

# ENGINEERING BRIGHT FUTURES



**FIU** | Engineering  
& Computing

FLORIDA INTERNATIONAL UNIVERSITY  
MIAMI, FLORIDA



# IMPACTFUL. INTERDISCIPLINARY. INNOVATIVE.

The FIU College of Engineering and Computing is South Florida's leading engineering education resource. Within these pages, we share some of our triumphs of 2021. These are the stories that define us – a top engineering college driven to advancing excellence at a vibrant public research university that is committed to research, entrepreneurship and innovation.

On the cover: NASA Fellow and doctoral student Marisol Roman and Eminent Scholar Chaired Assistant Professor of electrical and computer engineering Elias Alwan are conducting millimeter-wave antenna probe measurement using the ULAB anechoic chamber. The \$1 million ULAB chamber, manufactured by MVG, was acquired through a major research instrumentation grant from the National Science Foundation. The chamber operates from 18GHz up to 110GHz.





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“ In just four years, our college has more than doubled its research funding and the number of patents awarded to faculty surpassed 40 for four consecutive years, helping FIU rank among the top 50 universities worldwide in patents. ”

—John L. Volakis

PhD student Carlos Velez and undergraduate student researcher Briana Gonzalez measure an origami reflectarray antenna for CubeSat applications at the Transforming Antennas Center, which is directed by Professor Stavros Georgakopoulos.

# DEAN'S MESSAGE



**On behalf of our faculty and staff, it's my pleasure to share some of our college's remarkable growth and success stories during 2021. Our stories fill us with pride and demonstrate our commitment to our stellar faculty and students.**

Throughout these pages, we showcase our academic excellence in a highly diverse and inclusive environment. We award more undergraduate engineering and computing degrees to Hispanics and Minorities than any other college in the nation; we engage in impactful interdisciplinary research and industry collaborations to educate the leaders of tomorrow. At CEC, our faculty and students are at the epicenter of the technological and economic forces, driving innovation in infrastructure & resilience, information technologies & security, bioinformatics & biodevices as well as clean & renewable energy, just to name a few areas of impact. In just four years, our college has more than doubled its research funding and the number

of patents awarded to faculty surpassed 40 for four consecutive years, helping FIU rank among the top 50 universities worldwide in patents.

In the next decade, technological innovations in manufacturing, health and communications will emerge and affect our lives. Our college has the momentum and capabilities to contribute to these driving forces. As a matter of fact, FIU is expanding its engineering footprint with a new 6-story, 121,000-square-foot building that will feature innovative spaces for industry collaboration, modern research laboratories and makerspaces to prepare the next generation of professionals to develop solutions at the interface of technology and human needs.

Our top priority is to ensure that our students are prepared to act upon these new opportunities knocking on our front door and to contribute to these changing landscapes brought by the Fourth Industrial Revolution.

Regards,


A handwritten signature in black ink that reads "John L. Volakis". The signature is fluid and cursive, with a horizontal line extending from the end.

John L. Volakis  
Dean, College of Engineering and Computing  
Professor, Electrical & Computing Engineering Department  
USNC-URSI Comm B Chair  
<https://volakis.eng.fiu.edu>



# INNOVATING TODAY FOR THE WORLD OF TOMORROW.

Florida International University is a vibrant, student-centered public research university, ideally located in Miami, that is committed to learning, research, entrepreneurship, innovation and creativity so that our graduates are prepared to succeed in a global market. The FIU College of Engineering and Computing offers a complete range of fully accredited engineering bachelor's, master's and doctoral degree programs in biomedical, civil and environmental, electrical and computer, and mechanical and materials engineering; construction management; and computing and information sciences.

A photograph of two researchers in a laboratory. In the foreground, a man with glasses and a beard is sitting at a desk, looking at a computer monitor. In the background, a woman is leaning over a large, complex piece of scientific equipment, a transmission electron microscope (TEM), and looking through its eyepiece. The scene is lit with a cool, blue-toned light, creating a professional and focused atmosphere. A sign above a door in the background reads "IN USE".

Researchers Chiamaka Okafor and Md. Munim Rayhan, Ph.D. students in materials engineering, work on a transmission electron microscope (TEM) to understand the structure and chemistry of nanoparticles.

# COMMITTED TO IMPACTFUL INNOVATIONS THROUGH MULTIDISCIPLINARY RESEARCH

## RESEARCH

**\$59.1M**

in total annual research awards FY 2021

**\$300,000**

per faculty expenditures

**50+**

research laboratories, centers and institutes

## 2021 ENROLLMENT

Nearly  
**8,000**

engineering and computing students, including nearly 1,100 graduate students

**#1**

in the U.S. in awarding bachelor's degrees to Hispanic students

Nearly  
**2,000**

engineers and computer scientists graduated from the college in 2021

**#11**

in awarding bachelor's degrees to African Americans

*\*According to the American Society for Engineering Association (ASEE)*

## SELECT RESEARCH HUBS

50+ centers, institutes and labs include:

### Infrastructure & Resilience

- Wall of Wind
- Preeminent Institute for Resilient and Sustainable Coastal Infrastructure (InteRaCt)

### Energy, Power, Smart Grids

- Energy Systems Research Laboratory
- Energy, Power & Sustainability Laboratory

### Big Data/ Cybersecurity/Wireless Communications

- Cyber-Physical Systems Security Laboratory
- RF Communications, Millimeter-Waves, and Terahertz Lab

### Health Diagnostics, Neurosensing, Neurotechnology

- Medical Photonics Laboratory
- Optical Imaging Laboratory

### Manufacturing, Novel Materials, Automation & Robotics

- Advanced Materials Engineering Research Institute (AMERI)
- Applied Research Center (ARC)

## TOP 50 RESEARCH UNIVERSITY

**#1** producer of Hispanic engineers in the continental U.S.



**#11**

producer of African American engineers

**#23**

in federal R&D expenditures in civil engineering NSF HERD



**#37**

Master's in Engineering U.S. News & World Report – Online

**#38**

in higher education R&D expenditures in computer science NSF HERD



**#41**

Biomedical Engineering U.S. News and World Report

**#46**

Electrical and Electronics Engineering U.S. News & World Report – Global

**#46**

Computer Science and Information QS World



# THE FOURTH INDUSTRIAL REVOLUTION



**A**s a top-tier, Carnegie-designated R1 research university, FIU is expanding its engineering footprint to prepare the next generation of professionals to generate solutions at the interface of technology and human needs.

FIU is constructing a new College of Engineering and Computing center — a 121,000-square-foot, six-story building that will house makerspace labs, active learning classrooms and research laboratories on FIU's main campus. The new multidisciplinary facility is designed to better prepare the next generation of engineering and computing professionals as part of an effort to help graduate more engineers and expand innovation in Miami and throughout the state.

The LEED Certified Gold building will feature 20,000 square feet of interactive research and teaching space with best in-class computing and prototyping equipment for advancements in the fields of cybersecurity, nanotechnology drug delivery and environmental

resilience. The \$75.4 million facility will be constructed thanks in large part to a state legislative appropriation of \$39 million and additional philanthropic and research funding. Technology in the building will be enhanced with private funds, including part of a \$10 million gift from the John S. and James L. Knight Foundation.

FIU's College of Engineering and Computing is home to nearly 8,000 engineering and computing students, including nearly 1,100 graduate students. In AY2021, the college graduated nearly 2,000 engineers and computer scientists. The college was ranked No. 1 in the U.S. in awarding bachelor's degrees to Hispanic students and No. 11 in awarding bachelor's degrees to African Americans by the American Society for Engineering Association (ASEE) in 2021.

The engineering expansion would position FIU to graduate an additional 350 engineers each year, create 550 jobs in South Florida, increase research spending by \$30 million a year, and result in 27 additional patent applications per year.





### ENGINEERING BRIGHT FUTURES

#### Two NSF funded projects help dozens of engineering students pursue careers in STEM

Three Florida public universities have joined forces to help students in computer-related fields complete their undergraduate studies and pursue a graduate education. A \$5 million NSF grant allowed FIU, the University of Central Florida and the University of South Florida to form the Pathways to Success project (Flit-Path) five years ago, which has already awarded 127 scholarships to academically talented, financially needy FIU students pursuing undergraduate degrees in computer science, information technology and computer engineering. In 2021, the three institutions took it further and established the Florida IT Graduation Attainment Pathways (Flit-GAP) program, which financially helps academically talented juniors in computer-related fields complete their undergraduate studies and pursue their graduate education.

#### FIU partners with Break Through Tech to increase diversity and gender equality in Miami's tech ecosystem

FIU's Knight Foundation School of Computing and Information Science (KFSCIS) has partnered with Break Through Tech to develop programs that will propel women and underrepresented communities into technology degrees, careers and leadership positions. Part of the Gender Equality in Tech (GET) Cities Initiative, this partnership also will help expand the talent pipeline that is infusing South Florida's burgeoning tech ecosystem, which aims at more than tripling the number of female students graduating with an FIU computing degree by 2026.

Our college promotes diversity and inclusion among our faculty, staff and students and has multiple programs to ensure a more inclusive teaching and learning environment:

#### The Justice, Equity, Diversity and Inclusion (JEDI)

Ambassador Program is a student-led initiative aimed at supporting student advocacy through an inclusive learning community that participates in research, outreach and leadership development. JEDI ambassadors represent all majors within the College of Engineering & Computing (CEC) as well as the diverse backgrounds that are reflective of our student body and local community. This initiative takes a holistic approach to creating a culture of inclusion and addressing social justice needs within engineering and computing education for minoritized and underrepresented populations within engineering and computing.

#### The National Action Council for Minorities in Engineering (NACME)

grant/scholarship program's mission is to increase representation of Black/African American, Latinx/Hispanic-American and Native/American Indian in the fields of engineering and computer science. It provides \$60,000 in scholarship funding to a total of 24 engineering students per academic year. The NACME career center connects students to more than 50 exclusive corporate partners, provides professional development workshops and facilitates networking opportunities.

#### The FIU-ENGaging LATino Communities for Education (ENLACE)

program offers after-school and summer programs to children in Miami-Dade County and is funded by The Children's Trust. The primary mission of the program is to bridge literary gaps that may exist in student achievement and prepare youth to pursue a college education. The program's mission is accomplished using research-based reading instructions and STEM education to develop critical thinking and reading skills of all participants.

#### Florida Action for Minorities in Engineering

(FLAME) is a joint program between Miami-Dade County Public Schools and FIU. Under the Center for Diversity and Student Success in Engineering and Computing (CD-SSEC), the program is designed for minority high school students and provides a unique educational experience in the field of Engineering. FLAME engages students that are admitted to a high school engineering magnet or academy.

# RESEARCH

From pioneering advances that address critical healthcare and environmental challenges to the development of anti-hacking software, FIU engineers are trailblazers in evolving engineering and computer science arenas. In 2021, numerous grants were awarded by the National Science Foundation, National Institutes of Health and U.S. Army, among others.



**Anuradha Godavarty** was named to the National Academy of Inventors (NAI) Senior Members for her research that has positively impacted society.



The NSF awarded **Satheesh Bojja Venkatakrishnan** a prestigious grant for his prototype of “smart” bandages that remotely send real-time information to physicians.



A team of researchers within FIU’s Cyber-Physical Systems Security Lab, under the supervision of **Selcuk Uluagac**, created an innovative software that detects cryptojacking happening in real-time with an accuracy rate of nearly 99%.



**Nikolaos Tsoukias** was awarded a \$2.6 million grant by the NIH to research microvascular contributions to brain disorders such as cerebral small vessel diseases and Alzheimer’s.



**THE WALL OF WIND (WOW)** is a large-scale hurricane simulator capable of generating 157 mph wind speeds with rain intrusion. A \$5.62 million grant was awarded to the WOW to continue as a national “Experimental Facility” to the U.S. scientific research community into late 2025. The research involved with the WOW aids in preventing massive losses of life and property during extreme natural events.



## STANDOUT PATENTS



Arif Sarwat

**Arif Sarwat, Asadullah Khalid, Aditya Sundararajan**

*Systems and methods for forecasting battery state of charge (SOC)*

Battery capacity identification is key to monitoring battery performance. The invention forecasts the State of Charge (SOC) of green energy batteries using machine learning techniques.

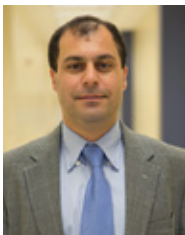


Arvind Agarwal

**Arvind Agarwal, Pranjal Nautiyal, Benjamin Peter Boesl**

*Boron nitride nanotube-magnesium alloy composites and manufacturing methods*

The use of boron nitride nanotube (BNNT)-magnesium (Mg) alloy composites and fabrication methods that promote greater thermal stability for manufacturing metal matrix composites (MMCs).



Selcuk Uluagac

**Selcuk Uluagac, Luis C. Puche Rondon, Leonardo Babun, Kemal Akkaya, A.**

*Systems and Methods for Monitoring Activity in an HDMI Network*

Protecting individuals, businesses and governments, the invention monitors activity within a high-definition multimedia interface (HDMI) consumer electronics control (CEC) network and identifies suspicious activity within the network.



Jessica Ramella-Roman

**Jessica Ramella-Roman**

*Optical imaging for preterm birth assessment*

A system that uses light to examine the composition and structure of cervical tissue to measure preterm labor risk.



## RESEARCH AWARDS

# \$59.1M

Total Number of Awards

Spotlight 2021 Award

# \$22.9M

A five-year grant to collaborate with the U.S. Army Combat Capabilities Development Command Army Research Laboratory. In support of the Army's modernization strategy, this partnership will enable the research necessary for next-generation materials and manufacturing processes.



## INNOVATION

**FIU among top 50 U.S. patent producers in the world**

# #20

in the nation among public universities

# #42

globally in new utility patents issued

# 60

University Patents

# 44

College Patents

# FACULTY SPOTLIGHT

## INSPIRING CHANGE

### FIU RESEARCHERS DEVELOP ULTRA-HIGH-PERFORMANCE CONCRETE TO BOLSTER AGING U.S. INFRASTRUCTURE



The middle-of-the-night collapse of Surfside's Champlain Towers South in 2021 spurred a recommitment across South Florida and the world to aging

infrastructure. At FIU, **Atorod Azizinamini**, director of the Moss School of Construction, Infrastructure, and Sustainability, and a team of scientists are working to develop new solutions to make buildings and bridges safer by retrofitting rather than rebuilding them. One of these solutions is called ultra-high-performance concrete, and the research team is working to make it more accessible to builders everywhere.

### CONSTRUCTION MANAGEMENT PROFESSOR AWARDED TWO GRANTS ON WORKER SAFETY, HEALTH TRAINING FROM U.S. DEPARTMENT OF LABOR



**Nipesh Pradhananga**, associate professor in the Moss Department of Construction Management, was awarded a total of \$360,000 in grants from the

U.S. Department of Labor's Occupational Safety and Health Administration (OSHA). The first grant is for Workplace Safety and Health Training on Infectious Diseases, including COVID-19. The second grant revolves around fall prevention and protection. Target trainees include small-business employers and underserved vulnerable workers in high-hazard industries. These grants are a critical element in supporting OSHA's role in educating workers on their rights and assisting employers with providing safe workplaces.

**19** Number of National Science Foundation CAREER Award recipients



In 2021, the American Ceramic Society (ACerS) Board of Directors unanimously approved **Arvind Agarwal's** selection as Fellow. Agarwal is Distinguished University Professor and chair of the Department of Mechanical and Materials Engineering. He was recognized for outstanding contributions to the ceramic arts or sciences, broad and productive scholarship in ceramic science and technology, conspicuous achievement in the ceramic industry and for his outstanding service to the organization.



**Shekhar Bhansali**, Alcatel-Lucent Professor and Distinguished University Professor in the Department of Electrical and Computer Engineering, was elected to the 2021 Class of Fellows of the Electrochemical Society. Bhansali's main research interests are in nanotechnology, biosensors and microfluidics. He holds 40 patents, has published more than 300 publications and has advised more than 40 doctoral students and postdoctoral fellows in research.



**Mark Finlayson**, Eminent Scholar chaired associate professor of computer science in the Knight Foundation School of Computing and Information Sciences, received the 2021 Defense Advanced Research Projects Agency (DARPA) Young Faculty Award (YFA). The program identifies and engages rising stars in junior research positions, emphasizing those without prior DARPA funding, and exposing them to DoD needs and DARPA's program development process.



**Amin Kharraz** was awarded a Microsoft collaborative research grant, allowing him to serve as a lead collaborator in the tech giant's M365 Security & Compliance Research Division. Kharraz, an assistant professor in the Knight Foundation School of Computing and Information Sciences, received a \$150,000 grant to conduct innovative research in cybersecurity against social engineering attacks.



**Berrin Tansel**, professor of environmental engineering and undergraduate program director in the Department of Civil and Environmental Engineering, was honored by the American Academy of Environmental Engineers & Scientists (AAEES) for her contributions to the field of environmental engineering. Honorees are chosen for their demonstrated leadership, originality and innovative solutions to current environmental challenges.



## OUR STUDENTS ARE MAKING A REAL IMPACT REIMAGINING THE FUTURE TODAY.



### ENGINEERING STUDENTS WIN SECOND PLACE AT INTERNATIONAL AIRCRAFT DESIGN, FLYING COMPETITION

Team FIU reached the height of success, winning second place in mission performance and second overall at the international SAE Aero Design Competition. Nineteen teams from across the globe competed. Students in the Department of Mechanical and Materials Engineering researched, designed, optimized and built their aircraft.



### ENGINEERING STUDENT NAMED 2022 MINORITY STUDENT FELLOW BY TRANSPORTATION RESEARCH

Jesus Molina was named one of 24 Class of 2022 Minority Student Fellows by the Transportation Research Board (TRB). Molina is pursuing a bachelor's degree in civil engineering. The TRB Minority Student Fellows Program funds students from minority-serving institutions to attend and present their research at TRB's annual meeting and engage in TRB's network of transportation professionals.



### FIU'S COMPUTING AND INFORMATION HONOR SOCIETY WINS NATIONAL CONTINUING EXCELLENCE AWARD

The Upsilon Pi Epsilon (UPE) Chapter at the Knight Foundation School of Computing and Information Sciences received the UPE National Board's Continuing Excellence Award during the UPE National Convention. FIU UPE leadership credits the chapter's success to its exceptional student directors and alumni advisors.



### 16-YEAR-OLD NAMED OUTSTANDING ELECTRICAL ENGINEERING STUDENT

At age 16, Nathan Thomas has completed a stellar undergraduate career. Thomas graduated with a bachelor's in electrical engineering and was named Outstanding Undergraduate in Electrical Engineering for Spring 2021. He is continuing his studies at FIU in pursuit of a master's and Ph.D.

# STUDENT SUCCESS



## ENGINEERING DOCTORAL STUDENT RECEIVES PRESTIGIOUS NATIONAL FELLOWSHIP

**Melany Gutierrez Hernandez**, a doctoral student and graduate research assistant in the Department of Electrical and Computer Engineering, was selected a 2021 GEM Fellow. The National GEM Consortium is an organization of leading corporations, government laboratories, top universities, and top research institutions that enables qualified students from underrepresented communities to pursue graduate education in applied science and engineering.

## PANTHERS EARN PRESTIGIOUS NSF GRADUATE RESEARCH FELLOWSHIPS, ENTER EXCLUSIVE GROUP



Sheila Alemany Blanco



Jasmine Batten



Josue Rodriguez-Nieves

Research is a crucial component of education. And it's one for which FIU students are garnering national attention. This year, 11 students and one alumna returning to FIU for her graduate studies were awarded prestigious National Science Foundation (NSF) Graduate Research Fellowships or were selected as honorable mentions for the award. Including alumni scattered around the country, 18 Panthers received the fellowship or an honorable mention, the highest number of awards in the last 10 years and a clear testament to the level of research training FIU students receive both in their graduate and undergraduate years.

## SUPPORTING STUDENT SUCCESS



## FIU RECEIVES GRANT TO HELP INCREASE REPRESENTATION IN UNDERGRADUATE COMPUTING

FIU received a "Best Practice" \$625,000 grant from the Center for Inclusive Computing at Northeastern University to support the implementation of evidence-based approaches that quickly and significantly increase the representation of women in undergraduate computing.

## WALL OF WIND COMPETITION INSPIRES HIGH SCHOOL STUDENTS TO BECOME ENGINEERS, TACKLE REAL-WORLD PROBLEMS

Every year, FIU hosts its Wall of Wind Mitigation Challenge, in which teams of local high school students develop innovative wind mitigation concepts and solutions within guidelines set by FIU's wind engineers. The 2021 competition challenged students to design a way to reduce the impact of wind on a building's flat roof. Each team developed a solution to prevent roof gravel from blowing away during testing. Each year, the competition inspires students to pursue STEM education and step up as the next generation of leaders facing natural hazards and extreme weather.



## INDUSTRY PARTNERSHIPS

Industry partners are critical to the College of Engineering & Computing's efforts to graduate professionals who are prepared for the world that awaits them. Below are just a few of the valued partners collaborating with us to educate men and women who graduate capable of making an impact in today's workforce.



### **TRIMBLE AND FIU ESTABLISH TRIMBLE TECHNOLOGY LAB**

Trimble's new Technology Lab at the Moss School of Construction, Infrastructure and Sustainability integrates innovative technology into the school's curricula and research endeavors, empowering future graduates to transform how buildings and living environments are designed and constructed around the world. The lab expands the university's access and expertise in project management, estimating, architectural modeling and design, structural analysis and design, Mechanical Electrical Plumbing (MEP) design, mixed reality and office-to-field solutions.



### **FPL, FIU UNVEIL INNOVATIVE MICROGRID AND VIRTUAL CONTROL ROOM**

Florida Power & Light Company (FPL) is partnering with FIU to create an innovative energy microgrid at FIU. The FIU-FPL microgrid is capable of providing backup power to the FIU engineering center for approximately 24 hours, depending upon electrical usage. The collaboration is the latest project to emerge from a decades-long partnership between FPL and FIU and is enabling students, faculty and FPL to research advances in renewable energy.

# WORKFORCE DEVELOPMENT

## INDUSTRY GIANTS ARE HIRING OUR GRADUATES

Calvin Mark and Juliette Dubon are two of the many Panthers who took advantage of fantastic opportunities and resources available to engineering students. After navigating their undergraduate education successfully, they graduated from FIU with jobs waiting for them.



### **CALVIN MARK**

**DEGREE:** B.S. in Computer Science with a minor in Physics

**EMPLOYER:** Oracle Cloud

Mark is a software engineer with the Oracle Cloud team. In this role he works within AI services facilitating the deployment of ML models to be used throughout Oracle's enterprise cloud. While at FIU, Mark joined the Sustainability, Optimization and Learning for Interdependent Networks Laboratory (solid lab) as an undergraduate research assistant supported by an Opportunities for Undergraduate Research and Scholarships (OURS) Program scholarship.

Mark's research focused on the theory of social dynamics, data analytics and resilient networks. He contributed to multiple research projects while at the university, including a study exploring the impact of COVID-19 on the economy. He also contributed to a project on distributed decision-making algorithms for large-scale critical infrastructures.

### **JULIETTE DUBON**

**DEGREE:** B.S. in Mechanical Engineering

**EMPLOYER:** Boeing

Dubon accepted an engineering position in Boeing's Research and Technology Division within the company's Space and Defense Organization after completing two internships with the company. While at FIU, Dubon worked at the Applied Research Center (ARC) in the Composites Laboratory. She was encouraged to attend FIU Career Fairs, pursue internships opportunities and network with recruiters. That advice helped her land her first internship while with GE Appliances. She subsequently secured internships at Boeing's Seattle-based Structures Core Organization and the company's commercial Payloads Organization. It was during her Structures Core Organization internship that she realized she wanted to work for Boeing upon graduation. Today she has an entry-level engineering position at Boeing.





## SOUTH FLORIDA TECH MOVEMENT



### COMPUTING STUDENTS, ALUMNI INVIGORATED BY GROWING ATTENTION TO TECH-TALENT IN MIAMI

The John S. and James L. Knight Foundation gifted \$10 million to the university's School of Computing and Information Sciences to develop technical talent at scale to meet the demands of industry and South Florida's booming tech ecosystem. The investment is being used to attract top faculty researchers in the fields of artificial intelligence, smart robotics, bioinformatics, biodevices and digital forensics. It will also be used to increase the number of FIU graduates in those sectors.



### SOFTBANK GROUP AND FIU PARTNER TO INJECT NEW TALENT INTO SOUTH FLORIDA'S TECH STARTUP SCENE

FIU is partnering with SoftBank Group International to prepare the next generation of talent in tech startups in South Florida and Latin America. Under the collaboration, The SoftBank Operator School (SOS) was created and is powered by FIU, Miami Dade College and University of Miami. In addition to traditional coursework, lectures and masterclasses will bring tech startup experts directly to participants.

## ALUMNI SPOTLIGHT



FIU alumnus **CHARLES KAMHOUA M.S. '08, PH.D. '11** was honored with the Harry Diamond Memorial Award given by the Institute of Electrical and Electronics Engineers, Inc. (IEEE-USA).

The award honors individuals for distinguished technical contributions in the field of electrotechnology while in U.S. government service. Kamhoua was honored, specifically, for his contributions and leadership in the area of blockchain and game theory for cybersecurity.

Kamhoua is currently a senior electronics engineer at the U.S. Army Combat Capabilities Development Command's Army Research Laboratory. He received his master's degree in telecommunication and networking and a Ph.D. in electrical engineering.



**SOMSHEKHAR (SOM) KUNDRAL '10** majored in environmental engineering in 2010. Through an internship at Miami-Dade Water and Sewer Department, Kundral was hired by SCS Engineers.

Today he is a senior project manager for the firm, helping clients make formerly contaminated sites safe for development. Due to his contributions in the industry, the award-winning Kundral was recognized as a Waste360 40 Under 40 honoree in 2021.



**OSCAR MOREJON '13** credits field experience gained through an internship with preparing him for his current role as president of John Bell Construction. Morejon says he still employs important

lessons he learned in his Suffolk Construction internship to run projects today in his own company. Chief among those lessons – "The 5 Ps": Prior Planning Prevents Poor Performance. Says Morejon, "Construction is 99% planning and 1% execution."

## DEAN'S LEADERSHIP COUNCIL

**Allan S. Arch**

President  
Southern Gear and Machine, Inc.

**Robert T. Carballo '86**

Vice President, Transportation  
Regional Business Leader  
U.S. Gulf Region  
Stantec Consulting Services, Inc.

**Hal Delgado '85 MSEM '01**

Vice President, Quality and Regulatory  
Compliance Medical Devices  
Ethicon, a Johnson &  
Johnson Company

**Christopher Drumgoole**

Executive Vice President and  
Chief Information Officer  
DXC Technology

**Kurt Dyer '02**

CEO  
Dyer Strategy Group

**Jenna Emerson**

Public Affairs Manager  
CEMEX

**Adrian Gonzalez '17**

President and Owner  
A & P Air Conditioning

**Michael Jarro**

Vice President Distribution Operations  
Florida Power & Light Company

**Oscar Morejon '13**

President and Founder  
John Bell Construction, Inc.

**Chad Moss '94**

Executive Vice President  
Moss and Associates

**Gus Pego**

Vice President  
South Florida Office Leader  
HNTB Corporation

**Adrian Peña**

Senior Associate / Vice President  
RPJ, Inc. Consulting Engineers

**Christa Petros**

Vice President, Product Development  
Sirius XM Radio

**Susan Racher**

Vice President and  
Chief Financial Officer  
The Wallace H. Coulter Foundation

**Matt Reynolds**

Sustainability & Business Continuity  
Stellantis

**Claudia Rodriguez '00**

Chief Operating Officer  
Tekmovil

**Daniel Sanchez '05 MS '07**

Territory VP for the State of Florida  
Motorola Solutions

**Eduardo Siman**

Director of IT  
Intradeco Apparel

### DLC CHAIR AND FIU ALUMNUS COMMITTED TO BUILDING BRIGHT FUTURES

A local HVAC business, owned and operated by alumni, is the first to make a private donation toward the construction of FIU's much-anticipated new College of Engineering and Computing center.

A&P Air Conditioning is donating \$100,000 toward the construction of the approximately 121,000-square-foot, six-story facility, which broke ground on Thursday, September 9th. The new multi-disciplinary space will be equipped with makerspace labs, active learning classrooms and research laboratories in proximity to university talent, including FIU's Academic Health Center. It will be erected on the corner of Southwest 8th Street and 107th Avenue on FIU's main campus. The gift also benefits the \$750 million Next Horizon campaign, which advances student success and research excellence at FIU.



At the helm of A&P Air Conditioning sits Adrian F. Gonzalez, an FIU alumnus who earned his bachelor of science in mechanical engineering with a professional certificate in HVAC design from FIU in 2017. A&P Air Conditioning's co-owner and Vice President, Meyer Sarshalom, is also an alumnus who earned his B.S. in electrical engineering in 2008 and his master's in business administration in 2011.





