

WVU Tech College of Engineering & Sciences

Running with a 'performance excellence' mindset

West Virginia University Tech's Leonard C. Nelson College of Engineering and Sciences has earned a reputation for quality academics and for producing work-ready engineers.

For Dr. Zeljko Torbica, that reputation was a major draw.

Dean Torbica (or Dean Z, as he's known by the campus community) came to the university after a storied career in construction engineering and academia.



He started out as a structural engineer. He worked for a multinational firm that was active in more than 70 countries. He spearheaded a popular online construction management program at Drexel University and published research in a number of professional journals.

In 2012, he decided to make the move to WVU Tech.

"It was a combination of things that brought me to Tech," he said. "It was a new challenge in my professional career and an opportunity to have some influence on an engineering program that has been so respected for so many years."

In his time in Montgomery, Torbica said he's been pleased with the progress of the college. The university went through the rigorous ABET accreditation process, adding Computer Science as the ninth such accredited program. The college has expanded its public STEM outreach programming and has encouraged more students to share their work and build new student organizations.

The college has significantly improved in national rankings in the last few years as well, including U.S. News & World Report's annual Top 100 Undergraduate Engineering Programs list. Torbica said it's because his faculty and students have been working hard to spread the word by sharing their research and presenting at conferences and competitions.

"That improvement is mainly because we have been working aggressively to improve the visibility of WVU Tech's engineering programs on a national and on a global scale. We're sending faculty and students to be in as many places as possible," he said.

The college has also chipped in on a number of national STEM initiatives.

In 2015, it joined more than 120 schools nationwide in a commitment to produce engineers specially trained to address the large-scale "Grand Challenges" of the next few decades - challenges such as "engineering better medicines, making solar energy cost-competitive with coal, securing cyberspace, and advancing personalized learning tools to deliver better education to more individuals." A letter outlining that commitment was presented to President Barack Obama in April 2015.

The university also aligned itself with the American Society for Engineering Education's Engineering Deans Council Diversity Initiative. Presented to the White House, that initiative seeks to increase opportunities for women and other under-represented demographics in the engineering disciplines among both students and faculty.

Public outreach is another

Tech to host alumni reception

West Virginia University Tech will host its annual engineering alumni reception from 6:30 to 8:30 p.m. Tuesday, March 21 at the Embassy Suites in Charleston.

RSVP by March 13 at alumni.wvutech.edu.

Made possible through the support of the Dow Chemical Company, the reception will be held in conjunction with the 2017 Construction and Design Expo in Charleston.



critical aspect of the college's mission. Faculty and students regularly work with K-12 educators throughout the region to introduce young minds to STEM fields. It's a great way to further increase visibility, and Torbica sees a bright future for WVU Tech's STEM outreach programming and summer programs like Camp STEM and the STEM Summer Academy for Girls.

"We believe that's one area where we're ahead of many of our peer institutions. We've really done a good job at trying to connect what we do with younger students and their parents. We want to expand those offerings and take them to the next level," he said.

A vision of growth

As the college heads into the next academic year and the university begins its transition to a new campus in Beckley, Torbica said that his team is focused and enthusiastic. Their goal is to maintain the college's level of academic excellence while enhancing opportunities for students in the college's programs.

"There is a legacy here that a lot of great professors have built over time, and the new group of people that we have hired is just spectacular," said Torbica.

"Hands-on education is the trademark of Tech. There is a significant connection to real-life problems that we try to incorporate in our teaching philosophy. We don't want to change the program. We just want to improve it even further."

That hands-on focus means lots of research in the field and hefty lab requirements for students.

"We're maintaining our academic rigor and our practical philosophy, and as we move forward, we're also going to be focusing on our lab space and facilities. Competitive institutions maintain excellent facilities and we're going to continue to do that to remain a competitive program," he said.

Ultimately, Torbica wants to see the college double in size. He said that attractive programs, increased research opportunities and partnerships with local business and industry on internships and co-ops will help do the trick.

"I would like to see us significantly increase in that way, to offer more opportunities. I would like to see our college get to that critical mass. Our new location is going to offer an opportunity to really grow our program," he said.

Working by example

Torbica was recently named a fellow of the American Society for Quality. The organization selected Torbica for his

work on consumer satisfaction in the construction industry, which offered valuable insights for the business side of the construction engineering field.

"ASQ is a very influential global organization. Businesses and industry throughout the world look to them for guidance because ASQ is on the cutting edge of quality and improvement. This is a major recognition in my professional career and I'll hold the title proudly," he said.

He was honored at last year's World Conference on Quality and Improvement, with other ASQ fellows, in Milwaukee.

For Torbica, events like the ASQ World Conference offer a chance to spread the word about WVU Tech's programs and exchange ideas with professionals in industry and academia.

He took that line of thinking to Germany a month later. Torbica was selected to attend the German Academic Exchange Service's Germany Today program in mid-June 2016. That program took college and university administrators from American institutions to Stuttgart, Darmstadt, Heidelberg and Bonn. The group met with officials from top German universities to discuss how these institutions partner with industry to enhance the student experience.

"The way I see it, if you look at the common theme in all of this activity that we're doing as a college, it's about constant performance improvement - a search for greater performance excellence. We find that by looking for new ideas and actually being in the epicenter of discussions. What is the next thing? What is the best practice? That's what we're interested in," he said.

"You can always improve. You can always be better. That mindset is how we do things."

(Source: WVU Tech)



More than 150 female eighth-grade students attended the 2016 Introduce a Girl to Engineering Day in South Charleston. Approximately 200 have enrolled in the program, expanded to two days this year, later this week. Photo courtesy BridgeValley Community and Technical College

Introduce a Girl to Engineering Day slated this week in South Charleston

Spring program planned in Fairmont

By Clint Thomas

cthomas@cnpapers.com
304-348-1232

Designed to truncate the gender gap in a traditionally, overwhelmingly male-dominated field, the 2017 Introduce a Girl Day is scheduled for two days this year -- Thursday, Feb. 23 and Friday, Feb. 24 -- at the Advanced Technology Center on the South Charleston campus of BridgeValley Community and Technical College.

The yearly assembly welcomes female eighth-grade students from around southern West Virginia, along with area professionals in the engineering and science fields, for a day of collaborative information sharing and creative engagement. Each day's activities will include round-table discussions, a variety of team-building exercises, a panel discussion and a networking luncheon, to encourage the students to consider STEM-related educational opportunities and future careers.

The 2016 Introduce a Girl to Engineering Day in South Charleston hosted more than 150 middle/junior high students from Stonewall Jackson, South Charleston, Huntington East, Horace Mann, John Adams, Richwood, Madison, Sherman, Van, Hurricane, Matewan, Cross Lanes Christian, Glenwood Middle and a homeschooled group.

A "sister" program for young, female students in northern-central sections of the Mountain State was introduced last May at the Robert H. Molloy Research Center at Fairmont's I-79 Technology Park. Approximately 30 students attended. A second Fairmont Introduce a Girl to Engineering

Day session is being planned for this year.

Melissa Thompson, an associate professor and outreach director at BridgeValley Community and Technical Center, is an organizer and overseer of the annual local program, which originated nearly a decade ago at BVCTC. She said nearly 200 students have signed up for the 2017 program; both the Thursday and Friday sessions have been filled to capacity. Stonewall Jackson, Huntington East, Ripley, Richwood, Horace Mann, Hamilton, Boulevard Adventist Academy, South Charleston, Andrew Jackson, John Adams and Cross Lanes Christian were among the middle schools sending students to this week's event.

"This is the ninth year that we have hosted this event and it has grown every year," Thompson said. "We expanded the event to two days this year in Charleston to accommodate additional girls. We moved the event to our facility to bring the girls on campus and allow for more interaction with our faculty, staff and students and visit our labs and programs. We target only eighth-graders as they are entering into high school in the fall and are currently working to schedule the courses they will take and the path they may follow."

Each day, the youths will learn about engineering's past, present and future opportunities, she said.

"The event increases awareness of the profession and celebrates past and present engineering achievements of women. The aim is to let young ladies know engineering could be a possible career and provide them the knowledge to start laying the foundation

for reaching that goal now. Research shows that girls are less apt to consider engineering as a career field, and the goal of this event is to change their perception and show them that West Virginia needs young, female engineers in the future," Thompson said.

Sponsors, at presstime, include Dow, Potesta & Associates Inc., Terracon, ZMM Architects and Engineers, TransCanada and BridgeValley CTC. "We normally have a variety of at least 10 corporate sponsors, so we are awaiting their responses," Thompson said earlier this month.

For further information, contact Melissa Thompson at 1201 Science Park Drive, South Charleston, W.Va. 25303; Melissa.Thompson@bridgevalley.edu or 304-205-6734.

With campuses in South Charleston and Montgomery, BridgeValley Community and Technical College offers academic and workforce programs in several technology, health and business fields, along with transfer education options for baccalaureate degrees.

Introduce a Girl to Engineering Day -- affectionately abridged to "Girl Day" -- events occur around the United States on the Thursday of National Engineering Week each year.

An indication the male-female disparity in engineering studies and careers is narrowing came last June from Dartmouth College. The Hanover, New Hampshire, university reported it had more women graduates from its engineering course in 2016 in comparison to male graduates. The Ivy League school stated this accomplishment marked the first by any U.S.-based research university.

ENVIROPROBE
INTEGRATED SOLUTIONS, INC.
BUILDING ENGINEERING ENVIRONMENTAL PROFESSIONALS
ENVIROPROBEINC.COM
304-776-6717

Bringing All The Right Things Together

Now Offering Sonic Drilling Services

- Engineering & Design
- Drilling - Environmental, Geotechnical & Geothermal
- Environmental Consulting
- AST / UST Management
- Injection Services
- ESA & Remediation
- Mobile Remediation
- Licensed Remediation Specialists (LRS's)
- Permitting & Compliance
- Mapping and GIS
- Litigation & Expert Testimony
- Waste Management

Engineering Innovation

in Charleston for over 40 years

CDI Engineering Solutions

EPCm and Staffing Services In:

- Chemicals, Refining,
- Gas Transmission,
- Civil & Commercial Infrastructure

Learn more at CDICorp.com

John Skaff
Business Development Director
500 Corporate Landing, 2nd Fl
Charleston, WV 25311
304-746-3583
John.Skaff@cdicorp.com

Kureha PGA LLC, Belle, WV
is hiring for these positions

WE ARE HIRING

Assistant Production Manager - Assistant Production Manager directs the production staff daily to ensure high standards of safety and environmental performance while meeting production costs, quality and schedule objectives. Working with the Production Team, he/she will ensure production meets business requirements (safely on spec quality and on schedule) and ensuring Standard Operating Procedures are written, maintained, utilized and compliant. He/she will also perform general production engineer duties. Must have B.S. Engineering (Chemical Preferred), 8+ years of chemical manufacturing plant experience, personnel management experience, experience with PSM (OHSA 1910, 119), and applicable experience with plant shutdowns, turnarounds, and start-ups.

Production Engineer - Production Engineer supports plant operations with chemical engineering and technology expertise. He/She leads plant process design and implementation, supports production teams to work safely to achieve quality production targets and costs. He/She will develop and implement process "best practices", standards/policies, productivity improvements and work processes that address safety, quality, efficiency and reliability. Must have BS Chemical Engineering, 5+ years' experience in chemical engineering plant. OSHA and PSM practices, licensed Professional Chemical Engineer preferred.

To apply, send cover letter, salary expectations and resume to Hiring Manager 3501 MacCorkle Ave., SE, #150 Charleston, WV 25304 or email Kpurrecruitment@kureha.com

E.L. ROBINSON
ENGINEERING

YOUR FULL SERVICE CIVIL ENGINEERING FIRM

ESTABLISHED EXPERIENCE. PROVEN PERFORMANCE.

304.776.7473

elrobinsonengineering.com

OFFICES THROUGHOUT WV, OH, AND KY

- Public Water & Wastewater Systems Development
- Bridge & Structural Engineering
- Transportation Engineering
- Construction Management
- Geotechnical Engineering
- Oil & Natural Gas
- Surveying & Technology
- Mine Engineering
- Land Planning & Landscape Architecture
- Site Development