The National Business Incubation Association (NBIA), the world’s leading organization advancing business and entrepreneurship, announced plans to relocate its headquarters from Athens, Ohio to Orlando this August.

UCF Takes Lead Research Role for Emerging “Internet of Things”

UCF and the University of Florida have joined forces to research the materials, sensors, actuators, power sources and electronics that are expected to drive the “Internet of Things” — the interconnection of the cyber and physical world that engineers predict is the future of the Internet.

In the last 30 years, the Internet revolution has completely changed how people communicate, exchange money and explore the world. Access to the Internet has transitioned from the desktop computer to hand-held and even wearable devices.

By 2020, engineers predict that 20 billion items will be connected to and controlled through the Internet, such as thermostats, cars and even coffee makers.

The UCF-UF partnership is called the MIST (multifunctional integrated system technology) Center, and was selected by the National Science Foundation (NSF) to play a leading role in researching the next generation of smart electronics.

Funded through an NSF program that combines federal money with industry investments in strategic research, the MIST Center will receive $880,000 from the NSF and about $4

UCF Wins Three Schwartz Tech Awards

Two engineering professors and an associate vice president at UCF were awarded at the Schwartz Tech Awards.

The annual awards event recognizes Central Florida researchers and leaders from academia and industry who are pioneering exploratory and cutting-edge research to enhance products, services or other applications in any field. The awards program is named after the late William C. Schwartz, a community leader, business pioneer and innovator in the field of optics and photonics.

Sudipta Seal, Ph.D., an engineering professor and nanotechnology and materials expert, was named Researcher of the Year.

Tom O’Neal, Ph.D., associate vice president for the Office of Research and
Imagine being able to gather, collaborate, create and refine. Here, great minds aren't brought together to think alike; they are encouraged to explore and discover.

The whole idea is to turn creativity into marketable products by leveraging diverse student skills and academic backgrounds — leading to rapid high-tech prototyping that replicates the real-world innovation process.

That's what you'll find at UCF's new Maker Space Labs, located on the main campus in the Engineering II Building. The four spaces are the latest examples of UCF's effort to encourage innovation and entrepreneurship.

Earlier in 2014, UCF was named a Maker University, joining the national “maker” movement to create innovations that can be successfully taken to market and launched as new startups. The new Maker Space Labs supplement similar labs at UCF, such as the Starter Lab in the College of Business Administration and the Advanced Design Lab in the School of Visual Arts and Design.

Other labs at the College of Engineering and Computer Science include the Harris Corporation Gathering Lab, located in the atrium of Engineering II, where groups meet and discuss projects in an area equipped with round whiteboard tables designed by UCF faculty. The IdeaLab, a glass-enclosed space, is where students participate in hosted brainstorming exercises, sketch out ideas on the walls and tables and use the provided idea-generating technology. The Texas Instruments (TI) Innovation Lab, strategically located next to the IdeaLab, enables students to quickly build prototypes with 3-D printers, laser cutters, TI components and equipment, and other high-tech machines. At the Manufacturing Lab, which includes heavy manufacturing equipment for cutting, bolting, sanding and more, users can build and fine-tune later-stage prototypes.

“We are giving students dedicated creative space and mentoring from professional advisers to build prototypes faster than ever before at UCF,” comments Michael Georgiopoulos, dean of the UCF College of Engineering and Computer Science. “These four [Maker] spaces send a loud message to our college’s 8,000 students and the world that UCF is serious about the role of creativity in the innovation process, and about providing students as many opportunities as possible to enable professional success”.

Enter UCF's Center for Entrepreneurial Leadership (CEL), a campus-wide academic entrepreneurship center, where resources like the Starter Lab encourage business innovation. The CEL seeks to enhance UCF’s overall capacity for innovation, research commercialization, new venture creation and economic development.

The StarterLab is intended to serve as a “community center for change-makers, innovators and starters throughout UCF”. Those students can then further develop their ideas at the Maker Space Labs as well as the Advanced Design Lab, which provides UCF students with a creative atmosphere and the necessary tools to develop original design work for the real world.

Each lab space is a collaborative venture in itself — designed to foster entrepreneurship and innovation within its own walls and across campus. Just imagine.

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UCF Fact
Did you know?

- The UCF Business Incubation Program (UCFBI) recently celebrated its 15-year anniversary. Since the launch of the UCFBI, one of the largest programs of its kind in the world, participating companies have sustained more than 3,600 local jobs and have had a total impact of $1.51B on regional sales and $2.48B on regional economic output.
Color-Changing Tape that Detects Gas Leaks Originated at UCF

Gas leaks in industrial settings are potentially dangerous, challenging problems. The effort to determine the precise location of the gas leak can cost millions in labor, resources and facility shutdown time. In fact, leaks such as those involving hydrogen— an odorless, colorless, and highly flammable gas—are especially challenging to detect and can also result in property and environmental damage, injuries and death.

Today, however, facilities personnel now can have access to an easy-to-use detection tool that immediately and visually pinpoints the location of a hydrogen gas leak. It’s a color-changing tape that got its start at UCF.

HySense Technology, a client of UCF’s Venture Accelerator and Technology Transfer programs, produces and markets UCF-licensed intelligent tape. The tape changes color in the presence of hydrogen and other gases to detect leaks and improve safety and can be applied to or wrapped around pipes, flanges, fittings, valves or access panels. It’s applicable for use in the aerospace, chemical, energy and gas industries.

UCF researchers at the Florida Solar Energy Center initiated work on this breakthrough technology under a grant from NASA’s Glenn Research Center. Use of hydrogen as an industrial feedstock in the chemical industry and as a fuel for space exploration carries the risk of a potentially destructive accident if a hydrogen leak isn’t pinpointed and quickly fixed. Hydrogen can burn at over 5,000 degrees Fahrenheit and ignite with as little as a static spark. By wrapping leak-susceptible areas with the tape, leaks are made visible thanks to the color change that occurs in the intelligent tape when hydrogen is present.

The color-changing concept for a visual cue was conceived by UCF’s Ali Raissi, Ph.D., who developed a chemochromic pigment—a type of pigment that changes color in the presence of a particular chemical—with a team of scientists including Nahid Mohajeri, Ph.D., who founded HySense Technology and introduced the invention to the market.

In acknowledgement of this development, R&D Magazine recently recognized UCF, NASA’s Kennedy Space Center and HySense Technology for developing and producing one of the top 100 innovations of the year.

Save the Date!

SmallBiz360

January 22, 2015 | Orlando, FL

For more information, contact events@NationalEC.org
NBIA Relocates Headquarters to Orlando

The organization will also open a Global Training Center for Business Incubation and Innovation designed to service 2,200 members worldwide.

Both will be housed in Central Florida Research Park. The NBIA looks forward to partnering with existing incubation and entrepreneurship programs throughout the region, as well as developing additional global partnerships.

“The NBIA selected Orlando because of its reputation as being the home of entrepreneurship and innovation, making it the ideal place to expand our programs and enhance our mission,” said Karl LaPan, NBIA’s board chairman and interim president and CEO. “The fact that the Orlando region has one of the best business incubation network systems in the world is icing on the cake.”

Orlando’s nationally recognized incubation and entrepreneurship resources have earned praise from Entrepreneur Magazine and American City Business Journals, making the city one of the top places in the country to start or grow a small business. Both the Ewing Marion Kauffman Foundation and Thumbtack ranked Orlando as Florida’s top city for overall friendliness toward small businesses.

“The UCF Business Incubation Program is one of the best in the country, and Orange County has been a proud supporter and funder of this program for over a decade,” said Orange County Mayor Teresa Jacobs. “Along with a number of other small business, minority development and entrepreneurial programs that are already established in our community, the NBIA’s relocation of their headquarters to Orange County is a perfect fit with our focus on growing jobs by creating a robust entrepreneurial ecosystem.”

NBIA Chairman and Executive Director of the UCF Business Incubation Program Tom O’Neal, Ph.D., said, “The relocation of the NBIA to Orlando puts the region in the forefront of innovation-related activity in the world. By working with the NBIA and having direct access to its expertise, we hope to further strengthen the region’s innovation culture by building stronger and more successful companies.”

The NBIA considered more than 30 cities for its new headquarters before narrowing down the final list to Orlando, Atlanta, Denver and Phoenix.

“The NBIA’s decision to relocate here is a great opportunity for the whole community,” said Rick Weddle, president and CEO of the Orlando Economic Development Commission, which assisted the NBIA in its decision. “It will benefit UCF’s currently established incubation program, small businesses, startups and entrepreneurs.”

Partners on the project include UCF, Orlando Economic Development Commission, Florida High Tech Corridor Council, Orange County government, the city of Orlando and the National Entrepreneur Center. The NBIA headquarters and Global Training Center are scheduled to open in 2015.

Visit NBIA.org for additional information.
UCF and the University of Florida Partner to Establish Life Sciences Incubator at Medical City

Featuring a wet lab, dry lab and clean room, the incubator will be located in the recently announced $30M Innovation Center and helps establish the region as a leading biotech hub.

Medical City’s exciting growth in Lake Nona continues with the recent announcement of Central Florida’s first multi-tenant building designed specifically for health innovation, life sciences, and technology companies. The $30M, 92,000-square-foot three-story GuideWell Innovation Center is scheduled to open in late 2015 and will help establish a health and life sciences cluster in Lake Nona and position the region as a premier biotech hub.

An integral feature of the center will be a 15,000-square-foot life sciences incubator made possible thanks to the University of Central Florida and University of Florida. Operated by both universities, the incubator will feature a wet lab, dry lab and clean room space for emerging life sciences and tech firms.

“Over the past decade, a phenomenon known as the Medici Effect has been coming to life in southeast Orlando,” said Thaddeus Seymour Jr., Ph.D., senior vice president for Tavistock Development Company and president of the Lake Nona institute. “The Medici Effect refers to when ideas, disciplines and institutions intersect to create a chain reaction of extraordinary innovations. Lake Nona Medical City is an example of this intersection and the new Innovation Center is another positive step in fostering the environment that will attract some of the world’s leading scientists, investors, entrepreneurs, and other experts who can turn medical breakthroughs into marketable products and companies.”

Medical City has been built on the vision, collaboration and investment of business, academia and community leaders. Since the seeds of the Medical City concept were first planted, UCF has been among these leaders and played a crucial role in the area’s development and realization to become a major intersection of innovation and global model for progress.

The UCF College of Medicine is an integral part of the growing medical city at Lake Nona. The UCF Health Sciences Campus at Lake Nona now includes the medical school’s new 170,000-square-foot medical education facility, featuring the latest in lab and classroom technology, as well as its new 198,000-square-foot Burnett Biomedical Sciences building. The college’s medical and biomedical programs capitalize on UCF’s existing strengths in biological sciences, modeling and simulation, engineering, optics and photonics, psychology, chemistry, film and digital media, business, and nursing.

For its part, the Innovation Center will become a focal point for health and life sciences commercialization and will feature exceptional research, healthcare and technology capabilities. In addition to the UCF-UF Life Sciences Incubator, the Center will be anchored by GuideWell, a health solutions company focused on transforming health care, and will feature six core Centers of Excellence such as Advanced Integrated Delivery of Care, Consumer Engagement, Digital Health and Next Generation Analytics. The Center provides the world’s leading healthcare industry leaders the opportunity to converge to address current issues, evaluate emerging trends, and develop new solutions to transform the healthcare industry.

UCF Facts
Did you know?

- UCF’s Cyber Defense Team has started the new year by taking top honors in the Collegiate Cybersecurity Championship Cup competition on January 6, 2015, which recognizes the best team in the nation for overall performance at multiple cybersecurity competitions.
- UCF placed third in the nation and 21st in the world in the ACM International Collegiate Programming Contest in Russia, the “World Cup” of computer programming competitions. UCF was among 122 teams that competed after having advanced from a regional pool of 8,000 teams. For 33 consecutive years, UCF’s most winning team has placed in the top three spots in the Southeast region.

UCF Wins Three Schwartz Tech Awards

Commercialization, earned the Tech Community Champion award, which honors an individual who does not directly work in the region’s tech industry but supports its efforts, entrepreneurship and expansion.

Productivity Apex, a company developed out of the UCF Business Incubation Program and led by associate engineering professor Mansooreh Mollaghasemi, Ph.D., was named a Regional Innovator. The award recognizes companies for creating, developing and successfully implementing products, ideas and processes that positively impact our community.

Each of the winners has been instrumental in moving Central Florida forward in terms of technology, innovation and entrepreneurship.

The Metro Orlando Economic Development Commission, Orlando Tech Association and the Florida High Tech Corridor Council partnered to present the 24th annual awards. Jorge Estevez, WFTV news anchor, served as the master of ceremonies.
Manufacturing Research in Osceola County. UCF, International Consortium for Advanced ready technologies to the newly established The MIST Center will also feed production-systems.”

Our faculty and students will have the opportunity to perform advanced research driven by industry needs for smart sensors and integrated electronics will look like in the near future,” said Jiann-Shiun Yuan, UCF MIST director and professor of Mechanical and Aerospace Engineering. The UF team is led by Professor Toshikazu Nishida and Associate Professor David Arnold from the Department of Electrical and Computer Engineering.

“The opportunity to work with the NSF, UF and industry [partners] on this strategically important research boosts our national and international visibility and is a win-win for all involved,” said Michael Georgiopoulos, dean of College of Engineering and Computer Science.

The MIST Center will host its inaugural meeting with industry and government partners in December 2014. For more information, visit Mist-Center.org.

O’Dang Hummus Enjoys Taste of Success

A startup hummus business created by a UCF student was the highest-ranked student-led venture in the inaugural Blackstone LaunchPad Demo Day held in New York City.

“The major players in the market are all doing the exact same flavors. Our idea is to be the rebels, the disruptive kids of hummus,” said Jesse Wolfe, a senior business major and the founder of O’Dang Hummus. He’s created flavors such as Sweet & Spicy Black Bean and Bomb-A-Licious Buffalo Wing, which are sold at Central Florida farmers markets.

Wolfe’s company won $15,000 to use for further business development.

“The teams competing here have been really incredible. Our showing solidifies for us how cool the product is that we have. We’re that much more credible. The connections we have made with the Blackstone Foundation and others have really boosted our confidence,” said Wolfe.

Two UCF teams — O’Dang Hummus and Limbitless Solutions, comprised of the UCF engineers who made national headlines this summer with the creation of a 3-D printed arm — made the finals in the national competition.

Wachob, a co-founder of Fourier Electric, found that the competition allowed him to forge new connections that would help his venture. “The networking portion has been an amazing opportunity. We’ve met several VC [venture capital] groups that have shown interest in our product.”

“It was incredible to see students competing from all over the country, representing many different industries,” said Rahangdale, co-founder of JOOX. “It’s humbling, really — there’s a lot of hustlers out there. We can be role models to other students and together help make the world a better place.”

Petresky, co-founder of Limbitless Solutions, explained, “To date, our nonprofit has reached over 1.5 million people across the globe in 25 different countries. Getting to the finals in this competition and developing connections from the experience will definitely help us expand our reach going forward.”

Blackstone LaunchPad is a co-curricular, experiential campus program designed to introduce entrepreneurship as a viable career path and develop entrepreneurial skills and mindsets through individualized coaching, idea and venture creation support. Modeled after a program at the University of Miami and further developed and expanded by the Blackstone Charitable Foundation, the program is currently available to more than 350,000 students at 15 colleges and universities nationwide. More than 900 ventures have been advised since its establishment at UCF in September 2013.

The Blackstone LaunchPad Demo Day was held as part of a wider convening of representatives from Blackstone LaunchPad programs from around the country.

UCF Takes Lead Research Role for Emerging “Internet of Things”

FROM PAGE 1

UCF delegates ring the bell at the New York Stock Exchange at the Blackstone LaunchPad Demo Day. Photo credit Ben Hider Photography.

O’Dang Hummus
Jesse Wolfe and team

million from industry and government partners.

“The MIST Center will shape what our smart electronics will look like in the near future,” said Jiann-Shiun Yuan, UCF MIST director and professor in UCF’s Electrical and Computer Engineering Division. “Our faculty and students will have the opportunity to perform advanced research driven by industry needs for smart sensors and integrated systems.”

The MIST Center will also feed production-ready technologies to the newly established International Consortium for Advanced Manufacturing Research in Osceola County. UCF, Osceola County, the Florida High Tech Corridor Council, the Metro Orlando Economic Development Commission and other partners are building the 100,000-square-foot, state-of-the-art research center, which will be focused on the manufacturing of smart sensors to target the mega-growth technologies offered by the Internet of Things.

The MIST Center is a collaborative center using facilities at UCF and UF. The team comprises faculty from multiple disciplines, including electrical engineering, mechanical engineering, materials science and engineering, biomedical sciences, chemistry, and the UCF College of Optics and Photonics. The UCF team is led by Yuan and Hyoung Jin Cho, a professor in the Department of Mechanical and Aerospace Engineering. The UF team is led by Professor Toshikazu Nishida and Associate Professor David Arnold from the Department of Electrical and Computer Engineering.

“The opportunity to work with the NSF, UF and industry [partners] on this strategically important research boosts our national and international visibility and is a win-win for all involved,” said Michael Georgiopoulos, dean of College of Engineering and Computer Science.

The MIST Center will host its inaugural meeting with industry and government partners in December 2014. For more information, visit Mist-Center.org.
GrowFL recently released their latest impact numbers and they are impressive. Established in 2009, the organization has generated proven results and made quite an impact on the business landscape of the entire state of Florida.

The 2013 Regional Economic Impact Study, conducted by Vernet Lasrado, Ph.D., an assistant research director at the Office of Research & Commercialization at UCF, indicates the following (as of June 30, 2013):

- GrowFL-assisted companies represented 13,493 direct jobs across the state of Florida.
- GrowFL companies had an estimated sales output of $1.14 billion and contributed $2.33 billion to the Florida economy.
- During the study period between fiscal years 2012 and 2013, a variety of state, local and private sector funding sources invested $2.61 million in the GrowFL program.

- GrowFL activities over the same time period helped generate an estimated 1,399 net new direct, 696 indirect and 1,650 induced jobs, which contributed $587.49 million to Florida’s economy and added an additional $19.78 million in total state and local tax revenues (above and beyond the cost of the program).
- For every $1 invested on the program, the Return on Investment (ROI) is an impressive $7.58.

The study also revealed that the greatest economic benefit was reflected in the manufacturing industry.

“The numbers speak for themselves,” explains Tom O’Neal, Ph.D., associate vice president of research & commercialization at UCF and executive director of GrowFL. “GrowFL’s goal has always been to help second-stage businesses overcome obstacles while developing sustainable growth and prosperity. Over the past five years, we have proven to be an effective catalyst for success.”

GrowFL delivers their programs and services to second-stage businesses in both urban and rural areas.

For more information, visit growfl.com.
UCF I-Corps Program Positions Central Florida as Epicenter for Lean Startup Movement in Florida

The UCF I-Corps program welcomes the co-founder and leader of the Lean Startup movement on January 29. Jerome “Jerry” Engel, Ph.D., will make special appearances at at the UCF campus and a community event downtown in partnership with Canvs, Starter Studio and the Orlando Tech Association. The events are part of the official launch and debut of the UCF I-Corps program, firmly rooting Central Florida as the epicenter of the Lean Startup movement within the state.

The Lean Startup movement promotes a nontraditional classroom approach to entrepreneurial learning. This hands-on methodology requires teams of researchers and graduate students to propose and test their business assumptions with real-world scenarios. Industry mentors review findings with each team, helping them make appropriate adjustments to their business model and/or commercialization plan in preparation for bringing their ideas to market. Lean Startup emphasizes engagement and experiential study.

UCF I-Corps, offered by the UCF Center for Innovation and Entrepreneurship (CIE), is a statewide program designed to foster, grow and nurture an innovation ecosystem. Through partnerships between the National Science Foundation, Florida universities and venture capital and entrepreneurial communities, UCF is creating an opportunity for teams throughout the state and region to turn technology into scalable, high-growth, commercial opportunities.

“We consider it a great privilege to welcome Jerry Engel to Central Florida,” says Tom O’Neal, Ph.D., associate vice president of UCF’s Office of Research and Commercialization and director of the CIE. “Having the co-founder and leader in the Lean Startup movement here to spend time with students, faculty, aspiring entrepreneurs and industry leaders is an incredible opportunity for UCF and the entire Central Florida entrepreneur community.”

Collaborating closely with Steve Blank, chief architect of the Lean LaunchPad method, Engel helped develop the curriculum and co-authored the LeanLaunchPad Educators Guide. Engel is a leader in entrepreneurship education, venture capital, corporate innovation and regional economic development. A veteran of Silicon Valley, he joined the University of California at Berkeley in 1991 to found the Lester Center for Entrepreneurship. As an adjunct professor at the Haas School of Business he has instructed in the M.B.A. and Executive Education programs, specializing in entrepreneurship, new venture finance, corporate innovation and venture capital. Engel has taught the Lean LaunchPad at U.C. Berkeley and across the U.S. as the national faculty director of the National Science Foundation’s I-Corps program, which has trained over 300 teams of the nation’s leading scientists. Internationally, he is supervising programs in Asia and Europe.

For event details, please visit icorps.cie.ucf.edu.

UCF Partners with U.S. Navy to Boost Central Florida Economy

UCF President John C. Hitt and Capt. Wes Naylor, commanding officer of the Naval Air Warfare Center, on December 2 signed an agreement that not only creates more opportunities for UCF students interested in the modeling and simulation industry, but also expands collaborative work, the sharing of resources and the potential for joint projects between the college and the Navy.

The agreement was signed at the Interservice/Industry Training, Simulation & Education Conference at the Orange County Convention Center. The annual conference is the largest modeling and simulation for training event in the world and draws 14,000 to 15,000 attendees.

Benefits of the agreement include:
• Employees from both institutions will be able to share laboratories and other facilities.
• Scientists at both institutions should be able to expand their collaborative work.
• The Navy will have the ability to help prepare future scientists and engineers, get non-military perspective on projects and collaborate with other scientists specializing in simulation and training.
• UCF students have the opportunity for internships.

“We know this industry is essential to our nation’s defense and the growing innovation economy of Central Florida and our Sunshine State” Hitt said, in a prepared statement. “This agreement we formalize with the Naval Air Warfare Center Training Systems Division in Orlando opens broad new frontiers for research and innovations that stand to bolster the missions of the center and of UCF.”

UCF has a similar agreement with the U.S. Army, which has resulted in close to $40 million to date over seven years [“over the course of that agreement”, Randall Slumaker, director of UCF’s Institute for Simulation and Training, told Orlando Business Journal at the event. In addition, UCF’s Institute for Simulation & Training has worked with the armed forces to develop training programs.

“Projects that evolve from this type of research have a way of filtering into and benefiting other areas,” Hitt said. “It should be a great stimulus for the local economy.”

Meet Jerry Engel Silicon Valley Guru

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Meet Jerry Engel Silicon Valley Guru

Date: January 29th

Where: Canvs (Exchange Bldg.)
101 S Garland Ave
Orlando, FL 32801

Agenda:
Networking 5:30PM - 6:00PM
Chat with Jerry 6:00PM - 7:00PM

Register: http://bit.ly/1Dsb0qm

Happy Hour 7:00PM - 8:00PM
Cost: $10/Person Early Bird $15 After January 15th (Includes one drink ticket)

Format: Highly Interactive Q&A Session

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UCF President John C. Hitt and Capt. Wes Naylor, commanding officer of the Naval Air Warfare Center, sign an agreement at the I/ITSEC event in December.

Photo by Jim Carchidi
Growing up in Tarpon Springs, Florida, Albert Manero was taught the importance of community citizenship. “I learned to give back. I was raised that way by my parents. I was made aware that we should always be trying to make a difference,” he recalls.

At the same time, young Manero had an inquisitive mind and continually sought discovery. During high school in 2005, he was introduced to 3-D printer and even before then had decided he would become an aerospace engineer. “That’s what I’ve wanted to do the entire time,” he says. “[Back] at that time, people use to laugh because [space commercialization] didn’t exist. Now the dreams are coming true.”

Coming true in more ways than one — and all rooted at UCF, where, as Manero and friends (his team of senior design students) are proving, an engineering education can bring to life-changing innovation and ultimately create entrepreneurial success with the help of a continuum of resources on campus.

Prior to graduating from UCF with a master’s degree in May 2014, Manero was already well on his way toward making a difference. Along with a team of fellow students, he began working on a prosthetic prototype that would lead to a Florida 6-year-old gaining use of an arm. Last July, Alex Pring hugged his mother for the first time, thanks to a prosthetic arm students designed and manufactured in the UCF maker labs at the College of Engineering for less than $350. It was made on a 3-D printer and operated with off-the-shelf servos and batteries that were activated by the electromyography muscle energy on Pring’s bicep.

Children’s prosthetic arms are especially difficult to make because of the need to miniaturize components. Additionally, most insurance companies won’t pay for them because they need to be replaced often as the child grows. Undeterred, Manero and friends (his team) made it happen. Oh, and never mind that Manero’s formal education was in aerospace engineering or that weeks later he was headed as a Fulbright Scholar to Germany, where he was to work for the German Aerospace Center.

Manero, who is scheduled to graduate from UCF with a Ph.D. in December 2016, was out to change the world.

Following that initial success, he wasn’t done, either. In late November, just before Thanksgiving, 7-year-old Madelyn Rebsamen from Virginia received a present — a new prosthetic hand from the Limbitless Solutions Foundation, an organization founded by Manero and other UCF engineering students. The hand was the first of its kind, specially designed to include part of a forearm. Students spent their spare time and their own money on the project.

“When you can get people to dream big things, then you have a real chance of changing the world,” Manero describes.

Now, in typical fashion at UCF — or, perhaps more aptly, in prototypical fashion — entrepreneurship beckons. Limbitless Solutions is seeking ways to solve other problems, and discussions continue with colleges across the country to expand production of 3-D printed prosthetics.

All is part of UCF’s holistic approach to student entrepreneurship — from innovation to commercialization — that is headquartered at the UCF Center for Innovation and Entrepreneurship. CIE consolidates and coordinates major innovation and entrepreneurship support activities, with the goal of leveraging university and regional partnerships to create an effective entrepreneurial support infrastructure. Across campus, there are lab and maker spaces; there is mentorship and guidance; there is help with funding along with business incubation; there are business plan competitions and events; programs to develop technology spinouts and there is a wealth of assistance as enterprises grow and spread their wings.

Rather, in the case of the UCF-born Limbitless Solutions Foundation, spread their arms and hands.

UCF Facts

Did you know?

- Knightstrike, a vehicle powered only by two human legs and can travel up to 42 mph, earned the overall No. 1 rank at the American Society of Mechanical Engineers Human Powered Vehicle Challenge. Designed and built by seven UCF mechanical engineering students, the vehicle raced to first-place finishes in the speed, endurance and innovation categories. Teams from 36 universities took part in the challenge at the UCF campus.

- UCF Collegiate Cyber Defense Competition Team is a National Champion. The team won the 2014 title in Raytheon’s national competition, beating 179 other teams. The UCF team of eight had its photo displayed in Times Square, New York; and met the nation’s top federal cyber security staff, including the White House and the NSA.

- UCF received $29 million from Lockheed Martin to fund workplace training for students. UCF is their #1 workforce supplier.
Florida SBDC at UCF Delivers Major Economic Impact

The Florida Small Business Development Center (FSBDC) at UCF continues to produce powerful results. The final 2013 numbers have been released, and statistics indicate the center made an impressive and significant impact on Central Florida’s economy. Last year, the FSBDC at UCF helped over 2,200 entrepreneurs find innovative, new ways to grow and manage their small businesses. The agency also offered a total of 270 training events benefitting more than 5,000 attendees.

The FSBDC’s comprehensive approach accelerates Central Florida’s small businesses by helping them develop realistic plans to boost sustainability and profitability. FSBDC’s no-cost consulting, training, research tools and special services for established businesses have helped client companies throughout Central Florida:

- Create, retain and save 7,507 Jobs*
- Generate $1.04 billion in sales revenue*
- Access $51.5 million of capital
- Acquire $87.7 million in government contracts

The FSBDC at UCF is housed under the UCF Center for Innovation and Entrepreneurship (UCF CIE). The UCF CIE a university-wide program consolidating and coordinating major innovation and entrepreneurship support activities within UCF and its partnerships that foster innovation, wealth creation and economic vitality.

According to Tom O’Neal, Ph.D., associate vice president of the UCF ORC and director of the UCF CIE, “The FSBDC at UCF’s contribution to the local economy is significant and goes far beyond these impressive numbers. Their support of entrepreneurs and small businesses contributes materially to the region’s innovation culture by providing the consulting support and training that encourages and helps give direction to emerging companies in our community. The Florida SBDC at UCF and its economic impact are, unfortunately, a too well kept secret in Central Florida.”

Eunice Choi, FSBDC’s Regional Director, attributes the bulk of this success to the center’s seasoned consultants. Clients are paired with a certified consultant who analyzes their business unit, identifies areas of strengths and weaknesses, and then helps them develop a strategic business management plan designed to drive their company to the next level of success.

The consulting I received from the FSBDC at UCF,” said Eunice Choi, FSBDC’s Regional Director. “They have helped develop our business strategy and improve our hiring process, especially in a tighter labor market,” explained Sarah Blake, President of Elipsis. “They have helped me understand our profit margin and develop goals and metrics for strong financial growth. The FSBDC also helped establish a plan for our growth and resources.”

For more information about Interventions Unlimited visit interventionsunlimited.com.

Jing Zhou Named 2014 Small Business Administration (SBA) Woman-Owned Small Business Person of the Year

Jing Zhou, founder and owner of Interventions Unlimited, was awarded the prestigious 2014 Small Business Administration (SBA) Woman-Owned Small Business Person of the Year award. Jill McLaughlin, a Growth Acceleration Consultant for the Florida Small Business Development Center (FSBDC) at UCF, nominated Zhou.

Zhou founded Interventions Unlimited in 2000 to provide an exceptional education to children with autism spectrum disorder and other developmental disabilities. She started the company as a part-time, home-based business, providing one-to-one behavioral therapy with only two therapists. Today, Interventions Unlimited employs a team of approximately 70 behavior therapists, educators, paraprofessionals and administrative staff serving special needs children and their families. In 2007, Jing expanded Interventions Unlimited to include a full-time school - Alpine Academy – designed to provide an educational alternative to children with special needs.

“I’m very appreciative of the consulting I received from the Growth Acceleration services at the Florida SBDC at UCF,” says Zhou. “My consultant, Jill McLaughlin, was attentive and thoroughly understood my business. She prepared a detailed financial analysis, providing great insights on the company and key performance indicators to successfully manage our growth. Her recommendations have given me the tools to plan more strategically. Since then, we have improved our operations and business management. We are now in a much better position for growth.”

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*Direct, indirect and induced jobs and sales revenue. “Economic Impact of SBDC Business Development Activities in the Florida Economy, 2014”
Engineering Professor Pamela McCauley Receives BEYA STEM Educational Leadership Award

“Your award comes at a time particularly critical for the United States. Statistics show that science, technology, engineering and mathematics [STEM] enrollments are declining in our country exactly at the moment when our global economy is driving up demand for STEM professionals. The future of America rests in the sharing of your narrative with our nation’s youth,” wrote BEYA Conference and Career Communications Group Chairman and CEO Tyrone Tabor, Ph.D., in his award letter to UCF professor Pamela McCauley.

McCauley, Ph.D., leads the Human Factors in Disaster Management Research Team in UCF’s Department of Industrial Engineering and Management Systems. She previously held the position of Dr. Martin Luther King Jr. Visiting Associate Professor of Aeronautics and Astronautics at the Massachusetts Institute of Technology.

Dr. McCauley is among the highest-producing faculty of female and underrepresented minority Ph.D. candidates in UCF’s College of Science and Computer Engineering, the UCF College of Engineering and Computer Science (CECS), with over 75 percent of her undergraduate research team students going on to pursue graduate degrees in engineering. In her classroom and across the nation through her keynote addresses, Dr. McCauley empowers students and professionals of all ages to pursue successful STEM educational paths and careers.

UCF College of Engineering and Computer Science CECS Dean Michael Georgiopoulos stated in his letter of support for the BEYA STEM Educational Leadership Award: “Dr. McCauley’s work in engineering leadership, especially as directed toward enhancing STEM education, is most noteworthy. She has helped lead very important efforts supported by the National Science Foundation to organize workshops to review pedagogical practices in engineering leadership education. Her leadership is a testament to her contributions in the field of industrial engineering and reflects the high esteem with which her peers regard her service.”

In addition to being a professor and nationally renowned speaker, Dr. McCauley is an author whose widely used textbook, Ergonomics: Foundational Principles, Applications, and Technologies, will soon be published in simplified Chinese by the National Defense Industry Press. Her most recent book, Transforming Your STEM Career Through Leadership and Innovation: Inspiration and Strategies for Women, examines the growing need for leadership and innovation in America — particularly among women and STEM professionals — and is the basis for her talks on leadership and diversity all over the world.

The Educational Leadership College-Level Promotion of Education Award will be presented to Dr. McCauley at the BEYA STEM Global Competitiveness Conference in Washington, D.C. on February 5–7, 2015.

Dr. McCauley is president and CEO of TSTEM, which spearheads national STEM education, leadership, diversity and innovation initiatives in coordination with universities, corporations and institutions. She oversees ergonomics and biomechanics, focused technical support services and technical product development, as well as expert witnessing in the areas of product liability, biomechanics, ergonomics, human engineering and occupational safety.
i4 Business Magazine Recognizes Central Florida’s Entrepreneurial Leaders

Tom O’Neal Honored for Economic Development Efforts

Tom O’Neal, Ph.D., associate vice president for research & commercialization at the University of Central Florida (UCF), was one of eight Central Florida leaders recognized for the forward-thinking vision and transformative impact they have on the area, nation and world. i4 Business magazine’s first annual “Entrepreneurs of the Year Awards” were celebrated by nearly 200 of Central Florida business’ “Who’s Who” on December 4th at the Citrus Club.

“I was honored to be named alongside a group of such respected and revered entrepreneurs,” says Dr. O’Neal. “I can remember when Orlando was considered just a ‘vacation destination’. Today, we are considered serious players in economic development, business growth and research. I consider it a privilege to be part of the core group of Central Florida entrepreneurs making such an important impact.”

Award recipients were chosen for their commitment and contributions in their respective industries.

Phil Rawlins, Orlando City Soccer Club accepted the 2014 Entrepreneur of the Year award. M.J. Soileau, Ph.D., UCF’s Office of Research & Commercialization, Orange County Mayor Teresa Jacobs and Orlando Mayor Buddy Dyer were all on hand to present the awards and congratulate winners.

“In our ongoing effort to celebrate and inspire the best in the community,” i4 Business magazine was proud to focus attention on the transformative impact these and the hundreds of other entrepreneurs are having on the area, the nation and the world,” says Eric Wright, Editor and Managing Director. “They are the engines of economic growth and job creation.”

i4 Business
Entrepreneurs of the Year Awards Honorees

Economic Development: Tom O’Neal, Ph.D.
UCF Office of Research & Commercialization

Business Growth: Mark Montgomery
Axium Healthcare Pharmacy

Urban Planning & Development: Craig Ustler
Ustler Group of Companies

Healthcare: Shari Sandifer
Avant Healthcare Professionals

Environmentalism: Ken LaRoe – First GREEN Bank

Technology: Waymon Armstrong
Engineering & Computer Simulations, Inc.

Social Entrepreneurialism: Shawn Seipler
Clean the World

Dr. Tom O’Neal proudly displays his award presented by i4 Business Magazine as one of their entrepreneurs of the year.