvania Industrial Resource Centers, including IMC's Dan Manetta, recently convened in Harrisburg to attend a meeting of the House and Senate Manufacturing Caucuses. The purpose of the meeting was for House and Senate members to hear first-hand, from PA manufacturers, about their future challenges and requirements for growth, including workforce development and advanced manufacturing technology and processes.

PA State Representative, Donna Oberlander, posted on her Facebook page about the meeting, "As co-chairman of the House Manufacturing Caucus, I had the opportunity to meet with manufacturers, around the state along with our Industrial Resource

Centers (IRCs), to learn more about how we as policymakers can better help them. Manufacturing is literally the backbone of local economies, and our caucus seeks to support research and policy developments, in addition to raising the profile of the industry throughout Pennsylvania. After our meeting, it was my pleasure to join several of our manufacturers for the presentation of House Resolution 474, which designated Oct. 4, 2019, as Manufacturing Day in Pennsylvania.”



IMC Helps Hermance Machine Secure State Funding to Expand, Supporting Nearly 60 Jobs

written by Lauri Moon | November 14, 2019

Harrisburg, PA - Today, Governor Tom Wolf announced Hermance Machine Company, a family-owned and operated manufacturer and distributor specializing in woodworking and wood product manufacturing equipment in Williamsport, Lycoming County, will expand, supporting the combined retention and creation of 57 full-time jobs in the area.

“I am pleased that Hermance Machine Company has decided to expand its operations in the city where it began,” said Governor Wolf. “I look forward to the continued investments and opportunities that Hermance will bring to Lycoming County residents for years to come.”

Hermance has outgrown its current space and is exploring several real estate options to accommodate the expansion. The company also plans to add two new product lines, increase showroom/demo space and inventory, and make improvements to its online storefront. The company has pledged to invest \$3.16 million into the project, and has committed to create at least 20 new, full-time jobs and retain 37 existing jobs over the next three years.

“This assistance, coordinated by the Governor’s Action Team, will allow for continued growth and employment opportunities at Hermance Machine Company,” said co-owner of Hermance Machine Company Claire Strouse. “Additionally, our local Innovative Manufacturers’ Center personnel were instrumental in assisting us to prepare and qualify for this opportunity.”

Hermance Machine Company received a funding proposal from the Department of Community and Economic Development for the project, which includes an \$80,000 Pennsylvania First Grant, \$40,000 in Job Creation Tax Credits to be distributed upon creation of new jobs, and a \$16,200 workforce development grant to help the company train workers. The company was also encouraged to apply for a \$2,650,000 loan through the Pennsylvania Industrial Development Authority (PIDA). The project was coordinated by the Governor’s Action Team, an experienced group of economic development professionals who report directly to the governor and work with businesses that are considering locating or expanding in Pennsylvania.

IMC Launches Inaugural “What’s So Cool About Manufacturing?” Student Video Contest

written by Lauri Moon | November 14, 2019



Central Susquehanna Region Expands the Popular Contest in Five New PA Counties

Williamsport, PA - October 16, 2019 - The Innovative Manufacturers' Center (IMC) is proud to announce the launch of the inaugural "What's So Cool About Manufacturing?" Central Susquehanna student video contest for the 2019-2020 school year.

The "What's So Cool About Manufacturing?" (WSCM) student video contest pairs student-teams with local manufacturers, providing middle school students a unique opportunity to learn what makes modern manufacturing cool and produce, shoot and edit a video that documents their experience. The program was created to generate excitement that draws students to consider manufacturing career paths.

"We are really excited to pilot this program in our school districts this year, and help it expand across the state" said Dan Manetta, Executive Director/CEO IMC. "STEM education is vitally important and our students will get a great opportunity see how cool our local manufacturers really are, and share their videos with the community."

"What's So Cool About Manufacturing?" Central Susquehanna Region, produced by the Innovative Manufacturers' Center, the Central Susquehanna Intermediate Unit and The Foundation of the Columbia Montour Chamber of Commerce, will join 16 other regions across Pennsylvania this year, and students from seven schools will partner with seven manufacturers in Columbia, Northumberland, Snyder, Union and Montour counties.

The students' videos will compete in the regional contest, culminating with public voting for Viewers Choice and an awards show April 2, 2020. WSCM Central Susquehanna will choose one video to represent the region in the 3rd Annual "What's

So Cool About Manufacturing?” PA Statewide Awards on April 29, 2020 in Harrisburg.

The “What’s So Cool About Manufacturing?” Central Susquehanna inaugural season is funded by a grant from the Pennsylvania Department of Community & Economic Development and was created and initiated by Manufacturers Resource Center (MRC) in the Lehigh Valley in 2013. Innovative Manufacturer’s Center partners with eMediaWorks and Sahl Communications, Inc. to produce the program. For more information, visit whatssocool.org.

About “What’s So Cool About Manufacturing”:

Developed by Manufacturers Resource Center (MRC), WSCM program is a video based educational tool that increases awareness of career paths in manufacturing. MRC developed this innovative career awareness program that at its core is “peer marketing” (kids telling kids what’s so cool about manufacturing jobs). The contest is showcased on the What’s So Cool Website, and shared nationally through the Manufacturing Institute and the Manufacturing Extension Partnership platforms. The Lehigh Valley contest is expanding across the Commonwealth and the country. Inside Pennsylvania there will be 17 regions conducting contests this year.

This contest gives students the opportunity to connect with local manufacturers, document their experiences and present them in an educational and “cool” way. The contest was created to generate excitement that draws students towards manufacturing career paths, and CTE and STEM education.

For more information or to get involved in the Central Susquehanna region, contact Lauri Moon at laurim@imcpa.com or 570-329-3200×8085.

About Innovative Manufacturer’s Center



Founded in 1988, the Innovative Manufacturers’ Center assists in connecting manufacturers in 12 Pennsylvania counties with the most effective regional, state

and national resources to help companies innovate, grow and prosper. An affiliate of the U.S. Department of Commerce, National Institute of Standards and Technology's Hollings Manufacturing Extension Partnership and supported by the Pennsylvania Department of Community and Economic Development, IMC is one of seven industrial resource centers in Pennsylvania and serves manufacturers in Lycoming, Montour, Northumberland, Union, Snyder, Clinton, Centre, Mifflin, Juniata, Huntington, Blair and Bedford Counties.

About Central Susquehanna Intermediate Unit



The Central Susquehanna Intermediate Unit (CSIU) is a regional education service agency that prides itself on serving the needs of schools, students, families and communities. CSIU's many programs and services reflect our mission to provide quality education services that help students learn, support teachers in bringing best practices to the classroom, and offer valuable services to school districts. The CSIU's primary service area consists of Columbia, Montour, Northumberland, Snyder and Union counties in central Pennsylvania which includes 17 school districts, 3 career and technical centers, and 69 nonpublic schools.

About The Foundation of the Columbia Montour Chamber of Commerce



Since its inception in 1996, The Foundation of the Columbia Montour Chamber of Commerce has evolved, remaining focused on goals which can be summed up in its mission statement: "Working together, the educators and employers of Columbia and Montour counties will ensure that lifelong learners obtain the academic, technical, and employability skills necessary to be successful in the 21st century workplace." Through The Foundation of the Columbia Montour Chamber of Commerce, educators and employers in Columbia and Montour counties work

together to provide educational opportunities for the purpose of workforce development. Our educational programs focus on K-12 students as well as continuing education for adults.

Call for Proposals: Bucknell Chemical Engineering Senior Design Projects

written by Lauri Moon | November 14, 2019

Bucknell University students are asked to work on a project for a client and produce a tangible result (deliverable) based on that work. The deliverable can be a process, a device, a scientific or engineering study, a design or a simulation that addresses a problem involving chemistry and engineering.

General Requirements (please refer to CHEG 410 Overview and Project Proposal Guidelines link for additional requirements and selection criteria):

1. A client with a clear interest in and reason for supporting the project
2. A client that can be easily and reliably contacted by the supervisors
3. A client who understands and will sign-off on the legal responsibilities of your project, clearly defining ownership of any intellectual property and release of liability. Clients must allow your project to be shared at least within the class for presentation purposes.

Client questions can be directed to the KEEN Industrial Liaison, Shane Cohen (scohen@bucknell.edu), and course coordinator, Professor Brandon Vogel (bmv002@bucknell.edu). Note that while all projects will be given consideration, no project is guaranteed to be selected.

CHEG 410 Overview

Project Description Form

Project Sponsor Mentor Responsibilities

written by Lauri Moon | November 14, 2019

As the lean value stream quickens, a traditional organizational structure becomes costly and cumbersome. To adapt, employees need to be trained to operate as self-directed work teams within a product family or along a supply chain. We've entered the era of the "Autonomous Workforce," the next logical step in a company's lean journey. Learn why this transformation is necessary and how to prepare your organization to make it.

Lean Your Team

Engineering Design Assistance Opportunity at Penn State for Fall 2019 Semester

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DEP Offering Grants to Small Businesses

written by Lauri Moon | November 14, 2019

The Pennsylvania Department of Environmental Protection (DEP) announced the availability of **\$1 million in grant funding to Pennsylvania small businesses and farmers for energy efficiency, pollution prevention, and natural resource protection projects through the Small Business Advantage grant program.** Applications will be considered on a first come, first served basis, and will be

accepted until fiscal year 2019-20 funds are exhausted or April 12, 2020, whichever occurs first.

The complete grant application package, which includes step-by-step instructions and instructional videos for completing the online application, is available by visiting the DEP Small Business Ombudsman's Office website.

Congressman Fred Keller Visits Ralph S. Alberts Co., Inc.

written by Lauri Moon | November 14, 2019

IMC joined Congressman Fred Keller in his recent tour of Ralph S Alberts Co, Inc. IMC has had the pleasure of supporting RSA and its manufacturing efforts for the past 25 years! #ManufacturingPA #MadeinPA #MEPNationalNetwork



If interested in hosting a state or federal senator or representative at your manufacturing facility, contact Lauri Moon at laurim@imcpa.com or 570-329-3200x8085.

IRCs (IMC) Driving Manufacturing Economy

written by Lauri Moon | November 14, 2019

2018 PA Manufacturing Scorecard Results Illustrate the Strong Performance of the State's Manufacturing Industry

Williamsport, Pa. — May 29, 2019. Recent published findings from the 2018 PA Manufacturing Scorecard prove that Pennsylvania's manufacturing economy is strong and growing, performing better in some areas than national trends.



These findings also underscore the work of the Williamsport headquartered Innovative Manufacturers' Center (IMC), Inc., one of Pennsylvania's seven Industrial Resource Centers (IRCs). The IRCs are nonprofits strategically located throughout the Commonwealth of Pennsylvania that, for more than 30 years, have served as the state's lead economic development organizations supporting manufacturing. The IRCs provide support and services to small to mid-sized manufacturers that make up more than 92% of the state's manufacturing base, enabling them to grow, thrive and continue to be vital and productive contributors to Pennsylvania's economy.

"The Industrial Resource Center (IRC) Network augments the free market by helping small to mid-sized manufacturers gain access to quality consulting services that would otherwise be cost prohibitive to these mostly rural companies," said Dan

Manetta, Executive Director and CEO of Innovative Manufacturers' Center (IMC), the IRC covering 12 counties in Central PA. "Services include strategic planning, business growth, process improvement, advanced manufacturing technologies, cybersecurity, among others. This non-profit support is a win-win for both manufacturers and consultants by reducing the cost of sales to rural companies and by helping them identify their specific needs in an unbiased manner. Economic impact is captured by an independent third-party survey of manufacturers served, and has shown an ROI of around nine-to-one back to the state coffers. There is no 'needs based testing' and all manufacturers are eligible for services. The 2018 PA Manufacturing Scorecard confirms the statewide success of this program."

The IRCs specialize in providing technical assistance to the manufacturing sector throughout Pennsylvania's 67 counties by assisting companies with improved bottom line strategies, productivity enhancement, waste elimination and topline growth by supporting strategic initiatives, new and improved products, market differentiation and workforce development strategies. Funded through the PA Department of Community & Economic Development (DCED), the IRCs are also one of three key programs that make up Governor Tom Wolf's Manufacturing PA Initiative, a plan to enhance the growth and competitiveness of Pennsylvania's manufacturing companies by fostering strategic partnerships and training-to-career pathways.

PA Economic Indicator Results

The PA Manufacturing Scorecard 2018 indicates that Pennsylvania is the 8th largest manufacturing state in the country based on gross domestic product (GDP), the market value of all final goods and services produced by manufacturers in an economy. In 2017, PA manufacturers generated more than \$88 billion in GDP. While Pennsylvania ranks 8th in the nation among states' contribution to GDP, it is competing with much larger, more populated states, such as California and Texas that typically hold the #1 and #2 ranking. Pennsylvania is also keeping up with neighboring states, including Ohio, Illinois, Indiana and outpacing New York.

In the last 10 years, Pennsylvania experienced an increase of 17.5% in manufacturing GDP, whereas U.S. manufacturing experienced an increase of 34.9% over the same time period. However, in recent years, Pennsylvania has

outperformed the nation's manufacturing GDP growth, marking a 10.3% increase to the U.S.'s 9.4% between 2013 and 2017 and 5.0% to 4.5% between 2016 and 2017.

For Jim Futrell, Jr., CCR, Vice President - Market Research & Analysis of the Allegheny Conference on Community Development, this data is compelling. Mr. Futrell, on behalf of the IRC Network, conducted the analysis for the 2018 PA Manufacturing Scorecard from economic reports from the U.S. Bureau of Economic Analysis, the U.S. Bureau of Labor Statistics and the U.S. Department of Commerce.

“What the data indicate is that Pennsylvania is well positioned as it competes with other neighboring states and those that are historically identified as part of the ‘Industrial Heartland’ for their sustained economic reliance on manufacturing,” explained Mr. Futrell. “It also demonstrates that manufacturing within Pennsylvania remains a vital and dominant economic sector, disproving the broad misconception that manufacturing is dead in Pennsylvania, as well as the U.S. For Pennsylvania manufacturers, the benefit of having access to the extensive resources and business expertise of a central conveying organization like the IRC Network is invaluable.”

One of the biggest changes facing small to mid-sized manufacturers today is the emergence of Industry 4.0, a term referencing the fourth industrial revolution. At its most basic, Industry 4.0 involves optimizing the third industrial revolution's integration of computers and making them “smart.”

Coincidentally, Industry 4.0 principles, technologies and processes are directly tied to two of the biggest challenges facing the economic performance of the state's small to mid-sized manufacturers: making ongoing continuous improvements and identifying growth opportunities. Often these manufacturers lack the in-house expertise to pursue or deploy these principles and technologies.

The IRC Network is at the forefront of the Industry 4.0 movement, offering its clients a full breadth of services to understand and implement the new technologies, including autonomous robotics, additive manufacturing and 3D printing, Internet of Things, Cloud computing, cybersecurity, big data and analytics, simulation and horizontal/vertical software integration. Every one of the seven IRCs has industry experts specifically trained on innovation processes to teach manufacturers to use the tools at their disposal.

In regard to the 2018 PA Manufacturing Scorecard results on employment and wages, Pennsylvania has 14,414 manufacturing establishments with more than 561,700 manufacturing employees, ranking the state as the 6th largest employment base for manufacturing among all 50 states. Moreover, these manufacturing employees also account for almost 10% of the total state workforce.

The leading Pennsylvania manufacturing industries in 2017 contributing to the total manufacturing employment in the state were fabricated metal product manufacturing with 80,125 employees (14.3%), food manufacturing with 71,622 (12.7%), machinery manufacturing with 43,628 (7.8%) and chemical manufacturing with 40,165 (7.2%). Rounding out the top 5 is primary metal manufacturing with 34,938 employees (6.2%), a figure that is more than double the national average.

Additionally, the annual wage of a manufacturing employee in Pennsylvania in 2017 grew by 2.2% to \$61,111, which is 13.2% higher than the average Pennsylvania wage of \$54,000.

For Pennsylvania manufacturers, the IRC Network is committed to building a world class workforce for the 21st century and has a proven track record in job creation and retention. IRCs facilitate employer engagement and provide career awareness and workplace learning opportunities through a five-step methodology that links to universities and students, advances incumbent workers, develops industry-driven curriculum, builds the pipeline and links with K-12 schools and finally, builds overall career awareness.



“Hermance Machine Company is experiencing unprecedented growth and innovative development thanks to the ongoing partnership with IMC. As seen by the picture, IMC training in LEAN education and patent and intellectual property seminars have supported the integration of this robotic cell to help Hermance automate some of our processes for more efficient practices. IMC has been a true friend in the continued growth and development of Hermance Machine Company.” Kelly Vogel, Human Resources Administrator, Hermance Machine Company.

Ms. Vogel's testimonial underscores the outcomes that most IRC clients experience. In fact, in fiscal year 2017-2018 alone, IRC clients achieved increased sales that generated \$185 million in increased demand for Pennsylvania manufactured products and services. During this same timeframe, IRCs also helped to create and retain more than 5,100 jobs.

From business opportunities and innovations to process improvement and workforce development and training, there's little Pennsylvania's IRCs can't do to support Pennsylvania manufacturers' needs for growth. For more information on the 2018 PA Manufacturing Scorecard, visit pamade.org/manufacturing-reports/. If you are interested in working with PA's IRC Network, visit pamade.org to find the IRC nearest you.

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About the Innovative Manufacturers' Center (IMC), Inc.

Founded in 1988, the Innovative Manufacturers' Center assists in connecting manufacturers in 12 Pennsylvania counties with the most effective regional, state and national resources to help companies innovate, grow and prosper. An affiliate of the U.S. Department of Commerce, National Institute of Standards and Technology's Hollings Manufacturing Extension Partnership and supported by the Pennsylvania Department of Community and Economic Development, IMC is one of seven industrial resource centers in Pennsylvania and serves manufacturers in Lycoming, Montour, Northumberland, Union, Snyder, Clinton, Centre, Mifflin, Juniata, Huntington, Blair and Bedford Counties. For more information, visit imcpa.com.

About the Industrial Resource Center (IRC) Network

The IRC Network represents seven private nonprofits strategically located throughout the Commonwealth that play a critical role in helping Pennsylvania manufacturing continue to thrive. Working collaboratively, company by company, the IRCs provide the expertise, tools, and services that enable manufacturers to respond to changing markets, new technology, and the competitive pressures of today's global economy. The IRC Network is funded through the PA Department of Community & Economic Development. For more information about the IRC Network,

visit pamade.org.

About Hermance Machine Co.

Headquartered in Williamsport, Pa., Hermance provides a wide selection of quality industrial woodworking equipment from the U.S. and abroad. Clients can choose from a line of quality new and used woodworking machines on display at their Williamsport showroom. As an added convenience they also offer a wide variety of quality machine parts and wood crafting supplies with worldwide shipment available. Hermance also specializes in equipment refurbishing and offer a variety of quality used machines. For more information, visit hermance.com.