May 2014

Workshop Focuses on 3D Design Software with 3D Printing Technology

A one-day workshop in June will prepare K-12 teachers to incorporate innovative Additive Manufacturing technology, better known as 3D Printing, in their lessons by focusing on proper use of SolidWorks 3D Software.

In a continuing collaboration with NASA's IV & V (Independent Verification and Validation) Facility, the Robert C. Byrd Institute for Advanced Flexible Manufacturing and Marshall University's June Harless Center are conducting the workshop Friday June 27, 2014, from 9 a.m. until 4 p.m. in the Design Works Lab at the RBCI Huntington Advanced Manufacturing Technology Center.

Teachers from across the state who attend will learn to use the software and design an item that will be 3D printed by one of the 3D Printers available at RCBI. A limited number of seats in the workshop are available to teachers at no cost -- and lunch will be provided to participants. To register, call 800.469.7224.

RCBI to host WVSBDC workshops

The Robert C. Byrd Institute for Advanced Flexible Manufacturing (RCBI) and the West Virginia Small Business Development Center (WVSBDC) are continuing their partnership on a series of training workshops designed specifically for start-ups or new businesses and innovative new products. “Innovation and Technology” (In-Tech) and “Business Fundamentals” topics are covered by the series.

An In-Tech workshop is scheduled Friday, May 30, from 1 p.m. to 3:30 p.m. at RCBI Huntington. The In-Tech program is designed to introduce inventors and technology-based entrepreneurs to key commercialization issues such as intellectual property, alternative finance, prototyping and feasibility.

Business Fundamentals workshops are scheduled June 24 and July 22 at RCBI Huntington, and in South Charleston on June 27. Each workshop is from 10 a.m. to 1 p.m.

After completing a workshop, interested entrepreneurs or business owners may schedule an appointment with a member of the WVSBDC team for confidential one-on-one coaching sessions. The first step is to view the Three Step Jump Start video on the agency’s website. There is a $35 fee for each workshop, and pre-registration is required.

To register or request more information about any of the workshops call 888-982-7232 or visit www.wvsbdc.org.
Woodrum joins RCBI as project coordinator for Agriculture Innovation Program

William "Bill" Woodrum of Winfield joined the Robert C. Byrd Institute for Advanced Flexible Manufacturing in April as Project Coordinator for RCBI’s new Agriculture Innovation Program. Woodrum promotes the program’s mission of introducing advances in manufacturing technology to the agricultural sector and helping to achieve a stronger food supply system in West Virginia. The project is funded by a grant from the Claude Worthington Benedum Foundation.

With this new program effort, RCBI will integrate its knowledge of industrial and business systems to leverage support for local foods throughout the state and region. "Bill’s knowledge of agriculture and his experience in community and higher education outreach are real assets as he works with the public and private sectors to foster innovative technology solutions," said RCBI Director and CEO Charlotte Weber. Before joining RCBI, Woodrum most recently served as Associate Director of West Virginia State University’s Extension Service. Previously, he worked as Extension Agent in 4-H Youth Development for West Virginia University and The Ohio State University. He has also worked in the non-profit field and is known for his work in community resource development. He has spoken on leadership, economic development and community organizing across the nation and internationally.

He earned a Master of Science degree in Agriculture Education from Ohio State and a Bachelor of Arts degree in History from Marshall University.

A native of West Virginia, Woodrum lives in Winfield, with his wife, Lori, and their son, Alex, on farmland that has been in his family for nearly 200 years.

RCBI seeks grant/technical writer and system specialist

The following employment opportunities are available with the Robert C. Byrd Institute:

* Grant/Technical Writer
* System Specialist

Responsibilities of the System Specialist, who reports directly to the Director of Information Technology, include constructing and maintaining computer and network systems; operating and maintaining Voice over IP telephony systems; database system development; supporting network administration and applications across statewide RCBI facilities; RCBI websites, and working with other staff to develop/foster relationships with external RCBI customers and partners.

The Grant/Technical Writer position requires a highly motivated, energetic individual equally capable of working independently or in team settings while seeking and/or developing grant opportunities; marketing, researching and drafting grant applications, and completing a plethora of technical writing resolutions including white papers, requests for proposals/qualifications, etc.

For more details and application instructions, go to www.rcbi.org/employment.

http://www.wmspage.cfm?parm1=701

Success Story:

RCBI technology, expertise help NGK continue to thrive

NGK Spark Plug USA prides itself on being a state-of-the-art operation with a number of “firsts” on its resume, so it’s not surprising that the company is on the leading edge when it comes to Additive Manufacturing technology using 3D Printers.

What some people might not know is that a good chunk of that innovative business is done right here in West Virginia, in partnership with the Robert C. Byrd Institute for Advanced Flexible Manufacturing.

NGK opened an oxygen sensor factory near Sissonville in 1995, one of the first Japanese-based companies to do business in West Virginia. The campus includes 113,000 square feet of manufacturing space and a 70,000-square-foot warehouse that was added in 2001.

While NGK does some 3D Printing on-site, equipment and expertise available at RCBI’s Charleston Advanced Manufacturing Technology Center has proven valuable to the international company. Davy Perdue, production engineer at the facility, said one recent goal was to reduce moisture absorption during production.

“We have a 3D Printer here, but it only produces from an ABS material,” Perdue said, “which would draw moisture due to humidity. To eliminate this [deficiency] we worked with RCBI and used its Fortus 3D Printer with a polycarbonate material [which doesn’t draw any moisture].”

Read more:
www.rcbi.org/wmspage.cfm?parm1=704
Quick Links

3D Systems announces MAKE.DIGITAL initiative - Advancing Digital Literacy in K-12 Education

3D Printing: Everything You Need to Know in 2 Minutes
http://mashable.com/2014/05/08/what-is-3d-printing/?utm_cid=mash-com-fb-main-link

A 3D Printing Startup’s Plan to Bring Manufacturing Back to Cities
http://www.wired.com/2014/05/shapeways-urban-manufacturing/#bid=social_twitter

3D printing/additive manufacturing market boom continues
http://www.plasticstoday.com/articles/3D-printing-additive-manufacturing-market-boom-continues-05022014

Stay ‘social’ with RCBI
This monthly newsletter is just one way to keep up with the latest activities from RCBI.
You also can be a friend on Facebook or follow us on Twitter (@RCBI4Mfg) to get breaking news and links to interesting stories about additive manufacturing.

RCBI Locations
Huntington ***
Charleston ***
Bridgeport ***

Upcoming Events
CNC Intro to Machining, Operation and Programming - Level One MT 280
June 2, 2014 (1 evening a week for 13 weeks) RCBI Bridgeport

Mastercam Fundamentals
June 3, 2014 (3 days, 24 hours) RCBI Huntington

Blueprint Reading
June 10, 2014 (2 days, 16 hours) RCBI Bridgeport

Arts & Bots Camp at RCBI featuring 3D Printing
June 16 - 20 (9 a.m. to 1 p.m. daily) RCBI Huntington

Introduction to Additive Manufacturing
June 25, 2014 (8 hours) RCBI Charleston

3D Printing Camp at RCBI
July 14 - 18 (9 a.m. to 2 p.m. daily) RCBI Huntington

3D Printing Camp at RCBI
July 21 - 25 (9 a.m. to 2 p.m. daily) RCBI Bridgeport

Machinist Technology/Computer Numerical Control Associate Degree in Applied Science
August 25, 2014 (4 semesters) RCBI Bridgeport

Regional Development Council officials visit RCBI Huntington

Members of West Virginia Regional Economic Development Councils visited RCBI earlier this month to see laser cutting, turning/milling and other technologies available at the Huntington Advanced Manufacturing Center.

RCBI graduates earn industry-recognized certification, add to W.Va. labor pool

More than 30 students have earned national certification as 2014 graduates of the Machinist Technology/CNC Program and the Welding Technology Program at the Robert C. Byrd Institute for Advanced Flexible Manufacturing.

Fifteen of the graduates were awarded Associate of Science degrees, which are offered by RCBI in conjunction with Mountwest Community & Technical College. They and other graduates from across West Virginia and southern Ohio were honored May 8 during ceremonies at the RCBI Bridgeport Advanced Manufacturing Technology Center.

RCBI’s Machinist Technology/CNC training program was the first in West Virginia to be certified by the National Institute for Metalworking Skills (NIMS). This certification ensures that RCBI graduates meet nationally recognized standards of excellence and affords them portability in the job market.

For more information on RCBI or its certified training programs, call 800.469.7224 (RCBI).
Read more: www.rcbi.org/wmspage.cfm?parm1=705

RCBI client captures top innovation award

Hard work and a spirit of ingenuity have paid off for green technology leader NG Innovations of Cross Lanes. The company has been named the first ever Shale Gas Innovation Contest winner from West Virginia.

More than 80 innovators from West Virginia and Pennsylvania competed in the contest for $100,000 in prize money. NG was recognized along with three other winners during a ceremony on May 15 in Southpointe, Pennsylvania. A second West Virginia company, Carbon Fiber Composites of Ona, was among 13 semi-finalists.

The Robert C. Byrd Institute for Advanced Flexible Manufacturing nominated both state companies for the contest. Support from the Benedum Foundation made possible this year’s expansion of the competition to West Virginia.

NG was awarded $25,000 for the development of its C-Fit unit that identifies the density and amount of fluid being transported and the loading/unloading points. The unit also tracks and date/time stamps truck movement via satellite.

Originally developed for a natural gas and coal company, NG’s patented tracking system improves accountability and, perhaps, most importantly, saves companies money. It allows them to track and sort activities by volume, by density, by company -- even by driver, explained Don Booth, President of NG Innovations.
“Users can track fluids going to and from various wells,” Booth said. “That can help to reduce open road fines. The technology also can help companies account for short loads. There are just a lot of opportunities to find flexibility using this system. It allows users to sort by whatever information they want.”

Booth developed the technology as part of an NG team that included Tony Anderson, Vice President of Technology, and J.R. Maddox, Manager of Field Operations. Today, the company is not simply resting on its laurels. Booth said employees are working on four other innovative products he hopes to bring to market in the near future.

It was just last year that NG officials began to look at commercializing their products. The firm was founded in 2006 as a research and development company serving the oil and gas industry. NG Innovations specializes in removing contaminates in waste water from oil and natural gas wells. Rather than pumping the waste water underground, NG Innovations removes oils, metals and other impurities from the water and recycles many of them. The purified water can then be reused for agricultural and other purposes.

“We not only recover water but make it useful,” Booth said. “We remove the byproducts and put them in a sellable form. We’re doing everything we can to help the environment but doing it at a reasonable cost to anyone we work for.”

Thank you for your time and your support of RCBI. As always, please let us know if there’s anything we can do to assist you or your business!

Sincerely,
Charlotte Weber
Director and CEO

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Follow us on twitter

www.rcbi.org

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 cutting-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.