Grant to Spur Innovation

The Environmental Protection Agency has awarded Huntington a $200,000 planning grant that will assist in cleaning up old industrial sites and establishing an advanced polymer center to spur innovation.

Huntington seeks to reuse 78 acres of underutilized, former manufacturing facilities along the Ohio River between Marshall's campus and the Highlawn neighborhood.

Read more

RCBI Helps Aircraft Giant Develop 3D Printing Specs

The Robert C. Byrd Institute for Advanced Flexible Manufacturing (RCBI) is working with aerospace leader Northrop Grumman Corp. to develop procedures to 3D print precision aircraft parts.

The project documents the steps required to use electron beam melting (EBM) to 3D print aircraft parts that are particularly complex. This 3D printing technique uses a powerful electronic beam in a high vacuum to melt a metal powder. The material is then fused layer by layer until a dense metal piece is created.

RCBI is one of several partners in the project through America Makes, the National Additive Manufacturing Innovation Institute. Over the next several months, Erica Cheetham, RCBI's Director of Quality Services, will continue work at production facilities in California, documenting procedures used to manufacture the specialized parts. RCBI also will help develop training guidelines for employees who use the 3D printing technique.

Read more

Museum Linked to Smithsonian

Heritage Farm Museum and Village in Huntington was named West Virginia's first Smithsonian Institution Affiliate, giving it access to the resources and learning opportunities available through the world's largest museum complex.

Read more

WVU Student Wins Ag Innovation Competition

By developing a system that helps farmers track wandering cattle, a student from West Virginia University won the inaugural Vanguard Agriculture Competition sponsored by the Robert C. Byrd Institute for Advanced Flexible Manufacturing (RCBI).

Evan Dodrill of Greenbrier County was recognized for The Herdsman, a product that will allow farmers to track their livestock from any remote location and receive alerts when their livestock go outside a set boundary.

Read more
Huntington, WV — Evan Dodrill, second from left, won the Vanguard Agriculture Competition sponsored by RCBI. He is shown with his parents, Danny Dodrill and Stella Dodrill, and Agriculture Commissioner Walt Helmick, right, at the award ceremony during the Small Farm Conference at the Charleston Civic Center.

Heritage Farms, founded in 1996 by the late Mike Perry and his wife, Henriella, gives visitors the opportunities to celebrate the ingenuity of early settlers. The farm features more than 25,000 square feet of historic Appalachian artifacts in seven separate museums, along with more than 30 log structures and other reconstructed buildings.

Registration is on for 3D Camps

The Robert C. Byrd Institute for Advanced Flexible Manufacturing (RCBI) is accepting registrations for its 3D Printing camps, open to students in 6th through 12th grades.

RCBI’s Advanced Manufacturing Technology Centers in Huntington and Bridgeport will host the camps. The Huntington camp is June 22 - 26, and the Bridgeport camp is July 13 -17, with each running daily from 9 a.m. to 2 p.m. The $100 cost of each camp includes lunch each day.

Presented in partnership with Marshall University, the 3D Printing camps at RCBI introduce young people to opportunities in engineering and manufacturing through hands-on experience with the innovative technology. Campers also tour local manufacturing facilities and explore entrepreneurship under the guidance of experienced mentors.

3D Printing Course Prepares Educators and Makers

Once considered a technology of the future, 3D Printing is now available in classrooms, inspiring students, teachers and makers to explore new ways of thinking and creating. To help prepare educators to use the innovative technology, the Robert C. Byrd Institute for Advanced Flexible Manufacturing (RCBI) is offering a course during which teachers will design and fabricate 3D objects using computer-aided design (CAD) software and 3D printers.

The hands-on course - presented with the June Harless Center at Marshall University - is based on a curriculum developed by Stratasys, a leading manufacturer of 3D Printers and support materials.

The 10-day course will run each weekday June 8-19 from 8:30 a.m. to 5 p.m. at the RCBI Advanced Manufacturing Technology Center, 1050 Fourth Ave., Huntington. Teachers may qualify for three graduate credits and/or continuing education units (CEUs).

For more information, contact Lucinda Curry at 800.469.RCBI (7224) or send an e-mail to lcurry@rcbi.org.

SUCCESS STORY

Entrepreneur Solves Problems an Invention at a Time

Brian Joseph is one of those rare individuals who grew up to do just what he dreamed of doing as a child.

"I had a laboratory in the basement, which the rest..."
a national education foundation established by the Fabricators & Manufacturers Association International (FMA), is providing funding that supports the 3D Printing camps at RCBI.

Because of limited seats, early registration is recommended. For more information, visit www.rcbi.org/3DPCamp or call 800.469.RCBI (7224).

**3D Printing Expo Set for April**

The largest professional 3D printing conference and expo worldwide - Inside 3D Printing - returns to New York City April 15-17. The event features tutorials, sessions led by industry experts, and demonstrations of the latest 3D printers and services. Session topics will explore new opportunities and challenges for industrial and consumer 3D printing efforts.

Inside 3D Printing is a member of America Makes - the rebranded group formerly known as the National Additive Manufacturing Innovation Institute (NAMII) with a goal of building a unified Additive Manufacturing and 3D Printing movement in the United States.

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**Pratt & Whitney Hosts Lean Event**

Businesses will learn about Lean Manufacturing practices during a seminar March 26 hosted by Pratt & Whitney Engine Services, Inc. in Bridgeport. Presented by the Robert C. Byrd Institute for Advanced Flexible Manufacturing (RCBI), the event runs from 8:30 a.m. to 4 p.m. and includes a tour showcasing how Lean practices are implemented in the aircraft leader's Bridgeport operations.

Charlotte Weber, Director & CEO of RCBI, said Lean Manufacturing practices offer many benefits. "Everyone interested in reducing business costs, improving quality and reducing waste will find our event extremely valuable," Weber said. "We particularly recommend it to the innovators who want to add value to their operations and exceed their customers' expectations."

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**MU Engineering Students Access Technology at RCBI**

A collaboration between RCBI and the Weisberg Division of Engineering places Marshall University students in a hands-on position with advanced manufacturing technologies and expertise.

Students enrolled in classes with Dr. Sarder Sadique, assistant professor of mechanical engineering, just completed four weeks at RCBI, machining parts they could as specimens to assess the tensile strength of various metals. RCBI instructors taught safety procedures as well as how to use the equipment to manufacture the test parts.

"Our interaction with Marshall University students and faculty demonstrates the value of teamwork and synergy," said Charlotte Weber, Director & CEO of RCBI. "Without direct experience using the latest technologies - from CNC mills and lathes to 3D Printers - students, designers and makers don’t get to reinforce STEM skills and theories. At RCBI students gain confidence by implementing the engineering principles they learn in classes on campus that they will use as graduates to begin productive careers in today’s New Manufacturing."
RCBI and the West Virginia Small Business Development Center (WVSBD) are partners in a continuing series of training workshops designed specifically for start-ups or new businesses.

Q U I C K  L I N K S

Strategies for strengthening manufacturing
Read more

3D Printing technique inspired by 'Terminator 2'
Read more

C A L E N D A R

Upcoming Events

Grant-writing Workshops
Hinton, March 24
Union, May 5
Read more

Lean Manufacturing Event
Bridgeport
March 26
Read more

Discover Manufacturing Day Academy
South Charleston
March 27
Read more

Career Skills Programs
Huntington
Open Houses
April 2, April 9
May 14
Read more

LEGO Events Expand in Southern W.Va.

Students from across the region will visit RCBI in coming months for innovative LEGO activities.
The students are participants in FIRST LEGO League, a program for 9- to 14-year-olds designed to get youngsters excited about science and technology while teaching important life skills. Founded in 1998, the FIRST LEGO League has more than 25,000 teams in 80 countries.

On July 30-31, RCBI Huntington will host a FIRST LEGO League Boot Camp to recruit new Southern West Virginia teams to the competition. Five teams will be receive free LEGO robots and training in how to use them.

At the FIRST LEGO League Kickoff on Sept. 19, teams will gather at RCBI Huntington to share ideas about preparing for the season. Teams will have the opportunity to attend a regional scrimmage at RCBI on Oct. 17 to learn what to expect at competitions and to practice with their robots.

At the FLL Qualifier on Nov. 7, 12 to 16 teams will compete for a chance to advance to the state tournament at Fairmont State University in December. Students participate in four areas: Robot Game, Robot Design, Research Project and FLL Core Values.

For more information on LEGO programs at RCBI, contact Mike Friel at mfriel@rcbi.org or call 304.781.1686.

Members of the Irish Biologists watch their robot compete during the 2014 qualifying tournament at RCBI. The group was honored as the best new team in the competition.

Open Houses Focus on Career Skills Information

To showcase its industry-focused Career Skills Programs in Machining/CNC, Welding, Robotics and 3D Printing Technology to prospective students, the Robert C. Byrd Institute for Advanced Flexible Manufacturing (RCBI) is opening the doors of its Advanced Manufacturing Technology Centers in Huntington and Bridgeport.

RCBI Huntington has scheduled Open Houses April 2, April 9 and May 14 from 10 a.m. to noon each day. The Advanced Manufacturing Technology Center is at 1050 Fourth Ave.

RCBI Bridgeport has scheduled Open Houses March 26, April 3 and May 15 from 8:30 a.m. to 4:30 p.m. each day. The Advanced Manufacturing Technology Center is at 2400 East Benedum Industrial Drive, located just off Route 50 in the Industrial Park adjacent to North Central West Virginia Airport.
Staff members and instructors will be available to discuss admission requirements, financial assistance and answer questions about aspects of each training program. Each RCBI program boasts hands-on training to develop the career-enhancing skills that students need.

For more information, call 800.469.RCBI (7224) or e-mail register@rcbi.org.

Thanks again for your time and your support of RCBI. As always, don't hesitate to contact us if there's any way we can assist you or your business!

Sincerely,

Charlotte Weber
Charlotte Weber
Director & CEO

What RCBI Does

The Robert C. Byrd Institute for Advanced Flexible Manufacturing (RCBI) encourages job creation, economic development, innovation and entrepreneurship by supporting manufacturing companies of all sizes. We offer leading-edge equipment use and specialized training for everyone from sole proprietors to Fortune 500 companies.

Simply put, our goal is to use our Advanced Manufacturing Technology Centers across West Virginia to provide the resources that individuals and companies need to create, sustain and expand their businesses. In addition to providing leased use of cutting-edge equipment, workforce development programs, Quality Management Implementation, and customized training, RCBI assists companies in networking and procurement - particularly with federal contracts.

The technologies available at RCBI Advanced Manufacturing Technology Centers in Huntington, Charleston and Bridgeport are among the best in the world, providing companies in the Mid-Atlantic region services that would not otherwise be readily available to them. In particular, RCBI offers Additive Manufacturing (AM) with 3D Printer technology through its Design Works labs, and is a national Center of Excellence for composite materials providing support to NASA engineers as well as first-tier DoD suppliers in West Virginia. These activities help ensure that RCBI fulfills its mission of developing a quality, just-in-time supplier base for the Department of Defense (DoD) as well as other agencies and the commercial sector.