



Connecting the Dots

Newsletter

Welcome to the December 2020 NCDIDI Newsletter

Welcome! To remain competitive in a global economy, America's need to maintain a skilled workforce cannot be understated. According to the National Association of Manufacturers, "In February 2020, the manufacturing sector was entering its 26th consecutive month with nearly 450,000 open jobs and a tight labor market with a 3.5% national unemployment rate. For the 10th quarter in a row, the number one concern for manufacturers was the inability to hire a skilled workforce."

In this issue, you will learn about several veteran career transition programs that are addressing today's workforce shortages while also playing a vital role in supporting a service member's transition to civilian life.

We highlight the Manufacturing Institute Heroes Make America, a veterans to manufacturing transition program and the Cyberguardians program at NC State University which aids veterans in transitioning into cybersecurity

positions within the civilian sector. In this edition, Dr. Evelyn Brown also considers the role of the North Carolina Community College System Customized Training Program and its important ability to provide assistance to North Carolina companies.

Identified as an ongoing priority for supporting the NC DoD supply chain, seeking funding opportunities to support innovation continue to be at the heart of NCDIDI activities. With continued grant funding from the U.S. Small Business Administration (SBA)'s Federal and State Technology (FAST) Partnership Program, First Flight Venture Center, located in Research Triangle Park, will use a recent grant award to increase funding, strengthen company infrastructures and positively impact economic development in North Carolina. We encourage you to learn more about this 2021 initiative that will serve up to 35 science-focused startup companies.

Reef Systems, located in Cary NC, is spotlighted as one of the 30 companies currently participating in the NCDIDI program. Reef Systems is a successful leader supporting the federal government with healthcare, soldier readiness, cybersecurity and IT solutions.

Finally, the NCDIDI team would like to wish everyone a happy and safe holiday season!

Heroes Make America

— Amy Thomas, Sr. Director, Program Development, The Manufacturing Institute

Heroes MAKE America—Careers in Manufacturing for Veterans

Manufacturers are facing down a skills gap problem. Although manufacturers in the U.S. will have an expected 4.6 million job openings over the next ten years, 2.4 million of those openings may go unfilled because Americans don't have the necessary **technical training or skill set**.

Heroes MAKE America seeks to fix that problem by building connections between the military community and the manufacturing industry. An initiative of The Manufacturing Institute and its partner organization, the National Association of Manufacturers, Heroes MAKE America receives support from multiple sponsors such as Samsung. Partnering with local community colleges, the initiative operates at installations across the country, including Ft. Bragg, and offers an 8-week training program that includes technical certifications and career readiness instruction.

The program is open to transitioning service members, veterans, National Guard, reservists and military spouses. This community is uniquely well-positioned to succeed in a manufacturing career, with its members often possessing the skills, talents and training that are highly valued in the industry. The program helps these American heroes become tomorrow's manufacturing leaders by providing them with the skills and qualifications necessary to succeed in modern manufacturing. According to the Heroes Make America program staff, "Manufacturing is the right environment for members of the military community. The industry provides support and the sense of community that



former service members have come to expect."

Heroes MAKE America has a proven record of success. Since 2018, the program has graduated over 400 participants who've gone on to jobs with salaries averaging \$67,793, with placement across 38 states and three countries. The COVID-19 pandemic has done little to stop Heroes MAKE America, which adapted by expanding its online learning and launching Heroes Connect to virtually introduce participants and manufacturers and highlight exciting careers. As **Brittane Sayer**, a graduate of the program out of Ft. Riley puts it, "I tell all my friends still in the Army: if you can do the Heroes MAKE America program, do it."

There are many ways for North Carolina manufacturers to get involved with Heroes MAKE America. For example, it is possible to hire program graduates, become a sponsor, host a virtual or onsite tour and attend virtual or in-person networking events.

To learn more about the program and how to get involved, please visit their **website** or email Heroes@nam.org.



CYBERGUARDIANS

Connecting the Dots 3



Cyberguardians Program

— Allison Carr, Training Specialist, NC Clean Energy Technology Center, College of Engineering at NC State University



U.S. DEPARTMENT OF ENERGY

Funding for this program provided by the U.S. Department of Energy

Military Veterans, Distributed Energy Resources and Cybersecurity

The distributed energy industry, including solar and energy storage, is one of fastest growing sectors in the country. But with a shortage of qualified workers, particularly those with expertise in the areas of networking and cybersecurity, continued rapid growth of the energy industry is threatened. However, the military provides a training ground for protecting networks and the country against cyberattacks. Such cybersecurity skills are desperately needed in securing today's energy infrastructure, particularly due to the deployment of distributed energy resources (DERs).

In response to this opportunity to tap into these important skills, the U.S. Department of Energy (DOE) has partnered with the SunSpec Alliance to launch a program entitled Cyberguardians. The goal of the program is to prepare military veteran job seekers for cybersecurity positions working with DER technology. The N.C. Clean Energy Technology Center (NCCETC) serves as a vocational training partner to offer training for veterans and motivated students across the southeastern United States.

Three Cyberguardians program courses have been

launched to support veterans and professionals advance their careers in clean energy and cybersecurity. The initial course offerings are:

- Introduction to Distributed Energy Resources in the Electrical Grid
- Introduction to Cybersecurity in the Smart Energy Environment
- Secure Communication Networking for Distributed Energy Resources

Courses are accessible to veterans and professionals seeking to gain new knowledge. This self-paced online course delivers all learning materials, activities and assignments online over a nine week session. The investment for a 9-week course is \$895. Full scholarships are available for military veterans.

Registration is now open for courses starting on Monday, January 21, 2021.

[Learn more about the NC Clean Energy Technology Center.](#)

[Learn more about the Cyberguardians Program and scholarships available for veterans](#)

First Flight Venture Center / Hangar 6

— Bridget McMinn

First Flight Venture Center (First Flight), the Research Triangle Park-based science and technology incubator for North Carolina entrepreneurs, has been awarded a \$125,000 grant by the **U.S. Small Business Administration (SBA), Office of Innovation and Technology, Federal and State Technology (FAST) Partnership Program**. First Flight, for the third year in a row, is one of just 24 recipient organizations recognized nationwide selected to provide support to science-focused entrepreneurs developing innovative and disruptive technologies.

In 2020–21, First Flight will focus training and mentoring not only on SBIR/STTR grant writing support strategies geared to early stage companies, but also to spotlight aspects of the overall health of their business. First Flight’s FAST program is geared to early stage companies who have technologies that are likely to be competitive for a Small Business Innovation Research (SBIR) / Small Business Technology Transfer (STTR) grant awards. The goals of the First Flight FAST program are twofold:

- To increase the number of competitive SBIR/STTR applications and grant awards by women-owned, rural-based and socially economically disadvantaged small businesses
- Assess and provide training/mentoring to entrepreneurs to manage the business side of their life science companies to support all stages of the idea to commercialization journey.

First Flight has again partnered with **Eva Garland Consulting** (EGC), a nationally recognized grant-writing firm with expertise in SBIR/STTR proposal preparation and grant management, to facilitate the 2020–21 FAST program.



First Flight will implement the 2020/2021 FAST Award through the following components:

- Two “Winning SBIR/STTR Grants” Education Seminars presented by EGC scientific consultants to shed insights on the SBIR program and how to submit competitive grants to win SBIR/STTR funding (REGISTRATION OPEN, **NC FAST**)
- Duke University’s Office of Innovation and Entrepreneurship will present a series of seminars giving a comprehensive overview of innovation and entrepreneurial strategy with a focus on the importance of early-stage ideation, opportunity identification, and go-to-market strategy. (REGISTRATION OPEN **NC FAST**)
- 2021 FAST Cohort: Up to 35 science-focused startup companies will be selected for a cohort that will receive support to submit a Phase I SBIR/STTR application during the 2021 calendar year. Companies will apply for participation through a competitive process and, if accepted, will attend a SBIR/STTR grant readiness “Boot Camp” with comprehensive training from EGC grant writing experts and specific recommendations leading up to a Phase 1 grant submission. Cohort members will also connect with business experts and investors in mentoring sessions to strengthen the business side of their companies and evaluate the health of their companies. (**Application available at NC FAST**)

- **SBIR Celebration Showcase—September, 2021:** Early stage companies who have submitted and/or won SBIR/STTR grants will be invited to showcase their science with NC innovation stakeholders.

Register for the education sessions and **apply** for the 2021 FAST Cohort at **NC FAST**. For additional info, contact Bridget McMinn, FAST Project Manager, bmcminn@ffvcnc.org.

Prototyping Anyone? A second program of First Flight has received a new grant enabling significant support with unique prototyping resources for NC companies. First Flight has been selected as **North Carolina's only grant recipient** for the 20FY Venture Challenge Award by the U.S. Department of Commerce, Economic Development Administration (EDA). The \$2.6 million award will expand First Flight's program, Hangar6, an advanced prototyping center, featuring prototyping design assistance and additive manufacturing equipment ranging from 3D printers, CO2 laser cutter, metal fiber laser, automated CNC mill, metal bending equipment, a woodshop and welding shop.

With the addition of new equipment and training, Hangar6 will streamline prototyping time and costs for entrepreneurs, expand the geographical reach through "tele-prototyping", improve time-to-market and capital efficiencies for early stage, high-growth science-based companies by enhancing their ability to raise capital in a competitive marketplace.

Custom Memberships available: Hangar6 membership works much like a gym membership with various options ranging from monthly to annual membership timeframes, custom team memberships, 3D printing ONLY to try reflect the flexibility needed for entrepreneurs' and prototypers' schedules.

NC IDEA Pilot Membership: Register to WIN a free one month membership to Hangar6! We welcome inventors, entrepreneurs and others with prototyping needed in their work to register to enjoy a trial run access to Hangar6 advanced prototyping equipment, design brainstorming and "serious tools for serious people." **REGISTER HERE.**

TOUR HANGAR6! Contact Shop Manager, Sam Dirani, to set up a virtual or in-person tour, sdirani@ffvcnc.org. Membership information and additional upcoming education sessions and training workshops are posted on their **website** on an ongoing basis.



Community Colleges Customized Training Programs

— Dr. Evelyn Brown, Director, Extension Research & Development, NC State University

Today's ever-changing global economy drives the need for North Carolina businesses to innovate more than ever in order to survive and succeed. For the skills industries, employees must evolve quickly to keep pace with technology changes. Customized training can help employees gain the knowledge and skills needed to adapt and become more productive.

The North Carolina Community College System (NCCCS) offers a Customized Training Program through its member institutions. This program supports job growth, technology investment and productivity enhancement by providing education and training for business and industry in North Carolina. Incentives are available for companies in a number of sectors, including manufacturing, software development, warehousing and logistics, business support centers and others. •

Company of the Month

Reef Systems

Since 2008, Reef Systems has been helping Department of Defense and civilian clients fulfill healthcare, information technology and cybersecurity needs. For a small disadvantaged business based in Wake County, North Carolina, Reef Systems is certainly making a big impact nationwide. For example, Reef's human performance experts have contributed to developing a new Army combat fitness test that will be implemented this year. Its healthcare professionals are working to prevent injuries to Air Force fighter pilots, thereby reducing medical costs and improving quality of life.

Recently, Reef Systems' technology professionals have taken on the Cybersecurity Maturity Model Certification (CMMC), and the firm is at the forefront in this emerging requirement for Department of Defense contractors. As a result of the new CMMC federal government regulations, Reef Systems is experiencing growth opportunities. Reef Systems, being a federal contractor itself, has firsthand experience with federal regulations and the implementation of NIST 800-171 and CMMC and is using its own experience and technical expertise to help companies and has been immersed in CMMC since it was first announced. Ms. Myriam Batista, a member of Reef Systems' Leadership team, is now one of the first CMMC Provisional Assessors. Selected to participate in the Provisional Assessor program from a pool of over 500 qualified applicants that met elevated criteria and experience requirements, Ms. Batista successfully completed the CMMC assessment training provided by the CMMC-AB and passed a test to obtain her CMMC credentials. Ms. Batista will be amongst the first to conduct CMMC assessments and provide valuable feedback about the process to the CMMC-AB and DoD.

Reef Systems has had the privilege of serving multiple branches of the Department of Defense in the following projects:

- Soldier Readiness Test and Training Holistic Health and Fitness (H2F) for Army Forces Command-FORSCOM, the largest United States Army command at Fort Bragg and other sites across the country
- Preservation of the Force and Family (U.S. Special Operations Command) for the Air Force at Fort Bragg and other sites across the country
- Pharmacist services at Womack Army Medical Center, Fort Bragg
- Medical referral management services for the Air Force at Seymour Johnson AFB and other national sites



Danielle Pittaluga, a physical therapist who works for Reef Systems at Fort Bragg under our POTFF contract with the Air Force, doing physical therapy with an airman in one of her units

- Nursing support at Brooke Army Medical Center on Joint Base San Antonio – Fort Sam Houston, Texas
- Medical records and support services at Naval Medical Center San Diego, California
- Nursing support for the Pediatric Intensive Care Unit at Walter Reed National Military Health Center in Bethesda, Maryland

Articles

A Well-Trained Workforce Is Manufacturing's Future

New Survey Shows that Apprenticeships are Impactful and Growing in North Carolina

Burke Bovender: We must prioritize diversity and equity in manufacturing careers

Staffing government procurement in the 21st century

Events

**Cybersecurity Institute Virtual - January 2021
January 11–15 | Virtual**

**Federal Small Business Certification Programs
February 9**

**A Stronger Workforce: The Business Case for Second Chance Hiring
On Demand**

**Education: The Road to Recovery and Resiliency
On Demand**

**Preparing for a Safe Return to Work
On Demand**

**The Road to Recovery and Resiliency
On Demand**

**Additive Manufacturing
On Demand**

**Cybersecurity
On Demand**


**Workforce Development
On Demand**

**State of Defense Contracting/Outlook for FY 2021
On Demand**

**Leveraging Unmanned Aircraft Systems
On Demand**



Michael Rogers, a certified strength and conditioning coach (he is crouching, second from right and wearing a cap) working for Reef Systems under our FORSCOM contract, guiding soldiers and a general in exercises at Fort Bragg.



NC Defense Industry Diversification Initiative (NCDIDI)

The State of North Carolina is home to a diverse military industry, with varied military and defense missions, needs and opportunities.

In a proactive response to changes in federal defense budgets, NCDIDI was created. The program has been managed through a partnership between **NC State Industry Expansion Solutions** and the **North Carolina Department of Military and Veterans Affairs**.

The intended goal is to help companies maximize their growth potential and cybersecurity resiliency and enhance their strategic development planning and sustainability efforts to see impact beyond NCDIDI the funding period.

This program is funded through a grant awarded by the United State Department of Defense **Office of Economic Adjustment**.

NC STATE

Industry Expansion Solutions



DMVA

Industry Expansion Solutions

Industry Expansion Solutions (IES), the administrator for **NCMEP**, is the engineering-based, solutions-driven, client-focused extension unit of NC State's College of Engineering. Our broad portfolio and deep industry expertise help organizations grow, innovate and prosper. Our extensive partnerships with business, industry, education and government generate a unique culture of collaboration that provides access to cutting-edge expertise, research and technology.