

Annual engineering scholarship dinner Tuesday

State secretary of commerce to give keynote address

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Eleven future engineering careers will be financially supported and fostered at the annual Discover E Scholarship Banquet, scheduled for Tuesday, Feb. 21 at the Four Points at Sheraton in downtown Charleston.



Thrasher

The West Virginia Society of Professional Engineers, the American Council of Engineering Companies of West Virginia and the American Society of Civil Engineers sponsor the yearly dinner, in which scholarships are bestowed to students attending West Virginia engineering schools.

The 2017 Discover E Scholarship winners and their colleges are:

- Malik Smith, Marshall
- Sarah Moore, West Virginia University
- Matthew Sebacher, WVU
- Peyton Panger, WVU
- Morgan King, WVU
- Allie Diehl, WVU
- Trevor Johnson, WVU
- William Shaffer, Marshall
- David Donaldson, WVU
- Bridget Walker, WVU
- Robert Wilson, WVU.

The evening's activities will commence with a Happy Hour at 6 p.m. on Tuesday, with the

dinner being served at 7 p.m.

West Virginia Commerce Secretary Woody Thrasher is Tuesday's scheduled keynote speaker. A Bridgeport businessman and president of The Thrasher Group engineering and architectural firm, he was appointed to his state position last month by Gov. Jim Justice.

He and his father, the late Henry A. Thrasher, PE., founded The Thrasher Group in Clarksburg in 1983. The firm currently has almost 400 employees, with offices in Charleston; Bridgeport; Beckley; Canton, Ohio; Fredericksburg, Virginia; and

Oakland, Maryland.

Thrasher is also the managing partner of the White Oaks Business Park in Bridgeport and chairman of the West Virginia University Alumni Association.

"As we look to diversify and strengthen our state's economy, we must recognize the critical role engineers can play in that process. Our state's engineers have the potential to transform the way we look at infrastructure and economic development in West Virginia. I'm pleased to be a part of West Virginia's growing engineering

community of students, academics and professionals. As Secretary of Commerce, I look forward to working with our state's engineers to identify ways to move West Virginia forward," Thrasher said.

The Discover E scholarship dinners are held, traditionally, during National Engineers Week each year.

Tickets for Tuesday's banquet cost \$35 each. For availability of remaining seats, contact West Virginia Society of Professional Engineers Executive Director Michael Haid at michael@ma-plecreative.com

RCBI

Expertise empowers start-ups and entrepreneurs

With engineering assistance – including 3D design and prototype development – from the Robert C. Byrd Institute, entrepreneurs, start-ups and small businesses are empowering their new ideas.

Through its early-stage funding opportunities, RCBI delivers design, engineering, prototype development and process and production assistance necessary to move ideas to market. The goal is to support innovation and creativity that result in new products – and ultimately new jobs across West Virginia, according to Charlotte Weber, RCBI Director & CEO.

A 2016 economic impact analysis by the Marshall University Lewis College of Business found that these RCBI initiatives helped generate \$66 million in sales for West Virginia manufacturers who in turn created 318 jobs.

"Using RCBI's expertise in advanced manufacturing and the revolutionary technology of 3D printing, we're driving innovation by entrepreneurs and start-ups in the concept-to-reality phase they need to jump-start their new ideas," Weber said. "RCBI helps shape their ideas and produce prototypes so they can move into production and enter the market."

One recipient of RCBI's early-stage funding is Dr. Greg Crews, who is best known for the dental practice he has operated in Huntington for 34 years. He also has more than a decade of experience as owner and operator of a successful horse farm.

An ongoing challenge among ranchers and farmers is keeping feed buckets from falling or being knocked off the fence by horses. It is both a costly and messy problem.

Crews designed a feed bucket that is more durable than others on the market and features patented mechanisms that make it virtually impossible for a horse to dislodge. It attaches without any tools other than a rancher's own hands.

RCBI provided Crews' startup, Lock-N-Load, with the early-stage funding that allowed Crews to redesign

and 3D print multiple prototypes.

The engineering staff at RCBI initially scanned a broken feed bucket and reverse engineered it to determine the proper dimensions. From there, RCBI worked with Crews to produce computer-aided design (or CAD) files and software simulations to determine strength and durability in real-world situations. Several models were produced at RCBI, leading to a full assessment of West Virginia-based manufacturing options. Crews hopes to complete evaluations soon and begin production – here in West Virginia.

Another West Virginia company that benefited from early stage funding is Mar-Tek Limited.

Founded in 2004, the Big Chimney-based company designs and manufactures a patented line of electrical safety equipment used across the United States, Canada and beyond. The products, sold under the trademarked name of "Chicken Switch," are portable, wireless, remote-controlled devices that protect individuals from hazardous electrical arc flashes during high-voltage, circuit-breaker switching activities.

Charlie McClung and business partner Russ Safreed have seen their company succeed and grow. MarTek now has nearly a dozen full-time workers, including a marketing representative who focuses on new online growth.

"A big challenge is learning to use the tools and resources at RCBI that are available to you," McClung said. "Branching beyond my comfort zone, I've also learned sophisticated software packages in CAD and the CAM (computer-aided-manufacturing) software that runs the complex, high-tech machines used to manufacture our products."

He's incorporated 3D printing technology in his operation to produce faster, more cost-effective prototypes of additional product lines.

With the early-stage funding through RCBI, MarTek first used 3D design and printing services at RCBI to educate its staff about the opportunities that this innovative technology



The Robert C. Byrd Institute offers engineering assistance through its early-stage funding programs. Ron Cabacar, an engineer at RCBI, works with entrepreneurs and others on their ideas for new products. Courtesy photos



Matt Mann founded M-Rock Stone Manufacturing in Peterstown, Monroe County, in 2003. Through early-stage funding, RCBI helped M-Rock develop a new bracket that connects its stone veneer system.

delivers. Since trial use at RCBI, MarTek has invested in several 3D printers for its own production.

Another West Virginia business that has developed innovative, new products as a result of early-stage funding from RCBI is M-Rock Stone Manufacturing. A pioneer in the stone industry, the company produces siding of stone and brick for indoor use as well as outdoor landscaping that can match or enhance the natural look of surrounding terrain.

Matt Mann was already a successful owner of a graphic design and printing business

when he founded M-Rock in 2003. M-Rock creates fabricated stone that's easier to install, involves less mess and can be applied in all weather conditions because it eliminates the need for mortar – using screws instead. Today, from its headquarters near Peterstown in Monroe County, the growing company sells several types of fabricated stone nationwide to clients of all sizes.

By taking advantage of engineering assistance at RCBI through an early-stage funding initiative, the manufacturer has created an inventive, easy-to-install product that is now available coast to coast. The family-owned and operated manufacturer sought RCBI assistance to produce a sturdy-yet-light-

weight bracket to connect its stone facade, saving time and money during installation.

Using its engineering expertise and stable of production-grade 3D printers, RCBI manufactured several design prototypes of railing for Mann before producing the one that was most efficient for his innovative installation process.

"With a winning combination of great ideas from inventive entrepreneurs and the engineering resources at RCBI, we hope to continue discovering opportunities that grow our economy," Weber said.

To learn more about RCBI's early-stage funding initiatives and how they can help develop and generate new products, call 800-469-7224.

The Thrasher Group is seeking to fill the following full-time opportunities with our company.

TRANSPORTATION ENGINEER/PROJECT MANAGER – Qualified candidates should possess the ability to; prepare calculations to support roadway designs, prepare plans, technical specifications and cost estimates for roadway designs, utilize software including Microstation, InRoads, Civil3D or AutoCad, roadway design skills necessary to assemble a plan specification and cost estimate for a highway project including; horizontal and vertical alignment design, drainage, stormwater and E & S design, guiderail, signing and pavement marking design and traffic control. Experience in the marketing/business development of public transportation projects is highly desired. Candidate must possess a Bachelor's Degree in Civil Engineering, or Civil Engineering Technology with a minimum of 3 -5 years of experience in highway design is required. PE License, or the ability to become licensed, in the State of West Virginia is highly desired. Position will be located in our Charleston, WV location.

SITE CIVIL ENGINEER – The selected candidate will provide project consulting and site planning, design and engineering services to both public and private clientele. This position requires the ability to move projects from conception to completion including complete site design in AutoCAD/Civil 3D. Experience in grading, drainage, stormwater management, erosion & sediment control, permit processing and technical writing are required. A Bachelor of Science in Civil Engineering is required. A minimum of 3 years of experience in site design is highly desired. Position will be located in our Bridgeport, WV location.

Thrasher offers an excellent benefit package which includes paid time off, 401(k), professional development, tuition, assistance, health insurance, dental, vision and life insurance.

The Thrasher Group has had a history of excellence for over 33 years. Offering our staff the opportunity for career growth, we are a multi-disciplinary engineering, survey and construction services firm that delivers successful projects to both public and private clientele. Our dedication to creative design solutions, well-managed projects and customer service has made Thrasher one of the fastest growing engineering firms in the Mid-Atlantic Region. If this sounds like the right opportunity for you, interested candidates should email resumes to ttghr@thrashereng.com or apply online at www.thrashereng.com. "EEO/AA/E-Verify"

Attention: Engineering Industry

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