

**BOARD OF TRUSTEES  
UNIVERSITY OF THE DISTRICT OF COLUMBIA  
UDC RESOLUTION NO. 2026 - 13**

**SUBJECT: APPOINTMENT OF DR. LEWIS JOHNSON AS CHIEF RESEARCH OFFICER AND SENIOR VICE PRESIDENT OF RESEARCH AT THE UNIVERSITY OF THE DISTRICT OF COLUMBIA**

**WHEREAS**, pursuant to 8B DCMR §210.2 the President is authorized to make executive appointments to designated positions in the Education Service in accordance with the provisions of 8B DCMR §§210 through 212; and

**WHEREAS**, pursuant to 8B DCMR §210.2, each person selected by the President for an executive appointment shall be qualified on a description of their position or their roles and responsibilities and shall be approved by the Operations Committee; and

**WHEREAS**, pursuant to 8B DCMR §208.1, the Board determines executive compensation for administrators and non-administrators at Grade Level 1A and above, upon recommendation of the President through the Operations Committee; and

**WHEREAS**, Dr. Lewis Johnson has been recommended to serve as Chief Research Officer and Senior Vice President of Research based on his knowledge, past accomplishments and experience in extensive leadership roles in higher education research, and;

**WHEREAS**, Dr. Lewis Johnson will be eligible to receive tenure as full professor in electrical engineering pending the documentation of his tenure received at his previous institution and a recommendation for tenure approval by the faculty and the Dean and the School of Engineering and Applied Sciences and approval by the Board; and

**WHEREAS**, after review of his credentials, it has been determined that Dr. Lewis Johnson is well qualified for such position and that the recommended salary adequately reflects the job duties and experience.

**NOW, THEREFORE, BE IT RESOLVED** that the Board of Trustees of the University of the District of Columbia approves the appointment of Dr. Lewis Johnson as Chief Research Officer and Senior Vice President of Research effective August 10, 2026, consistent with the terms and conditions of his appointment letter.

Submitted by the Operations Committee:

April 21, 2026

Approved by the Board of Trustees:

May 6, 2026



Warner H. Session  
Chairperson of the Board



Maurice D. Edington, Ph.D.  
*President*

April 13, 2026

Dr. Lewis E. Johnson  
[REDACTED]

Re: Executive Appointment, Chief Research Officer and Senior Vice President of Research at the University of the District of Columbia

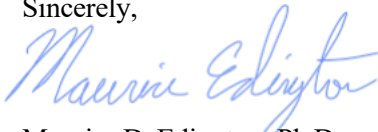
Dear Dr. Johnson:

I am pleased to offer you an executive appointment as Chief Research Officer and Senior Vice President of Research at the University of the District of Columbia effective **August 10, 2026**, pending Board of Trustees approval. Pursuant to applicable District of Columbia law, an executive appointment as, Chief Research Officer and Senior Vice President of Research is “at will,” which means that the appointment may be terminated at any time without appeal or right to compensation, because you serve at the pleasure of the President. As Chief Research Officer and Senior Vice President of Research, you will perform the duties and responsibilities of the position as directed by the President. You will be eligible to receive tenure as full professor in electrical engineering pending the documentation of your tenure received at your previous institution and a recommendation for tenure approval by the faculty and the Dean and the School of Engineering and Applied Sciences and approval by the Board.

Your salary under this appointment will be **\$234,269 (Grade 1, Step 4)** on the non-union Administrative Salary Schedule. You will be fully eligible for cost-of-living increases in accordance with the applicable University policy. You will also be eligible for and may participate in the University of the District of Columbia health insurance, life insurance, retirement, and disability programs in the same manner and under the same conditions as regular administrative employees hired on or about the date of this appointment. The University will contribute seven percent (7%) of your salary to your Teachers Insurance Annuity and Association (TIAA) retirement account. Your leave accrual rates are as follows: annual leave accrual, six and half (6.5) hours per pay period, and sick leave accrual, three and half (3.5) hours per pay period. subject to university guidelines.

Please indicate your acceptance of this offer by signing and returning this letter to [recruit@udc.edu](mailto:recruit@udc.edu) within three (3) business days. This offer is contingent upon the completion of a full background check. To begin your background check, you must complete and submit the online application that you will receive directly from The Mintz Group.

Sincerely,



Maurice D. Edington, Ph.D.  
President

cc: Dr. Maurice Edington, President  
Official Personnel File

I accept the terms and conditions of the executive appointment as Chief Research Officer and Senior Vice President of Research at the University of the District of Columbia.

Name



Date

4/13/2026

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## POSITION DESCRIPTION

### University of the District of Columbia

Job Title: Chief Research Officer and Senior Vice President for University Research  
Reports to: President  
Department: Division of University Research  
Primary Location: Van Ness

Shift: Business Hours  
Nights/Weekends: As Needed  
Regular or Temporary: Regular  
Local or Grant Funded: Local  
Travel: As Needed

### Position Summary

**Instructions: Summarize general nature and purpose of position. Concisely describe how position relates to mission of the department.**

The Chief Research Officer and Senior Vice President for University Research (CRO/SVPUR) serves as the University's senior research executive and leads the reenvisioning and strategic growth of the University of the District of Columbia's research enterprise. The CRO/SVPUR reports directly to the President and serves as a member of the President's Executive Cabinet. In this role, the CRO/SVPUR provides executive-level leadership for the development and implementation of the University's research strategy, aligning research priorities with the University's strategic plan, academic mission, and institutional goals.

The CRO/SVPUR is responsible for directing the university's research portfolio, establishing strategic priorities, and approving submission of major research proposals. The position works closely with cabinet-level leadership to drive business development, strategic planning, and resource acquisition to enhance institutional visibility and advance the university toward R2: High Research Activity classification.

The CRO/SVPUR oversees the administrative, strategic, and compliance functions of the university's research enterprise. This includes supervision of the Director of Sponsored Programs and the Director of University Compliance, as well as oversight of the University Research Committee. The CRO/SVPUR also supervises the Vice President for Innovation and Transformation, who oversees the Office of Planning and Institutional Effectiveness (OPIE), which operates outside of the University's research enterprise. The CRO/SVPUR ensures integrity and compliance of research activities with university, District, and federal policies and regulations.

The CRO/SVPUR prepares reports and strategic documents for the President, Board of Trustees, and internal and external stakeholders. The position develops annual plans, budgets, and assessment reports for the Office of University Research and integrates research operations with key university functions, including Academic Affairs, Human Resources, Procurement, Advancement, Finance, Sponsored Programs, and Intellectual Property.

The CRO/SVPUR collaborates with the Office of Government Relations to advocate for expanded research investment and develops policies to strengthen faculty support, enhance research centers, and maximize Land Grant and Title III resources. The CRO/SVPUR builds strategic relationships with communities, national laboratories, industry, nonprofits, government agencies, and academic institutions.

## Position Responsibilities

**Instructions: Describe 5-10 major responsibilities in detail and indicate approximate percentage each is performed per month. (Must equal 100%) Begin statements with a verb to describe what and how.**

- Provide leadership and implement a vision for strengthening and expanding the research enterprise consistent with the land-grant mission and university strategic plan.
- Direct the university's research portfolio and establish institutional research priorities aligned with academic mission, graduate education, and student success.
- Foster an environment that supports increased faculty and student research activity and growth in externally funded research.
- Responsible for increasing extramural research funding and sponsored program activity across the university.
- Collaborate with Academic Affairs and Deans to strengthen graduate education and research-aligned graduate programs.
- Work closely with Deans to develop college-level research strategies and funding priorities.
- Support grant development across colleges and schools and ensure excellence in post-award grant administration.
- Provide faculty development in research, grant writing, and sponsored program growth.
- Develop and scale faculty-student collaborative research programs aligned with academic success initiatives, experiential learning, and career readiness.
- Leverage UDC assets and partnerships to advance research, land-grant initiatives, workforce development, and P-12 engagement.
- Develop and implement a comprehensive plan to expand physical and digital research infrastructure, including laboratories, shared research facilities, and secure data systems.
- Lead efforts to organize and secure funding for interdisciplinary, campus-wide research initiatives.
- Promote UDC Centers for Excellence as vehicles for expanded external funding and strategic partnerships.
- Facilitate expansion into emerging high-demand research areas, including artificial intelligence, quantum computing, and related disciplines.
- Align research initiatives to promote innovation, entrepreneurship, commercialization, and increased licensing of UDC intellectual property.
- Support patent applications and assist in establishing licensing and commercialization agreements.
- Develop formal relationships with federal and District agencies and cultivate partnerships with public and private funding organizations to increase research funding.
- Plan and oversee execution of the University Research Compliance function, including university-wide sponsored programs compliance and monitoring.
- Provide oversight for the development and implementation of University research goals, policies, procedures, and guidelines.
- Oversee planning and execution of UDC's annual Research Week, including community engagement and showcasing faculty and student research.

- Oversee the Vice President for Innovation and Transformation.
- Supervise the Director of Sponsored Programs and the Director of University Compliance.
- Provide oversight for the University Research Committee.
- Prepare reports and strategic documents for the President, Board of Trustees, and external stakeholders.
- Develop annual plans, budgets, and assessment reports for the Office of University Research.
- Coordinate research strategy with Academic Affairs, Human Resources, Procurement, Advancement, Finance, Sponsored Programs, and Government Relations.
- Perform other duties as assigned.

### Physical Requirements & Equipment Used

**Instructions: List any physical demands related to this position such as walking for long periods of time, carrying heavy objects, etc. Please list the equipment that this position will use. Include machines, tools, and chemicals (if applicable).**

The work includes the typical environment of an executive administrative office with interaction across campus and external stakeholders.

### Required qualifications

**Instructions: Specify the required minimum education and experience; as well as related competencies.**

- Ph.D. from an accredited institution of higher education.
  - Five or more years of experience conducting funded research projects.
  - Five or more years managing sponsored program functions and research funding.
  - Extensive knowledge of research funding and sponsored program processes at government agencies and foundations.
  - Extensive management and supervisory leadership experience.
- Demonstrated knowledge of higher education research administration.

### Preferred qualifications

**Instructions: Specify preferred competencies, specialized education, field, certifications, and/or experience.**

- Excellence in customer service to faculty and staff throughout the grant lifecycle.
- Creativity and innovation in research program and center development.
- Understanding of principles of planning and program evaluation.
- Experience with intellectual property, patents, and commercialization.
- Demonstrated ability to gain cooperation and support from faculty and stakeholders.
- Understanding of the organization, mission, and programs of the University of the District of Columbia.
- Ability to work effectively when confronted with emergencies.
- Ability to provide professional guidance and supervision.
- Administrative skills in planning, organization, and time management.
- Strong writing and communication skills.

Demonstrated ability to coordinate multiple complex projects simultaneously.

## UDC Service Standards

### COURTEOUS

- Treat people with respect
- Show empathy and compassion
- Be kind and polite (Smile)
- Be attentive and approachable
- Act with integrity

### RESPONSIVE

- Communicate, deliver timely and accurately
- Engage in active listening
- Send clear and accessible messages
- Take ownership and be helpful

### EFFECTIVE

- Be knowledgeable of the job and how it interfaces with stakeholders
- Appropriately apply policies and procedures which govern the role
- Respond with accuracy and urgency
- Problem solve and prioritize the needs of stakeholders

### EFFICIENT

- Do it right the first time
- Act in anticipation of future needs, problems, or changes
- Produce results without waste
- See things through to completion

## Employee Acknowledgment

I have read and understand the duties, responsibilities, and expectations outlined in this position description. I acknowledge that this document is intended to describe the general nature and level of work required of this position and does not represent an exhaustive list of all duties that may be assigned. I understand that the position description may be reviewed and updated periodically, and I agree to fulfill the duties as assigned to the best of my ability.

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Employee Signature

Printed Name: Click or tap here to enter text.

Date: Click or tap here to enter text.

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Manager Signature

Printed Name: Click or tap here to enter text.

Date: Click or tap here to enter text.

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### Human Resources Only

FLSA:

Classification:

Job Series/ Salary Pay Plan/ Grade:

Collective Bargaining Status:

Job Code:

Approved by:

Date:

# Lewis E. Johnson, Ph.D.

[lewisj@mac.com](mailto:lewisj@mac.com)

*Senior Academic Administrator and tenured Professor of Physics with over \$30M in funded research and a proven track record of scaling institutional research enterprises. Expert in securing and managing large-scale federal grants from the NNSA, NSF, and Department of Defense. Accomplished leader in developing cross-disciplinary research infrastructure, fostering faculty-student collaborative research, and unifying decentralized academic units to drive institutional prestige and R1 aspirations.*

## EDUCATION, RESEARCH, AND PROFESSIONAL TRAINING

**Certificate, *Harvard University***, Cambridge, MA - Institute for Management and Leadership in Education, Graduate School of Education, **2022**

**Postdoctoral Research Associate, *Lawrence Berkeley National Laboratory***, Center for X-ray Optics, Berkeley, CA - Research included Extreme Ultraviolet (EUV) in-situ metrology of mask blanks for EUV Lithography; Spectroscopy and Microscopy using Soft X-ray microscope, **1998 - 2000**

**Ph.D. Physics, *Duke University***, Durham, NC - Dissertation - “*An Undulator-Based Soft X-ray Source for Microscopy on the Duke 1 GeV Electron Storage Ring*” (Advisor – *John M. J. Madey, Deceased*) **1998**

**BS Physics, Magna Cum Laude, *North Carolina State University (NCSU)***, Raleigh, NC, **1990**

## AREAS OF STRATEGIC EXPERTISE

**Research Administration:** Strategic Planning for R1 Ascension, Sponsored Program Oversight, Grant Lifecycle Management.

**Institutional Infrastructure:** Capital Project Management, Laboratory Design & Commissioning, High-Value Equipment Acquisition.

**Federal Partnerships:** Consortium Leadership (NNSA/MSIPP), Agency Relations (NSF, NNSA, DoD, DTRA, USDA).

**Workforce & STEM Development:** Graduate Research Fellowship Pipelines, NNSA Career Pathways, Multidisciplinary Center Founding.

**Corporate & Strategic Initiatives:** Industry-Academic Partnerships.

**Research:** Student Success and STEM Education; Laser-Induced Breakdown Spectroscopy (LIBS); Plasma Physics and Applications; LIDAR and Active Laser-Based Standoff Sensor Systems; Free Electron Lasers and Synchrotron Radiation Sources: Development and Applications; X-ray Spectromicroscopy; Extreme Ultraviolet and Advanced Lithography.

## PROFESSIONAL EXPERIENCE (Administrative)

**Associate Provost for Strategic Initiatives, Florida A&M University (FAMU), Tallahassee, FL (2018 – Present)**

Responsible for leading and executing a wide range of strategic initiatives to elevate FAMU research, student success and national metrics/rankings. Manages a portfolio of \$10+ million in student success, and research related funds.

### **Research Enterprise & Infrastructure**

- **Research Portfolio Oversight:** Provides direct oversight for an annual \$3M+ institutional advancement portfolio, including the strategic management of R&D funds and faculty start-up packages.
- **Infrastructure Modernization:** Directs \$10M+ capital improvement projects to modernize research infrastructure, including the design and commissioning of state-of-the-art laboratory spaces and specialized equipment hubs for interdisciplinary STEM research.
- **Research Space Governance:** Created the Research Space Allocation Committee (RSAC) to centralize authority under the Provost, ensuring lab space is allocated based on productivity and institutional priority.
- **Undergraduate Research:** Established the Office of Undergraduate Research (OUR), which has funded and facilitated over 500 on-campus and virtual research opportunities for students since its inception.
- **Faculty Mentorship:** Orchestrate university-wide faculty development programs covering the full grant lifecycle, including grant procurement, technical writing, and post-award management.
- **Faculty Retention and Recruitment:** Provides leadership for strategic hiring of high research active faculty in multiple disciplines. Moreover, lead several efforts to provide packages and resources to retain successful research active faculty members.
- **Partnership Development:** Developed several partnerships with Federal entities, such as National Nuclear Security Administration and Numerous National Labs (Pacific Northwest National Lab, Y-12 Security Complex, Lawrence Livermore National Laboratory, etc). Represent FAMU on the Florida Alliance for Quantum Technology.

### **Strategic Planning & Institutional Growth**

- **University Strategic Planning:** Co-led the development of the "Student Success" pillar for the 2022–2027 strategic plan, *Boldly Striking*, establishing aggressive benchmarks to align institutional performance with national excellence standards.
- **National Rankings & Reputation:** Provides the leadership and analytical framework that propelled the university's U.S. News & World Report ranking by over 40 spots in five years, currently securing a high of the #82 position among public universities.
- **Performance-Based Funding (PBF):** Design and execute initiatives that optimized university performance within the state's PBF model, resulting in record-breaking institutional scores in 2020 and 2025.
- **Strategic Resource Management:** Manages an annual portfolio of approximately \$7M+ in state strategic funds, specifically earmarked to drive research productivity and student success outcomes.

- **Corporate Partnerships:** Directed high-impact strategic initiatives in collaboration with industry leaders, including HP and Google, to align institutional goals with corporate innovation. Oversee +\$5M Budgets for university advancement.

### **Executive Leadership & Operational Excellence**

- **Capital Project Management:** Managing \$6M renovations of library and other facilities to establish high-impact hubs, including an Esports arena, a Maker Lab, the centralized Student Success Center, and the FAMU Online headquarters.
- **AI & Digital Transformation:** Leading the campus-wide adoption of Artificial Intelligence solutions to streamline administrative efficiency and enhance both faculty research and student learning. Have also spearheaded efforts to bring digital creativity tools to entire campus.
- **Executive Search Leadership:** Chaired and led successful searches for critical senior roles, including the Dean of Allied Health Sciences, Associate Vice President for Research, and Directors for Title III and Assessment.
- **Pedagogical and Faculty Development:** Facilitates specialized workshops focused on modernizing teaching methodologies and integrating new educational technologies; includes the creation of freshman-centric faculty learning communities.
- **Technology Transfer:** Served on university level Technology Transfer committee.

### **Student Success & Academic Innovation**

- **Retention & Graduation Success:** Engineered a student success framework that yielded a transformative 86% increase in the four-year graduation rate (from 22.5% to 40.4%) and Retention Rates greater than 90%.
- **Office of Freshman Studies:** Founded the Office of Freshman Studies, launching integrated academic coaching, non-living learning communities, and parent engagement strategies that significantly boosted first-year retention.
- **Honors Program Revitalization:** Reconstructed the Honors Program by appointing new leadership and introducing an "Honors-in-the-Major" thesis track, resulting in a 100% increase in membership over two years.
- **Digital Equity & Learning:** Spearheaded an iPad initiative providing mobile technology to all incoming first-year students to facilitate Student Life Skills coursework and digital literacy. Program has since expanded to provide iPads for all incoming Freshman and Transfer students.
- **Enrollment & Advisement Overhaul:** Partnered across Academic and Student Affairs divisions to architect a strategic overhaul of the university's enrollment management and student advisement functions, streamlining the student lifecycle experience.
- **Advisement Redesign:** Led the structural migration of academic advisors from Student Affairs to Academic Affairs to create a more integrated and seamless student support model.
- **Predictive Analytics:** Developed data models and analytics to predict graduation and retention rates. Used other PA tools to identify high-risk students and implement targeted interventions before academic progress was compromised.
- **Student Support Infrastructure:** Acquired and renovated multiple physical study and tutorial spaces to provide undergraduate students with modern, accessible academic hubs.

- **Cultural Integration:** Co-developed the Freshman Transition Ceremony, a formal ritual designed to align incoming students with the university’s academic rigor and institutional values.

**Interim Vice President of Strategic Planning, Analysis, and Institutional Effectiveness, Florida A&M University, Tallahassee, FL (2022)**

Served in the role during the 2-month transition period between the outgoing and incoming VPs. During that time my primary responsibility was to oversee the development and submission of the annual university accountability plan to the Board of Governors of the State of Florida, ensuring institutional alignment with state-mandated performance metrics.

**Assistant Vice President of Strategic Planning and Performance Measures, Florida A&M University (FAMU), Tallahassee, FL (2017 – 2018)**

Monitored the University’s new Strategic Plan and the Performance-Based Metrics reported to the Florida Board of Governors.

- **Institutional Strategy Oversight:** Spearheaded the monitoring and evaluation of the university’s strategic plan, FAMU Rising, ensuring departmental alignment with institutional key performance indicators (KPIs) and long-term goals.
- **Data Visualization & Accountability:** Developed centralized, web-based dashboards and automated tracking systems to provide real-time monitoring of institutional goal attainment, enhancing transparency and administrative accountability.
- **Faculty Workload & Productivity Analysis:** Directed a comprehensive faculty workload study—encompassing demographics, research output, and peer benchmarking—to optimize instructional capacity and inform resource allocation.

**Assistant Dean, College of Science and Technology, Florida A&M University (FAMU), Tallahassee, FL, Assistant Dean (2012 – 2017)**

Assistant Dean of the newly formed College of Science and Technology (CST). Assisted the Dean with developing and executing STEM educational initiatives, increasing college-wide research productivity, supporting existing and developing new graduate programs, undergraduate and graduate student recruitment, and enhancing college-wide efficiency in enrollment management, data collection, etc.

**Research Expansion & Fiscal Management**

- **Strategic Research Architecture:** Architected a comprehensive research growth plan for the College of Science and Technology (CST), resulting in a 115% increase in annual external funding—rising from \$5.1M to \$11M—through targeted faculty development and high-value federal grant submissions.
- **Title III Fiscal Oversight:** Managed annual Title III allocations exceeding \$1M, strategically deploying funds for graduate student stipends, state-of-the-art research equipment, and faculty/graduate student conference travel.

- **Success Initiative Funding:** Played a key role in securing over \$2M in external funding specifically dedicated to advancing student success and retention initiatives within STEM disciplines.
- **Corporate Development:** Raised over \$250,000 in corporate funding to date to support and scale university-wide STEM outreach programs.

### **Academic Standards & Faculty Excellence**

- **Tenure & Promotion Reform:** Chaired a 17-member committee to overhaul the College's tenure and promotion criteria, successfully raising performance benchmarks while clarifying expectations and enhancing mentoring systems to support career progression.
- **Faculty Recruitment & Growth:** Coordinated strategic faculty hiring efforts that successfully integrated 12 new tenure-track faculty members over a three-year period to expand departmental research and instructional capacity.
- **Gateway Course Intervention:** Collaborated on the design and execution of a faculty development program that significantly reduced failure rates in critical "gateway" courses through pedagogical innovation.
- **Active Learning Leadership:** Developed the university's first active learning classroom and served as a lead practitioner, demonstrating the efficacy of active learning techniques to faculty across campus.

### **Student Success & Innovation**

- **Mathematics Placement Transformation:** Led the campus-wide implementation of the ALEKS mathematics placement process, which substantially increased student success rates in College Algebra, Calculus I, and other foundational freshman math courses.
- **STEM Living Learning Community (LLC):** Coordinated the establishment of the STEM LLC and First Year Experience Program; longitudinal data demonstrated that LLC participants achieved significantly higher GPAs than their non-LLC counterparts.
- **Math Learning Laboratory:** Developed a state-of-the-art Math Learning Laboratory designed to provide intensive support and increase pass rates in high-enrollment College Algebra courses.
- **Student Seminar Series:** Collaborated on the creation and delivery of the STEM Student Seminar Series, focused on professional development and career readiness for undergraduate STEM majors.

### **Strategic Outreach & Operational Leadership**

- **Signature STEM Outreach:** Established "STEM Day," the university's signature outreach initiative, which has to-date has introduced over 5,000 students (grades 6–12) and parents from underserved backgrounds to STEM opportunities.
- **Policy Development & Governance:** Developed and refined college-wide policies and procedures to ensure departmental operations remained strictly aligned with both College and University strategic goals.
- **Institutional Liaison:** Served as the primary CST liaison to various university constituents, facilitating cross-departmental collaboration to support the Dean's mission and institutional objectives.

## PROFESSIONAL EXPERIENCE (Academic / Scientific)

### Florida A&M University, Department of Physics

Professor† (2012 – Present)

Associate Professor† (2006 – 2012)

Assistant Professor (2000 - 2006)

*Duties included teaching courses in physics, conducting funded research with graduate and undergraduate students, mentoring and advising students, and participating on university committees. †Tenured*

**Visiting Scientist, University of Hawaii at Manoa, Department of Physics, Honolulu, HI -**  
Research included an investigation of x-ray generation by Free Electron Lasers, **2000**

## RESEARCH LEADERSHIP MAJOR ACCOMPLISHMENTS

### Founding Leadership & Infrastructure Development

- **CePaST Founding Leadership:** Co-founded the Center for Plasma Science and Technology (CePaST), a \$4M, 30,000-sq.-ft. multidisciplinary research facility; Faculty in CePaST have generated \$40M+ in research funding to date. Faculty members have produced over 40 Masters and PhD students in a numerous disciplines along with providing research opportunities of countless scores of undergraduate students.
- **Laboratory Design & Construction:** Architected and constructed the 2,500-sq.-ft. Laser Remote Sensing Laboratory (LRSL) within CePaST, establishing a facility with laser and advanced optical instrumentation resources valued at over \$3M. Laboratory has generated ~\$15M in funding to support efforts in the lab. This is a unique resources among HBCUs.

### Scientific Innovation & Technical Advancements

- **Advanced Material Detection:** Led pioneering research demonstrating the use of Laser-Induced Breakdown Spectroscopy (LIBS) for the detection and identification of energetic materials and nuclear isotopes.
- **Environmental & Food Safety Research:** Developed LIBS-based methodologies to classify heavy metals in oysters as bioindicators, detect soil bacteria, and identify Salmonella-contaminated food products.
- **Remote Sensing Capabilities:** Successfully demonstrated the application of RAMAN spectroscopy for the remote detection and identification of specific Volatile Organic Compound (VOC) emissions at distance.

### Mentorship & Workforce Development

- **NNSA Fellowship Mentorship:** Mentored and produced two National Nuclear Security Administration (NNSA) Fellows, both of whom successfully transitioned into permanent professional roles within the NNSA enterprise.

- **Interdisciplinary Research Coordination:** Managed the collaboration of cross-functional research teams, leveraging high-value equipment to drive scientific output and federally-funded research projects
- **Graduate Student Awards: (Best Paper/Poster Awards)**
  - **Candace Harris**, 2016 National Symposium on LIBS (Student Award)
  - **Candace Harris**, 2016 International Symposium on LIBS (NASLIBS Student Award)
  - **Staci Brown**, 2014 International Symposium on LIBS (NASLIBS Student Award)
  - **Staci Brown**, 2013 National Symposium on LIBS (1<sup>st</sup> place student poster)
  - **Jorge Martinez**, 2011 National Symposium on LIBS (3<sup>rd</sup> place student poster)
- **Graduate Students Dissertation/Thesis Committee Chair (5 Ph.D., 4 M.S.)**
  1. **Mr. Miguel Richardson** (M.S. Physics), **2020** (Physicist, The Johns Hopkins University Applied Physics Laboratory, Laurel, Maryland)
  2. **Dr. Candace Harris** (Ph.D. Physics), “*Partial Least Squares Calibration Modeling Towards the Multivariate Limit of Detection for Enriched Isotopic Mixtures via Laser Ablation Molecular Isotopic Spectroscopy*” **2018** (Scientist, Lawrence Livermore National Laboratory, Livermore, CA)
  3. **Dr. Staci Brown** (Ph.D. Physics) “*Study of Organic Materials and Isotope Enriched Materials via Laser Induced Breakdown Spectroscopy and Laser Ablation Molecular Spectrometry*” **2015** (Physical Scientist, National Nuclear Security Administration (NNSA), Washington, DC)
  4. **Dr. Jorge Martinez** (Ph.D. Physics) “*Application of Laser Induced Breakdown Spectroscopy Modalities to the Detection and Discrimination of Energetic, Organic, and Inorganic Matrices in Ambient Atmosphere*” **2013** (Senior Engineer, CYMER, San Diego, CA)
  5. **Mrs. Mardochee Jean** (M.S. Chemistry) “*Characterization of Aluminum Oxide Thin-Film Samples by Laser-Induced Breakdown Spectroscopy*” (Co-Advisor) **2013** (Chemistry Instructor, Miami-Dade Community College, Miami, FL)
  6. **Ms. Teresa Eaton** (M.S. Chemistry) “*Characterization and Classification of Essential Oils Using Laser-Induced Breakdown Spectroscopy*” (Co-Advisor) **2012** (Post Doc, Lawrence Berkeley National Lab, Berkeley, CA)
  7. **Dr. Cleon Barnett** (Ph.D. Physics) “*Investigation of Intensity Enhancement of Atomic Emissions From Dual Pulse Laser-Induced Plasma Used for Material Identification*” **2007** (Associate Professor, Department of Physical Sciences, Alabama State University, Montgomery, AL)
  8. **Mr. Vinay Jain** (M.S. Environmental Science) “*Determination of Mercury in Fish by Laser-Induced Breakdown Spectroscopy*” **2007** (Assistant Professor, Department of Prosthodontics, College of Dentistry, University of Tennessee, Nashville, TN)
  9. **Mr. John Branch** (M.S. Environmental Science) “*Analysis of Metallic Contaminants in Water using Laser Induced Breakdown Spectroscopy*” (Co-Advisor) **2005** (Chemistry Teacher, Alief Elsik High School, Houston, TX)

## TEACHING / PEDAGOGY HIGHLIGHTS

**Courses Taught:** Optics; Modern Physics; General Physics I and II (Calculus-Based, Matter and Interactions-Based, and SCALE-UP); Astronomy; Physical Science (*Physics for Future Presidents* style); General Physics Laboratories. (*Average student course evaluations of ~ 4.6 out of 5.0*)

### **Course and Pedagogy Development**

- **Annual STEM Day:** Established the yearly STEM Day event, which has become FAMU's signature STEM outreach initiative designed to introduce STEM opportunities for students (grades 3-12) and parents from underserved backgrounds. To date this event has served over 5,000 students and parents.
- **SoTL (STEM Center for the Advancement of Learning, Achievement, and Research) Academy:** Founded the SoTL center at the university. We've designed a year-long program for faculty interested in developing, implementing, evaluating, and sharing their teaching innovations. The faculty had three publication submissions in the inaugural cohort and made six external presentations.
- **Learning Assistant Program (LA):** Developed a program that provides faculty with trained LAs to facilitate in-class group activities, provide student feedback and support, and conduct office hours.
- Created the **ISC 1058 - Scientist Life Skills** course for all incoming first-year students in CST, designed to develop their growth mindset, improve their grit, develop their critical thinking skills, and acclimate them to the rigors and requirements for success in STEM majors.
- Designed a boot camp for incoming STEM students that improves mathematics placement scores, provides early exposure to the structure of typical first-year STEM courses, and enhances time management and study skills. **Preparing STEM Scholars for Student Success (PS3)**
- Developed a "Physics for Future Presidents" class to address general education requirements and science appreciation better. **2012**
- Developed a Student-Centered Active Learning Environment for University Programs (SCALE-UP) classroom, one of the first SCALE-UP environments at an HBCU. **2012**
- Developed a Matter and Interaction-based General Physics course using SCALE-UP pedagogy and the SCALE-UP classroom. **2012**
- Developed an Introductory Physics course using Matter and Interaction, the first course in the department to introduce clickers and socialized learning. **2011**
- Co-founded the Nightly Physics Tutorial Program **2003**
- Conducted a detailed study of General Physics Education at FAMU. The study report, "Enhancing Successful Beginning STEM Student-Teacher Information Transmission Rates in Introductory Calculus-Based Physics at FAMU," led to the revamping of the content and delivery of the General Physics Calculus-Based general physics curriculum. **2003**
- Designed and set up an updated computing facility for undergraduate physics majors. **2003**
- Introduced a Physics Reading course into the undergraduate curriculum. **2003**
- Physics Department representative for ABET (Engineering) accreditation. **2001-2002**

**RESEARCH SUPPORT (*Generated over \$30 million since 2000*) \*Active**

1. \*Co-PI: National Telecommunications and Information Administration (NTIA) “Building a Digital Pipeline to Prosperity” **\$5,400,000 2023 - 2026**
2. PI and Consortium Lead: National Nuclear Security Administration (NNSA), “*Consortium for Laser-based Analysis of Nuclear and Environmental Materials*” (LANEM) **\$2,400,000 (\$830,000 – FAMU Direct) 2021-2025**
3. PI: National Science Foundation (NSF) HBCU Undergraduate Program (HBCU-UP), “STEM Center for the Advancement of Learning, Achievement, and Research (SCALAR III)” **\$2,300,000 2021-2025**
4. Co-PI: National Science Foundation (NSF) HBCU Undergraduate Program (HBCU-UP), “Science Community of Active Learners to Enhance Achievement and Retention (SCALAR II)” **\$2,000,000 2017-2021**
5. PI and Consortium Lead: National Nuclear Security Administration (NNSA), “Research on Science and Engineering of Signatures” (ROSES) **\$2,000,000 (\$330,000 – FAMU Direct) 2017-2018**
6. PI and Consortium Lead: National Nuclear Security Administration (NNSA), “Research on Science and Engineering of Signatures” (ROSES) **\$4,900,000 (\$600,000 – FAMU Direct) 2014-2017**
7. Co-PI: National Science Foundation (NSF) HBCU Undergraduate Program (HBCU-UP), “Student-Centered Active Learning and Assessment Reform (SCALAR)” **\$1,630,597 2013-2017**
8. PI: Defense Threat Reduction Agency (DTRA), “Nuclear Isotopic Detection via Enhanced LIBS,” **\$285,000 2012-2018**
9. PI: Pacific Northwest National Laboratory (PNNL), “Consortium for Advanced Chemometrics and in-situ analysis using Laser Ablation Multi-Collector Inductively Coupled Mass Spectroscopy (LA-MC-ICMS) and Laser Induced Breakdown Spectroscopy (LIBS)” **\$100,000 2014-2017**
10. PI: National Nuclear Security Administration (NNSA), “Consortium for Advanced Chemometrics and in-situ analysis using Laser Ablation Multi-Collector Inductively Coupled Mass Spectroscopy (LA-MC-ICMS) and Laser Induced Breakdown Spectroscopy (LIBS)” **\$500,000 2012-2014**
11. PI: US Army Night Vision Laboratory, “Standoff Light Identification of Explosives (SLIDE),” **\$3,200,000 2008-2013**
12. PI: UCF/ US ARMY Multiple University Research Initiative (MURI), “Modeling Femtosecond Pulse Interactions,” **\$240,000 2006-2010**
13. PI: US Army Research Office, “RAMAN Enhanced Laser Induced Breakdown Spectroscopy (LIBS) for the Rapid Detection and Evaluation of Biological Warfare Agents in Complex Environments “ **\$381,700 2006-2009**
14. PI: US ARMY Space Missile Defense Command, “Laser Interactions for Material Identification Technology (LIMIT),” **\$6,200,000 2005-2010**

15. PI: Florida Photonics Center of Excellence, “Florida Consortium for LIBS Plasma Technology,” **\$106,777 2004-2006**
16. Co-PI: National Oceanic and Atmospheric Administration (NOAA), “Environmental Measurements and Modeling in the Apalachicola Basin,” **\$249,955 2003-2005**
17. PI: University of Hawaii – US Army Space Missile Defense Command, “Experimental Investigation of Non-Linear Effects of Atmospheric Measurements with Ultra-Short (sub-ns) Pulsed Lasers,” **\$155,000 2002-2007**
18. PI: US Department of Agriculture (USDA) / Agricultural Research Service (ARS) FAMU Center of Excellence, “Detection of Plant-Produced Volatile Organic Compounds Using High-Resolution Short Range Laser-Remote Sensing,” **\$246,000 2002 – 2005**
19. PI: University of Hawaii – US Army Space Missile Defense Command, “Acquisition of Non-Linear Multiphoton Atmospheric Background Scattering Data in the NIR-VIS Region for Nuclear Proliferation Monitoring,” **\$82,500 2001 – 2003**
20. PI: FAMU-NSF Undergraduate Program, “Enhancing Successful Beginning STEM Student-Teacher Information Transmission Rates in Introductory Calculus-Based Physics at FAMU,” **\$5,919 2001-2002**

#### **JOURNAL AND CONFERENCE PUBLICATIONS (17 h-index, \*Student)**

1. Lewis Johnson, Jennifer Collins, Allyson Watson, William Hudson, Sundra Kinsey, Maurice Edington, “*Improving Retention and 4-Year Graduation Rates at a Public HBCU*” In Preparation
2. Izci, B., Simmons, E., Stephens, D., Johnson, L. “*Scholarship of teaching and learning (SOTL) faculty development program for STEM faculty at a Historically Black College and University (HBCU).*” *Innovative Higher Education*. (2024) Under Review
3. Desmond Stephens, Maurice D. Edington, Lewis Johnson, Carl Moore Jr., Serena Roberts, and Codjo Akpovo. “*Preparing STEM Scholars for Success (PS3) Program at Florida A&M University.*” In S. Whalen and T. Bennett, editors, *Proceedings of the 17th National Symposium on Student Retention (NSSR 2021 Live)*, pages 213–219.
4. Stephens, D., Boston, G., Johnson, L., Fitz, F., Williams, D., & Edington, M. D. “*Pandemic pivot: maintaining quality instruction through effective training for remote teaching.*” In *EDULEARN21 Proceedings* (pp. 11672-11679). IATED. **2021**
5. Gokhan Hacisalihoglu, Desmond Stephens, Sonya Stephens, Lewis Johnson, Maurice Edington, “*Enhancing Undergraduate Student Success in STEM Fields through Growth-Mindset and Grit.*” *Educ. Sci.* **2020**, 10(10), 279; <https://doi.org/10.3390/educsci10100279>
6. Codjo A. Akpovo, Luke Helms\*, Luisa TM Profeta, Lewis Johnson, “*Multivariate determination of <sup>10</sup>B isotopic ratio by laser-induced breakdown spectroscopy using*

*multiple BO molecular emissions*” *Spectrochimica Acta Part B: Atomic Spectroscopy*, 2019, <https://doi.org/10.1016/j.sab.2019.105710>

7. Maurice Edington, Lewis Johnson, Charmane Caldwell, Sonya Stephens, Pierre Ngnepieba, Ivey Williams, Codjo Akpovo, “An Analysis of a Math Assessment and Learning System on the Academic Performance of Students at a Large Historically Black University,” 2019 National Symposium on Student Retention
8. Hacisalihoglu G, Stephens D, Johnson L, Edington M, “The use of an active learning approach in a SCALE-UP learning space improves academic performance in undergraduate General Biology.” *PLoS ONE* 13(5): e0197916. <https://doi.org/10.1371/journal.pone.0197916> (2018)
9. P Ngnepieba, AD Ridley, D Stephens, L Johnson, M Edington, “Entrepreneurial mathematics: Revising the math101 course”, *International Journal of Economics, Business and Management Research* (2018) Vol 2, 5:272-285
10. Feng Zhu, Jinbao Xia, Aysenur Bicer, James Bounds, Alexandre Kolomenskii, James Strohaber, Lewis Johnson, Mahmood Amani, and Hans Schuessler, “*Probing methane in air with a mid-infrared frequency comb source*,” *Applied Optics* (2017) Vol 56, 22:6311-6316, doi:10.1364/AO.56.006311
11. C.D. Harris\*, Luisa T.M. Profeta, Codjo A. Akpovo, Lewis Johnson, and Ashley C. Stowe, “*Laser ablation molecular isotopic spectroscopy (LAMIS) toward the multivariate LODs determination using PLSR of <sup>10</sup>B and <sup>11</sup>B Boric acid mixtures*” Anaheim, CA, USA: SPIE, 2017 doi:10.1117/12.2264807
12. J. Strohaber, Y. Boran, M. Sayrac, L. Johnson, F. Zhu, A. A. Kolomenskii, and H. A. Schuessler, “*Nonlinear mixing of optical vortices with fractional topological charge in Raman sideband generation*” *Journal of Optics*, Volume 19, Number 1 (2016), doi:10.1088/2040-8986/19/1/015607
13. Staci Brown\*, Alan Ford, Charlemagne A. Akpovo, Lewis Johnson, “*Mid-IR enhanced laser ablation molecular isotopic spectrometry*” *Spectrochimica Acta Part B: Atomic Spectroscopy* (2016), doi:10.1016/j.sab.2016.07.005
14. Codjo A. Akpovo, Alan Ford, Lewis Johnson, “*Optimized LWIR enhancement of nanosecond and femtosecond LIBS uranium emission*” *Applied Physics B* (2016) 122:154, doi:10.1007/s00340-016-6427-7
15. Staci Brown\*, Charlemagne A. Akpovo, Jorge Martinez, Alan Ford, Lewis Johnson, “*Matrix Effects in Laser Ablation Molecular Isotopic Spectrometry*” *Spectrochimica Acta Part B: Atomic Spectroscopy*, Volume 101 (2014), 204 - 212 doi:10.1016/j.sab.2014.09.003
16. Staci R. Brown\*, Charlemagne A. Akpovo, Jorge Martinez\*, Lewis Johnson, “*Plasma Dynamics in Double-Pulse LIBS on Dicarboxylic Acids Using Combined 532 nm Nd:YAG and Carbon Dioxide Laser Pulses*” *Applied Spectroscopy*, Volume 68, Number 9, September (2014), pp. 1046-1059 dx.doi.org/10.1366/13-07397

17. J. Bruce Johnson, Susan Davis Allen, Jonathan Merten, Lewis Johnson, Daniel Pinkham, and Scott Reeve, “*Standoff Methods for the Detection of Threat Agents: a review of several promising laser-based techniques*,” Volume 2014 (2014), Article ID 613435, [dx.doi.org/10.1155/2014/613435](https://doi.org/10.1155/2014/613435)
18. Gennady Gutsev, Lewis Johnson, Kalayu Belay, Charles Weatherford, Lavrenty Gutsev, and Bala Ramachandran, “*Structure and Magnetic Properties of  $Fe_nGd$  Clusters,  $n=12-19$* ,” The European Physical Journal B, (2014) 68:81 [dx.doi.org/10.1140/epjd/e2014-40830-3](https://doi.org/10.1140/epjd/e2014-40830-3)
19. Gennady Gutsev, Lewis Johnson, Kalayu Belay, Charles Weatherford, Lavrenty Gutsev, and Bala Ramachandran, “*Structure and Magnetic Properties of  $Fe_{12}X$  Clusters*,” Chemical Physics 430 (2014) 62-68, [dx.doi.org/10.1016/j.chemphys.2013.12.014](https://doi.org/10.1016/j.chemphys.2013.12.014)
20. Charlemagne A Akpovo, Jorge A. Martinez Jr.\*, Dawn E. Lewis, John Branch.\*, Alexander Schroeder\*, Maurice D. Edington, and Lewis Johnson, “*Regional Discrimination of Oysters Using Laser-Induced Breakdown Spectroscopy*” *Analytical Methods* (2013) 5, 3956-3964 [doi:10.1039/C3AY40491A](https://doi.org/10.1039/C3AY40491A)
21. G. L. Gutsev, C. A. Weatherford, L. E. Johnson, P. Jena, “*Structure and Properties of the Aluminum Borates  $Al(BO_2)_n$  and  $Al(BO_2)_{2n}$ , ( $n=1-4$ )*” *Journal of Computational Chemistry*, (2012), 33 (44): 416-424, [doi:10.1002/jcc.21984](https://doi.org/10.1002/jcc.21984)
22. Dawn E. Lewis, Jorge Martinez\*, Charlemagne C. Akpovo, Lewis Johnson, Ashvini Chauhan, Maurice D. Edington, “*Discrimination of Bacteria from a Chronosequence of Jamaican Bauxite Soils Using Laser-Induced Breakdown Spectroscopy*” *Analytical and Bioanalytical Chemistry*, 2011, 401 (7): 2225-2236, [doi:10.1007/s00216-011-5274-y](https://doi.org/10.1007/s00216-011-5274-y)
23. Cleon Barnett, Courtnee Bell\*, Komal Vig, A. C. Akpovo, Lewis Johnson, Shreekumar Pillai, Shree Singh, “*Development of a LIBS Assay for the Detection of Salmonella Enterica Serovar Typhimurium from Food.*” *Analytical and Bioanalytical Chemistry* 2011 400 (10): 3323-3330, [doi:10.1007/s00216-011-4844-3](https://doi.org/10.1007/s00216-011-4844-3)
24. A.A.I Khalil, M. Richardson, L. Johnson, M.A. Gondal, “*Titanium Plasma Spectroscopy Studies Under Double Pulse Laser Excitation.*” *Laser Physics* 19, No. 10 2009: 1981-1992. [doi:10.1134/S1054660X09190116](https://doi.org/10.1134/S1054660X09190116)
25. A.A.I. Khalil, M. Richardson, C. Barnett\*, L. Johnson, “*Double Pulse UV Laser Induced Breakdown Spectroscopy of Stainless Steel.*” *Journal of Applied Spectroscopy* 73, No. 5 2006: 735-742. [doi:10.1007/s10812-006-0147-4](https://doi.org/10.1007/s10812-006-0147-4)
26. C.G. Brown\*, R. Bernath, M. Fisher\*, M.C. Richardson, M. Sigman, R.A. Walters, A. Miziolek, H. Bereket\*, L.E. Johnson, “*Remote Femtosecond Laser-Induced Breakdown Spectroscopy (LIBS) in a Standoff Detection Regime*,” *Enabling Technologies and Design of Nonlethal Weapons*, Proc. of SPIE Vol. 6219, 62190B, 2006 [doi:10.1117/12.663821](https://doi.org/10.1117/12.663821)
27. Martin Richardson, Christopher Brown\*, Matthew Fisher\*, Ahmed Khalil, Robert

- Bernath, Cleon Barnett\*, Lewis Johnson, Andrzej Miziolek, Frank DeLucia, "New Plasma Regimes for Stand-off LIBS," OSA Topical Meeting - Laser Application To Chemical and Environmental Analysis, Technical Digest, **2006**
28. John W. Branch Jr.\*, Larry Robinson, Elijah Johnson, Lewis Johnson, "Determination of Trace Element Concentrations in Vegetation by Laser-Induced Breakdown Spectroscopy (LIBS)," OSA Topical Meeting - Laser Application To Chemical and Environmental Analysis, Technical Digest, **2004**
  29. Lewis Johnson, Cleon Barnett\*, Christopher Brown\*, Deveron Crawford\*, James Tumlinson, "Stand-off Detection of Plant-Produced Volatile Organic Compounds Using Short Range Raman LIDAR," SPIE Photonics East - Optical Technologies for Industrial and Environmental Sensing," Providence, Rhode Island, SPIE, **2003** 229-235. Vol. 5271 **doi:10.1117/12.514405**
  30. P. Fischer, T. Eimuller, G. Schutz, G. Denbeaux\*, A. Pearson\*, L. Johnson, D. Attwood, S. Tsunashima, M. Kumazawa, N. Takagi, M. Kohler, G. Bayreuther, "Element-Specific Imaging of Magnetic Domains at 25 nm Spatial Resolution Using Soft X-ray Microscopy," *Review of Scientific Instruments*, 72, pp. 2322-4, **2001 doi:10.1063/1.1351840**
  31. W. Meyer-Ilse, D. Hamamoto, A. Nair\*, S. A. Lelievre, G. Denbeaux\*, L. Johnson, A. L. Pearson, D. Yager, M. A. Legros, C. A. Larabell, "High-Resolution Protein Localization Using Soft X-ray Microscopy," *Journal of Microscopy*, 201, pp. 395-403, **2001 doi:10.1046/j.1365-2818.2001.00845.x**
  32. Denbeaux, G.\*, Anderson, E., Chao, W., Eimuller, T., Johnson, L., Kohler, M., Larabell, C., Le Gros, M., Fischer, P., Pearson, A., Schutz, G., Yager, D., Attwood, D., "Soft X-Ray Microscopy to 25 nm with Applications to Biology and Magnetic Materials," *Nuclear Instruments and Methods in Physics Research A*, 467-468 **2001.doi:10.1016/S0168-9002(01)00480-6**
  33. Erik H. Anderson, Deirdre L. Olynick, Bruce Harteneck, Eugene Veklerov, Gregory Denbeaux, Weilun Chao, Angelic Lucero, Lewis Johnson, David Attwood, "Nanofabrication and Diffractive Optics for High-Resolution X-ray Applications," *J. Vac. Sci. Technol. B*, Vol. 18, No. 6, pp. 2970-2975 **2000 doi:10.1116/1.1321282**
  34. L. E. Johnson, G. Denbeaux\*, W. Meyer-Ilse, "High Spatial Resolution X-ray Spectroscopy with the XM-1 X-ray Microscope," *SRI99: Eleventh US National Conference*, P. Pianetta, J. Arthur, S. Brennan, Eds., Vol. 521, pp. 35-8, AIP, Stanford, California, **2000 doi:10.1063/1.1291755**
  35. L. E. Johnson, G. Denbeaux\*, J. M. J. Madey, "Magnetic Field Characterization, Retuning and First Operation of the NIST Undulator on the Duke 1 GeV Storage Ring," *SRI99: Eleventh US National Conference*, P. Pianetta, J. Arthur, S. Brennan, Eds., Vol. 521, pp. 358-62, AIP, Stanford, California, **2000 doi:10.1063/1.1291815**
  36. G. Denbeaux\*, L. E. Johnson, J. M. J. Madey, "Resorting the NIST Undulator Using Simulated Annealing for Field Error Reduction," *SRI99: Eleventh US National Conference*, P. Pianetta, J. Arthur, S. Brennan, Eds., vol. 521, pp. 339-43, AIP, Stanford, California, **2000 doi:10.1063/1.1291811**

37. W. Meyer-Ilse, L. E. Johnson, G. Denbeaux\*, W. Bates, A. Lucero\*, E. H. Anderson, "The XM-1 high-resolution X-ray microscope at the ALS," *SRI99: Eleventh US National Conference*, P. Pianetta, J. Arthur, S. Brennan, Eds., vol. 521, pp. 13-18, AIP, Stanford, California, **2000 doi:10.1063/1.1291751**
38. W. Meyer-Ilse, G. Denbeaux\*, L.E. Johnson, W. Bates, A. Lucero\*, E. H. Anderson, "The High-Resolution X-ray Microscope, XM-1" *Proceedings of the Sixth International Conference on X-Ray Microscopy*, W. Meyer-Ilse, T. Warwick, D. Attwood, Eds., vol. 507, pp. 478-83, AIP, Berkeley, CA, **2000 doi:10.1063/1.129113**
39. M. M. Moronne, D. J. Hamamoto, G. Meigs, L. E. Johnson, G. P. Denbeaux\*, and W. Meyer-Ilse "Potential Application of Vanadium Probes for Biological X-ray Microscopy" *Proceedings of the Sixth International Conference on X-Ray Microscopy*, W. Meyer-Ilse, T. Warwick, D. Attwood, Eds., vol. 507, pp. 478-83, AIP, Berkeley, CA, **2000 doi:10.1063/1.1291141**
40. G. Denbeaux\*, L. Johnson, W. Meyer-Ilse, "Spectromicroscopy at the XM-1," *Proceedings of the Sixth International Conference on X-Ray Microscopy*, W. Meyer-Ilse, T. Warwick, D. Attwood, Eds., Vol. 507, pp. 478-83, AIP, Berkeley, CA, **2000 doi:10.1063/1.1291194**
41. Pearson, Angelic L\*, Chao, Weilun, Denbeaux, Gregory, Mueller, Thomas, Fischer, Peter, Johnson, Lewis E., Koehler, Matthias, Larabell, Carolyn, LeGros, Mark A., Yager, Deborah, Attwood, David T., "XM-1: The High-Resolution Soft X-Ray Microscope at the Advanced Light Source." *Soft X-Ray and EUV Imaging Systems* Eds. Winfried M. Kaiser and Richard H. Stulen. San Diego, CA, USA: SPIE, **2000** 54-59. Vol. 4146. **doi:10.1117/12.406672**
42. Jeong, Seongtae, Johnson, Lewis E., Lin, Yun, Rekawa, Senajith, Yan, Pei-yang, Kearney, Patrick A., Tejnil, Edita, Underwood, James H., Bokor, Jeffrey, "Actinic EUVL Mask Blank Defect Inspection System," *Emerging Lithographic Technologies III*. Ed. Yuli Vladimirovsky. Santa Clara, CA, USA: SPIE, **1999** 298-308. Vol. 3676. **doi:10.1117/12.351101**
43. J. Seongtae, L. Johnson, L. Yun, S. Rekawa, Y. Pei-Yang, P. A. Kearney, E. Tejnil, J. H. Underwood, J. Bokor, "Actinic Detection of Sub-100nm Defects on Extreme Ultraviolet Lithography Mask Blanks," *J. Vac. Sci. Technol B*. 3009-3013, **1999** **doi:10.1116/1.590944**
44. J. Seongtae, M. Idir, L. Yun, L. Johnson, S. Rekawa, Y. Pei-Yang, P. A. Kearney, E. Tejnil, J. H. Underwood, J. Bokor, "At-Wavelength Detection of Extreme Ultraviolet Lithography Mask Blank Defects," *Journal of Vacuum Science & Technology B: Microelectronics and Nanometer Structures* 16.6 **1998** 3430-34 **doi:10.1116/1.590473**
45. Jeong, Seongtae, Idir, Mourad, Johnson, Lewis E., Lin, Yun, Batson, Phillip J., Levesque, Richard, Kearney, Patrick A., Yan, Pei-yang, Gullikson, Eric M., Underwood, James H., Bokor, Jeffrey, "Actinic Detection of EUVL Mask Blank Defects," *Eighteenth Annual BACUS Symposium on Photomask Technology and Management*, Eds. Brian J. Grenon and Frank E. Abboud. Redwood City, CA, USA: SPIE, **1998** 524-30. Vol. 3546. **doi:10.1117/12.332865**

46. Denbeaux, Greg\*, Johnson, Lewis E.\*, Madey, John M. J., Straub, Karl D. “Resorting the NIST Undulator Using Simulated Annealing for Field Error Reduction.” *Synchrotron Radiation Instrumentation. Tenth US National Conference*, Ithaca, NY, USA: AIP, **1997** 58. Vol. 417.
47. Johnson, Lewis E.\*, et al., “Soft X-Ray Sources on the Duke Storage Ring,” *Synchrotron Radiation Instrumentation. Tenth US National Conference*, Ithaca, NY, USA: AIP, **1997** 56. Vol. 417 of AIP Conf. Proc. (USA). doi:10.1063/1.54591
48. Johnson, Lewis E.\*, Denbeaux, Greg\*, Madey, John M. J., Straub, Karl D., “Magnetic Field Characterization of the NIST Undulator.” *Synchrotron Radiation Instrumentation. Tenth US National Conference*, Ithaca, NY, USA: AIP, **1997**. 56. Vol. 417 of AIP Conf. Proc. (USA).
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## INVITED PRESENTATIONS

1. FAMU Management Seminar “Come with me if you want to live. Removing the Fear of AI” **2025**
2. FAMU Faculty Development Seminar, “PBF, Student Success & You” **2025**
3. 2024 MSIPP (Minority Serving Institutions Partnership Program) NNSA Annual Technical Meeting, Tallahassee, FL, “HISTORY AND OVERVIEW OF FAMU’S STEM DAY”
4. 2024 NSF HBCU-UP/CREST PI/PP Meeting, Washington, D.C, “SCALAR” A History of Success.
5. FAMU Faculty Development Seminar, “Jump Starting Your Research” **2024**
6. Digital Credentials Summit, Dallas, Texas, “FAMU Rattler Ready: Using Digital Badges to Elevate the Student Journey,” **2023**
7. FAMU Faculty Development Seminar, “Top 10 Things to Know about Proposals”
8. FAMU Faculty Development Seminar, “How to Give an Effective Presentation 2.0”
9. Norfolk State University, Norfolk, VA, “Student-Centered Active Learning and Assessment Reform in Lower-Division STEM Courses,” **2014**
10. FAMU, Graduate School Forum, “Proposal Writing 101” **2014**

11. FAMU Division of Research, Annual Retreat, “*Reflections of a  $\pi$* ” **2014**
12. Auburn University, Department of Physics, Auburn, AL, “*Laser Induced Breakdown Spectroscopy*” **2013**
13. FAMU Faculty Development Seminar, “*I Got This iPad, Now What?*” **2012**
14. FAMU Faculty Planning Mini-Conference, “*Active Learning and SCALE-UP*” **2012**
15. NC State University Department of Physics, Raleigh, NC, “*Laser Induced Breakdown Spectroscopy*” **2012**
16. FAMU Faculty Planning Conference, “*How to Give an Effective Presentation*” **2011**
17. Economic Development Council of Tallahassee, Tallahassee FL, “*Laser Remote Sensing*” **2011**
18. Duke University Department of Physics, Durham, NC, “*Dual Pulse Filament and Nanosecond Produced Laser Induced Breakdown Spectroscopy*” **2009**
19. Army LIBS Workshop, Fairfax VA, “*FAMU LIBS Effort*” **2009**
20. Edgewood Biological and Chemical Command, Baltimore, MD, “*CO<sub>2</sub> Enhanced Laser Induced Breakdown Spectroscopy*” **2008**
21. Grambling University, Department of Physics, Grambling, LA, “*Laser Induced Breakdown Spectroscopy*” **2008**
22. African Laser Conference, Cairo Egypt “*Dual Pulse Filament and Nanosecond Produced Laser Induced Breakdown Spectroscopy*” **2008**
23. Florida State University Department of Physics, Tallahassee, FL, “*Dual Pulse Filament and Nanosecond Produced Laser Induced Breakdown Spectroscopy*” **2006**
24. NC State University Department of Physics, Raleigh, NC, “*Dual Pulse Laser Induced Breakdown Spectroscopy*” **2006**
25. 2006 Southeast Ultrafast Conference, Tallahassee, FL, “*Femtosecond and Nanosecond Laser Induced Breakdown Spectroscopy*” **2006**
26. Leon County Innovation Park Board, Tallahassee, FL, “*Homeland Security*” **2005**
27. Emerging Leaders Conference, Roanoke VA, *Panelist/Senior Scholar* **2004**
28. Expanding Opportunities in Atmospheric and Oceanic Sciences Conference, Tallahassee, FL, “*The Florida A&M Laser Remote Sensing Laboratory*” **2003**
29. National Society of Black Physicist Meeting, Atlanta, GA, “*Getting Past the Ph.D. Qualifying Exam*” *Panelist* **2003**
30. National Society of Black Physicists Annual Meeting, Boston MA, “*The Laser Remote Sensing Laboratory at FAMU*” **2003**
31. National Society of Black Physicists Annual Meeting, Washington DC, “*Status of Free Electron Lasers*” **2001**
32. University of Hawaii, Honolulu HI, “*Actinic Detection of EUVL Mask Blank Defects Using Synchrotron Radiation from the ALS,*” **1999**

## CONTRIBUTED PRESENTATIONS

1. Allyson Watson, Jennifer Collins, Lewis Johnson, “*All Hands on Deck 2.0: Improving First-Year Student Success*” 44th Annual Conference on the First Year Experience, **2025**
2. Jennifer Collins, Carlotta Mitchell, Lewis Johnson, “*All Hands on Deck: An Intrusive Approach to Improving Retention*” 43rd Annual Conference on the First Year Experience, **2024**
3. Jennifer Collins, Lewis Johnson, Maurice Edington, “*Improving first-year retention and progression at a public HBCU,*” 42nd Annual Conference on the First Year Experience, **2023**
4. Desmond Stephens, Maurice D. Edington, Lewis Johnson, Carl Moore Jr., Serena Roberts, and Codjo Akpovo, “*Preparing STEM Scholars for Success (PS3) Program at Florida A&M University*” 2021 Live National Symposium on Student Retention (NSSR) hosted by the Consortium for Student Retention Data Exchange at The University of Oklahoma, **2021**
5. Maurice D. Edington, Lewis Johnson, Desmond Stephens, Carl Moore Jr., and Codjo Akpovo, “*HBCU-UP Implementation Project at Florida A&M University: Science Community of Active Learners to enhance Achievement and Retention (SCALAR II),*” 2020 HBCU-UP/CREST PI/PD Meeting, Washington, D.C, (Oral Presentation) 2020.
6. Maurice Edington, William Hudson, Jr., Lewis Johnson, Teri Little-Berry, “*Developing a Student Success Framework to Improve Performance Based Funding Metrics at a Public HBCU,*” National Association of Student Affairs Professionals (Oral Presentation) **2020**
7. Maurice Edington, Lewis Johnson, Charmane Caldwell, Sonya Stephens, Pierre Ngnepieba, Ivey Williams, Codjo Akpovo, “*An Analysis of a Math Assessment and Learning System on the Academic Performance of Students at a Large Historically Black University,*” National Symposium on Student Retention (Oral Presentation) **2019**
8. Maurice Edington, Lewis Johnson, Desmond Stephens, Serence Roberts, “*Faculty Development for Increased STEM Student Success,*” National Symposium on Student Retention (poster Presentation) **2018**
9. International Chemical Congress of the Pacific Basin Societies 2015 (Pacifichem), Honolulu HI, Charlemagne Akpovo, Jorge Martinez, Alan Ford, Staci Brown, Lewis Johnson, “*Recent LIBS-enhancement techniques applied toward isotopic-composition analysis*” (oral presentation) **2015**
10. Council of 1890 Universities – 2015 HBCU Student Success Summit, Atlanta, GA, Maurice Edington, Lewis Johnson, Desmond Stephens, “*A Comprehensive Approach for Enhancing STEM Education*” (oral presentation) **2015**

11. SciX 2015 (The Great Scientific Exchange), Providence, RI, Alan Ford, Charlemagne Akpovo, Jorge Martinez, Staci Brown, Lewis Johnson, “*Detection of Isotopes in a Matrix with LIBS*” (oral presentation) **2015**
12. 2014 International LIBS Conference, Beijing, China, Staci Brown, Alan Ford, Charlemagne A. Akpovo, Jerry Clark, and Lewis Johnson “*CO<sub>2</sub> TEA Laso*”
13. Council of 1890 Universities – 2014 HBCU Student Success Summit, Atlanta GA, Maurice Edington, Lewis Johnson, Desmond Stephens, “*THE ACTIVE LEARNING MOVEMENT: Lessons Learned From Innovating Undergraduate STEM Programs at Florida A&M University*” (oral presentation) **2014**
14. Thurgood Marshall College Fund 15th Annual Member-Universities Professional Institute, Atlanta, GA, Maurice Edington, Lewis Johnson, Desmond Stephens, Errol Wilson, Donald Palm, “*Student-Centered Active Learning and Assessment Reform in Lower-Division STEM Courses*” (oral presentation) **2014**
15. 2014 March Meeting of the American Physics Society (APS), Denver, CO, Staci Brown, Charlemagne C. Akpovo, Alan Ford and Lewis Johnson, “*CO<sub>2</sub> TEA Laser-Enhanced Laser Ablation Molecular Isotopic Spectrometry*” (oral presentation) **2014**
16. 2014 March Meeting of the American Physics Society (APS), Denver, CO, Staci Brown, Charlemagne C. Akpovo, Jorge Martinez Jr., Alan Ford, and Lewis Johnson, “*Matrix Effects on Boron Containing Materials due to Laser Ablation Molecular Isotopic Spectrometry*” (poster presentation) **2014**
17. 2014 March Meeting of the American Physics Society (APS), Denver, CO, Jorge Martinez Jr., Charlemagne A. Akpovo, Staci Brown, Cleon Barnett, Dawn Lewis, Lewis Johnson, “*Analysis of New and Aged Energetic Residues Using CO<sub>2</sub> Enhanced Laser Induced Breakdown Spectroscopy*” (oral presentation) **2014**
18. Pittcon 2014, Chicago, Il, Staci Brown, Charlemagne C. Akpovo, Jorge Martinez Jr., Alan Ford, and Lewis Johnson, “*Matrix Effects on Boron Containing Materials Due to Laser Ablation Molecular Isotopic Spectrometry*” (poster presentation) **2014**
19. Pittcon 2014, Chicago, Il, Staci Brown, Charlemagne C. Akpovo, Alan Ford and Lewis Johnson, “*CO<sub>2</sub> TEA Laser-Enhanced Laser Ablation Molecular Isotopic Spectrometry*” (poster presentation) **2014**
20. Fourth North American Symposium on LIBS, Milwaukee WI, Staci Brown, Charlemagne A. Akpovo, Jorge Martinez Jr., Lewis Johnson, “*Study of Plasma Dynamics for Dicarboxylic Acids Induced by Nd:YAG-CO<sub>2</sub> Enhanced Dual Laser Pulses*” (poster presentation) **2013**
21. 2012 Southeastern Section of the APS (SESAPS 2012), Tallahassee, FL: Jorge A. Martinez, Charlemagne A. Akpovo, Staci Brown, and Lewis Johnson, “*CO<sub>2</sub> Laser Enhanced Lifetime of Femtosecond and Nanosecond Produced Air Plasmas*” (oral presentation) **2012**
22. 2012 Southeastern Section of the APS (SESAPS 2012), Tallahassee, Florida: “*Time-Resolved Analysis of the C, C<sub>2</sub> Swan and (CN) Violet Systems from Dicarboxylic Acids from Laser Induced Breakdown Spectroscopy*” (oral presentation) **2012**

23. Third North American Symposium on LIBS, Clearwater, FL, Charlemagne A. Akpovo, Jorge Martinez Jr., Cleon Barnett, Lewis Johnson, “*Femtosecond Filament Laser-Induced Breakdown Spectroscopy Of a Double Layered Al<sub>2</sub>O<sub>3</sub>/Fe Thin Films*” (poster presentation) **2011**
24. Third North American Symposium on LIBS, Clearwater, FL, J. Branch, Jr., C. Akpovo, J. Martinez, D.E. Lewis, E. Johnson, L. Johnson, “*Spatial Mapping in Two Gulf Coast Estuaries of Oysters Using LIBS*” (poster presentation) **2011**
25. Third North American Symposium on LIBS, Clearwater, FL, Jorge A. Martinez, Charlemagne A. Akpovo, Nathan Bullock, Lewis Johnson, Susan Davis Allen, “*Time-Resolved Detection of Recombination and Native Molecular Emissions Using Femtosecond Laser-Induced Breakdown Spectroscopy from Organic Compounds*” (poster presentation) **2011**
26. Third North American Symposium on LIBS, Clearwater, FL, C.A. Akpovo, D.E. Lewis, J. Martinez, J. Caldwell, L. Johnson, M.D. Edington, “*Application of Femtosecond Laser-Induced Breakdown Spectroscopy to the Analysis of Metals in Jamaican Bauxite Soils*” (poster presentation) **2011**
27. Third North American Symposium on LIBS, Clearwater, FL, Jorge A. Martinez, Charlemagne A. Akpovo, Cleon Barnett, Dawn Lewis, Alex Shroeder, Lewis Johnson, “*Energetic Material Sample Detection Using Multiple Laser-Induced Breakdown Excitation Modalities and CO<sub>2</sub> Laser Enhancement*” (poster presentation) **2011**
28. DAMOP 2011, Atlanta, GA, Jorge A. Martinez, Charlemagne A. Akpovo, Nathan Bullock, Susan Davis Allen, Lewis Johnson, “*Time-Resolved Detection of Recombination and Native Molecular Emissions Using Femtosecond Laser Induced Breakdown Spectroscopy from Organic Compounds*” (poster presentation) **2011**
29. International Chemical Congress of the Pacific (Pacifichem), Honolulu, HI, Jorge A. Martinez, Charlemagne A. Akpovo, Cleon Barnett, Dawn Lewis, Alex Shroeder, and Lewis Johnson, “*Energetic Material Sample Detection Using Multiple Laser-Induced Breakdown Excitation Modalities and CO<sub>2</sub> Laser Enhancement*” (poster presentation) **2010**
30. International Chemical Congress of the Pacific (Pacifichem), Honolulu HI, Charlemagne A. Akpovo, Jorge Martinez Jr., Cleon Barnett, Lewis Johnson, “*Femtosecond Filament Laser-Induced Breakdown Spectroscopy Of a Double Layered Al<sub>2</sub>O<sub>3</sub>/Fe thin Films*” (poster presentation) **2010**
31. Second North American Symposium on LIBS, New Orleans, LA, Martin Richardson, Dennis Alexander, Matthieu Baudelet, Paul Dagdigian, Lewis Johnson, Samuel Mao, Michael Sigman, “*Femtosecond LIBS – Light at the End of the Channel The ARO MURI Program on Femtosecond LIBS*” (oral presentation) **2009**
32. Second North American Symposium on LIBS, New Orleans, LA, Charlemagne A. Akpovo, Jorge A. Martinez Jr., Jamie Gomez, Hanna Bereket, Lewis Johnson, “*Study of the Enhancement of LIBS Emissions for Various Excitation Modalities*” (poster presentation) **2009**

33. Second North American Symposium on LIBS, New Orleans, LA, John Branch Jr., Charles Jagoe, Elijah Johnson, and Lewis Johnson, *“Bioaccumulation Monitoring of Heavy Metals in Oyster Tissues Using LIBS”* (poster presentation) **2009**
34. 2008 International LIBS Conference, Berlin Germany, Martin Richardson, Dennis Alexander, Matthieu Baudalet, Paul Dagdigian, Lewis Johnson, Samuel Mao, Michael Sigman, *“Femtosecond LIBS MURI”* (oral presentation ) **2008**
35. 2008 International LIBS Conference, Berlin, Germany, Alan Ford, Susan D. Allen, Lewis E. Johnson, Dennis Killinger, Paul Pellegrino, Ed Dottery, Robert Waterbury *“Phenomenology of LIBS Emission Enhancement Using a Simultaneous CO<sub>2</sub> Laser Pulse”* (oral presentation) **2008**
36. 2008 International LIBS Conference, Berlin, Germany, C. Akpovo, C. Barnett, L. Johnson, *“Study of LIBS Plasma Emission Enhancement and Suppression in Various Excitation Modalities”* (oral presentation ) **2008**
37. Sixtieth Southeastern ACS Regional Meeting, Nashville, TN, Vinay Jain, Tia Mitchell, Charlemagne Akpovo, Hanna Bereket Mochona, Maurice Edington, Lewis Johnson *“Determination of Mercury Levels in Fish using Single and Dual Pulse Laser-Induced Breakdown Spectroscopy”* (poster presentation) **2008**
38. 235th ACS National Meeting, Nashville, TN, Tia Mitchell, Maurice Edington, Charlemagne Akpovo, Lewis Johnson, *“Gas Suppression of Heavy Metals Using LIBS”* (poster presentation) **2008**
39. APS Division of Plasma Physics, Dallas, TX, Cleon Barnett, Hanna Bereket, Lewis Johnson, *“Temporal Evolution of Dual Pulse Filament and Nanosecond Produced Plasma”* (oral presentation) **2008**
40. North American Symposium on LIBS, New Orleans, LA, C. Akpovo, C. Barnett, J. Gomez, S. Gebreegziabher, H. Mochona, J. Martinez Jr., L. E. Johnson, *“LIBS Signal Optimization Using a Nanosecond System”* (oral presentation) **2007**
41. 2007 North American Symposium on LIBS, New Orleans, LA, C. Akpovo, C. Barnett, J. Gomez, S. Gebreegziabher, H. Mochona, J. Martinez Jr., L. E. Johnson, *“Self-Channeled Filament LIBS”* (poster presentation) **2007**
42. 2007 North American Symposium on LIBS, New Orleans, LA, Hanna B. Mochona, Jamie Gomez, Charlemagne Akpovo, Alexis Brooks-Walter, Lewis E. Johnson, *“Spectral Fingerprints of Bacteria Samples Using Single-pulse Laser Induced Breakdown Spectroscopy”* (poster presentation) **2007**
43. 2007 North American Symposium on LIBS, New Orleans, LA, Vinay Jain, Tia Mitchell, Charlemagne Akpovo, Hanna Bereket Mochona, Maurice Edington, and Lewis Johnson, *“Determination of Mercury Levels in Fish Using Single and Dual Pulse LIBS”* (poster presentation) **2007**
44. International LIBS Conference, Montreal CA, C. Barnett, L. Johnson, C. Akpovo, *“Temporal Evolution of Dual Pulse Filament and Nanosecond Produced Plasma”* (poster presentation) **2006**

45. The Pittsburgh Conference on Analytical Chemistry and Applied Spectroscopy (PITTCON), Orlando, FL, C. Barnett, L. Johnson, “*Dual Pulse Laser-Induced Plasma Spectroscopy Spectral Enhancement*” (oral presentation) **2005**
46. International Chemical Congress of the Pacific (Pacifichem) 2005, Honolulu, HI, C. Barnett, L. Johnson, “*Dual Pulse Laser-Induced Breakdown Spectroscopy*” (oral presentation) **2005**
47. Pacifichem 2005, Honolulu, HI, AI. Khalil, C.G. Brown, C. M. Barnett, L. E. Johnson & M. Richardson, “*LIBS Characterization of Thin Films on Solid Surfaces*” (oral presentation) **2005**
48. OSA Meeting Laser Application in Chemical Analysis, Annapolis, MD, John W. Branch Jr., Larry Robinson, Elijah Johnson, and Lewis Johnson ”*Determination of Trace Element Concentrations in Vegetation by Laser-Induced Breakdown Spectroscopy (LIBS)*” (poster presentation) **2004**
49. Third International Conference on Laser Induced Breakdown Spectroscopy and Applications, Malaga, Spain, C. M. Barnett, C. G. Brown, H. Bereket, M. C. Richardson, L. E. Johnson “*Study of the Temporal Evolution of Dual-Pulse Laser-Induced Breakdown Spectroscopy (LIBS) Emissions*” (poster presentation) **2004**
50. APS-Plasma Physics Division, Savannah, GA, C. Barnett, C. Brown, L. Johnson, “*Study of The Temporal Evolution of Dual-Pulse Laser Induced Breakdown Spectroscopy (LIBS) Emissions,*” (oral presentation) **2004**
51. Expanding Opportunities in Atmospheric and Oceanic Sciences Conference, Tallahassee, FL, Lewis Johnson, Cleon Barnett, John Branch, Christopher Brown, “*The Florida A&M Laser Remote Sensing Laboratory*” (poster presentation) **2003**
52. SPIE Photonics East - Optical Technologies for Industrial and Environmental Sensing, Providence, RI, Lewis Johnson, Cleon Barnett, Christopher Brown, Deveron Crawford, James Tumlinson, “*Stand-off Detection of Plant-Produced Volatile Organic Compounds using Short Range Raman LIDAR*” (oral presentation) **2003**

## POPULAR PRESS

1. Tallahassee Democrat, “*FAMU receives \$5.4 million to provide free, high-speed internet to southside Tallahassee,*” <https://www.tallahassee.com/story/news/local/famu-news/2023/03/08/famu-grant-to-provide-free-high-speed-internet-to-south-tallahassee/69957288007>, Tarah Jean (**March 8, 2023**)
2. Tallahassee Democrat, “*Fifth woman earns Ph.D. in physics at FAMU and ‘seat at the table,’*” <https://www.tallahassee.com/story/news/2018/12/14/candace-harris-earns-phd-physics-florida-m-university-and-seat-table/2288482002/>, Byron Dobson (**December 14, 2018**)
3. Tallahassee Democrat, “*Florida A&M awarded \$2 million NSF grant to advance STEM studies,*” <https://www.tallahassee.com/story/news/2017/06/14/florida-a-m-awarded-2-million-nsf-grant-advance-stem-studies/397365001/>, Byron Dobson (**June 14, 2017**)

4. Tallahassee Democrat, “*Record Year for FAMU,*” Melanie Yeager (**December 28, 2004**)
5. Tallahassee Democrat, “*Research Money Rolling In,*” Melanie Yeager (**July 15, 2004**)
6. Black Issues in Higher Education, “*Securing the Homeland,*” Ronald Roach (**September 11, 2003**)

## **PROFESSIONAL AND UNIVERSITY SERVICE**

1. AIP (American Institute of Physics) Advisory Panel for Visioning Engagement with Undergraduate Students (VENUS), Member.
2. FAMU Dean of School of Allied Health Sciences, Search Committee Charmain, **2022-23**
3. FAMU Director of Title III, Search Committee Chairman, **2019**
4. FAMU Dean of College of Science and Technology Search Committee, Member **2017-2018**
5. FAMU Executive Director of Export Control, Search Committee Chair **2014-2015**
6. FAMU Blackboard Analytics Technical Committee, Member **2015 - Present**
7. WebAssign, Faculty Advisory Board, Member 2014 - **Present**
8. FAMU Dean of Graduate School Search Committee, Member **2013 - 2014**
9. APS Forum on Education Program Committee, Member **2013**
10. FAMU First Year Experience (FYE) Committee, Member **2012**
11. FAMU Dean of College of Sciences Search Committee, Member **2012-2013**
12. FAMU United Faculty of Florida (UFF) Chapter, Senator **2012 - 2013**
13. FAMU Faculty Senate, Senator (FAMU) **2011 – 2013**
14. FAMU Faculty Athletic Committee, Member **2009 – Present**
15. FAMU Dean of Arts and Sciences Search Committee, Member **2008**
16. National Science Foundation (NSF) EUV Engineering Research Center Review Board, Member **2008 – 2011**
17. NC State University Physics Alumni Advisory Board, Member **2007 – 2014**
18. Army Research Lab (ARL) and NSF, Reviewer **2007 – Present**
19. Consultant and Reviewer for the textbook *Physics: Principles and Problems* by Glencoe Science **2004**
20. FAMU Faculty Research Advisory Committee **2003 – Present**
21. FAMU Associate VP of Research Search Committee, Member **2004**
22. FAMU Homeland Security Task-Force Committee, Member **2004 – 2006**

23. FAMU Physics Department representative for ABET (Engineering) accreditation **2003**
24. Lawrence Berkeley National Laboratory Advanced Light Source, Berkeley, CA User's Executive Committee **2000-2001**
25. President's Advisory Committee for the National Society of Black Physicists **2001-2002**

## **HONORS AND AWARDS**

1. Director's Award for "*Preparing STEM Scholars for Success (PS3) Program at Florida A&M University*" 2021 Live National Symposium on Student Retention (NSSR) hosted by the Consortium for Student Retention Data Exchange at The University of Oklahoma, **2021**
2. Teacher of the Year Award (Florida A&M University), **2012**
3. Research Excellence Award, (Florida A&M University), **2012**
4. Special Recognition Award for outstanding contribution to the University in the area of Grantsmanship (Florida A&M University) **2002**
5. Outstanding Performance Award (Lawrence Berkeley National Laboratory), **1999**
6. AT&T Bell Laboratories Cooperative Research Fellowship For Graduate Study **1990-1997**
7. NSF ERC for Advanced Electronic Materials Processing Undergraduate Scholar **1989 – 1990**
8. Sigma Pi Sigma Physics Honor Society **1990**

## **PROFESSIONAL MEMBERSHIPS**

1. American Physical Society (APS)
2. National Society of Black Physicists (NSBP)

## Fiscal Impact Statement

**TO:** The Board of Trustees

**FROM:** Managing Director of Finance *David A. Franklin*

**DATE:** April 21, 2026

**SUBJECT:** Executive Appointment of Dr. Lewis E. Johnson as the Chief Research Officer and Senior Vice President for Research

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### Conclusion

It is projected that there are sufficient unrestricted funds in the University of the District of Columbia's FY2026 budget—and beyond—to cover the cost of the salary and benefits associated with the appointment of the Chief Research Officer and Senior Vice President for Research. The role will report to the President.

### Background

The proposed resolution is to appoint Dr. Lewis E. Johnson as the Chief Research Officer and Senior Vice President for Research. Dr. Johnson's appointment will be effective August 10, 2026. This appointment is an "at will" appointment, serving at the pleasure of the President and terminable at any time without appeal or right to compensation.

### Financial Impact

The salary for this appointment will be Grade 1, Step 4 on the non-union administrative salary schedule, paying \$234,270 per year, with related benefits of \$60,910. The employee will be fully eligible for cost-of-living increases in accordance with applicable University policy.

He will also be eligible for and may participate in the University of the District of Columbia health insurance, life insurance, retirement, and disability programs in the same manner and under the same conditions as regular administrative employees hired on or about the date of their initial appointment. The University will contribute the equivalent of 7% of the employee's salary to their Teacher Insurance Annuity Association (TIAA) retirement. The employee leave accrual rates are as follows: annual leave accrual of six and a half (6.5) hours per pay period and sick leave of three and a half (3.5) hours per pay period.

There are no anticipated risks at this time.