

TRIUMPH GULF COAST, INC. PRE-APPLICATION FORM

APPLICANT INFORMATION:

Name of Organization: Hsu Family Educational Foundation, Inc.

Brief Description of Background of Organization:

Founded by Dr. Paul Hsu, a successful tech-entrepreneur and visionary, the HSU Educational Foundation is committed to encouraging excellence and innovation in education. A first-generation immigrant, Dr. Hsu has a proven track record over the last 40 years starting and growing successful technology companies in Northwest Florida. Serving as mentor to numerous small businesses and a strategic driver of economic development initiatives, Dr. Hsu has long supported Northwest Florida's growth, prosperity, and industrial diversification. The HSU Educational Foundation is dedicated to transforming Northwest Florida by inspiring innovation and a love of science, technology, engineering and math (STEM) among the next generation. The programs of the HSU Educational Foundation are developed from an entrepreneur's perspective and reflect an industry-driven solution for preparing students for careers of global demand.

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Names of co-applicants, partners or other entities, organizations that will have a role in the proposed project or program:

Industrial & Business Partners: Boeing, Lockheed Martin, Okaloosa Airports, Dr. Paul S. Hsu, PSH of Okaloosa LLC., Total Parts Plus, Inc., ActiGraph, LLC., SAI Flight Test/Sunshine Aero, Technology Coast Manufacturing and Engineering Network (TeCMEN), Economic Development Council of Okaloosa County, Fort Walton Beach Chamber of Commerce, Crestview Area Chamber of Commerce, Pioneer Technologies, Air Force Research Lab, City of Fort Walton Beach Commerce and Technology Park Stakeholders, Okaloosa Sheriff's Office (Criminal Investigation unit), TelaForce.

Educational & Community Resource Partners: Northwest Florida State College, University of West Florida, Embry-Riddle University, Okaloosa County School District, Emerald Coast Robotics Alliance, PLTW, CareerSource, DefenseWerx (Doolittle Institute).

(This list reflects Phase 1: Okaloosa County and will expand by county in Phase 2 through 5.)



HSU Educational Foundation Technology Coast Innovation Center, Phase 1

The HSU Educational Foundation requests **\$9.2 million as a Phase 1 investment from Triumph Gulf Coast**. This Phase 1 request is part of a **\$50 million (5 phase) total project proposal** which combines with other funding and support of industry partners for the development of **Technology Coast Innovation Centers (TCICs)**, with locations in each of the eight disproportionately affected counties of the BP Oil Spill – Escambia, Santa Rosa, Okaloosa, Walton, Bay, Franklin, Gulf, and Wakulla.

The development of TCICs offers a transformative business – to – student (K-20) educational solution that bridges the gap between traditional classroom education and the increasing demands of employers in need of a technologically skilled workforce. TCIC programs expose students to the newest technologies with real-life career applications through a variety of fun and engaging camps, speaker workshops, maker labs and afterschool STEM enrichment programs. By serving as an industry hub for workforce development among youth, TCICs are able to better empower employers through non-traditional talent training opportunities, creating a more technologically skilled culture across the region. By covering a variety of STEM (Science, Technology, Engineering and Math) concepts and career applications, Technology Coast Innovation Centers cultivate student interest from an early age and encourage exploration of career pathways that lead to better, higher paying jobs. Long term program sustainability is achieved through industry partnership and investment. Industry partners have the ability to drive the focus of the curriculum, reflecting the skills in greatest demand. The centers offer vitality to underutilized industrial parks and serve as visible evidence of a community culture that values innovation, STEM, and career tech education.

Amount of Funds sought from Triumph Gulf Coast, Inc.

The HSU Educational Foundation requests a **\$50 million total project grant** (phased-in and administered over 5 years) to combine with partner investment, ultimately fully sustained by industry partners.

Phase 1 requests \$9.2 million of the total grant request to be awarded in the first year and includes renovation, equipment and establishment of operations for two **Okaloosa County Technology Coast Innovation Center locations**. It includes development of the **Technology Coast Network (TCN)** web portal to unite STEM resources across Northwest Florida and includes planning costs for establishment of the next two TCICs, eventually developing a minimum of 8 TCICs over 5 years.

Other Proposed Sources of Funding:

Phase 1:

- **\$1.26 million in-kind donation** full service lease for 709 Anchors TCIC (South Okaloosa) location - 28,000 sq. ft. at \$9/ sq.ft. x 5 year term by PSH of Okaloosa, LLC.
- Use of shared space and resources in the **NWFSC HSU Advanced Technology Center**.
- **\$100,000** donation by HSU Educational Foundation for mission related programming and scholarships.
- **\$100,000** Industry partner in-kind donations of subject matter expert instructional hours of approximately one man-year in covering camps and special workshops in the first year.
- **\$232,000** grant for autonomous UAV competition program.
- **\$2,000,000** funding from Industry Partners over 5 years.

Locations:

The first proposed TCIC location will be situated in South Okaloosa County at **709 Anchors Street, Fort Walton Beach, FL 32548**. This 28,000 square foot office/ warehouse site is located in the center of the Fort Walton Beach Technology and Commerce Park and allows ample space to accommodate workshops and camps, a

high bay UAV flying arena, specialized learning labs focused on software programming/ robotics, environmental engineering/ marine biology, cyber security/ IT and CAD/ 3D printing. The facility will host robotics and UAV competitions, alternate learning environment for educational groups, speaker workshops and special community oriented activities such as STEM expos, as well as, offering flex space for large and small group workforce training sessions and certification classes.

A satellite site of Phase 1 will be located in North Okaloosa County at the **Crestview Technology Air Park (CTAP)** at **5795 John Givens Road, Crestview, FL 32539**. While functioning and providing similar programs as its sister location in Fort Walton Beach, the North Okaloosa TCIC location will be working in partnership with Northwest Florida State College (NWFSC) to share facility resources and expose students to A&P and other STEM related concepts. CTAP is uniquely positioned between the Okaloosa Industrial Air Park and the end of the 8500 foot runway of Bob Sikes Airport, a property that is home to an aerospace defense business with opportunity for expanded development to support 500-600 new high tech industry jobs.

Featuring state of the art technologies and innovative architectural design, the TCIC at the site of 709 Anchors St. will help revitalize the Fort Walton Beach Commerce and Technology Park, while the satellite site of the 5795 John Givens location will provide STEM programming access to students in the north Okaloosa area. The TCICs in each of the other seven disproportionately affected counties (Phase 2 - 5) will also be developed in industrial parks or developing rural regions where a technologically skilled workforce is appropriate and in demand. When possible, the TCICs will be established in long- vacant commercial/ industrial building structures in effort to transform, enhance and add value to the region.

Summary Description:

TCICs offer a transformational solution by inspiring an early interest in STEM among youth and ultimately careers of global demand. TCICs cultivate the knowledge, mindset, and skills needed to prepare for better jobs, with wages above the national average.

TCIC programs focus on hands-on, interactive exploration of the career skills in greatest demand. The TCIC offers K-20 students access to high tech, state of the art equipment, specialized industry instruction and a rotating schedule of fun and interactive STEM focused camps per year customized by age group: (4-6), (7-9), (10-11), (12-14), (15- 18). **STEM workshops, camps, and family ‘Game Changer Saturday’** gatherings are offered to students after school and during the summer, with the introductory and immersive one week experiences covering topics such as: **CAD/ 3D printing, Robotics/ Programming, Marine Biology/ Environmental Engineering, Cyber Security/ IT**. Programs expose students to real career applications of foundational STEM concepts and further incorporate leadership, collaborative learning, critical thinking and problem solving skills. The flexible, creative lab setting allows for experiential learning without the structured limitations of a traditional classroom.

The after-school programs, club interactions and family activities are offered at little to no cost in order to increase accessibility to all students regardless of background or income status. Sustainability of the project is made possible through industry partnerships, national grants and community fundraising. Investment of industry partners offers them a unique opportunity to play a key role in workforce development and collaborate with future employees.

The TCIC locations will fulfill requirements to be an AFA CyberPatriot Center of Excellence, providing support and resources for teams all over the county participating in a nationally successful youth cyber security competition program. This program can serve as a direct pathway to Computer Science / Cyber Security degree programs, such as those offered by University of West Florida (UWF).

By introducing students to career skills in an industry setting on a regular basis, the TCIC seeks to impact local talent retention and acquisition from an early age. TCICs further act as a hub for coordinating internships,

facilitating business involvement and support of educational clubs, programs, and scholarship opportunities, as well as, serving to facilitate mentor interaction within areas of career interest.

Beyond impacting student interest, Game Changer Saturdays offer families an opportunity to explore emerging technologies together. TCIC programs also inform adults about potential second careers and certification opportunities available to them. A cultural shift is made possible when families are encouraged to imagine new possibilities in a world increasingly fueled by advances in STEM.

Working in partnership with Northwest Florida State College (NWFSC), the **5795 John Givens Road** location will host the HSU Advanced Technology Center, a Center of Excellence with programs for aviation maintenance, advanced manufacturing, automation, electronics and pneumatic hydraulic motors. As NWFSC prepares students for careers in the A&P industry, younger students from elementary age to early high school will be inspired through a variety of STEM activities and interactive technological experiences. STEM program efforts at the satellite site will have an additional focus on exposing students to technologies leading to the career opportunities that are made possible through the courses and certifications offered by the HSU Advanced Technology Center of NWFSC.

The TCIC will host top innovators, engineers and scientists to share what it is like working in their occupations. During the school year, field trip programs during the day compliment classroom curriculum. As students progress through the programs, they have opportunities to receive community service hours for volunteering with programs training younger peers and are given opportunities to dive into specialized study more independently and gain valuable certifications while still attending high school.

As the TCICs seek to bring together STEM resources in the community, the project will include development of a sophisticated **Technology Coast Network (TCN) Web Portal** that will pull together and promote all STEM organizations within the eight county region, raising awareness of the diverse span of programs, events and opportunities. This online tool will allow organizations to communicate needs for funding, internships, volunteer support and / or programming partnerships. Utilizing location technology, the public can easily search all upcoming opportunities and create a calendar of activities to keep youth active year round. The portal will itself facilitate innovation and sharing of ideas as it will allow administrators to contribute to a common forum with their announcements and special requests. Educators can use the tool to find field trip locations or to invite speakers to the classroom. Youth volunteers can match their talents and track their time for community service hours. By facilitating the public's dialogue about STEM, the portal will be an invaluable resource for students and their families.

Summary Timeline:

Year 1: Prepared to immediately begin development of the following:

- S. Okaloosa County TCIC : 709 Anchors St., Fort Walton Beach (Remodel, Renovate, Begin Operations)
- N. Okaloosa County TCIC: 5795 John Givens Road, Crestview. (Equip section of building for K-20 STEM)
- Establish Technology Coast Network (TCN) web portal
- Begin Discussions with Year 2 county commissioners and local business leaders on county TCIC needs

Year 2: Establish Santa Rosa County and Franklin County TCIC and begin operations

Year 3: Establish Walton County and Gulf County TCICs and begin operations

Year 4: Establish Escambia County and Wakulla County TCICs

Year 5: Establish Bay County TCIC

TCICs offer a transformative solution to promote economic recovery, diversification, and enhancement of the disproportionately affected counties of the BP Oil Spill - Escambia, Santa Rosa, Okaloosa, Walton, Bay, Franklin, Wakulla and Gulf. The HSU Educational Foundation will inspire K-20 students and prepare them for better, higher paying careers by encouraging them to explore emerging technologies and the innovative applications of Science, Technology, Engineering, and Math (STEM).