



# STEM City Kansas City METAVERSE

## INFORMATION KIT



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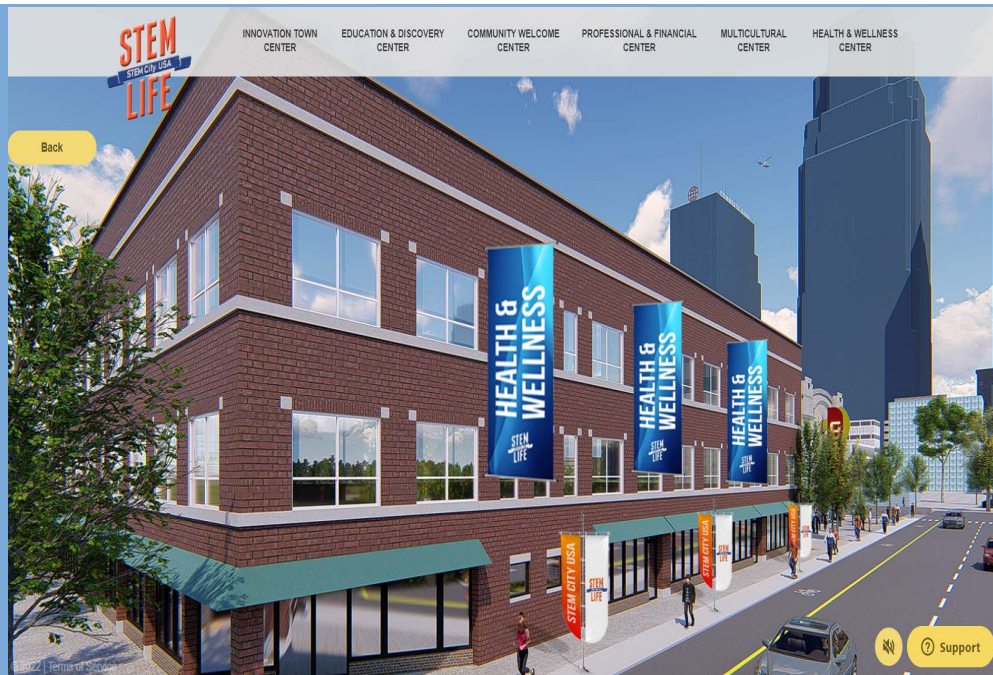


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## MISSION

STEM City Kansas City is a part of the STEM City USA Metaverse which is a **Life Application** that is an extension of our human experience virtually delivered to explore the ‘art of the possible’ when communities come together to overcome social-economic, geographic and access to create a flourishing and nurturing community for the growth and development of our nation and its citizens. Especially, those that are underrepresented in our physical society.

While technology has been the foundation for the launch of STEM City Kansas City, and will remain a key component, our goal to create a parallel, accompanying focus with science and health. STEM City Kansas City will broaden its reach to address the full spectrum of the sciences, with directed focus on health. Our anchor theme will be that families need to incorporate technology, science, and health into their everyday lives. With this mantra, a renewed emphasis will be placed on outlining the value of health to educational endeavors and career attainment.



A layout which connects knowledgeable people and resources with local organizations that already have a reach into the intended TAP population will be effective, and necessary, to carry out the mission. Target groups will be all families. While milestone events will continue to occur during each associated heritage month, STEM City Kansas City will be structured as a year-round offering—with outreach to individuals and families and providing greater information and depth. Our logic stream here is simple. One, or multiple events conducted during a given constituency National Heritage Month amount to the equivalent of a “drive-by” incident. One month does not provide sufficient opportunity for immediate, or life altering impact. Our goal is to change lives, not provide an immediate, short term, feel-good experience. Our goal is to create an opportunity for at least “Nine DIMs” for a youngster—Nine digital-in-the-moment interactions with an experienced mentor/professional over the course of a year.

## BACKGROUND

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STEM City Kansas City Metaverse stems from the Technology Awareness Program (TAP), a Career Communications Group (CCG) and Foundation for Educational Development, Inc. (FEDI) 501(c)(3), and IBM's Ted C. Childs, idea, and grew support from science, technology, engineering and math-based businesses, organizations and government.

Each effort was dedicated to a month of driving TAP communication to help families focus on the dual message: (1) the importance of technology in their everyday lives; and (2) the importance of technology in the education and career preparation of their children. Particular attention was given to low-income families, as there was persistent "digital divide" among this population.

The importance of creating TAP 2.0 has been shaped by three things. First is the success of the three Technology Awareness Programs. The second is our recognition of a need to expand the focus of our work, and the third is the need to increase the subject matter exposure of families/children. In widening TAP's scope, we hope to positively impact the lives of children as we embrace all of their needs and expand our role as advocates.

Our children are not less intelligent than their peers, but we recognize that low income communities have many unmet needs and medical challenges such as higher incidences of asthma, high blood pressure, diabetes, and prostate cancer; environmental health challenges such as bad air and bad water, dietary/nutrition deficiencies and poor or no health care. Research has shown that we need to increase the community/family focus on the issues if we are to improve our response to these challenges.

We also need to establish the accompanying message/ understanding that our communities must be the source of more doctors, nurses, pharmacists, biologists, chemists, and nutritionists. In addition to more engineers, technologists and computer scientists. As such, we have adjusted our Dual TAP Objectives as follows: To all Communities, we will communicate (1) the importance of science, technology, and good health practices in their day to day lives; and (2) the importance of science, technology and good health practices in the education and career preparation of their children.



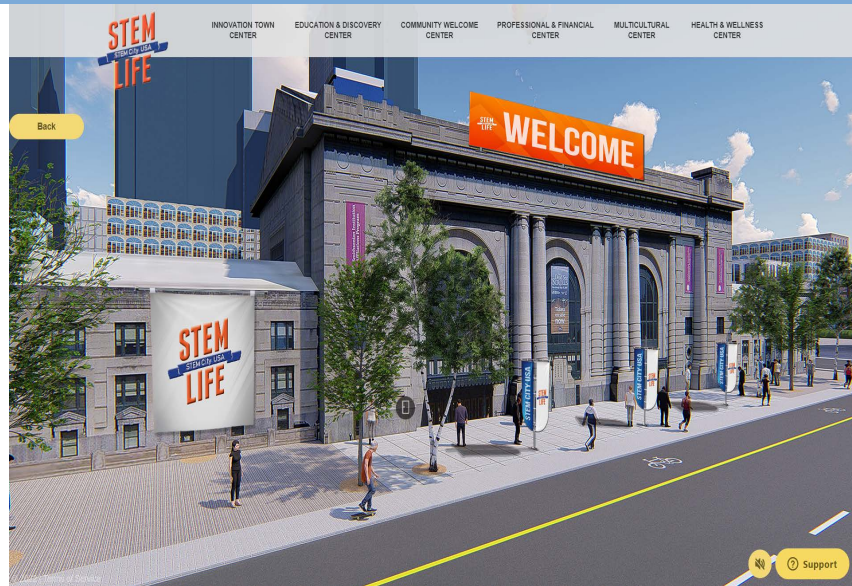
# STEM CITY Kansas City METAVERSE: A TRANSFORMATIONAL DIGITAL COMMUNITY

## BUILDING A COMMUNITY SURROUNDING STEM

The new “City in the Sky” will create a digital-in-the-moment immersive experience, creating an interactive virtual community that will provide personal and professional development tools and resources.

Content will be delivered through different experiences—from networking opportunities to enjoying live musical performances. The content will be distributed through different communities of excellence within STEM City Kansas City.

1. STEM City Public School
2. STEM City Health and Techutrition
3. STEMulating Lounge
4. Hall of Fame
5. Tribute Hall
6. High-Tech Sunday
7. STEM City Career Center
8. STEM City Seminars
9. STEM City Auditoriums



Other unique features include the opportunity to collect rewards throughout participation in different communities that members can later use for exclusive opportunities, such as a one-hour coaching session with a Fortune 500 executive.

## THE PLAN: CREATING A GLOBAL COMMUNITY CENTER

Until the Digital Divide no longer exists, the STEM City Kansas City and its content providers are committed to ensuring that women and minorities, currently unable to take full advantage of the technology revolution, clearly understand the importance technology, and why they must make a family commitment as soon as possible to acquire a home computer and internet access.

STEM City Kansas City intends to continue contributing to the training of women and minorities in the full utilization of these bedrock technologies. aSTEAM Village intends to do the following to support these most important goals:

- Significantly increase the participation of K-12 schools, community based organizations, corporations, government, foundations, national family support organizations, and mainstream media, and other interested organizations.
- Provide the presentations and supporting information to participating organizations that will lighten the preparation needed to get Women and minorities excited about the many uses they can make of the computer and an Internet connection, imploring families to acquire their own computer and access to the Internet.
- Articulate a value proposition that shows the affordability, making the case for the continuing decrease in prices and many options for acquiring a computer and Internet access.
- Provide information and access to opportunities to get training, help installing their system— if needed—in the community from participating organizations.

## DEMOGRAPHICS

### TARGETED AUDIENCE QUICK LOOK



*The digital divide can be considered in three challenges:*  
**HARDWARE, ACCESSIBILITY, AND RELEVANT CONTENT.**

When schools closed in March 2020, roughly 16 million U.S. K-12 students lacked access to a working device, reliable high-speed Internet, or both. In the months that followed, many states and school districts mobilized, using federal CARES Act funding, broadband discounts, and partnerships with private companies to connect their students and enable online learning.

As of December 2020, the number of students impacted by the digital divide had narrowed to 12 million. While addressing all students, one of STEM City Kansas City's major targets is the 4 million families who managed to get online and are seeking content.

Students of urban and rural communities are disproportionately disconnected: While they make up 40 percent of the student population, they account for 54 percent of all disconnected students.

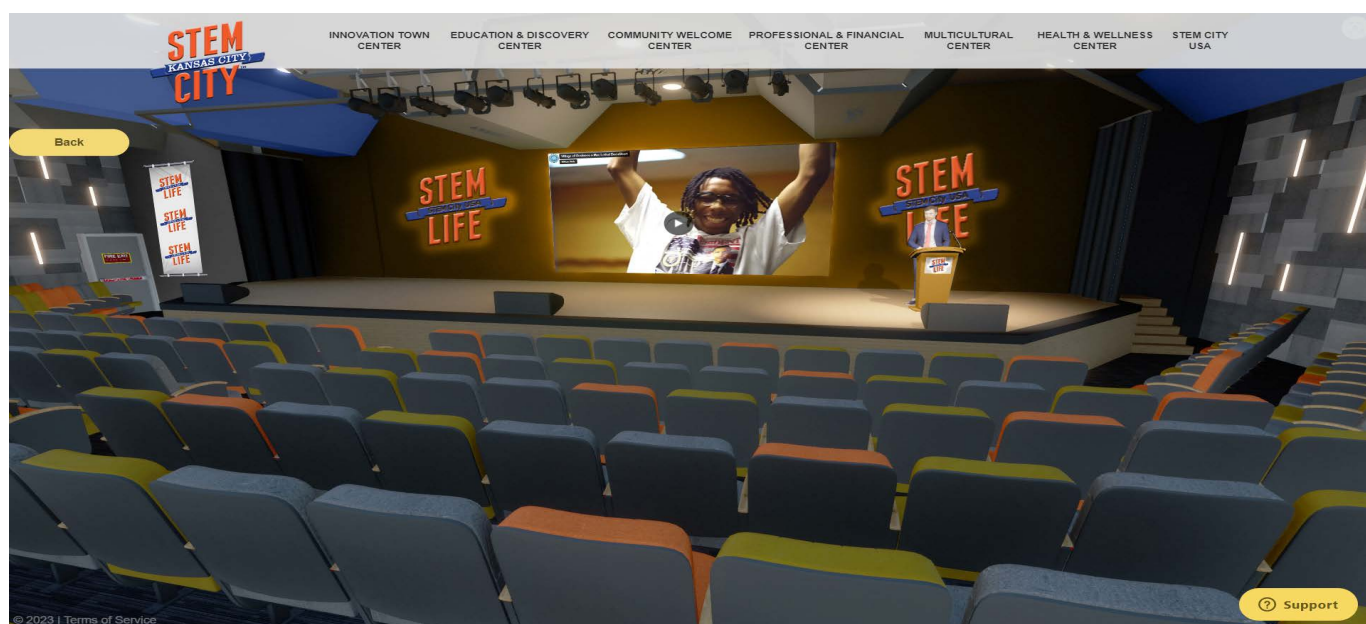
And students from low-income families, defined as those whose households earn less than \$50,000 per year, make up just 30 percent of all students but 50 percent of those who experience connectivity issues.

This progress is “significant,” write the authors of a report that details the groups’ findings. But that’s still far too many students who remain unconnected or under-connected, especially as virtual learning continues in almost half of schools. What’s more, they write, the solutions devised in 2020 are “largely non-permanent.”

“The majority of efforts since March 2020 are temporary, stop-gap measures,” according to the report. “In total, more than 75 percent of efforts will expire in the next one to three years based on current funding sources.”

Affecting nearly one-third of K-12 students in the U.S. today, “the digital divide predated the coronavirus pandemic and will persist beyond it if stakeholders do not seize the moment,” they write. Closing the gap for good will make learning more equitable, more flexible and more accessible, and will help break the cycle of poverty, the authors argue.”

*- LOOKING BACK, LOOKING FORWARD: WHAT IT WILL TAKE TO PERMANENTLY CLOSE THE K-12 DIGITAL DIVIDE*



## STEM CITY Kansas City METAVERSE PROGRAMS

STEM City USA Metaverse is a digital platform that allows organizations and individuals to contribute their time, knowledge and skills towards bridging the social, digital, economic, health and education divides. All activities are immersive, live and interactive with numerous follow through resources for visitors. STEM City USA activities are atoms to bits digital twins that create on a digital platform the similar activity with outcomes of the physical world.

Some STEM City Kansas City activities are:

### K-12

Career Day  
Tutoring  
Mentoring Certification Programs  
iNSL Racing  
Elite Gaming Live STEM Academy  
Kids for Chemistry  
NSBE | BDPA | SHPE | SWE

### General

High-Tech Sunday  
Music and Cultural  
Health and Wellness  
Environmental Justice  
Social Justice  
History  
Book Club

### Professional

Professional Development (CEUs)  
Networking  
Diversity and Inclusion

### Career

JobMatch Training  
Skills Training  
Job Placement  
Blue-Collar STEM  
Master Classes

### Continuing Education

Certification Courses

### Economic

Business Resource Services  
Coaching  
Supplier Diversity Networking

# STEM CITY Kansas City METaverse BRIDGES DIGITAL GAP FOR MILLIONS OF UNDERSERVED THROUGH COMMUNITY AND EDUCATION

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**STEM City Kansas City Metaverse** is a digital community center designed to bring the resources needed for educational, health, and career success in one place. This new virtual community environment aims to close the digital divide that still plagues underserved communities today.

STEM City Kansas City combines the physical and digital worlds by creating unique digital in the moments (DIM). These DIMs are created with rich content that delivers an immersive experience where all lives collide and blend into a diverse digital community.

A joint-venture between aSTEAM Village (aSV) and Career Communications Group (CCG), STEM City Kansas City will build upon the successful best practices and proven content of the Black Engineer of the Year and Women of Color in Technology conferences, both of which operated in digital twin environments 2020-2021. Experts in creating DIM experiences for audiences, STEM City Kansas City is designed to provide additional content surrounding health, training, mentoring, and lifestyle support.

## BRIDGING THE DIGITAL DIVIDE FOR BIPOCs NATIONWIDE

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The COVID-19 pandemic has created an upheaval in the lives of millions across the globe. Sadly, the issue of underserved communities lacking access to the same technology and state-of-the-art resources as others is an issue that has been plaguing millions of American youths pre-pandemic.

The global crisis that has driven schools, businesses, and service industries to remain in communication online has broadened the digital gap for minority and underserved demographics. With so many on the sidelines and limited access to high-speed Internet service, an entire forgotten class of people has little information on new skills and knowledge of diverse applications of science, technology, engineering, and math (STEM).

Recent research has shown that improving Internet access can help boost incomes, lower unemployment, and create jobs in underrepresented communities. STEM City Kansas City answers the call for a “City in the Sky” accessible to those that need it most.

“Even before the pandemic, there was a digital divide. Two Americas existed, with millions of our nation’s youth and those in underserved communities living on the sidelines of full participation through a lack of broadband, hardware, and meaningful digital content and training,” said Tyrone Taborn, CEO of Career Communications Group. “The other America had access to high-speed internet, multiple computers, and wireless iPads in the office, at school, at home, and in coffee shops. Despite years of warning of the consequences of this national tragedy, the divide only widens. Today we see that neglect. But out of that neglect, a new day is starting with a city in the sky, STEM City Kansas City.”

# STEM CITY Kansas City METAVERSE SITE MAP

## MAIN STREET

### - Visit KC Welcome Center

- Welcome Center Lobby
- Welcome Center Auditorium

### - Multicultural Community Center

- Culture Center Lobby
- Culture Center Auditorium

### - Professional and Financial Center

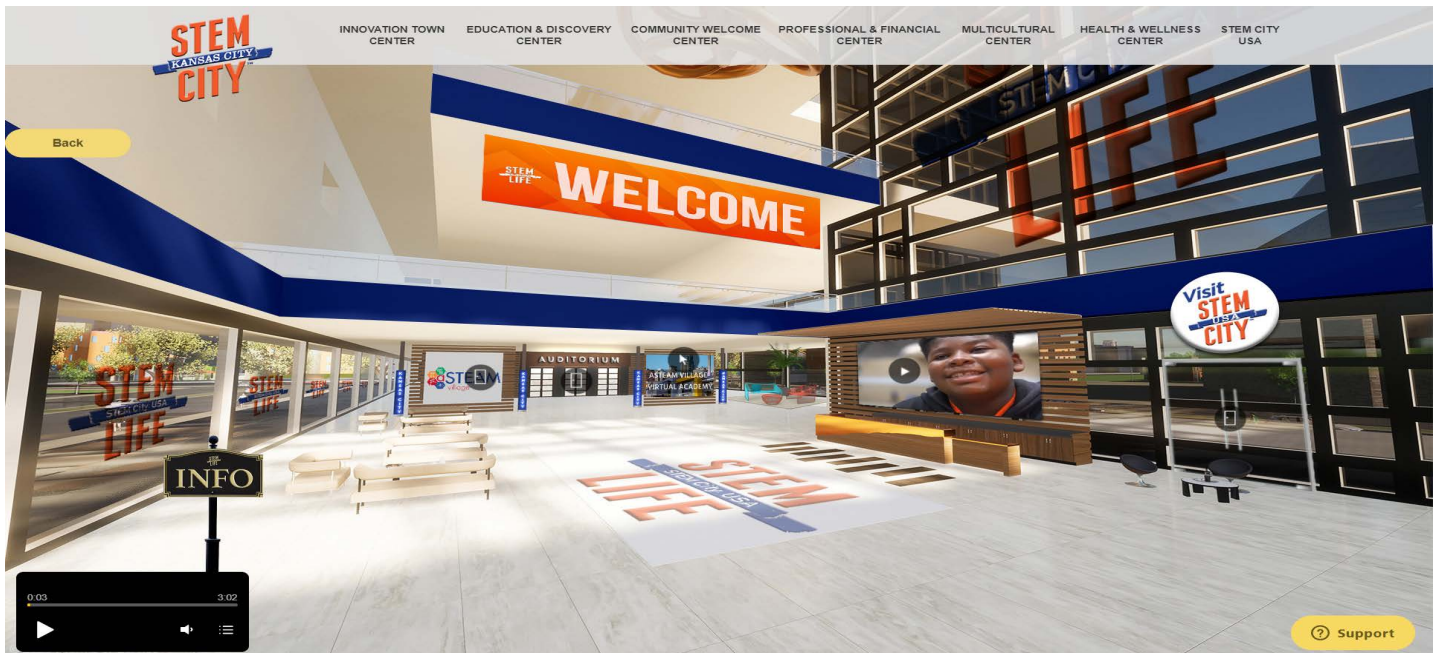
- Training Auditorium
- Financial Center

### - Health and Wellness Center

- Scientific Center
- Auditorium

### - Education Center

- K-12 Village
- Auditorium
- XR Experience



# STEM CITY Kansas City METaverse CITY PLANNERS

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## THE FOUNDING 12

Our mission is to establish the community under the leadership of 12 industry leaders and influencers that bring a diversity of thought, talent, and impact to STEM City USA and the participants.

### **MR. WILLIAM BROWN, CHAIRMAN**

A retired industry executive and senior U.S. Army Corps of Engineers executive, William Brown served on the Industry Advisory Group of the U.S. State Department, and has directed, planned, and designed construction programs in Russia, Hungary, Nigeria, and France. He led a site planning study for the National Museum of African American History and Culture in Washington, D.C., has lectured at several colleges and universities in the United States, and received numerous awards and recognitions. Currently, he is chairman of Hampton University's School of Engineering Advisory Board for Aviation, Architecture, Engineering, and Technology. He was honored with the Professional Achievement Award at the 2000 BEYA STEM Conference.

### **LT. GENERAL BRUCE CRAWFORD (RET.)**

A decorated combat veteran, Crawford served as principal enterprise information technology (IT) and cybersecurity policy advisor to the United States Army and held various operational and strategic leadership positions in North America, Europe, the Pacific, and Southwest Asia. With Jacobs Engineering Group Inc. since 2020, Crawford brings more than 34 years of executive management in national security, enterprise IT, and cybersecurity as the senior vice president of strategic development in Jacobs' Critical Mission Solutions. Crawford holds a Bachelor of Science in electrical engineering and a Master of Science in administration and national resource strategy. He is the 2020 Black Engineer of the Year.

### **PRESIDENT DARRYLL J. PINES**

Darryll J. Pines serves as president of the University of Maryland (UMD) and the Glenn L. Martin Professor of Aerospace Engineering. He was formerly the Nariman Farvardin Professor of Engineering and dean of UMD's A. James Clark School of Engineering, where he has been on the faculty since 1995. As dean, Pines instituted changes to improve the student experience, including revamping teaching in fundamental undergraduate courses, encouraging participation in national and international student competitions, emphasizing sustainability engineering and service-learning, and expanding innovation and entrepreneurship activities. In 2019, he was elected to the National Academy of Engineering for his "inspirational leadership and contributions to engineering education."

### **DR. MELVIN GREER**

Melvin Greer is chief data scientist, Americas, Intel Corporation. He is responsible for building Intel's data science platform through artificial intelligence (AI), machine learning (ML), blockchain zero-trust models, and neuromorphic computing to accelerate data transformation into a strategic asset for global enterprises. His systems and software engineering experience have resulted in patented inventions in cloud computing, synthetic biology, and Internet of Things (IoT) biosensors for edge analytics. Greer received the 2012 Technologist of the Year award at BEYA, which

recognizes his outstanding technical contributions that have had a material impact and high value on society. He is a member of the AAAS and the National Academy of Science, Engineering, and Medicine. He functions as a university professor and principal investigator, where he significantly advances the body of knowledge in basic research and advanced engineering. Greer is the award-winning author of five books, and the managing director of the Greer Institute for Leadership and Innovation focused on the maturing of new leaders and the growth of future innovators.

### **DR. LINDA R. GOODEN (*h.c.*)**

The University System of Maryland (USM) Board of Regents elected Linda R. Gooden as its chair in 2018. A champion for math, science, and technology education, she has served on executive boards for the University of Maryland A. James Clark School of Engineering and Robert H. Smith School of Business Center for Electronic Markets & Enterprises, University of Maryland, Baltimore County, and Prince Georges' Community College Foundation, as well as the Maryland Business Roundtable for Education. Gooden also serves on civic and business leadership boards, such as the Eisenhower Fellowships program, AFCEA International, and the American Heart Association. A retired executive vice president of Lockheed Martin Information Systems & Global Services, she currently serves as a board member at GM, Home Depot, WGL, and ADP, Inc. Her many awards include the 2006 Black Engineer of the Year Award.

### **DR. VICTOR R. MCCRARY**

Victor McCrary is currently vice president for research and graduate programs at the University of the District of Columbia. Before this position, he was vice chancellor for research at the University of Tennessee, Knoxville. Before that, he was the first vice president for research and economic development at Morgan State University. Previously, he was the business area executive for science and technology at The Johns Hopkins University Applied Physics Laboratory (APL). He is a former national president of the National Organization for the Professional Advancement of Black Chemists and Chemical Engineers (NOBCChE) and an American Chemical Society fellow. In 2011, he was honored as Scientist of the Year by the BEYA STEM Conference. McCrary is a member of the National Science Board's class of 2016—2022.

### **MS. KRYSTAL PORTER**

Krystal Porter is a lead engineer and solutions architect at Leidos. She is also the chief financial officer of the Black Cybersecurity Association. She has extensive experience in solving complex architecture challenges for defense systems and missions by leveraging internal and external resources for optimal results. She leads and serves in multi-discipline teams at geographically dispersed locations with maximum resiliency to support those systems and missions. She is a passionate, results-oriented leader focused on innovation, along with integrated and multi-channel solutions to deliver customer loyalty and profitable growth. She is the 2021 winner of the BEYA Dr. Wanda M. Austin Legacy Award.

### **DR. KEVIN T. KORNEGAY**

Presently a professor and Internet of Things (IoT) security endowed chair in the Electrical & Computer Engineering department at Morgan State University, Dr. Kornegay's interests include reverse engineering, hardware assurance, secure embedded system design, radiofrequency and millimeter-wave integrated circuit design, high-speed circuits,

broadband wired and wireless communication systems, and cyber-physical systems. He has served on the technical program committees of several international conferences and symposia, including the IEEE Symposium on Hardware-Oriented Security and Trust, IEEE International Solid-State Circuits Conference, the IEEE Customs Integrated Circuits Conference, and the Radio Frequency Integrated Circuits Symposium. He won the Black Engineer of the Year Award for Promotion of Higher Education in 2002.

### **DR. JOHN BROOKS SLAUGHTER**

In January 2021, the University of Southern California (USC) Rossier School of Education and USC Viterbi School of Engineering announced Dr. John Brooks Slaughter's appointment as the Deans' Professor of Education and Engineering. Slaughter's leadership has impacted efforts such as the American Society for Engineering Education Deans Diversity Pledge. Engineering deans have pledged to take specific concrete actions to broaden the participation of, and outcomes for, demographic populations underrepresented in engineering and STEM fields. In 1980, Slaughter was appointed by President Jimmy Carter to become director of the National Science Foundation. During his tenure, he implemented policies that supported programs designed to expand science and engineering education at historically black colleges and universities (HBCUs). In 2015, the White House recognized his exceptional mentoring with the Presidential Award for Excellence in Science, Mathematics, and Engineering Mentoring. He also received the USC Provost Mentoring Award in 2016 and the USC Presidential Medallion—the university's highest distinction—in 2019. He is the 1987 Black Engineer of the Year.

### **MR. DAVID L. STEWARD**

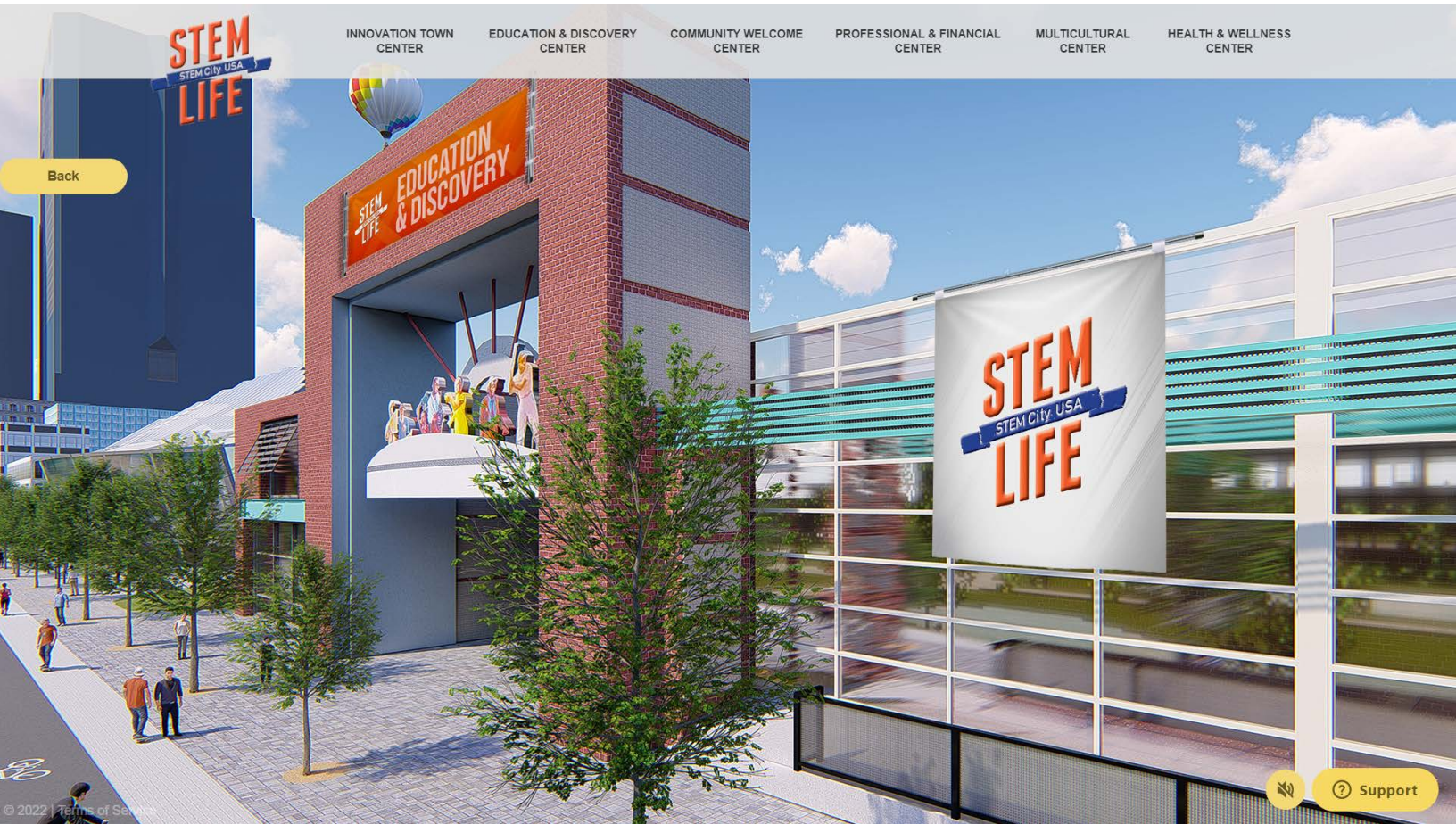
Dave Steward is chairman of World Wide Technology, Inc, an information technology and supply chain solution provider headquartered in St. Louis, MO. WWT now employs 1,381 people in 48 states and six countries—South Korea, Singapore, China, Germany, Brazil, and Mexico. Steward describes the company as “flexible, innovative, with an entrepreneurial spirit, and the ability to raise the bar in bringing technical solutions and value that go above and beyond.” Steward is also co-author of *Doing Business by the Good Book: 52 Lessons on Success Straight from the Bible*. Steward and his company support the United Way, Variety Club, Boy Scouts of America, St. Patrick Center, Ronald McDonald House, Girls Inc., St. Louis Science Center, St. Louis Sports Commission, the YMCA, and his church, too. He is the 2012 Black Engineer of the Year.

### **DR. LYDIA THOMAS**

Thomas was honored as the 2003 Black Engineer of the Year at the 17th annual BEYA STEM Conference. She is a former president and CEO of Noblis, a nonprofit science, technology, and strategy organization. Before Noblis, Dr. Thomas was with The MITRE Corporation from 1973 to 1996. In 2002, Thomas was appointed by President George W. Bush to serve as founding member of the President's Homeland Security Advisory Council. In 2005 she was appointed co-chair of the Government University Industry Research Roundtable of the National Academies. Dr. Thomas is a member of the American Institute of Aeronautics and Astronautics, American Society of Toxicology, National Defense Industrial Association; the Teratology Society; and the International Women's Forum. She serves on the Board of Directors of the Cabot Corporation, Mueller Water Products, Inc., Washington Mutual Investors Fund, the United States Energy Association, the Northern Virginia Technology Council, and the Conference Board, and is a member of the Charles Stark Draper Laboratory.

## DR. CALVIN MACKIE

Dr. Calvin Mackie, the recipient of the 2002 Black Engineer of the Year Award for College-level Education, runs a nonprofit organization to help serve families connected to the military. The New Orleans-based STEM NOLA promotes opportunities for people of color in the wind power, friction, rockets, and robotics industries. Born in New Orleans, Mackie graduated from the very first high school for Black Americans in the city. In 1990, he earned a bachelor's degree in mathematics from Morehouse College and a mechanical engineering degree from Georgia Tech through a dual-degree program. He also completed a master's degree and a Ph.D., both in mechanical engineering. Following graduation, Mackie joined the faculty at Tulane University, where he pursued research related to heat transfer, fluid dynamics, energy efficiency, and renewable energy.



# STEM City Kansas City

STEM

STEM City USA

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