September 2022 Academic, Research and Student Success Committee

Schedule	Wednesday, September 7, 2022 8:30 AM — 9:30 AM CDT
Venue	Maxine A. Smith University Center - Ballroom (320)
Organizer	Sparkle Burns

Agenda

1. Call to Order and Opening Remarks

Presented by David Kemme

2. Roll Call and Declaration of Quorum

Presented by Melanie Murry

3. Approval of Meeting Minutes for June 1 2022

For Approval

Presented by David Kemme

University of Memphis Board of Trustees
Academic, Research and Student Success Committee Meeting
June 1, 2022
Meeting Minutes

Committee Membership:

Douglas Edwards, Committee Vice Chair
Marvin Ellison
David Kemme, Committee Chair
R. Brad Martin
David North
Carol Roberts
Provost, Tom Nenon, Ex-Officio, Non-voting Member
Vice President for Research, Jasbir Dhaliwal, Ex-Officio, Non-voting Member
Vice President for Student Academic Success, Karen Weddle-West, Ex-Officio, Non-voting Member

Agenda Item 1: Call to Order and Opening Remarks

Chairman Edwards welcomed the committee and commented that this is morning will be a meeting of transition. It will be the last meeting for student Trustee Celeste Riley and the first meeting for our new president, Dr. Bill Hardgrave. Chairman Edwards also commented that we had a number of distinguished guests today, including ROTC program leaders as well as the dean of our Lambuth campus, Dr. Niles Reddick.

Chairman Edwards called the meeting to order and asked Secretary Murry to call roll.

Agenda Item 2: Roll Call and Declaration of Quorum

Secretary Melanie Murry

Present:
Trustee Roberts
Trustee North
Trustee Kemme
Trustee Edwards
Trustee Riley

Board Secretary Murry announced the presence of a quorum.

Additional trustees in attendance but not part of this committee:
Cato Johnson

Secretary Murry noted that since Trustee Martin has not joined (remotely) the committee does not have to do a roll call vote. If he does join remotely, a roll call vote is required. Chairman Edwards recognized Chairman Kemme.

Agenda Item 3: Approval of Meeting Minutes from March 1, 2022 (Approval)

Chair Kemme called the committee meeting to order. Chair Kemme called for the motion to approve the meeting minutes. The motion was made by Trustee Roberts, and properly seconded.

Note: Trustee Martin joined remotely and indicated that he could hear Secretary Murry and he was alone.

Trustee Springfield joined as the committee as well.

A roll call vote was taken and unanimously approved.

Agenda Item 4: Recommendations for Tenure and Promotion (Approval)

Chair Kemme recognizes Provost Tom Nenon to discuss annual Tenure and/or Promotion a group of faculty.

Provost Nenon explained that the process for tenure and/or promotion takes place annually. It involves a series of reviews by faculty and administrators, and, at the end of this process, the president recommends the list of distinguished faculty presented. Provost Nenon had the pleasure of reading their accomplishments and the assessments of those accomplishments by external reviewers not only from leading universities across the country but from the world. Based on that process, we are recommending that list of faculty for tenure and/or promotion this year.

Chair Kemme called for a motion to approve the tenure and promotion list. Trustee Roberts moved and the motion was properly seconded. A roll call vote was taken and unanimously approved.

Agenda Item 5: Proposals for Tenure Upon Appointment (Approval)

Chair Kemme recognized Provost Tom Nenon to discuss tenure upon appointment for the following faculty members:

Provost Nenon remarked that all three of these individuals are distinguished scholars and researchers who will assume leadership roles at The University of Memphis.

- Ashish Joshi, Dean, School of Public Health
- Linda Haddad, Dean, Loewenberg College of Nursing
- Leanne Lefler, Loewenberg College of Nursing

Chair Kemme called for a motion to approve tenure upon appointment. Trustee North moved and the motion was properly seconded. Secretary Murry called for roll call. Motion carried.

Agenda Item 6: Proposed Changes to Faculty Handbook: Tenure and Promotion and Academic Freedom (Approval)

Chair Kemme recognized Provost Tom Nenon and Dr. Jeff Marchetta, Professor in Mechanical Engineering.

Provost Nenon presented the main points of the handbook revision that require the Board of Trustees approval – specifically polices regarding academic freedom, tenure and promotion, and faculty code of conduct. He noted that those items are highlighted in yellow in the copy of the handbook that the trustees received.

Chair Kemme called for a motion to approve tenure upon appointment. Trustee Edwards moved and the motion was properly seconded. A roll call vote was taken and unanimously approved.

Agenda Item 7: Research and Innovation update (Presentation)

Chair Kemme recognized Dr. Jasbir Dhaliwal, Executive Vice President for Research & Innovation.

Dr. Dhaliwal gave an update of the Division of Research & Innovation Awards from January-April 2022

Agenda Item 8: Peer Power Overview (Presentation)

Chair Kemme recognized Provost Tom Nenon. Provost Nenon introduced Peer Power executive leadership:

- Tabitha Glenn, Chief Executive Officer
- Malcom Rawls, Chief Operations Officer
- Cortney Richardson, Chief Marketing and Community Engagement Officer.

In partnership with the University of Memphis and Memphis-Shelby County Schools, Peer Power trains high-performing college students, called Success Coaches, to tutor high school students in the classroom and high-performing high school students to tutor and mentor students in grades K-8 during afterschool programs. As of 2022, Peer Power operates programs in 53 Memphis-Shelby County Schools. Peer Power employs more than 100 college aged tutors who serve approximately 10,000 students in 10 schools and 200 high school students who provide after school tutoring in elementary and middle schools.

Agenda Item 9: ROTC (Reserve Officers' Training Corps) – Return on Investment (Presentation)

Chair Kemme recognized Provost Tom Nenon. Provost Nenon introduced the following unit heads:

- Captain Dave Whitehead, Navy USMC ROTC
- Lieutenant Colonel Curt Schultheis, Army ROTC
- Lieutenant Colonel Harley Thompson, Air Force ROTC

The unit heads discussed the tangible and intangible return on investments that ROTC brings to the university including the diversity of their students, extensive campus and community involvement, the fact that UofM is the only school in Tennessee to offer ROTC for all branches of service, world-wide summer internships and training opportunities, and 100% guaranteed employment of all student that graduate and complete the ROTC program.

Agenda Item 10: Additional Business

Chair Kemme indicated that an annual report on academic programs would be beneficial to the board.

Agenda Item 11: Adjournment

Chair Kemme called for a motion to adjourn. Trustee Edwards moved and the motion was properly seconded. Committee adjourned.

4. Revised Institutional Mission Statement

For Approval

Presented by Abby Parrill

The University of Memphis Board of Trustees

Recommendation

For Approval

Date: September 7, 2022

Committee: Academic, Research and Student Success Committee

Presentation: Revised Institutional Mission Profile

Presented by: Dr. Abby Parrill, Interim Provost

Background:

Tennessee state law requires the Board of Trustees to approve and submit an annual institutional mission profile to THEC that contains the following information:

- Characterize distinctiveness in degree offerings by level, focus, and student characteristics, including, but not limited to, nontraditional students and part-time students; and

- Address institutional accountability for the quality of instruction, student learning, and, when applicable, research and public service to benefit Tennessee citizens.

Although an institutional mission profile was approved at the March 2022 BOT meeting, that statement contained a numerical error. We have taken the opportunity to reduce the number of quantitative details that change frequently in favor of additional qualitative information that is likely to describe our institutional mission profile for a longer period of time.

Committee Recommendation:

The Academic, Research and Student Success Committee recommends approval of the Institutional Mission statement.

University of Memphis
Institutional Mission Profile

The University of Memphis (UofM) is a comprehensive, internationally recognized, urban public research university preparing students for success in a diverse, innovative, global environment. Student success, service, innovation, diversity and inclusion, collaboration and accountability are core values at the University of Memphis.

The University is classified as “Carnegie R1” or "Doctoral: Very High Research Activity and Community Engaged" per the Carnegie Classification for Institutions of Higher Learning. With a focus on research and service benefitting communities locally and across the globe, we are home to nationally designated centers of excellence in cybersecurity research and education, transportation workforce development, mobile health data and five Tennessee centers of research excellence.

The UofM is dedicated to providing the highest quality of education to a diverse student body that includes members who are of all ages, racial and ethnic heritages, and economic backgrounds (including a significant proportion of students who are Pell-eligible), as well as veterans and first-generation college students. Academic degree programs at the undergraduate, masters, doctoral and professional levels as well as certificate programs are offered on the main campus in Memphis, the Lambuth campus in Jackson, and through UofM Global. The UofM awards approximately **4,700** degrees and certificates annually. Talented and innovative faculty have developed both undergraduate and graduate programs that are ranked in the top 25 nationally. Our metropolitan setting has enabled us to build a nationally recognized internship program that facilitates the placement of undergraduate and graduate students throughout the community in nonprofit and for-profit organizations that specialize in healthcare, government, transportation and logistics, music and entertainment, medical devices, banking, and the arts.

5. Tenure and Academic Freedom Policy

For Approval

Presented by Abby Parrill

The University of Memphis Board of Trustees

Recommendation

For Approval

Date: September 7, 2022

Committee: Academic, Research and Student Success Committee

Presentation: Policies Governing Tenure and Academic Freedom (approval)

Presented by: Dr. Abby Parrill, Interim Provost

Background:
The Board of Trustees governs/oversees tenure and academic freedom. The 2022 Faculty Handbook sections on tenure and academic freedom were reviewed and approved by the Board of Trustees at the June 2022 meeting. The approved sections of the 2022 Faculty Handbook on tenure and academic freedom have been incorporated into the attached the Board of Trustees Policy on Academic Freedom and Tenure.

Committee Recommendation:
The Academic, Research and Student Success Committee recommends approval of this policy by the Board of Trustees.

Purpose

The Board of Trustees is authorized by Tennessee Code Annotated § 49-8-301 to promulgate a tenure policy or policies which shall ensure academic freedom and provide sufficient professional security to attract the best quality faculty available for the institution. Pursuant to this authority, the board defines the nature of tenure and institutions and the rights and responsibilities of faculty in this policy. In the event of any conflict or inconsistency between this board policy and the Faculty Handbook, this board policy will apply.

1. ACADEMIC FREEDOM

Academic freedom is essential to fulfill the ultimate objectives of an educational university/college – the free search for and exposition of truth – and applies to participation in shared governance as well as teaching and research. Freedom in research is fundamental to the advancement of truth, and academic freedom in teaching is fundamental for the protection of the rights of the faculty member in teaching and of the student to freedom in learning. Freedom in shared governance is fundamental to the development and maintenance of effective academic policies, national and regional accreditation, and shared responsibility for the redelivery of educational products and services to students.

Implicit in the principle of academic freedom are the corollary responsibilities of the faculty who enjoy that freedom. Incompetence, indolence, intellectual dishonesty, failure to carry out assigned duties, serious moral dereliction, arbitrary and capricious disregard of standards of professional conduct as well as other grounds as set forth in applicable law or policy may constitute adequate cause for dismissal or other disciplinary sanctions against faculty members.

The right to academic freedom imposes upon the faculty an equal obligation to take appropriate professional action against faculty members who are unable or unwilling to discharge their professional responsibilities. The faculty member has an obligation to participate in tenure and promotion review of colleagues as specified in university policy. Thus, academic freedom and academic responsibility are interdependent, and academic tenure is adopted as a means to protect the former while promoting the latter. While academic tenure is essential for the protection of academic freedom, all faculty members, tenured or non-tenured, have an equal right to academic freedom and bear the same academic responsibilities implicit in that freedom.

Board policy recognizes the principle of academic freedom and accordingly states:

- Faculty members are entitled to freedom in the classroom in discussing materials relevant to the course.
- Faculty members are entitled to freedom in research and in the publication of the results, subject to adequate performance of their other academic duties; but all research, including research for pecuniary gain, must be performed in an ethical manner and in compliance with all applicable policies and standards in the field and must be based upon an understanding with the authorities of the university.
- Faculty members are citizens, members of a learned profession, and officers of an educational institution. Academic freedom includes the freedom to speak or write without institutional discipline or restraint on matters of public concern, as well as on matters related to professional

duties, and on matters involving the academic and administrative functioning of the educational institution. When faculty members speak or write as citizens, they should be free from institutional censorship or discipline, but their special position in the community imposes special obligations. As persons of learning and as educational officers, they should remember that the public may judge the profession and the university by their utterances. Hence, faculty members should at all times strive to be accurate, should exercise appropriate restraint, should show respect for the opinions of others, and should make every effort to indicate that they do not speak for the university.

2. TENURE

Tenure

Tenure appointments are appointments of full-time faculty who have been awarded tenure by the Board of Trustees upon recommendation of the president. Tenure appointments include the assurance of continued employment during the academic year, subject to the conditions described in the Faculty Handbook. Faculty members who hold a tenured appointment in a department or other academic unit, and then are transferred to another department or academic unit retain their tenure status. A faculty member cannot be compelled to relinquish tenure as a condition of the transfer.

An internal or external search is required for the appointment of all tenure-track and tenured faculty positions, except for the specific circumstances described in the Waiver of Search policy. The university policy and procedures for recruitment, application, and selection of faculty can be found on the **university website**. There are two types of appointments for tenured and tenure-track faculty: full-time academic year(nine-month) appointments and full-time 12-month appointments, typically applicable to some faculty holding administrative appointments.

Minimum Qualifications for Tenure

- Documented evidence of ability in instruction, service, and research.
- Documented evidence of high-quality professional productivity which is leading to national recognition in the academic discipline.
- Professional comportment consistent with the Faculty Code of Conduct

3. POST-TENURE REVIEW

Post-tenure Review is an expanded and in-depth performance evaluation conducted by a committee of tenured peers and administered by the provost. Procedures for conducting a Post-tenure Review are set forth in the Faculty Handbook.

This policy recognizes that the work of a faculty member is not neatly separated into academic or calendar years. To ensure that performance is evaluated in the context of ongoing work, the period of performance subject to Post-tenure Review is the five most recent Annual Performance Review cycles.

Post-tenure Review will be initiated by the provost according to Annual Performance metrics defined in the Faculty Handbook. Post-tenure review will follow procedures defined in the Faculty Handbook.

4. PROBATIONARY PERIOD

A tenure-track faculty member must serve a probationary period prior to being considered for tenure. Except as otherwise stated in the Faculty Handbook, the probationary period will be six years.

Before beginning the sixth (or final) probationary year, a faculty member with the rank of assistant professor or higher must make application for tenure. Absent an approved exception, application and all supporting documentation for tenure should be submitted before the sixth or final probationary year in accordance with the tenure and promotion calendar maintained by the provost. Candidates for tenure must meet eligibility requirements for promotion to associate professor or have already attained that rank. A tenure-track assistant professor recommended for tenure must also be recommended for promotion.

Tenure applications receive one of two responses: tenure may be granted; or tenure may be denied. Re-application for tenure is not possible and the seventh year, or other final year following application for tenure, will be terminal if tenure is denied.

A. TENURE BY APPOINTMENT

No faculty member shall be granted tenure upon initial appointment except by positive action of the Board of Trustees upon the recommendation of the president. In exceptional cases, an outstanding distinguished senior faculty member, dean, provost, or president may be awarded tenure upon her or his initial appointment. In those cases, the candidate's application file may take the place of the traditional dossier which is described in the Faculty Handbook.

The Board of Trustees will grant tenure upon initial appointment only if the proposed appointee (1) holds tenure at another higher education institution and the Board determines that the president has documented that the proposed appointee cannot be successfully recruited to the university without being granted tenure upon initial appointment, and (2) will be appointed as an associate or full professor.

B. CREDIT FOR PRIOR SERVICE

Credit toward completion of the probationary period may be permitted for previous full-time service at other universities provided that the prior service is relevant to the needs and criteria of the university. All credit for prior service shall be approved by the provost upon the recommendations of the department chair and dean. Any credit for prior service that is approved must be confirmed in writing at the time of the initial appointment.

C. CREDIT FOR TRANSFER

If a faculty member serving a probationary period is transferred to another academic unit or department, time spent in the first appointment will count toward the probationary period unless a request from the faculty member to begin a new probationary period is approved in writing by the president.

5 CRITERIA FOR TENURE

Full-time, tenure-track faculty appointments at the academic rank of assistant professor, associate professor, or professor are eligible for tenure consideration. A faculty member appointed to an administrative position must attain or retain tenure in a particular unit, department, or approved center/institute. Faculty holding temporary appointments are not eligible for tenure.

Tenure is awarded after a thorough review, which culminates in the university acknowledging a reasonable presumption of the faculty member's professional excellence and the likelihood that this excellence will continue to contribute to the mission and anticipated needs of the academic unit in which tenure is granted.

Professional excellence is reflected in the faculty member's

- teaching (which includes advising and mentoring),
- research/scholarship (according to the terms of the candidate's appointment), and
- service or other creative work in the discipline,
- participation in professional organizations,
- willingness to contribute to the common life of the university, and
- effective work with colleagues and students, including the faculty member's ability to interact appropriately with colleagues and students.

It is the responsibility of departments and academic units to define professional excellence in terms of their respective disciplines. Criteria for tenure and/or promotion shall be established by each department. These criteria may be more restrictive than the criteria of the academic unit and the university, but they must be consistent with those criteria. Criteria for tenure and/or promotion shall be established by the academic unit. These criteria may be more restrictive than the criteria of the university, but they must be consistent with those criteria. Criteria for the tenure and/or promotion shall be established by the university. Academic unit criteria for tenure and/or promotion shall become effective upon approval by the provost. Departmental criteria for tenure and/or promotion shall become effective upon approval by the dean and the provost.

In addition to the criteria for tenure and/or promotion stated in university, academic unit, and department guidelines, administrative criteria such as enrollment patterns and trends, curricular changes, program development, financial consideration, and rank distribution, are considered in tenure and/or promotion decisions. Therefore, a decision to deny tenure or deny promotion does not necessarily mean that a faculty member's work or conduct has been unsatisfactory.

6 CONDITIONS PRECEDENT TO THE AWARD OF TENURE BY THE BOARD OF TRUSTEES

All candidates applying for tenure and/or promotion are required to submit a dossier unless an exception is granted as specified in the Faculty Handbook Tenure Upon Appointment.

The dossier should reflect the faculty member's cumulative performance in satisfying the requirements for the award of tenure regarding teaching, research / scholarship / creative activity, and service. The

dossier contents are described in the Faculty Handbook. The dossier will be reviewed as described in the Faculty Handbook. Appeals of a negative tenure recommendation are described in the Faculty Handbook.

REVIEW AND RECOMMENDATION BY THE PRESIDENT:

After receiving recommendations from the provost and the Faculty Appeals Committee (if there was an appeal), the president makes final recommendations to the Board of Trustees and notifies the candidate of this recommendation. In the case of a negative recommendation, the president will provide the candidate written reason(s) for the decision. The recommendation made by the president on tenure and/or promotion is not subject to an appeal.

ACTION BY THE BOARD OF TRUSTEES:

Only the Board of Trustees is authorized to grant tenure and/or promotion. The president will present a list of the positive recommendations for tenure and/or promotion for board approval. The board will notify the president of its decision and the president will provide the faculty member written notice of the board's decision. For positive action by the Board of Trustees to grant tenure and/or promotion, the president shall give the faculty member written notice of the effective date of tenure and/or promotion.

7 TERMINATION OF TENURE

Grounds for Termination

A. RELINQUISHMENT OR FORFEITURE OF TENURE:

A tenured faculty member relinquishes his or her tenure upon resignation or retirement from the university. A tenured faculty member forfeits tenure at the university if she or he takes an unauthorized leave of absence, fails to resume the duties of his or her position following an approved leave of absence, holds a tenured appointment at another institution, or is unable to perform assigned duties or carry out the responsibilities of a faculty member due a physical or mental condition, as established by an appropriate medical authority. Forfeiture results in automatic termination of employment. The provost shall give the faculty member written notice of the forfeiture of tenure and termination of employment. The faculty member may appeal this action as specified in the general appeals procedures described in the Faculty Handbook.

B. EXTRAORDINARY CIRCUMSTANCES:

Extraordinary circumstances warranting termination of tenure may involve financial exigency or program discontinuance.

1. In the case of financial exigency, tenured faculty may be terminated because of financial exigency at the university if the Board of Trustees declares such a condition. Personnel decisions (including those related to tenured faculty) resulting from a declaration of financial exigency at the university must comply with applicable university policy which can be found in this on the university website.

2. In the case of program discontinuance, tenured faculty may be terminated if:

a. A program, such as degree major, concentration, and/or other curricular component, is discontinued by formal action of the Board of Trustees.

b. Student enrollment in a program has decreased over a period of at least three years at a rate which is considerably higher than that of the institution as a whole and/or in comparison with similar institutions as determined by the president.

c. An approved center/institute with tenured faculty lines is dissolved by action of the president.

Procedures for termination due to extraordinary circumstances will follow procedures defined in the Faculty Handbook.

C. ADEQUATE CAUSE:

Adequate cause for terminating a tenured faculty member defined by Tennessee Code Annotated §49-8-302, means the following:

1. Incompetence or dishonesty in teaching or research

2. Willful failure to perform the duties and responsibilities for which the faculty member was employed; or refusal or continued failure to comply with the policies of the university, academic unit, or department; or to carry out specific assignments, when these policies or assignments are reasonable and nondiscriminatory

3. Conviction of a felony or a crime involving moral turpitude

4. Improper use of narcotics or intoxicants which substantially impairs fulfillment of departmental or institutional duties and responsibilities.

5. Capricious disregard of accepted standards of professional conduct.

6. Falsification of information on an employment application, curriculum vitae, or other information concerning qualifications for a position.

7. Failure to maintain the level of professional excellence and ability demonstrated by other members of the faculty in the department or division of the university.

Procedures for termination due to adequate cause will follow procedures defined in the Faculty Handbook.

6. Tenure Upon Appointment -Okenwa Okoli

For Approval

Presented by Abby Parrill

The University of Memphis Board of Trustees

Recommendation

For Approval

Date: September 7, 2022

Committee: Academic, Research and Student Success Committee

Presentation: Tenure Upon Appointment – Okenwa Okoli

Presented by: Dr. Abby Parrill, Interim Provost

Background:

Dr. Okenwa Okoli is coming to The University of Memphis January 1, 2023, as Dean of the Herff College of Engineering.

Dr. Okoli is currently a professor and former chair of the Industrial and Manufacturing Engineering Department at Florida A&M-Florida State University College of Engineering and the Associate Director of the High-Performance Materials Institute (HPMI) at Florida State.

He received a bachelor's degree in Mechanical Engineering from the University of Lagos in Nigeria and both a Master of Science in Manufacturing Systems Engineering and a PhD in Engineering from the University of Warwick in the United Kingdom.

He has won several awards, including the R&D 100 Award in 2004, the ACMA Best Processing Technical Paper in 2004 and the SAMPE Outstanding Paper Award in 2015.

He is also a recipient of Florida State's Dr. Martin Luther King Jr. Distinguished Service Award for his contribution to efforts to recruit and retain U.S. students in STEM graduate programs with a focus on bridging the achievement gap for underrepresented minorities.

Okoli's research efforts have garnered $36 million in external funding as both principal investigator and co-principal investigator.

He is also a chartered engineer and scientist of both the Engineering and Science Councils, respectively, which are two organizations in the UK that set professional standards for engineers and scientists. He has 10 U.S. patent applications, either awarded or pending.

Recommendation:
The Academic, Research, & Student Success Committee recommends that the Board approve and grant tenure upon appointment for Dr. Okenwa Okoli as professor in the Center for Earthquake Research and Information (CERI).

REQUEST FOR A REDUCTION OF TENURE TRACK PROBATION PERIOD

This is a request to recommend that Okenwa O.I. Okoli in the Department of Engineering
First Middle Last

be granted a 6 year(s) reduction in his/her tenure probation period. A copy of his/her vita must be attached.

Date: 6/14/2022 **Justification** (If necessary, use additional pages and attach to this form.)

We are requesting Tenure Upon Appointment as Professor in the Herff College of Engineering. Dr. Okoli has been hired as the new Dean of the Herff College of Engineering with a start date of January 1, 2023..

APPROVAL SIGNATURES:

Departmental Chairperson	Date	
Dean	Date	
Provost	06/14/2022 Date	Recommend approval
President	6/16/2022 Date	Approved

COMMENTS

Curriculum Vitae

Okenwa O. I. Okoli

January 8, 2022

General Information

University address: Industrial and Manufacturing Engineering
Florida A&M University – Florida State University College of Engineering
2525 Pottsdamer Street A-256
Florida State University
Tallahassee, Florida 32310
Phone: (850)410-6352; Fax: (850)410-6342

E-mail address: okoli@eng.famu.fsu.edu

Web site: www.eng.famu.fsu.edu/ime

Leadership Experience

2013–present **Chair, Industrial & Manufacturing Engineering, Florida A&M University – Florida State University.**

2012–2013 **Interim Chair, Industrial & Manufacturing Engineering, Florida A&M University – Florida State University.**

Established in 1986, our Industrial and Manufacturing Engineering (IME) department is the youngest of five in the Florida A&M University – Florida State University (FAMU-FSU) College of Engineering. The FAMU-FSU College of Engineering was established in 1982 as the only amalgamation between a Historically Black College and University (HBCU), and a Research I predominantly white institution (PWI). With obvious advantages, we have successfully educated students in the nurturing environment of one of the nation's most prominent HBCUs (FAMU), with the infrastructure and focus of a Research I university (FSU), recognized in Florida as one of the two preeminent research universities. The FAMU-FSU College of Engineering offers Bachelor of Science (B.S.) programs in chemical, civil, computer, electrical, industrial and mechanical engineering as well as M.S. and Ph.D. programs. It had 2,230 undergraduates, 139 MS, and 235 PhD students enrolled in fall 2020, with a full-time faculty strength of 91. The mission of the joint College of Engineering is to provide an innovative academic program of excellence at both the undergraduate and graduate levels, judged by the highest standards in the field and recognized by national peers; to attract and graduate a greater number of minorities and women in professional engineering, engineering teaching and research; and to attain national and international recognition of the College through the educational and research achievements and the professional service of its faculty and

students.

The IME department is structured to engage industry in practical research endeavors. We strongly lean on using core industrial engineering principles to address manufacturing issues. As such, whilst focusing on the optimization and modeling of processes and systems, we have a strong and unique presence in the research and manufacture of advanced engineered materials which led to the formation of the High-Performance Materials Institute (HPMI). Thus, our graduates have a strong advantage with their unique training background founded on the interdisciplinary nature of our program which gives greater opportunity for diverse learning and research. The IME department has a current tenure track faculty (TT) strength of thirteen, with the addition of two TT faculty that joined in August 2018, and one that joined in August 2019. Albeit our small faculty size, according to the ASEE we have consistently outperformed most ranked Industrial and Manufacturing Systems departments in the country with respect to research US$ expended per faculty. In FY2020 the IME department had $1.63M in research expenditures, down from $2.4M the previous year (attributable to the pandemic). We expect FY 21 to be much improved particularly with the large awards we have received thus far. In my tenure as chair, our undergraduate population rose from 75 in 2012, to 182 in 2017. Our goal is 200. Our particular focus is to increase the underrepresented minority (URM) population. As such we have continued to work with the FAMU STEM Living Learning Community, to increase the number of our students. Having persuaded FAMU, I was able to receive out-of-state waivers to recruit IME students, and embarked on several recruitment trips. We have continued to successfully matriculate these students into our program, and shall continue with this endeavor with the aim of increasing the FAMU enrollment in our IME department. Additionally, I was awarded (PI) a four-year $4M MSIPP grant starting October 2021 by the DoE/NNSA that will enable the pipelining of minority students to our baccalaureate and graduate programs. This *IAM-EMPOWERED* award is uniquely positioned to make major impacts across the K-22 landscape by **Encouraging** through interventions in K-12 where we provide mentoring and learning opportunities to the pupils and teachers; **Enlightening** where we provide internships and research opportunities to undergraduate students through interactions with DoE national labs, and our funded research programs at FAMU, and consortium partners Benedict College and UTRGV; **Empowering** through internships at national labs and industry, and training through graduate research opportunities leading to MS and Ph.D. degrees. This award and others will enhance IMEs outreach to increase the STEM participation URM students.

In FA 2021, our department had 106 MS and 33 PhD students, and 3 postdoctoral associates. In AY 16, we graduated 7 PhDs, 3 in AY 17, 10 in AY 18, 7 in AY 19, and 4 in AY20. In order to increase the participation of US and particularly, URMs in our graduate programs, the IME department under my leadership runs 3 summer research internship programs – the NSF REU RETREAT, AFRL DREAM, and NSF RISE. These programs continue to yield dividend in terms of minority graduate enrollment in our department and College. My goal as chair is to increase the fee paying MSIE students. As such, I led the establishment of our new MSIE Systems Engineering program which began in fall 2018. This is run as a face-to-face and distance program, between the FSU Panama City campus and our Tallahassee campus. We currently have 86 students in this program. We also began the online option in fall 2020. Under my leadership, the department set a goal to increase our PhD enrollment to an average of 4 doctoral students per faculty. We are currently working towards that goal, and will continue

to increase the numbers with the recruitment of new faculty.

I assumed the position of interim Chair in 2012, with a faculty strength of 8 as a result of unplanned attrition of faculty, including the department chair. I began my tenure addressing faculty concerns to stem further attrition. I also embarked on a faculty recruitment drive resulting in the addition of 5 TT assistant professors including 2 that joined in FA18 with specializations in Optimization and Systems Engineering, and one that joined in FA19 with a specialization in nanomanufacturing. We also recruited 2 non-tenure track (NTT) teaching faculty, one of whom now leads our capstone senior design projects course, formerly taught by me. We have also recently added a 2 NTT faculty at our FSU Panama City campus to assist with our MS Systems Engineering program. We are slated to hire 1 more. As our undergraduate program continues to grow, I joined my colleagues in Mechanical and Electrical Engineering to lead the formation of Engineering Design Day – a college-wide program that highlights our senior design projects and serves as a college open-house to its various constituents. In 2016, I participated in a Venturewell Pathways to Innovation program that led to our College's Shark Tank design competition which is also held on the Engineering Design Day. Under my leadership, our department has raised $498K in corporate gifts for senior design projects.

I understand that becoming visible through meaningful engagement of our students, alumni base, industry, academic peers, and government is vital to our success. Visibility will promote our ranking, and constructive engagement will increase our ability to raise funds directed at student success. For this reason, I led a rebranding campaign resulting in our IME logo and slogan. We also had our very first alumni event themed "Engineering My Success." The event was planned to reconnect alumni with the department and to support IME's new campaign initiative to provide opportunities for undergraduate students, provide students with research internships at major company corporations and recruit undergraduate students.

As chair, I led the successful ABET reaccreditation of our department in the fall of 2015. Our program was found without blemish – no weakness nor deficiencies. We also recently successfully completed our fall 2021 ABET accreditation without blemish (formal report due in 2022). Additionally, we successfully completed our Quality Enhancement Review (QER) in early spring 2019.

2012–present **Associate Director, High-Performance Materials Institute (HPMI), Florida State University.**

I am a founding member of HPMI (www.hpmi.net), and currently serve as the Associate Director. The vision is to develop HPMI into a center of excellence for research and education in the field of advanced materials. The focus is on technologies that will readily transfer to industry and the marketplace. In the midst of our core technologies, I see the mission of HPMI as the development of critical manpower to meet our nation's needs in advanced materials. As such, I have led the development of pipelines to funnel US students from undergraduate programs (through our research scholar's programs and summer internships) to graduate programs with particular emphasis on doctoral research. HPMI which is housed in the 45,000 square foot Materials Research Building with over $20M in state-of-the art equipment and

facilities, averages about $2M annually in research expenditures.

Professional Preparation

1997 Ph.D., University of Warwick, UK. Major: Manufacturing Systems Engineering. Engineered Materials. Supervisor: Prof. Gordon F. Smith.

Okoli, O.I. (1997). *Experimental Determination of Transient Dynamic Response of Fibre Reinforced Polymer Composites*. Unpublished doctoral dissertation, University of Warwick, UK.

1992 M.Sc., University of Warwick, UK. Major: Manufacturing Systems Engineering. Supervisor: Dr. Ahmet Er.

Okoli, O.I. (1992). *Engineering and Metallurgical Properties of Castings made by the Full Mould Process*. Unpublished master's thesis, University of Warwick, UK.

1989 B.Sc. (Hons), University of Lagos, Nigeria. Major: Mechanical Engineering.

Professional Credential(s)

2011–present Performance Enterprise System Certification.

2005–present Chartered Scientist Great Britain (UK).

2001–present Chartered Engineer, Great Britain (UK).

1999–present ISO 9000 Lead Auditor Certification.

Professional Experience

2014–present U.S. DOE Samuel P. Massie Chair of Excellence, FAMU–FSU College of Engineering.

2013–present Chair, Industrial & Manufacturing Engineering, Florida State University.

2013–present Professor, Industrial & Manufacturing Engineering, Florida State University.

2012–present	Associate Director, High-Performance Materials Institute, Florida State University.
2012–2017	Founder & Chairman, Nanotechnology Patronas Group (NPG) Inc., Tallahassee FL.
	Technology startup focused on sensor development for structural health monitoring (SHM) and load sensing in engineered structures and systems.
2012–2013	Interim Chair, Industrial & Manufacturing Engineering, Florida State University.
2005–2013	Associate Professor, Industrial and Manufacturing Engineering, Florida State University.
2007–2012	Director of Graduate Studies, Industrial and Manufacturing Engineering, Florida State University.
2011–2012	Associate Technical Director, High-Performance Materials Institute, Florida State University.
1998–2005	Assistant Professor, Industrial and Manufacturing Engineering, Florida State University.
1992–1997	Section Leader, Warwick Manufacturing Group.
1992–1996	Lab Assistant, University of Warwick School of Engineering.
1992–1993	Lecturer, Warwick Manufacturing Group.
1989–1990	Trainee Engineer, SCOA Industries, Limited.
1988	Pupil Engineer, U.T.C. Motors, Limited.
1987	Quality Control Engineer, EDC Industries, Limited.

Honors, Awards, and Prizes

Dr. Martin Luther King, Jr. Distinguished Service Award, Center for Leadership & Social Change, Florida State University (2017). ($1,000).

Dr. Martin Luther King, Jr. Distinguished Service Award was established in 1986 to honor a faculty member, administrator or staff member for his or her outstanding service in keeping with the principles and ideals of Dr. King.

SAMPE Outstanding Paper award, SAMPE - ACMA - CAMX-2015 (2015).

for "Triboluminescent Composite with In-situ Impact Sensing Capability".

Composites and Advanced Materials Expo (CAMX) Poster Competition (3rd Runner up), SAMPE and ACMA (2014).

Guardian of the Flame Award, FSU Burning Spear Society (2014).

The Guardian of the Flame Faculty Award closes the gap between students and faculty by fostering better relationships at the Florida State University. It recognizes an outstanding faculty member from each College and School whose contributions have shown a dedication to FSU, and through his/her work, has made a commitment to advancing FSU as a leading institution of higher education.

MSFC FY 2013 Small Business Subcontractor Excellence Award, NASA George C. Marshall space Flight Center (2013).

Presented to Florida A&M University in recognition of exemplary subcontracting support to ATK Aerospace Systems under the MSFC Space Launch System Booster Contract.

Nominee: Outstanding Partner for Excellence Award, Leon County Schools (2012).

For setting the "educational standard" to bridge the STEM achievement gap at Apalachee Tapestry Magnet School of the Arts, by coordinating the SME student Chapter to provide weekly mentoring sessions to students that need that extra "academic push", resulting in a "boost" to their "academic morale". Nominated by Mrs. Iris Wilson – Principal ATMSA.

Nominee: Volunteer of the Year Award, Tallahassee Democrat (2012).

For setting the "educational standard" to bridge the STEM achievement gap at Apalachee Tapestry Magnet School of the Arts, by coordinating the SME student Chapter to provide weekly mentoring sessions to students that need that extra "academic push", resulting in a "boost" to their "academic morale". Nominated by Mrs. Iris Wilson – Principal ATMSA.

The InNOLEvation Challenge, The Jim Moran Institute Business Idea Competition, FSU College of Business (2012). ($55,000).

"Nanotech Patronas Group (NP Group) placed second in the completion, walking away with $55,000 in cash and in-kind services. NP Group comprises industrial engineering doctoral candidates from the Florida A&M University – FSU College of Engineering. Team members include Ph.D. candidates Tarik Dickens and David Olawale. NP Group is in a damage monitoring and prevention business that uses innovative triboluminescence sensor systems for engineering structures, such as aircrafts, buildings and bridges. The company was founded in 2011 after more than five years of research and development on the triboluminescence sensor systems.".

University Undergraduate Teaching Award, Florida State University (2012). ($2,000).

The University Teaching Awards program recognizes faculty for excellence in undergraduate and graduate teaching. Recipients must be outstanding in the many aspects of teaching which contribute to successful teaching and learning.

Engineering Teaching Award, FAMU-FSU College of Engineering (2010). ($1,500).

R&D 100 Award, R&D Magazine (2004).

Called the "Oscars of Innovation", the R&D 100 Awards recognize and celebrate the top 100 technology products of the year. The Resin Infusion between Double Flexible Tooling (RIDFT) won this award for innovation and the successful technology transition into industry.

Best Processing Technical Paper Award, American Composites Manufacturers Association (2004).

Research Support for Black Faculty, Florida State University (2004).

Project Mentor Award, FAMU – Undergraduate Research Opportunity Program/ Interdisciplinary Research Experience for Undergraduates (2003).

Fellowship(s)

Research Fellow, Warwick University (1992–1997).

Current Membership in Professional Organizations

American Ceramics Society, Member
Engineering Council, Chartered Engineer
Institute of Industrial & SystemsEngineers, Member
Institute of Materials, Minerals and Mining Member
Society of Manufacturing Engineers, Senior Member
The Science Council, UK, Chartered Scientist

Teaching

Courses Taught

Characterization of Perovskite (EIN5905)
Characterization of UHMWPE mat (EIN5905)
Industrial Engineering Senior Design Project II (EIN4892)
Optimizing CNT yarns for PV ce (EIN5905)
Optimizing pressing parameters (EIN5905)
Understanding the behavior of (EIN5905)
Understanding the failure beha (EIN5905)
Industrial Engineering Senior Design Project I (EIN4890)
RPD (EIN5905)
Adv Materials in O&P (EIN5930)
Teaching methods in industrial (EIN5905)
Advanced Materials in O&P (EIN5930)
Review Paper Directed Study (EIN5905)
Understanding Luminescenc in E (EIN5905)
Understanding Luminescence in E (EIN5905)
Lumi of Rare Earth Metal Compl (EIN5905)
Syn & Charac of Crystalline Sy (EIN5905)
Develop of Photovoltaic Sensor (EIN3905)
Introduction to ISO 9000 (ESI5228)
Specimen Prep for Eng Material (EIN5905)

Milestones in Research (EIN5905)
Rsch Methods in Engineered Mat (EIN3905)
Directed Individual Study (EIN5905)
Honors Thesis (EIN4934)
IE Dissertation (EIN 6908-5)
Industrial Engineering Senior Design Project (EIN4891)
Industrial Engineering Senior Design Project II (EIN4891)
Review Pap. DIS (EIN 5905-1)
Selected Topics in Industrial Engineering (EIN4936)
Special Topics - Introduction to ISO 9000 (EIN4936)
DIS: Material Displaced Foam Method (EIN 5930-0)
DIS: Prediction Models Nano Suspension (EIN 5930-0)
Master's Thesis (EIN 6901)
Graduate Seminar (EIN5936)
Special Topics in Industrial Engineering (EIN5930)
DIS: Dev. Sens. Meth Nan II (EIN5930)
Design of Integrated Production Systems and Facilities Layout (EIN4333)
Composite Materials Engineering 1 (EMA 5182)
Manufacturing Processes (EGN 4000)

New Course Development

Advanced Materials in O&P (2014)
IE Senior Design Project - 2 (2009)
IE Senior Design Project 1 (2009)
Introduction to ISO 9000 (1999)
Composite Materials Engineering (1998)

Curriculum Development

Development of the "Engineering Management of Orthotics and Prosthetics (MSIE-EMOP)" Major within Existing Engineering Management MS Degree Program in Department of Industrial and Manufacturing Engineering (2012)

Doctoral Committee Chair

Adams, G. R., graduate. (2020). *A Facile and Low Energy Route for the Fabrication of Thermally Stable Mixed Cation Perovskite Thin Films.*
Shohag, M., graduate. (2019). *Conception and Development of Mechanoluminescent Dynamic Load and Pressure Sensor.*
Armbrister, C., graduate. (2018). *The Investigation & Development of the DFD Technique for the Fabrication of Triboluminescent Composites.*
Hammel, E. C., graduate. (2018). *Investigation of the Osmotic Drying of Alumina-Gelatin*

Objects Utilizing an Aqueous Poly(Ethylene Glycol) Liquid Desiccant.
Scheiner, M. V., graduate. (2018). *Enhancing Polymer Composites with Triboluminescent Materials.*
McCrary-Dennis, M., graduate. (2016). *Development and Study of the Displaced Foam Dispersion Methodology for the Manufacture of Multiscale, Hybrid Composites.*
Yan, J., graduate. (2016). *Conception and Development of 3-D Sensing using Wire-Shaped Hybrid PV Sensor as a Tool in Triboluminescent-Based SHM System.*
Dickens, T. J., graduate. (2013). *Assessment of Triboluminescent Materials for Intrinsic Health Monitoring of Composite Damage.*
Olawale, D. O., graduate. (2013). *In-Situ Triboluminescent Optical Fiber Sensor for Real-Time Damage Monitoring in Cementitious Composites.*
Ighodaro, Osayande Lord-Rufus, graduate. (2012). *Fracture Strength and Fracture Toughness Enhancement for Advanced Ceramic Materials.*
Kim, M., graduate. (2009). *Modeling, Manufacturing, and Characterization of Nanocomposites and Multiscale Composites.*
Braga-Carani, L., doctoral candidate.
Sijuade, A., doctoral student.
Anjum, N., doctoral student.
Beckford, B., doctoral student.

Doctoral Committee Co-chair

Dessureault, Yourri-Samuel, graduate. (2021). *Mechanical Behavior and Carbon Nanotube/Matrix Interactions of Continuous Carbon Nanotube Yarns for Composite Applications.*
Ekuase, O. A., doctoral student.

Doctoral Committee Member

Oluwalowo, A., graduate. (2021). *Metal Matrix Composite Reinforced with Carbon Nanotube Sheets and Thermal Properties of Isotropic and Anisotropic Materials.*
Jiang, Z., graduate. (2020). *Assembly Hierarchy Planning for Joint Decision-Making Problems in Flexible Manufacturing Systems.*
Nguyen, N. N., graduate. (2019). *Design and Fabrication of Carbon Nanotube-Based Multifunctional Composites and Advanced Sensors for Composites Manufacturing.*
Joshi, K., graduate. (2018). *Bond Monitoring in Externally Bonded Fiber Reinforced Polymer Composites in Civil Infrastructure.*
Mishra, S., graduate. (2016). *Structural Health Monitoring with Lamb-Wave Sensors: Problems in Damage Monitoring, Prognostics and Damage Classification.*
Van, H. H., graduate. (2016). *Laser Processing for Manufacturing Nanocarbon Materials.*
Downes, R. D., graduate. (2015). *Scalable Carbon Nanotube (CNT) Alignment: Process Development, Alignment Mechanisms, and CNT/Carbon Fiber Hybrid Composites.*
Obitayo, W. O., graduate. (2015). *Piezoresistivity of Mechanically Drawn SWCNT Thin Films: Mechanism and Optimizing Principle.*

Bembridge, N. G., graduate. (2011). *Innovative Severe Plastic Deformation of Niobium with Application to Superconducting Radio Frequency Cavities.*
Braimah, I., graduate. (2007). *Feasibility Study of Radio-Frequency (RF) Inductor Energy Harvesting.*
Wang, Shiren (Edward), graduate. (2006). *Functionalization of Carbon Nanotubes: Characterization, Modeling and Composite Applications.*
Li, J., graduate. (2006). *Modeling, Design and Control of Vacuum Assisted Resin Transfer Molding (VARTM) for Thickness Variation Reduction.*
Dong, C., graduate. (2003). *Dimension Variation Prediction and Control for Composites.*
Xie, J., doctoral candidate.
Huckleby, A. B., doctoral candidate.
Nicholson, D., doctoral candidate.

Doctoral Committee University Representative

Arora, N., graduate. (2018). *Flowfield of a Three-Dimensional Swept-Shock Boundary Layer Interaction at Mach 2.*
England, R. D., graduate. (2014). *Phase Equilibria of Fe-C Binary Alloys in a Magnetic Field.*
Henke, S. F., graduate. (2013). *A Peridynamic Model for Nanofiber-Reinforced Polymer Composites Simulated Using Graphics Processing Units.*
Davy, C. A., graduate. (2010). *A Study of Nanostructured Cu-Ag Composites.*
Adegbulugbe, O., doctoral candidate. *Evaluation of GFRP Spirals in Corrosion Resistant Concrete Piles.*
Robb, A. J., doctoral student.

Master's Committee Chair

Carani, L., graduate. (2019). *Investigation of Single Crystal Perovskite for Mechanoluminescence-Based Sensor Application.*
Bhakta, D. H., graduate. (2015). *Stretchlon Film Enhanced Fabrication of Nanocomposites with the Resin Infusion between Double Flexible Tooling Process.*
Daramola, E. O., graduate. (2015). *Fabrication of Micro/Nano-Structured Wrinkles through Surface Modification of Poly(Dimethylsiloxane).*
Parker, L. E., graduate. (2011). *Fabrication of Multiscale Composites with Carbon Nanotube Doped Resin Systems using the RIDFT Process.*
Adewuyi, O. S., graduate. (2009). *Optimization of Ultraviolet Lamp Placement for the Curing of Composites Manufactured by the RIDFT Process.*
Lim, A. P., graduate. (2007). *Fabrication of Light Weight Composite Small Arms Protection Insert.*
Puentes, C. A., graduate. (2007). *The Utilization of Formable Paint Films in the Implementation of In-Mold Decoration Composites Manufactured by the RIDFT Process.*
Roquer, M. I., graduate. (2007). *Characterization of Energy Absorbing Materials for Blunt Trauma Reduction.*
Dickens, T. J., graduate. (2007). *Assessment of Triboluminescent Materials for In-Situ Health*

Monitoring.

Solomon, F. A., graduate. (2006). *Analysis of Co-Infused Fluid Behavior for The RIDFT-IMC (Resin Infusion between Double Flexible Tooling-In Mold Coating) Process.*

Davey, K., graduate. (2005). *Development of Carbon Nanotube/ Carbon Fiber Multiscale Reinforcement Composites.*

Teemer, L., graduate. (2005). *The Effects of Processing Parameters on the Mechanical Properties of Components Manufactured Using the Resin Infusion between Double Flexible Tooling Process.*

Chiu, P., graduate. (2004). *In-Mold Coating of Composites Manufactured with the Resin between Double Flexible Tooling Process by Means of Co-Infusion.*

Nwabuzor, A. O., graduate. (2004). *Development of the RIDFT Process: Incorporation of Ultraviolet (UV) Curing Technique.*

Nimbalkar, R., graduate. (2003). *Finite Element Modeling of a Transit Bus.*

Thagard, J. R., graduate. (2001). *Development of The RIDFT Process.*

Master's Committee Co-chair

Ajayi, T. D., graduate. (2018). *Boron Nitride Nanotube (BNNT) –Reinforced Polymer Derived Ceramic (PDC) Nanocomposites for Structural and Thermal Applications.*

Payne, M., graduate. (2015). *Rapid Functionalization of Carbon Nanotubes and Buckypaper by Using Microwave Reaction Process.*

Master's Committee Member

Parker, H. D., graduate. (2021). *In-Situ Defect Analysis of 3D Printing via Conductive Filament and Ohm's Law.*

Jamal, M. S., graduate. (2016). *Nanocarbon Foam/Polymer Composite.*

Oluwalowo, A., graduate. (2016). *Fabrication of Metal Matrix Composite Reinforced with Carbon Nanotubes (Buckypaper).*

Jiang, Z., graduate. (2015). *Hierarchy Generation for Designing Assembly System for Product with Complex Liaison and Sub-Assembly Branches.*

Brown, H., graduate. (2015). *Improvement of Through-Thickness Thermal Conductivity of Fiber Reinforced Composites by Stitching Carbon Nanotube Yarns.*

Trayner, S. D., graduate. (2014). *Improvement of Microtome Cutting Process of Carbon Nanotube Composite Sample Preparation for TEM Analysis.*

Young, C. A., graduate. (2012). *Study of Fiber Reinforced Composites Electronic Enclosure Using Integrated Design and Manufacturing Approach and Carbon Nanotube Buckypaper Materials.*

Duge, D., graduate. (2012). *Statistical Methods for Impact Damage Location in Composites using Electrical Resistance Measurement.*

Gory, R. S., graduate. (2012).

Abdelsalam, F., graduate. (2011).

Kynard, K. A., graduate. (2011).

Click, B. M., graduate. (2010).

Ingrole, A. A., graduate. (2010).
Wang, X., graduate. (2009).
Zhang, M., graduate. (2008).
Chin, Yuan-Chen, graduate. (2007).
English, T., graduate. (2007).
Misra, H., graduate. (2006).
Ramalingam, S., graduate. (2006).
Potnis, A., graduate. (2005).
Lin, Chih-Yen, graduate. (2005).
Mantena, S., graduate. (2004).
Braimah, I., graduate. (2004).
Sadiki, O., graduate. (2004).
McCulloh, I., graduate. (2004).
Prasad, T., graduate. (2004).
Kuppusamy, A., graduate. (2003).
Thute, A., graduate. (2003).
Li, J., graduate. (2003).
Kuppannagari, S. N., graduate. (2003).
Marietta-Tondin, O., graduate. (2003).
Mehta, C., graduate. (2000).
Luo, J., graduate. (1999).
Smith, T., graduate. (1999).
Dargan, T., graduate. (1998).

Bachelor's Committee Chair

Sullivan, W. G., graduate. (2010). *Calibrating Triboluminescent Light to Cracking in Concrete Structures.*
Munoz, D., graduate. (2005). *Design and Manufacture of a Cost Effective Instrumented Drop-Weight Impact Tester for Damage Assessment of Composites.*

Bachelor's Committee Member

Leger, M. E., graduate. (2021). *Synthesis of Max and MAB Phases by Arc Melting and Ball-Milling.*
Lockwood, M., graduate. (2019). *Adhesion and Performance of Printable Polymer Gel-Electrolytes.*
Vargas, Emily, A., graduate. (2017). *A Study on Sonication Dispersion Parameters for Bath-Production of Carbon Nanotube Buckypaper.*
Consoliver-Zack, J., graduate. (2016). *Thesis on the Difference in the Performance of Wire-Type Dye-Sensitized Solar Cells Made by Hand versus Those Made Using Semi-Automated Processes.*
Raley, M., graduate. (2016). *Failure Detection in Structural Composite Systems Through Triboluminescent Sensor Wires.*

Kliewer, K., graduate. (2013). *Damage Detection in Reinforced Concrete Structures with In-Situ Triboluminescent Optical Fiber Sensors*.

Breaux, J., graduate. (2011). *Manufacturability of Triboluminescent Composites: Towards a Sensory Level Component*.

Supervision of Student Research Not Related to Thesis or Dissertation

Andrews, S. (Aug 2021–present).

Bellevu, F. (Aug 2021–present).

Davis, R. (Aug 2021–present).

Riley, J. (Aug 2021–present).

Allard, A. (Sep 2019–present).

Iwuagu, C. (Sep 2019–present).

Brown, C. (Sep 2019–Apr 2021).

Greene, T. (Sep 2019–Apr 2021).

Beckford, B. (May 2019–Apr 2020).

Simpson Ryan (May 2018–Apr 2020).

Luster, E. (Aug 2017–May 2019).

Ichite, T. (Mar 2017–May 2019).

Parker, H. (Jan 2016–May 2019).

Houston, J. (Jan 2017–Sep 2018).

Zepeda Guadalupe (Aug 2017–May 2018).

Ndebele, T. (Jan 2012–May 2018).

Anderson Bryan (Aug–Dec 2017).

Thomas, C. (Jan–Dec 2017).

Davila, J. (Aug 2016–Jun 2017).

Campa, J. (Jan 2016–Mar 2017).

Bradshaw, E. (Aug–Dec 2016).

Consoliver-Zack, J. (Jan 2015–Apr 2016).

Hodges, W. (Aug 2014–Apr 2016).

Parker Kindall (Aug 2014–Dec 2015).

Caldwell, A. (Jan 2014–Dec 2015).

Fernandez, E. (Jan 2014–May 2015).

Velasquez, E. (Aug 2013–May 2015).

Daramola, D. (May 2012–Aug 2013).

Kliewer, K. (Aug 2011–May 2013).

Armbrister, C. (Jan–Aug 2012).

Bhakta, D. (Apr 2011–Apr 2012).

Simmons, V. (Aug–Dec 2011).

Breaux, J. (Sep 2010–Apr 2011).

Sullivan, G. W. (Apr 2008–Aug 2010).

Haldane, D. (Aug 2009–Apr 2010).

Tsalickis, S. (Aug 2009–Apr 2010).

McCrary-Dennis, M. (Aug 2007–Apr 2009).

Kiew, Thong, H (Jan 2006–Dec 2007).

Puentes, C. (Aug–Dec 2005).

Doutherd, B. (Oct 2003–Apr 2004).

Emokpae, M. (Oct 2003–Apr 2004).

Ogbonna, C. (May 2003–Apr 2004).

Research and Original Creative Work

Publications

Invited Journal Articles

Parker, L. E., & Okoli, O. I. (2014). Manufacture of Sizeable Multiscale Composites through Enhancement of Resin Flow in the RIDFT Process. *Journal of Advanced Manufacturing Technology, 8 (2)*, 23-37. Retrieved from http://journal.utem.edu.my/index.php/jamt/issue/view/17

Refereed Journal Articles

Braga-Carani, L., Eze, V. O., Iwuagu, C., & Okoli, O. O. (2020). Performance Analysis of Embedded Mechanoluminescence-Perovskite Self-Powered Pressure Sensor for Structural Health Monitoring. *Journal of Composites Science*, *4*(4), 190. Retrieved from https://doi.org/10.3390/jcs4040190 doi:10.3390/jcs4040190

Eze, V. O., Adams, G. R., Braga-Carani, L., Simpson, R. J., & Okoli, O. I. (2020). Enhanced Inorganic CsPbIBr2 Perovskite Film for Sensitive and Rapid Response Self-Powered Photodetector. *Journal of Physical Chemistry Part C: Energy Conversion and Storage; Catalysis; Optical, Electronic, and Magnetic Properties and Processes; Interfaces; Nanomaterials and Hybrid Materials*, *124*(38), 20643-20653. Retrieved from https://pubs.acs.org/doi/abs/10.1021/acs.jpcc.0c04144 doi:10.1021/acs.jpcc.0c04144

Shohag, M. A. S., Eze, V. O., Braga-Carani, L., & Okoli, O. I. (2020). Fully Integrated Mechanoluminescent Devices with Nanometer-Thick Perovskite Film as Self-Powered Flexible Sensor for Dynamic Pressure Sensing. *ACS Applied Nano Materials*, *3*(7), 6749-6756. doi:10.1021/acsanm.0c01168

Adams, G. R., Eze, V. O., Braga-Carani, L., Pino, A., Jolowsky, C., & Okoli, O. I. (2020). Synergistic Effect of the Anti-Solvent Bath Method and Improved Annealing Conditions for High-Quality Triple Cation Perovskite Thin Films. *RSC Advances*, *10*(31), 18139–18146. doi:https://doi.org/10.1039/D0RA02719G

Ufodike, C. O., Eze, V. O., Ahmed, M. F., Oluwalowo, A., Park, Jin-Gyu, Okoli, O. I., & Wang, H. (2020). Evaluation of the Inter-Particle Interference of Cellulose and Lignin in Lignocellulosic Materials. *International Journal of Biological Macromolecules*, *147*(15), 762-767. doi:10.1016/j.ijbiomac.2020.01.234

Adams, Geoffrey, R., Eze, V. O., Shohag, M. A., Simpson, R., Parker, H., & Okoli, O. I. (2020). Fabrication of Rapid Response Self-Powered Photodetector using Solution-Processed

Triple Cation Lead-Halide Perovskite. *Engineering Research Express*, *2*, 015043. doi:https://doi.org/10.1088/2631-8695/ab7b38

Shohag, M. A., Ndebele, T., & Okoli, O. I. (2019). Real-Time Damage Monitoring in Trailing Edge Bondlines of Wind Turbine Blades with Triboluminescent Sensors. *Structural Health Monitoring*, *18(4)*, 1129-1140. doi:10.1177/1475921718788861

Hussain, I., Chowdhury, A. R., Jaksik, J., Grissom, G., Touhami, A., Ibrahim, E. E., Schauer, M., Okoli, O., & Uddin, M. J. (2019). Conductive Glass Free Carbon Nanotube Micro Yarn Based Perovskite Solar Cells. *Applied Surface Science*, *478*, 327-333. doi:https://doi.org/10.1016/j.solener.2018.0

Hammel, E. C., Pettaway, K., Ichite, T., & Okoli, O. I. (2019). Towards Optimization of the Osmotic Drying Process of Alumina-Gelatin Objects: Regression Analysis and Verification. *Ceramics International*, *45(5)*, 5223-5230. Retrieved from https://doi.org/10.1016/j.ceramint.2018.11.218 doi:10.1016/j.ceramint.2018.11.218

Armbrister, C. E. E., Shohag, M. A. D., Scheiner, M. V., & Okoli, O. I. (2019). The Fabrication of Mechanoluminescent Composites Manufactured via the Displaced Foam Dispersion Technique. *Plastics, Rubber and Composites: Macromolecular Engineering*, *48(5)*, 191-200. doi:10.1080/14658011.2019.1588508

Shohag, M. A. S., & Okoli, O. I. (2019). Nonparasitic Behavior of Embedded Triboluminescent Sensor in Multifunctional Composites. *Composite Part A*, *116*, 114-125. doi:10.1016/j.compositesa.2018.10.029

Grissom, G., Jaksik, J., McEntee, M., Durke, E. M., Aishee, S. T. J., Cua, M., Okoli, O. I., Touhami, A., Moore, H. J., & Uddin, M. J. (2018). Three-Dimensional Carbon Nanotube Yarn Based Solid State Solar Cells with Multiple Sensitizers Exhibit High Energy Conversion Efficiency. *Solar Energy*, *171*, 16-22. doi:https://doi.org/10.1016/j.solener.2018.0

Shohag, M. A. S., Tran, S. A., Ndebele, T., Adhikari, N., & Okoli, O. I. (2018). Designing and Implementation of Triboluminescent Materials for Real-Time Load Monitoring. *Materials & Design*, *153*, 86-93. Retrieved from https://doi.org/10.1016/j.matdes.2018.05.006 doi:10.1016/j.matdes.2018.05

Adams, G. R., & Okoli, O. I. (2018). A Review of Perovskite Solar Cells with a Focus on Wire-Shaped Devices. *Renewable Energy Focus*, *25*, 17-23. Retrieved from https://doi.org/10.1016/j.ref.2018.02.002 doi:10.1016/j.ref.2018.02.002

Shohag, M., Dessureault, Y-S., Ndebele, T., Joshi, K., Olawale, D. O., Dickens, T. J., & Okoli, O. I. (2018). Enhanced Fabrication Process for In-Situ Triboluminescent Optical Fiber Sensor for Multifunctional Composites. *Measurement*, *121*, 240-248. doi:10.1016/j.measurement.2018.02.051

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Okoli, O. I. (1996). High Speed Performance of Composite Materials. In *Engineering Polymers Integrated Capability (EPIC) Conference*. University of Warwick.

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Presentations

Invited Papers at Conferences

Yan, J., Scheiner, M., Olawale, D. O., Dickens, T. J., & Okoli, O. I. (presented 2015, February). *Structural Health Monitoring and the use of Luminescence*. Paper presented at 5th International Conference on Luminescence and its Applications ICLA 2015, 9-12th February, 2015, Luminescence Society of India, Bangalore, India. (International)

Olawale, D. O., Dickens, T. J., Uddin, M. J., & Okoli, O. I. (presented 2012). *Triboluminescence Multifunctional Composites (TMC) with Structural Damage Sensing Capabilities for Aerospace and Civil Infrastructure Systems*. Paper presented at International Conference on Luminescence and Its Applications (ICLA-2012), Luminescence Society of India, 7-10 February, 2012, Hyderabad, India. (International)

Invited Papers at Symposia

Okoli, O. I. (presented 2009, April). Composites Cheap and Quick – Doing it the RIDFT Way. In *The Composites Consortium, Spring Technical Meeting, April 22-23, 2009*. Symposium

conducted at the meeting of National Shipbuliding Research Program, New Orleans, LA, USA. (National)

Refereed Papers at Conferences

Armbrister, C., Hammel, E., Scheiner, M., Okoli, O., & Bolden-Frazier, N. (presented 2016, May). *Diversity in Research and Engineering of Advanced Materials (DREAM) Internship Program.* Paper presented at IIE Annual Conference and Expo, Anaheim, California, USA; May 21-24, 2016, IIE. (International)

Armbrister, C., McCrary-Denis, M., Dickens, T., & Okoli, O. I. (presented 2016, May). *Characterization of the Displaced Foam Dispersion Technique for use in Hybrid Composite Structures*. Paper presented at Graduate Student Research Symposium, IIE Annual Conference and Expo, Anaheim, California, United States, May 21-24, 2016, IIE. (International)

Hammel, E. C., Hodges, W., Campa, J., Shohag, M. A. S., Olawale, D., & Okoli, O. I. (presented 2016, May). *Identifying Important Processing Factors of Reliable Advanced Ceramic Preforms*. Paper presented at IIE Annual Conference and Expo, Anaheim, California, USA; May 21-24, 2016, IIE. (International)

Scheiner, M., Hammel, E., & Okoli, O. 1. (presented 2016, May). *Improving Student Objectives in Industry-Focused Industrial Engineering Senior Design Capstone Course*. Paper presented at in Annual Conference and Expo, Institute for Industrial and Systems Engineers. May 21-24, 2016: Anaheim, California, United States, IIE. (International)

Hammel, E. C., Shohag, M. S., Olawale, D. O., Okoli, O. I., & Ravi, V. A. (presented 2016, January). *Pressureless Infiltration of Al2O3 Preform Containing Aligned Two-Dimensional Channels with Al-Mg-Si Alloy*. Paper presented at 40th Int'l Conf & Expo on Advanced Ceramics & Composites (ICACC 2016), Daytona Beach, Florida, USA; January 24-29, 2016, ACerS. (International)

Refereed Presentations at Conferences

Shohag, M. A. S., Hammel, E. C., Olawale, D. O., Dickens, T. J., & Okoli, O. I. (presented 2016, September). *Development of Triboluminescent Sensors for Wind Turbine Blades*. Poster presentation at CAMX Conference, Anaheim, CA, September 26-29, 2016. CAMX – The Composites and Advanced Materials Expo, CAMX. (International)

Hammel, E. C., & Okoli, O. I. (presented 2016, May). *Development of Processing Conditions for Manufacture of Reliable Advanced Ceramic Preforms and Ceramic Matrix Composites*. Poster presentation at 2016 Annual IIE Doctoral Colloquium. Anaheim, California, USA; May 22, 2016, IIE. (International)

Scheiner, M., Hammel, E., & Okoli, O. I. (presented 2016, May). *Improving Student Objectives in Industry-Focused Industrial Engineering Senior Design Capstone Course*. Presentation at 2016 Annual Conference and Expo, Institute for Industrial and Systems Engineers, Institute for Industrial and Systems Engineers, Anaheim, California, United States. (International)

Scheiner, M., & Okoli, O. I. (presented 2016, May). *Integrated Structural Health Monitoring and Self-Healing for Composites*. Presentation at Annual Conference and Expo, Institute for Industrial and Systems Engineers. May 21-24, 2016: Anaheim, California, United States, IIE. (International)

Nonrefereed Presentations at Conferences

Shohag, M. A. S., & Okoli, O. I. (presented 2017, March). *Triboluminescent Sensors for Load and Damage Monitoring in Composite Structures*. Poster presentation at Poster competition 2017, Florida A&M University Graduation Week, 14th March 2017, Florida A&M University. (Local)

Hammel, E. C., & Okoli, O. I. (presented 2016, September). *Towards Complex, Net-Shape Forming of Advanced Ceramics and Ceramic Composites*. Poster presentation at NASA's HBCU/MSI Technology Infusion Road Tour. Tallahassee, Florida, USA; September 28, 2016, NASA. (National)

Scheiner, M., & Okoli, O. I. (presented 2016, September). *Integrated Self-Healing and Structural Health Monitoring for Composite Systems*. Poster presentation at in HBCU/MSI Technology Infusion Road Tour, National Aeronautics and Space Administration. September 27-29, 2016, Tallahassee, Florida, NASA. (National)

Olawale, D. O., Hammel, E. C., Dickens, T. J., & Okoli, O. I. (presented 2014, October). *Triboluminescent Sensor for Distributed Damage Monitoring in Composites: Wind Turbine Blade Application*. Poster presentation at Composites and Advanced Materials Expo (CAMX), SAMPE and ACMA, Orlando, Fl. (International)

Invited Workshops

Okoli, O. I. (2017, June). *Small Business and Historically Black Colleges and Universities (HBCUs) Federal Opportunity Forum*. Workshop delivered at U.S. Office of Personnel Management (OPM) Office of Small and Disadvantaged Business Utilization (OSDBU), DC, USA. (National)

Okoli, O. I. (2017, February). *3rd Annual NASA Historically Black Colleges and Universities (HBCU) and Minority Serving Institution (MSI) Partnerships Meeting 22nd February*

2017. Workshop delivered at NASA HQ Office of Small Business Programs, Washington DC. (National)

Okoli, O. I. (2014, September). *NASA Historically Black Colleges and Universities (HBCU) Minority Serving Institutions (MSIs) Partnerships Meeting*. Workshop delivered at NASA HQ Office of Small Business Programs, Huntsville, AL. (National)

Nonrefereed Workshops

Okoli, O. I. (2017, October). *2017 National Science Foundation Engineering Education & Centers Grantees Conference*. Workshop delivered at NSF, ASEE, Arlington, VA. (National)

Invited Lectures and Readings of Original Work

Okoli, O. I. (2016, January). *Growth through Graduate Research and Research Internships – The IME Way: Making the future happen!* Delivered at Morehouse College, Morehouse College, Atlanta, GA. (State)

Okoli, O. I. (2015, March). *Development, Manufacturing, and Sensing of Advanced Structural Composite Materials*. Delivered at Army Research Lab, Aberdeen Proving Ground, MD. (National)

Okoli, O. I. (2014, October). *The Manufacturability of Multifunctional Composites*. Delivered at ISE Dept. The Ohio State University. (National)

Okoli, O. I. (2014, March). *Actualizing Multiscale, Multifunctional Composites, & Inherent Pain Sensing in Structures*. Delivered at Warwick Manufacturing Group, University of Warwick, UK. (International)

Okoli, O. I. (2010, March). *Manufacturing Multiscale, Multifunctional Composites, and Building-in Structural Health Monitoring*. Delivered at Winona State University Composite Materials Engineering Program, Winona, MN. (National)

Patented Inventions

Okoli, O. I., Shohag, M. A. D., & Adhikari, N. (submitted). *Mechanoluminescent Devices, Articles, and Methods*.

Okoli, O. I., & Adams, G. R. (2021). *Wire-Shaped Perovskite Structures and Methods for Manufacture Thereof*. U.S. Patent No. 10,916,713, Method for manufacturing wire-shaped perovskite devices, Florida State University. Tallahassee, Florida.

Okoli, O. I., & Olawale, D. O. (2019). *Triboluminescent Optical Fiber Sensing Patch.* U.S. Patent No. 10,386,305 B2, A sensor that can be used for real time monitoring of load and SHM, Florida State University. Tallahassee, Florida.

Okoli, O. I., Dickens, T. J., Yan, J., & Uddin, M. J. (2018). *Dye-Sensitized Solar Cells Including Carbon Nanotube Yarns.* U.S. Patent No. 10141119, Flexible/Embeddable 3D Wire-Shaped Dye-Sensitized Solar Cells for SHM. Florida State University. Tallahassee, FL.

Zhang, M., Okoli, O. I., & Van, H. H. (2016). *Graphene Nanoribbons and Methods.* U.S. Patent No. US 9365428 B2, Florida State University Research Foundation.

Okoli, O. I., & Olawale, D. O. (2016). *Triboluminescent Optical Fiber Sensor.* US Patent No. 9274025, In-situ Triboluminescent Optical Fiber (ITOF) Sensor for the Structural Health, Florida State University. Tallahassee, FL.

Okoli, O. I., Ighodaro, O. L., & Wang, H-P. (2015). *Methods of Fabricating Ceramic Preforms with 2-D Channels and Structures Produced Thereby.* U.S. Patent No. 8986599, Florida State University. Tallahassee, FL.

Okoli, O. I., & Kim, M-S. (2013). *Composite Materials & Methods for Selective Placement of Nano-Particulates within Compositions.* 8,404,162, Method for efficient placement of nano materials within advanced structural composites, Florida State University. Tallahassee, FL.

Okoli, O. I., Wang, B., & Dickens, T. J. (2013). *Systems, Methods, and Apparatus for Structural Health Monitoring.* 8387469, Method for harnessing, converting, and transporting triboluminescence for SHM of structures, Florida State University. Tallahassee, FL.

Okenwa I. Okoli, Alvin P. Lim. (2011). *Resin Infusion Between Double Flexible Tooling System.* 7,862,322 Patent covering the RIDFT system and flow distribution channels, Florida State University. Tallahassee, FL.

Contracts and Grants

Contracts and Grants Funded

Okoli, Okenwa O (PI), & Dickens, Tarik (Co-PI). (Oct 2021–Sep 2025). *Integrated Additive Manufacturing – Establishing Minority Pathways: Opportunities for Workforce-development in Energy Research and Education (IAM-EMPOWERED).* Funded by Department of Energy/National Nuclear Security Administration, MSIPP. (DE-NA0004004). Total award $3,997,061.

Okoli, Okenwa I. (PI), & Dickens, T. (Oct 2021–Sep 2022). *Viability Assessment of Printed Powerless Sensors Structures for Aerospace Environment - Phase II.* Funded by National

Aeronautics and Space Administration (NASA) CAN. (CAN21-122 80NSSC21M0261). Total award $79,640.

Okoli, Okenwa I. (PI), & Dickens, T. (Oct 2021–Sep 2022). *Additive Manufacturing of Lunar Regolith Structures for In-Space Application*. Funded by National Aeronautics and Space Administration (NASA) CAN. (CAN21-122 80NSSC21M0261). Total award $79,640.

Okoli, Okenwa (PI), & Dickens, Tarik J (Co-PI). (Sep 2021–Aug 2022). *Diversity in Research and Engineering of Data Science for Human Performance*. Funded by Air Force Research Laboratory RWK. (FA8651-20-2-0081). Total award $149,159.

Arnett, N., Okoli, Okenwa O (Co-PI), Ramakrishnan, S., Siegrist, T., & Tandabany, D. (Jun 2021–May 2024). *Excellence in Research: Development of a Non-Fluorinated Etching Procedure to Prepare MXene Hybrid Materials for Composite Applications*. Funded by National Science Foundation. (2101001). Total award $700,000.

Dickens, Tarik Jamel (PI), & Okoli, Okenwa O (Co-PI). (May 2021–Sep 2021). *Prototyping and Design for Collapsible Storage Containers*. Funded by Crowley Maritime Corporation. (NONE). Total award $49,996.

Zeng, C., & Okoli, Okenwa I. (Co-PI). (Oct 2020–Sep 2021). *CAN20-213, Investigating the Performance Characteristics of auxetic foams in Neuropathy Treatment Applications*. Funded by National Aeronautics and Space Administration (NASA). (80NSSC20M0247). Total award $68,001.

Okoli, Okenwa I. (PI), & Dickens, T. (Co-PI) (Jun 2020–May 2021). *Viability Assessment of Printed Powerless Sensors Structures for Aerospace Environment*. Funded by National Aeronautics and Space Administration (NASA) CAN. (CAN, 80NSSC20M0176). Total award $71,000.

Okoli, Okenwa I. (PI), & Dickens, T. (May 2020–Apr 2023). *REU Site: Retaining Engineers through Research Entrepreneurship and Advanced Materials Training (RETREAT)*. Funded by National Science Foundation (NSF). (1950500). Total award $453,844.

Okoli, Okenwa I. (PI). (Sep 2019–Dec 2019). *University support of the ORION program: Task Order 4104173428*. Funded by Lockheed Martin. (0000004175/ 006515). Total award $33,382.

Okoli, Okenwa (PI), & Dickens, Tarik J (Co-PI). (Feb 2018–Feb 2020). *DREAM: Diversity in Research and Engineering of Advanced Materials Training*. Funded by Air Force Research Laboratory. (FA8651-18-1-0003). Total award $100,000.

Okoli, O. I. (PI). (Sep 2017–Dec 2017). *University support of the ORION program. Task Order ORN-17-001:*. Funded by Lockheed Martin. (4103372731/ORN-17-001). Total award $24,056.

Liang, Zhiyong (PI), Okoli, Okenwa O (Co-PI), Park, Jin Gyu (Co-PI), & Zeng, Changchun (Co-PI). (Jun 2017–Jun 2022). *Institute for Ultra-Strong Composites by Computational Design*. Funded by Michigan Technological University. (1607060Z3). Total award $3,257,500.

Okoli, O. I. (May 2017–Aug 2017). *University support of the ORION program:Task Order: ORN-17-004*. Funded by Lockheed Martin. (4103007970/ORN-17-004). Total award $48,160.

Okoli, Okenwa (Co-PI), Strouse, Geoffrey F (Co-PI), Zhu, Lei (Co-PI), Oates, William (Co-PI), Guan, Jingjiao (Co-PI), Hanson, Kenneth G. (Co-PI), Ma, Biwu (PI), & Gao, Hanwei (Co-PI). (May 2017–May 2018). *EIEG:Quantaurus-QY Absolute Photoluminescence Quantum Yield Spectrometer*. Funded by FSU EIEG Award. Total award $41,500.

Okoli, O. I., & Olawale, D. O. (Jan 2016–Dec 2016). *STTR Phase I: Triboluminescent sensor system for quasi-distributed load sensing on wind blades for active control of wind turbines*. Funded by National Science Foundation. (1549716). Total award $224,999.

Okoli, Okenwa (PI). (Sep 2014–Jan 2016). *Manufacturing of Nanostructured Wrinkled Surfaces by Engineering the Texture Pattern with Controlled Oxidation*. Funded by Air Force Research Laboratory. (FA8651-14-1-0002). Total award $50,000.

Okoli, Okenwa (PI). (Jul 2014–Aug 2015). *I-Corps: Commercialization Feasibility of an In-situ Sensor for Vehicular Impact Monitoring System*. Funded by National Science Foundation. (1449592). Total award $50,000.

Okoli, Okenwa (PI), Awoniyi, Samuel A (Co-PI), Liang, Zhiyong (Co-PI), Dickens, Tarik J (Co-PI), Zeng, Changchun (Co-PI), Liu, Tao (Co-PI), Zhang, Mei (Co-PI), Vanli, Omer Arda (Co-PI), & Park, Chiwoo (Co-PI). (May 2014–Apr 2020). *REU Site: Research Experience for Undergraduates: Retaining Engineers through Research Entrepreneurship and Advanced-Materials Training*. Funded by National Science Foundation. (1359235). Total award $380,000.

Okoli, Okenwa (PI), & Liang, Zhiyong (Co-PI). (Jun 2011–Nov 2017). *DREAM- Diversity in Research and Engineering of Advanced Materials Training*. Funded by Air Force Research Laboratory. (FA8651-11-2-0003). Total award $496,222.

Zhang, Chun (Co-PI), Wang, Hsu-Pin (PI), Okoli, Okenwa (Co-PI), & Liang, Zhiyong (Co-PI). (Mar 2011–Jun 2013). *Advanced Materials and Manufacturing Technologies for the Army Unmanned Aerial Vehicles and Soldier Protection Systems*. Funded by United States Army Research Laboratory. (W911NF-11-2-0028). Total award $100,000.

Okoli, O. I. (Oct 2010–Sep 2015). *Life Cycle Analysis of Carbon Nanomaterials, Dept. of Energy Massie Chair/ NNSA Program*. Funded by US Department of Energy. (DE-FG02-94EW11431). Total award $1,500,000.

Okoli, Okenwa (PI), Wang, Hsu-Pin (Co-PI), & Vanli, Omer Arda (Co-PI). (Sep 2010–Aug 2014). *Development of a Triboluminescence and Photocatalysis Based System for Intrinsic Structural Health Monitoring*. Funded by National Science Foundation. (0969413). Total award $300,000.

Zhang, Chun (Co-PI), Wang, Hsu-Pin (PI), Okoli, Okenwa (Co-PI), & Liang, Zhiyong (Co-PI). (Aug 2010–May 2011). *Advanced Nanotube Micro-Munition Weapon Technology Initiative II*. Funded by Georgia Aerospace Systems. Total award $375,000.

Okoli, O. O. (PI), & Wang, H.-P. . (Jul 2010–Jun 2013). *REU Site: Retaining Engineers through Research Entrepreneurship and Advanced - Materials Training*. Funded by National Science Foundation. Total award $327,969.

Okoli, Okenwa (PI), & Liang, Zhiyong (Co-PI). (Jul 2010–Jun 2011). *Diversity in Research and Engineering of Advanced Materials (DREAM)*. Funded by Air Force Research Laboratory. (FA8651-10-1-0011). Total award $99,975.

Zeng, C. (PI), & Okoli, O. I. (Co-PI). (Oct 2009–Mar 2010). *Simulation and Characterization of Nanotube Reinforced Fabric Composites Using Polystyrene Foaming Techniques: Modeling, V&V and UQ*. Funded by NNSA. Total award $110,000.

Okoli, Okenwa (PI), & Wang, Hsu-Pin (Co-PI). (Sep 2009–Jun 2010). *Delivery of a Resin Infusion between Double Flexible Tooling Equipment to Air Force Research Lab, Munitions Directorate*. Funded by Air Force Research Laboratory. (FA8651-09-M-0322). Total award $19,994.

Okoli, Okenwa (PI), & Liang, Zhiyong (Co-PI). (May 2009–Jul 2009). *DREAM - Diversity in Research and Engineering of Advanced Materials*. Funded by HX5, LLC. Total award $113,061.

Zhang, Chun (Co-PI), Wang, Hsu-Pin (PI), Okoli, Okenwa (Co-PI), & Liang, Zhiyong (Co-PI). (Dec 2008–Dec 2009). *Advanced Nanotube Micro-Munition Technology*. Funded by Georgia Aerospace Systems. Total award $300,000.

Okoli, Okenwa (PI). (Nov 2008–Dec 2021). *Okoli - PI RESEARCH SUPPORT*. Funded by FSU. Total award $15,445.

Okoli, O. I. (PI). (Jul 2008–Aug 2014). *Process Analysis for ATK Ares I First Stage Element*. Funded by ATK. (ATK-47376). Total award $846,452.

Zhang, C. (PI), & Okoli, O. I. (Co-PI). (Mar 2008–Mar 2013). *Development of Low Cost and Rapid Composite Process*. Funded by ARL. Total award $2,599,967.

Okoli, Okenwa (PI), Wang, Hsu-Pin (Co-PI), & Liang, Zhiyong (Co-PI). (Jun 2007–Mar 2008). *Investigation of Interlaminar Behavior of SAPI Backing Materials*. Funded by United States Department of the Army. (W91CRB-07-P-0118). Total award $45,000.

Okoli, O. I. (Co-PI). (Jan 2007–Dec 2015). *Center of Excellence in Advanced Materials (CEAM)*. Funded by State of Florida. Total award $4,000,000.

Okoli, O. I. (PI), & Wang, H-P. (Aug 2005–Sep 2006). *Modeling for the Development and Optimization of Lightweight Personnel Armor Systems*. Funded by AFRL/UTC. Total award $94,035.

Okoli, Okenwa (PI). (May 2005–Jun 2006). *Evaluation of Coating Materials for Use with the Resin Infusion Between Double Flexible Tooling Co-Infusion Process*. Funded by Cook Composites & Polymers Co. Total award $10,000.

Okoli, O. I. (PI). (Jul 2004–Jul 2005). *Composites That Glow: A Viability Assessment of Triboluminescent Composite Structures Manufactured wit hthe RIDFT Process*. Funded by FSU Black Faculty Award. Total award $4,000.

Okoli, O. I. (Co-PI). (Apr 2004–May 2012). *Cooperative Agreement: Nanotubes Optimized for Lightweight Exceptional Strength*. Funded by ARL. Total award $11,226,059.

Okoli, O. I. (Co-PI). (2003–2004). *NSF Industry-University Cooperative Research Center on Affordable Composite Materials*. Funded by NSF funding and membership fees (NSF, ARL, AFRL MN, AFRL ML, ONR, SNL, Boeing, Cummins, GKN, Lockheed, MTS). Total award $300,000.

Okoli, Okenwa (PI), & Wang, Hsu-Pin (Co-PI). (Jul 2002–Sep 2004). *Development of the Resin Infusion Between Double F*. Funded by Sandia National Laboratories. (39595). Total award $56,446.

Okoli, O. I. (Co-PI). (2002–2003). *NSF Industry-University Cooperative Research Center on Affordable Composite Materials*. Funded by NSF funding and membership fees (NSF, ARL, AFRL MN, AFRL ML, ONR, SNL, Boeing, Cummins, GKN, Lockheed, MTS). Total award $300,000.

Okoli, O. I. (Co-PI). (Oct 2001–Sep 2003). *Thermal Analysis and Design Improvement of Composite Mortar*. Funded by Army Research Office. Total award $300,000.

Okoli, O. I. (Co-PI). (Sep 2001–Dec 2008). *Development of Low Cost and Rapid Response Manufacturing Techniques for Light Weight Multifunctional Composite Materials for Use in Army Future Combat Systems (FCS)*. Funded by ARL. Total award $2,390,767.

Okoli, O. I. (Co-PI). (Sep 2001–Feb 2003). *IUCRC (Planning) Grant*. Funded by NSF. Total award $10,000.

Okoli, O. I. (Co-PI). (Sep 2001–Sep 2002). *Light-Weight, Affordable Multifunctional Composite Materials for Use in Army Future Combat System Unmanned Vehicles*. Funded by Army Research Office. Total award $175,000.

Wang, Hsi-Pin (PI), Okoli, O. I. (Co-PI), Zhang, C., & Simpson, J. R. (Apr 2001–Mar 2002). *Ultracapacitor Development Demonstration for Air Armament Power Supply," Mentor Protégé Contract*. Funded by Lockheed Martin Corp. Total award $783,523.

Okoli, O. I. (Co-PI). (Jan 1998–Aug 1999). *CAD/CAM Equipment and Software*. Funded by Society of Manufacturing Engineers Foundation. Total award $113,300.

Postdoctoral Supervision

Eze, V.O. (Sep 2018 – present)

Adhikari, N. (Sep 2017–Apr 2018).

Olawale, D. O. (May 2013–Dec 2015).

Uddin, M. J. (Oct 2011–Feb 2014).

Ighodaro, O. L-R (Jun 2012–Dec 2013).

Service

Florida State University

FSU University Service

Senator, Florida State University Faculty Senate (2012–2016).

Member, Diversity & Graduate Education Committee (2011–2014).

Member, STEM Recruiting Initiative Committee (2014).

Member, Faculty Senate Grievance Committee (2006–2009).

Member, Florida A&M University Faculty Senate Newsletter Committee (2004).

College representative, Summer Commencement Ceremony (2002).

College representative, Summer Commencement Ceremony (1999).

FSU College Service

Member, Intellectual Property Policy Drafting Committee (2012–2013).

Member, Graduate Committee (2007–2012).

Member, Library committee (1998–2007).

Faculty Mentor, Design Team Competition (2003).

IE Faculty Mentor, MDTC – Shaw Industry Project (2001–2002).

FSU Department Service

Director, Graduate Studies (2007–2012).

Member, Graduate Studies (2000–2012).

Chair, Curriculum Committee (2006–2008).

The Profession

Editorial Board Membership(s)

Journal of Advanced Manufacturing Technology (2014–present).

Guest Reviewer for Refereed Journals

Metallurgical and Materials Transactions A (2012–present).

Composites Part B (2011–present).

Optical Materials (2011–present).

Smart Materials (2011–present).

Journal of Composite Materials (2010–present).

Journal of Scientific and Industrial Research (2009–present).

e-Polymers – European Plastics Federation (2008–present).

Composites Science and Technology (2007–present).

Applied Mechanics Reviews (2005–present).

Journal of Polymer Composites (2005–present).

Journal of Materials Science (2004–present).

Composites Part A (2003–present).

Journal of Applied Polymer Science (2003–present).

Journal of Reinforced Plastics and Composites (2003–present).

Reviewer for Textbooks

Manufacturing Planning and Control Systems for Supply Chain Management 5e (2006).

Chair of a Symposium

Okoli, O. I., Eze, V. O., & Shohag, M. A. (Chair). (2020, June). *10th EWSHM, Palermo (Italy), July 6-9 2020 - Special session: Multifunctional Materials and Composites*. Symposium conducted at the meeting of European Workshop on Composite Materials, Palermo (Italy).

Okoli, O. I. (Chair). (2012, October). *SAMPE Tech Charleston: Nanocomposites and Multifunctional Composites*. Symposium conducted at the meeting of SAMPE, Charleston, SC.

Okoli, O. I. (Chair). (2012, September). *SHM/NDE Experimentation: ASME 2012 Conference on Smart Materials, Adaptive Structures, and Intelligent Systems (SMASIS)*. Symposium conducted at the meeting of ASME, Stone Mountain, GA, USA.

Reviewer or Panelist for Grant Applications

National Sciences and Engineering Research Council of Canada (2005–present).

South Carolina Department of Defense/EPSCOR Program (2005–present).

National Science Foundation (2000–present).

Service to Professional Associations

Trained Assessor - Scrutineer, The Institute of Materials, Minerals and Mining (2015–present).

Charter Faculty Advisor – Chapter S356, FAMU-FSU CoE, Society of Manufacturing Engineers (2004–present).

Reviewer, IISE Innovations in Education Award, Institute of Industrial & Systems Engineers CIEADH (2021).

Moderator, 2020 Annual IISE Doctoral Student Colloquium - Presentation Session, Institute of Industrial & Systems Engineers CIEADH (2020).

Panelist, 2020 Annual IISE Doctoral Student Colloquium - Life in Academia Virtual Panel, Institute of Industrial & Systems Engineers CIEADH (2020).

Reviewer, 2020 IISE Manufacturing & Design Division Outstanding Young Investigator Award, Institute of Industrial & Systems Engineers (2020).

International Organizing Committee, 8th Africa-USA International Conference On Manufacturing & Information Systems Technology, Knoxville Tennessee, USA (2007).

International Advisory Board, 6th International Conference on Composite Science and Technology, Durban South Africa (2007).

Composites Publications Subcommittee, Society of Manufacturing Engineers (2005–2006).

International Organizing Committee, 6th Africa-USA International Conference on Manufacturing Technology, Abuja, Nigeria (2002).

Session Chair, 8th European Conference on Composite Materials, Naples Italy (1998).

Service to Other Universities

External Reviewer of Graduate Program, *Wayne State University* (2020).

Reviewer, *UW-Milwaukee's Research Growth Initiative* (2015–2016).

The Community

Judge, Science Fair, Apalachee Tapestry Magnet School of the Arts (2015–2019).

STEM Board Member, Conley Elementary School (2015–2018).

Program Development to narrow the achievement gap, Apalachee Tapestry Magnet School for the Arts (2010–2018).

Member, Blue Print 2000 – Bridge Evaluation Committee (2010).

Volunteer, Habitat for Humanity (1999–2007).

Judge, Capital Regional Science and Engineering Fair Executive Committee (2003–2005).

Citizen Volunteer Mentor, Florida Department of Corrections (2003).

Invited Speaker, Florida State University School (2002).

Leadership through Service

With more than twenty years' experience, passion and leadership successes at the FAMU-FSU joint College of Engineering, my vision is to focus on HBCU student success, strong interdisciplinary research, wide corporate collaborations and support, and enhanced alumni giving, to move us to the number one HBCU PhD producer, highest per faculty research expenditure among the SUS engineering colleges, and establish several nation-wide featured corporate sponsorships. My leadership philosophy is to **serve** students, faculty and staff colleagues first, focus on creating a diverse and inclusive program, and build critical infrastructure, expertise and relationships for long-term growth.

As a faculty member, department chair, deputy director of major research center, and the leader and PI for establishing and delivering major education programs and national level impact research projects, I have accumulated the leadership skill to a College of Engineering. I set many records at our College of Engineering in the past years. I initiated and maintained the Diversity in Research and Engineering of Advanced Materials Training – DREAM REU with AFRL/MN since 2009 and was granted **first NSF REU** program (Retaining Engineers through Research Entrepreneurship and Advanced Materials Training – RETREAT) at the joint College of Engineering with a total **$2.12M** and over 100 interns to develop critical diversity in materials and manufacturing. I established the first joint MS (Engineering Management of Orthotics & Prosthetics) program with St. Petersburg College to produce more than 70 MS students; and recently mentored the formulation and rapid growth of the MS Systems Engineering program with a total of more than 100 MS graduated and enrolled. As the PI, I teamed up with my colleagues to successfully establish major HBCU research programs. Being the FAMU DoE Samuel P. Massie Chair of Excellence (**$1.5M**) allowed the growth of our engineered materials research resulting in the funding of a number of graduate students. I also directed funds to k-12 STEM activities which helped see Apalachee Tapestry Magnet School of the Arts (ATMSA) rise from a D grade school to a B grade one. My interactions with NASA prime contractor *then* Orbital ATK yielded $0.84M to engage our minority students in engineering studies of the Ares I first stage elements. This resulted in the award of the MSFC FY 2013 Small Business Subcontractor Excellence Award to FAMU. Following this, I organized the NASA HBCU Technology Infusion Tour that saw more than 200 participants from over **20** NASA Prime contractors including Lockheed Martin, Orbital ATK (now Northrup Grumman), Boeing, Aerojet Rocketdyne and others. My efforts resulted in a $5M IDIQ with. Lockheed Martin. I recently received a **$4M** grant from the DoE MSIPP program (I AM EMPOWEREd) to bolster the pipeline of minority students from K-12 to PhD through engineered materials research and education. Furthermore, as chair and Co-Investigator, I have continually supported support our department and HPMI to succeed in receiving major research grants, including Dept. of Veterans Affairs (**$4.4M**), NSF Nanomanufacturing (**$1.5M**), NSF RISE ($1M), NASA STRI (**$3.75M**), NSF CREST (**$5M**), and recent AFRL grant (**$6.3M**). I took on the role of department chair as an associate professor in a very challenging time, and I turned it into a very effective and productive unit and achieved great success more than doubling our undergraduate program in less than 3 years. I worked to and increased our graduate program numbers by 232% in 2 years! I worked to and successfully increased our faculty numbers to our current 13 (highest ever), creating a more balanced and collegial environment for research and teaching.

To lead the University of Memphis, Herff College of Engineering to continued success, I will work closely with U of M leadership to foster a relationship that will showcase the Herff College of

Engineering as an example in the nation through excellence in Teaching, Research, and Service in a nurturing and caring environment where all will thrive.

The development and continued success of any institutional unit requires the committed service of its members. The call to serve should always be considered an honor. As such, in my over twenty-three years at Florida A&M University – Florida State University (FAMU-FSU) joint College of Engineering, I have regarded the opportunity to serve my department, college, community, and nation of utmost importance.

My service in various capacities includes: leading our graduate program, our outreach efforts, and several committees. This prepared me well for my current appointment as Chair of the Industrial and Manufacturing Engineering (IME) department.

My philosophy towards leading an academic unit focuses on participation. My vision is to achieve student-centric learning in view of the tenets of our profession – teaching, research, and service. I strive to **foster collegial and interdisciplinary research, focusing on research entrepreneurship** with the view of changing our world through research innovation. I led my graduate students through an entrepreneurial venture, spinning off the Nanotechnology Patronas Group (NPG) Inc., a technology startup based on my sensors research. Such efforts on research entrepreneurship are critical as our nation is currently at crossroads as we consider the importance of engineering education in the 21st century. Within this new age, it is imperative to continue the development of transformational technologies to keep and enhance our global competitiveness. Furthermore, our nation is at a point where the Baby boomers are fast retiring, and industry is left yearning for the much-needed replacement of a "clearable" workforce. The crux is that the millennials are not rushing into STEM education in droves as observed in competitive countries. What then should we do? A clear vision to create engaging curricular that will pipeline US children from K-12, then through STEM baccalaureate degrees, and then to graduate programs is imperative. This may be achieved with a co-joining of forces to engage and educate STEM teachers (Education departments), create an environment that enlightens parents of these young persons to encourage them (our stakeholders) to participate in the transformation of our workforce. The undergraduate curricular needs to be more engaging as we continually lose bright innovative minds to non-STEM disciplines. Sponsored research and outreach activities need to go hand in hand beyond the verbose of the NSF broader impacts requirements. It is also necessary to engage industry beyond the discuss of them needing a workforce – words need to be put into action. This engagement will be in terms of meaningful internships, fellowships, and mentoring to increase retention and student success.

The following sections elucidate my experience, leading through service.

Department

I have led my department in various capacities and made critical changes with great results: Significantly changed our doctoral program resulting in a shortened time to candidacy (some departments in the college have followed suit); introduced highly successful distance learning programs; more than doubled our undergraduate program; enhanced our research productivity.

Director of Graduate Studies

I have been a vigorous voice for change, leading my department in different programmatic capacities, pushing for growth with particular focus in student success. My five-year tenure as the **Director of Graduate Studies** saw the impact of reorganization of our graduate program. In 2010, **I led the effort to**

totally overhaul our doctoral program, making it more attractive to US students. I charted and enforced programmatic milestones. For instance, in our BS-PhD track, courses were reduced to a maximum of 24 credit hours prior to candidacy, and a 3 credit hour course was introduced that resulted in the submission of a theoretical treatise for publication by semester of candidacy (Prelim exam). Time to Prelim exam was enforced at a maximum of 18 months from matriculation. Prelim exam was reformulated to be more research focused. All these increased our completion rates whilst reducing the time to dissertation defense from over 6, to 4-5 years. I chaired the Graduate Studies Committee charged with the responsibility for recruiting and retaining graduate students, as well as the continual development and review of the graduate program administration. I successfully organized several seminars and Open House events to recruit undecided potential students. I continually mentored our seniors on pathways to success in **STEM graduate programs** and careers and thoroughly enjoyed seeing my efforts lead to retaining excellent students in our programs. I made numerous trips to several small and large universities and colleges (University of Minnesota, Winona State University, Fisk University, Tennessee State University, Vanderbilt University, etc.), **to recruit US students**. My commitment to **diversity and inclusion** is exemplified through my doctoral research students. In AY 2017/18, I chaired five doctoral student committees, and co-chaired two. They included three **(43%) females**, and one **African American**. **Three** of my doctoral students were enrolled at FAMU, and **four** at FSU. Of the seven students, **five are US** citizens. Three of them were recruited through my NSF REU and DREAM programs (see following), and two were recruited from direct college visits. Of the students mentioned above, I graduated two US female PhDs in April and August of 2018 respectively (both FSU), and an **African American female** PhD (FAMU) in December 2018. In AY 20, I recruited an African American female (FAMU) to join my group as a PhD student. She had attended our 2019 NSF HBCU CREST-RISE summer program and worked with me. I currently (AY 21) chair four doctoral student committees, and co-chair one. Three (60%) are women.

I organized and ran several research internship programs since 2009, and have received funding from the Air Force Research Lab (DREAM www.eng.famu.fsu.edu/ime/dream), and the National Science Foundation (REU RETREAT www.eng.famu.fsu.edu/ime/retreat). The RETREAT which was recently renewed for another three years aims at "facilitating a mediative refocus" of STEM students that may otherwise be guided towards career choices outside STEM. To this end, the interns are engaged in activities that focus on bridging the gap between materials engineering innovations and their market potential. The DREAM program which was renewed for FY 21 aims at encouraging underrepresented minority participation in materials engineering research and data science. My activities through the DREAM program earned me the **Dr. Martin Luther King, Jr. Distinguished Service Award** in 2017. In my relentless pursuit to increase the number of minority students in STEM, I sought and was awarded (PI) a four-year **$4M MSIPP grant** starting October 2021 by the DoE/NNSA that will enable the pipelining of minority students to our baccalaureate and graduate programs. We expect to fund **5 PhD** students annually through this award.

I chaired the Department's curriculum committee, and was very active, assisting the IME chair with preparation for our ABET reviews. I led curriculum reviews pertaining to our graduate program accreditation including the Quality Enhancement Review, GPC and SACS. I also developed and implemented our new **Engineering Management of Orthotics and Prosthetics** (MSIE-EMOP) Major within Existing Engineering Management MS Degree Program, with a goal of increasing our graduate student enrollment, and enhancing our prosthetics research.

IME Department Chair

In August of 2012, when the position of Chair suddenly became vacant, I was nominated into the leadership of the department as **interim Chair**. I saw to the day-to-day running of the department including the successful search for three faculty hires. I attended to faculty and staff concerns to quell further attrition of core personnel while maintaining and improving the level of service quality. Under my direction the IME department began drafting its **first** byelaws. I also began to address issues with student numbers at our graduate and undergraduate levels with the formation of our **Research Scholars program**. The Scholars program is aimed at engaging undergraduate students in meaningful paid research through the school year. We have successfully engaged these students in our Honors Thesis programs, with most matriculating into our graduate programs. I also addressed issues with the length of time students spend in our doctoral program, with a more rigorous application of our milestones.

In August of 2013, I was confirmed **Chair** of the department and continued with my vision of improving our ranking through pragmatic and scholastic endeavors. In College wide reviews by the Dean's Office for Academic Year (AY) 2012, 2013, and 2014, the IME department under my leadership, led in most categories. In 2013, I began to cultivate relationships in China, and Nigeria pursuing MoUs to establish 3+1+1, and 4+1+1 programs. With student enrollment as a salient issue, we intensified our mentoring efforts in our Research Scholars Program. We also organized Research and Graduate Opportunity Open House events, and are beginning to reap dividends. Our Undergraduate population grew 38% from fall 2012 to fall 2014. At the end of fall 2017, the student population had risen to 182. Our goal is 200. In the same period, our graduate enrolment rose by 232%, to 79 (fall 2014)! In the fall of 2015, we had 76 students in our graduate program. This growth was attributed to our MSIE-EMOP program. Unfortunately, this was not sustainable due to the reduced enrollment in our partner institution St. Petersburg College. To address our reduced MSIE enrollment, I led the establishment of our new **MSIE Systems Engineering** program which began in fall 2018. In fall of 2020, our graduate enrollment rose to 93, an 18% increase on our 2014 numbers. In the fall of 2021, our graduate enrollment had risen to 139, a 49% increase on FA2020. This was mainly attributed to a 55% growth (76 students) in our MSSE program. We expect this trend to continue albeit the effects of the pandemic on recruitment of foreign students. In order to enhance our IME recruitment of African American students, I sought and received 5 out-of-state tuition waivers from FAMU for five years beginning fall 2018. As such in FA 2017, I embarked on trips to recruit highly qualified students. Of the five awards I made, three students (2 women) matriculated into our IME freshman class in August 2018. Over the years I have focused on student success. How do we get them in (recruitment), and more importantly, how do we graduate them in an efficient manner? I continually work with the FAMU Engineering Living Learning Community (LLC), to ensure constructive engagement of students that have resulted in the radical increase in our retention rates. To further our undergraduate recruitment, development and implementation of a new course sequence called **Digital Tech & Engineering Marvels (1 & 2)** to be offered to freshmen began in FA20. This was enabled through funding from the NSF TIP initiative through FAMU (Dickens *et al*). The goal is to bring in all students interested in science to explore engineering through IME.

A four-year graduation rate is critical in Florida, as such, I have commenced a total overhaul of our curriculum to enable an optimized flow and reduce time to graduation. Implementation begun in FA 20. It is noteworthy that from data given to us from the College of Engineering in spring 2021, our 5-year graduation rate is the **highest in the college with 92% graduating**, compared with 80% average across

all departments. This we believe is due to the **care and attention** our faculty and staff pay our students, as our mantra remains to be **student centered**.

As chair, I led the successful ABET reaccreditation of our department in the fall of 2015. Our program was found without blemish – no weakness nor deficiencies. We also recently successfully completed our fall 2021 ABET re-accreditation without blemish (formal report due in 2022). Additionally, we successfully completed our program Quality Enhancement/Program Review (QER/PR) in March 2019 with a recommendation to continue the program until the next review in 2026 (7 years).

Resource Allocation: In our research-intensive department, I annually oversee about $2.8M of spending from E&G and C&G sources. E&G funds are used to run the department – OPS funds for teaching assistants and temporary staff, and general operations. C&G funds are used for grant award expenditures including research assistants. The Universities generally return a portion of the F&A (overhead) costs to the department. Outside our E&G and C&G allocations, new tenure track faculty are generally awarded generous startup packages to get them started which includes funds for summer pay for 2 years, and 2 doctoral students for 2 years as well as necessary research equipment, and travel. Subsequently, more funds may be allocated to them based on need. Funds are also set aside to assist with reengaging tenured faculty in research. Priority in allocating such funds is given to research students who have a gap in funding, and as a means of assisting their research advisors. During our annual retreat each fall, the budget and other financial information pertaining to the department is made available to the faculty and deliberated upon in an open manner. For instance, it was decided in our faculty retreat that no TA funds will go to MS students, but will be reserved primarily for new doctoral students, as well as to buoy up support for continuing doctoral students as we seek to increase our numbers. Financial matters are also discussed in regular faculty meetings.

Over the years, I have come to appreciate that academic leadership is quite different from what one sees in the corporate world, especially as it relates to the relationship between the Department Head or Chair and Faculty colleagues. As such, when decisions need to be made, I consult with colleagues in most cases, except when there is urgency. I believe that a clear understanding of faculty needs and activities will go a long way in fostering a collegial atmosphere for growth and excellence in the principal areas of teaching, research, and service. It is important to lead by example with the goal of achieving excellence in these three principal areas. As such, I believe that remaining active in teaching and funded research is imperative. Providing key support to faculty and staff is equally important. Resource allocation to young faculty many of whom have never taught, nor written proposals, can be crucial to success. More so, being able to reengage faculty in research through the provision of enabling funds for students, summer, etc. has been invaluable. When I took over the helm of the department, our faculty, though one of the most productive in the College, were the least paid at all levels. I acted on their behalf to encourage the Engineering Dean to reverse this trend. Although I have found that the Chair's ability to maneuver may be quite limited at times, I have grown to appreciate what gains in trust and collegiality have been attained by my taking up their concerns with upper management. Nonetheless, I am careful not to overpromise.

Visibility and Engagement: I understand that becoming visible through meaningful engagement of our students, alumni base, industry, academic peers, and government is vital to our success. Visibility will promote our ranking, and constructive engagement will increase our ability to raise funds directed at student success. For this reason, I initiated a rebranding campaign to improve our visibility and attractiveness within our stakeholder populations. As part of this campaign, the IME departmental office

was renovated, and with the participation of the IME Advisory Council, we launched our departmental logo and slogan. We also had our very first alumni event themed "Engineering My Success." The event was planned to reconnect alumni with the department and to support IME's new campaign initiative to provide opportunities for undergraduate students, provide students with research internships at major company corporations and recruit undergraduate students. Another event was planned for fall 2020, but was postponed due to the pandemic. Nonetheless, we rolled-out our first IME brochure (digital format) in fall of 2020. I also initiated fund raising for student success by corporate sponsorship of our senior design projects. Under my leadership, our department has raised $498K in corporate gifts for senior design projects alone. I am championing our further growth in this area, and requested additional personnel from the Dean to assist. This will include at a minimum, a communications specialist to assist with our newsletters and marketing publications, and a Major Gift Officer to lead our team in broadening our visibility. Having been at our joint College for over 2 decades, I have had the fortune of connecting with our alumni and maintained contact through emails, LinkedIn, phone calls, as well as regular mailings during the festive seasons.

College

I served on the College of Engineering Library Committee, conducting periodic reviews of current literature requirements, including journals, handbooks and textbooks. I represented my department's interests in the allocation of funds for purchasing new literature material. I also worked to ensure access to materials necessary for our students and faculty. I was a member of the College Graduate Committee and ensured the fidelity of our graduate programs. I was a member of the Intellectual Property Policy Drafting Committee set up to draft a new policy to guide the allocation of IP rights between the two universities (FAMU and FSU) our college serves. I was also a member of the College's Pathways to Innovation Team.

University

I served as a senator to the FSU Faculty Senate, and was previously elected as a member of the Faculty Senate Grievance Committee. I was also a member of the Diversity and Graduate Education Committee. More recently, I served on the selection committee for the Sprint Eminent Scholar Chair in Engineering.

As the Associate Director of the High-Performance Materials Institute (HPMI), I am charged with assisting the Director with setting the research direction and developing the research capability for the institute with the goal of maintaining and growing our leading role in advanced materials engineering (See Research).

Profession

I have actively supported my profession by serving at national and international conferences in various capacities. I have also committed to reviewing proposals for the National Science Foundation, the South Carolina Department of Defense/EPSCOR program, the National Sciences and Engineering Research Council of Canada, and the UW-Milwaukee's Research Growth Initiative. I have also been the external reviewer of a graduate program (Wayne State University). I am active in reviewing technical manuscripts and journal papers in my area of research. I am a Trained Assessor – Scrutineer, currently serving the Institute of Materials, Minerals and Mining to determine who is allowed into membership at various levels. I serve the IISE in various capacities as a reviewer/evaluator, as well as moderator/coordinator of the annual doctoral student colloquium. I also serve as the Charter Faculty Advisor of our SME Student

Chapter (S356) and have guided our student members in their activities which have included making repairs at the Dick Howser Center for Childhood Services Inc. in Tallahassee, and working on improving the math skills of elementary school pupils at Apalachee Tapestry Magnet School for the Arts (ATMSA), and Conley Elementary School.

The Community

My service to my community is demonstrated through active participation in the Habitat for Humanity; the Blue Print 2000 Bridge Evaluation Committee; and most of all, my volunteer activities at the Apalachee Tapestry Magnet School for the Arts. At ATMSA, I worked with the Principal to utilize the afterschool hours to enhance STEM-focused student learning. This effort which funded teachers through my DoE Massie Chair grant allowed the school to engage students in science labs which led them to be competition ready for the first time. These efforts helped propel the school from a "D" grade to a "B". For my service which focused on reducing the 'achievement' gap in this minority serving elementary school, I was nominated for the **Tallahassee Democrat Volunteer of the Year Award**.

Teaching

I believe that a good educational system is central to the development of technology and communities, the sustenance of good governance and the establishments of global economies. Pursuance of a career in engineering education originated from my strongest desire to guide, lead and educate. Through my devotion to our students, I strive to ensure they can effectively compete in our ever-changing world. Over the years at the FAMU-FSU College of Engineering, I have endeavored to develop my courses to portray the current economic and manufacturing environment, which enhances and elucidates their expectations and aspirations as they prepare to enter the real world. An assignment from a course I previously taught (EIN 4333) on the implementation of the **Just-in-Time ideology** (Group work on JIT) exemplifies this. I asked my students to consider the term "Exporting America", used to describe the international outsourcing of service and manufacturing jobs and the resulting socio-political implications. The phraseology 'Exporting America', is unfortunately gaining more relevance with more and more of our youth staying away from the STEM disciplines. We are losing our global competitive edge as elucidated in the publication "Rising Above the Gathering Storm: Energizing and Employing America for a Brighter Economic Future'. Addressing this necessitates a rethink of how we engage our youth in their educational pursuit. To this end, I have made several hopefully impactful changes to the courses I teach, as well as presenting opportunities through creative engagement by involving undergraduates in research.

When I began teaching our senior design course (IE SDP) over twenty years ago, I steered the course away from solving 'classroom' problems, to successfully engaging our students in solving real problems for industry. As a precursor, our industry partners (customers) are required to provide only problems that are critical to their needs. As such, the customers engage our students with the intent of implementing the results of the project. A list of our customers includes AFRL/RWAV, ARL, City of Tallahassee, TalTran City Transit, StarMetro, Archbold Memorial Hospital, Capital Regional Medical Center, Tallahassee Memorial Hospital, Bowen Medical, Caterpillar, Cummings Engines, IBM, Shaw Industries, Boeing, Harris Corp, Northrup Grumman Corp, Orbital ATK, Pratt & Whitney, TECT Corp, American Aluminum, Civionics, BASF, Danfoss Turbocor, Mars Corp., Trane, Crowley Maritime Corporation, UPS, NASA, ACMT, Ford Motor Company, Canon Solutions America, amongst others. In the fall of 2008, I completely revamped the SDP class, changing it from a one-semester course to a two-semester (fall-spring) course sequence. This was to better enable the students to arrive at meaningful results for

their customers. The new sequence allows the pairing of IE students with those from other departments in multidisciplinary teams. I changed the course content to allow the projects to be run as six-sigma (DMAIC) projects. This is a current industry standard for companies trying to enhance quality through diversity. Students who complete the class become more marketable to companies and prospective employers. Additionally, I organize six-sigma certification for the students through the Institute of Industrial & Systems Engineers.

Through my efforts in the SDP class, IE students and those from the other departments (Mechanical and Electrical Engineering), are introduced to our research on advanced composites and multiscale composites. They have made carbon nanotube based antennas, micro aerial vehicles (MAVs) using multiscale composites, and worked on non-destructive evaluation (NDE) of composite structures to name but a few. This is where research meets the classroom – helping to fulfill the much sort after 'broader impacts' requirements of funding agencies. As our undergraduate program continues to grow, I joined my colleagues in Mechanical and Electrical Engineering to lead the formation of Engineering Design Day – a college-wide program that highlights our senior design projects and serves as a college open-house to its various constituents. In 2016, I participated in a Venturewell Pathways to Innovation program that led to our College's Shark Tank design competition which is also held on the Engineering Design Day. Under my leadership, our department has raised $498K in corporate gifts for senior design projects alone.

I have always believed in a practical approach to problem solving. Exemplifying a theoretical problem through real situations is one of the best ways to stimulate students. Problems should jump from the blackboard into the classroom. To achieve this, I continuously conduct hands-on sessions and case studies in the classroom. I invite speakers from industry to address the students on topics of relevance. I have standing relationships with industry where I invite Quality Managers (six sigma black belts) to assist with the six-sigma instruction in my SDP class. They have come from Caterpillar, GE, and Trane amongst others. In the Introduction to ISO 9000 course, my students conduct a mock quality audit of local businesses. These include GT Technologies (formerly Stanadyne Automotive), Danfoss Turbocor, and Caterpillar. I have found that both our students and the companies gain from this relationship. In past audits our students have identified problems and suggested improvements in their quality system. Students cannot achieve this level of insight just by sitting in a classroom.

I am committed to continual improvement of teaching methodologies. As such, I was one of the first professors to fully implement the Blackboard Learning System for course delivery in the classroom. Furthermore, the development of the ISO 9000 class exemplifies my commitment to advancing our students' competitive advantage by making FAMU and FSU the **pioneering institutions** to offer such a course at both the graduate and undergraduate levels. I developed and re-engineered other courses within our department including the recent changes to the SDP class. In the polymer composite field, I created an introductory course that significantly contributed to the preparation of our graduate students for our renowned composites research group. I led an effort to expand our MSIE Engineering Management program to include a track leading to the MSIE in Engineering Management of Orthotics and Prosthetics (MSIE-EMOP). This joint program with St. Petersburg College, allowed them meet the accreditation requirements of NCOPE (governing body for O&P practitioners). It was a win-win situation for FSU and SPC with the effective growth of our graduate program. I developed a number of courses for simultaneous delivery (face-to-face and via communications link), including a course on Advanced Materials in Prosthetics.

My passion for engaging our students in research cannot be over emphasized. For over nineteen years, I have been engaging undergraduate students in materials research to help reverse the trend mentioned previously, and reported in 'Rising Above the Gathering Storm'[1]. I organized and ran the first summer internship program sponsored by the High-Performance Materials Institute in 2009. The same summer, I received an award from the AFRL/RWAV funding the Diversity in Research and Engineering of Advanced Materials Training (DREAM) internship program, to host interns from the underrepresented minorities. This program continues to date. I was awarded the **first NSF REU Site** in our College of Engineering. The NSF REU: Retaining Engineers through Research Entrepreneurship and Advanced-Materials Training (RETREAT) is geared towards demonstrating the commercial potential of research and is run with assistance from personnel at FSU's Jim Moran Institute for Global Entrepreneurship. This award stands to be a game changer in the way our youth view graduate education. Several of the summer interns subsequently matriculated into our graduate program at FAMU and FSU, with some having graduated.

In and outside the classroom, I endeavor to mentor students during their tenure with us. I encourage the strong and the not so strong alike, to help ensure that no student is left behind. It has been my strongest endeavor to see the students succeed by encouraging them to maintain a good grade point average, and then to pursue graduate studies, or by assisting them in their career choices and job placements. It has been extremely gratifying for me to see my students succeed, but even more so, when at the end of it all, I receive an expression of thanks. More so, my efforts in teaching were rewarded with the 2011-2012 **University Undergraduate Teaching Award**, and the Burning Spear **Guardian of the Flame** award in 2014.

Research

I have received more than $36 M in research grants as PI or Co-PI. Currently, I am the PI for one Air Force Research Lab (AFRL), one National Science Foundation (NSF), two NASA CAN, and one DoE MSIPP grant. I am a co-PI for a NASA STRI, a NASA CAN, and one NSF grant. HBCU program emphasis?

Over the past few years, I have strived to achieve significance in particular areas of materials engineering. These encompass the innovative and cost-effective manufacture of customizable multiscale multifunctional composites; innovative re-engineering and optimization of UHMWPE recipe in combination with the innovative confinement of ceramic structures to achieve enhanced personnel protective armor; and lastly, a paradigm shift creating inherent and ubiquitous damage sensing. I have also contributed significantly to research education through my efforts to recruit and retain US students in STEM graduate programs.

Research should strive towards both the theoretical treatise of some interesting observed phenomenon, and the discovery of practical solutions for day-to-day engineering problems. This view led my post-secondary educational goals and directed my professional and scholarly activities towards the teaching and research of engineering materials and processes. My research has focused on manufacturing and characterizing affordable advanced polymer composite materials, imbibing intrinsic structural health

[1] National Academy of Sciences; National Academy of Engineering Institute of Medicine; Committee on Science E, and Public Policy; and Committee on Prospering in the Global Economy of the 21st Century: An Agenda for American Science and Technology. Rising Above the Gathering Storm: Energizing and Employing America for a Brighter Economic Future. Washington D.C.: National Academies Press, 2007

monitoring, and improving the survivability of our troops in theatre. Non-sequestered results from my research efforts have been published in peer reviewed journals, presented in several international conferences, and provided impetus to my continued quest for novel and transformative research. My research contributions have led to patents, patent applications, and disclosures. I am a firm believer in the commercialization of University research to promote technology advances, and strive to follow the Stanford model by encouraging the entrepreneurial spirit within my research group. The following sections will highlight some of my major accomplishments.

Current Projects and Major Research Accomplishments

Manufacturing of Advanced Composites and Multiscale Composites

As demonstrated recently by Boeing's 787 Dreamliner, where advanced composites make up 50 wt.% of the primary structure, composites have definitely found their way into the commercial aerospace industry. With the increased utilization of these materials due to their beneficial attributes, it is imperative to increase their ease of manufacture, especially in relation to cost and the environment. To this end, I significantly contributed to the composite manufacturing arena having developed the innovative and **R&D 100 Award**[2] winning **Resin Infusion between Double Flexible Tooling (RIDFT)** process. It has attracted funding from the ARL, the AFRL, and industry (Cooks Composites and Polymers (CCP), Georgia Aerospace Systems Manufacturing (GASM), and Boeing). This effort was also highlighted by its successful technology transfer with a RIDFT equipment installed at the production facility of GASM in Jasper, Georgia. The equipment has also been procured by the AFRL. The RIDFT research has led to several publications, and a US Patent award. As composites continue to gain acceptance in safety critical structures there is still the need to improve through thickness properties. This may be achieved by the inclusion of nanomaterials such as carbon nanotubes (CNTs) within the resin rich interlaminar regions of composite structures. As such, recent RIDFT developmental work has successfully focused on the manufacture of multiscale composites with up to 2wt.% CNTs. This resulted in the ability to infuse over 10,000 cP extra-high viscosity CNT-doped resins yielding in the manufacture multiscale Micro-Air Vehicles (MAVs) and other rather large components when compared with results in the open literature. Funding received as PI or Co-PI related to the RIDFT process is at over $6.3M.

A new advance in my approach to the scalable manufacture of multiscale composites yielded the ability for customizable multifunctionality in composite structures through my novel **Displaced Foam Dispersion (DFD)** technique. The patented DFD technique utilizes sheets of Depletable nano Foams (Dn-Fs) to safely and selectively place highly loaded and well dispersed nanomaterials wherever needed within the laminates. DFD avoids the difficulties of infusing highly viscous CNT doped resins, as well as issues with point-to-point infusion of nanomaterials which place them ubiquitously through the laminates, even where they are not needed. DFD has received mounting interests from governmental agencies and industry. It was developed for vinyl ester resins with ongoing work addressing epoxy resin systems. Research funding ($100k) was received from the NNSA for this work. Success of this effort will lead to scalable production of nanocomposites for industries, which is considered as a Critical National need for nanomaterial and nanotechnology development.

Personnel Protection Technology

[2] Called the "Oscars of Innovation", the R&D 100 Awards recognize and celebrate the top 100 technology products of the year (www.RD100Awards.com)

Our recent incursions on several fronts necessitated the improvement of the personnel protection provided to our troops. Through funding from the AFRL and the Army Research office (ARO), I made significant contributions improving the manufacturing of Small Arms Protective Inserts (SAPIs). The resulting manufacturing approach for the soft solution using ultra-high molecular weight polyethylene (UHMWPE) **yielded significantly thinner and lighter SAPIs** that were as effective, or better than the status quo per NIJ specifications. The key was the ability to enhance effective delamination whilst controlling back face deformation. Although I received accolades (http://www.azonano.com/news.aspx?newsID=3883) via media press releases and mentions, the results were deemed classified and unpublishable, and sequestered by the government. My work on UHMWPE continues with a focus on controlling delamination spread to increase the efficacy against multistrike threats. Additionally, the SAPI plates are unable to defeat armor piercing rounds without a hard-ceramic strike face. As such, I have focused on developing the critical ability to confine crack growth in ceramics subject to ultra-high velocity projectiles, which is a frontier of ballistic ceramic research. My patented innovation allows for the **clever introduction of a secondary ductile phase material** which forms a continuous and connected confinement mesh around the ceramic. This new approach results in a composite that maintains the hardness and strength of a ceramic, but is quite resistant to cracks, and localizes crack growth to potentially significantly improve ballistic performance.

Structural Health Monitoring (SHM)

A **paradigm shift** is needed in how the health of structures is monitored especially with the increasing use of advanced composite materials in safety critical applications. The problem of barely visible impact damage is a long-standing challenge and their detection using current strain gauge based techniques can be cumbersome, laborious, and expensive. As such I am creating a novel technique for in-situ, real time, and ubiquitous SHM. My patented technique utilizes **the change in strain energy levels in a system to predicate failure**. It harnesses the known phenomenon of triboluminescence (TL) in combination with photoconversion to imbibe pain sensitivity in critical structures. This work is funded through awards from both NSF and the AFRL. It utilizes TL materials which react to rubbing or fracture by emitting light (pain signals). The light is captured, converted *in-situ* to electric signals, and transported to signal conditioners, by 3-D photoactive wires made from carbon nanotube yarns. These nanotube yarns will be woven into reinforcing fabrics (i.e. carbon fibers) used in manufacturing the composite structures. This is a major shift from current practice where embedded sensors are mostly parasitic to the structure. Moreover, it **does not require an external energy source** since the TL emission is the energy 'pump'. A challenge in this work was the placement of well dispersed TL crystals in the polymer resin system. The TL materials have a higher density than the resin, and are prone to settling. For the system to work, the TL materials must be well distributed. This was resolved by utilizing my budding DFD technique previously discussed. I have made significant progress, and am working on improving the system sensitivity. When mature, the Triboluminescent-Photoactive (TriP) system will be of immense significance in ensuring confidence in the use of composites in safety critical structures. A subset of this work, the Intrinsic Triboluminescent Optical Fiber (ITOF) sensor is geared towards the health monitoring of civil infrastructure. It was entered into **FSU's first InNOLEvation Challenge** in 2012, by two of my former doctoral students. They placed second, and won $55,000 towards the **commercialization** of this research. I also received the NSF I-Corps award ($50,000) in 2014 for the commercialization of this research, and the SAMPE **Outstanding Paper** Award in 2015. This work was awarded a NSF STTR Grant ($224,999 to **Nanotechnology Patronas Group Inc – a spin-off** from my TL research, with a

$75,000 sub – Award to FSU). Further development of the TriP system has necessitated the use of perovskite films in the fabrication of a self-powered photodetector, the goal being to integrate them with TL materials for embedment in composite structures.

Research Education

The release of the report "Rising above the Gathering Storm: Energizing and Employing America for a Brighter Economic Future"), drew much attention to concerns over the perceived declining global competitiveness of the United States in Science and Technology. It is well noted that many US STEM graduate programs are disproportionately made up of international students. More so, the achievement gap noted in the minority populations in K-12, is more pronounced in STEM graduate programs. Over the last eight years, **I have dedicated a significant amount of effort to address these poignant issues**. I spearheaded a drive to encourage our undergraduate students to work on research projects through the academic year, culminating in the honors theses in the major in their senior year. All the students that have participated in the program have matriculated to STEM graduate programs. In 2009, I led the first High-Performance Materials Institute (HPMI) summer internship program attracting 76 applicants from FAMU, FSU and Rose-Hulman College of Technology, representing 10 disciplines. Sixteen were selected. This was repeated in 2010 with ten interns. Additionally, I received an award from the AFRL/RWAV to run the **DREAM** - Diversity in Research and Engineering of Advanced Materials summer internship program in 2009. DREAM (https://eng.famu.fsu.edu/ime/dream) focuses on training minority students in Advanced Materials research. This program has rather successfully achieved its stated goals of training 4 interns per year, five of whom have received their PhDs, three received MS degrees, and a number, in graduate programs. Having attracted $809,280 by 2019 (2020 was canceled due to the pandemic) the DREAM program, was renewed in 2021 ($149,159) with a goal to include training in data science. Furthermore, I was awarded (PI) a four-year $4M MSIPP grant in October 2021 by the DoE/NNSA that will enable the pipelining of minority students to our baccalaureate and graduate programs. This *IAM-EMPOWERED* award is uniquely positioned to make major impacts across the K-22 landscape by **Encouraging** through interventions in K-12 where we provide mentoring and learning opportunities to the pupils and teachers; **Enlightening** where we provide internships and research opportunities to undergraduate students through interactions with DoE national labs, and our funded research programs at FAMU, and consortium partners Benedict College and UTRGV; **Empowering** through internships at national labs and industry, and training through graduate research opportunities leading to MS and Ph.D. degrees. This award and others will enhance IMEs outreach to increase the STEM participation URM students.

In 2010, I was awarded $327,969 for **the first NSF REU Site received by our College of Engineering**. The Retaining Engineers through Research Entrepreneurship and Advanced–Materials Training (RETREAT) program strives to persuade an increased number of engineering students to continue post baccalaureate into engineering careers in industry or proceed to postgraduate training in materials engineering research. The RETREAT program (https://eng.famu.fsu.edu/ime/retreat) began in the summer of 2011, and seeks to introduce participants to the importance and rewards of creating novel technologies and moving the technologies into the marketplace. This is achieved through organized coursework and seminars on Entrepreneurship delivered through the Jim Moran Institute for Global Entrepreneurship at FSU. A NSF panelist's comment that "The technology transfer efforts of this research should help to support the US efforts of maintaining competitiveness among its businesses and industry."

exemplifies the spirit of the program which attracts 100 applicants each year. The REU RETREAT funding was **renewed** in 2020 for another 3 years ($453,844).

I found our capstone IE senior design project (SDP) class I teach to **be a low hanging fruit for graduate student recruitment**. As such, I completely revamped the curriculum to utilize the six-sigma methodology to demonstrate how IE tools can be successfully used in combination with research innovations to solve real problems for industry. From 2008, I worked with Orbital ATK Launch Systems through our Mentor Protégé agreement, on the process analysis for the Ares I First Stage Element. This work primarily utilizes undergraduate students through the SDP class. I received over $846,000 for this effort from a very satisfied ATK who noted that "…your students are gaining key learning opportunities while providing NASA/ATK with valuable information".

Collaborative Partnerships

In my over 20 years at the FAMU-FSU College of Engineering, I have been a part of and instrumental to a good number of collaborative partnerships leading to funded research from DoD labs, NASA, the DoE, and industry, as well as research collaborations geared towards student success. An early example was the multi-University Industry/University Cooperative Research Center (I/UCRC) between the Ohio State University, UW-Madison, and the Florida Advanced Center for Composite Technologies (FAC^2T) at Florida A&M University and Florida State University sponsored by the industrial consortia of these three centers and the National Science Foundation (NSF). Members of our center were from the ARL, AFRL MN, AFRL ML, ONR, SNL, Boeing, Cooks Composites and Polymers (CCP), Cummins, GKN, Lockheed, and MTS. I worked with ARL, Boeing, SNL and CCP on the development of a novel and cost-effective technology for the manufacture of structural composites. I worked with each center member to meet their particular requirements. We met with the stake holders regularly in each of the three sites to achieve common set goals. Many of these collaborations remain to date with continued funding of our research from the respective stakeholders. In another instance, I worked with Georgia Aerospace (GAS) through funds from the AFRL-MN to develop processes for the manufacture of multiscale composite structures. This work included interfacing between GAS and AFRL, as well as delivering my novel Resin Infusion between Double Flexible tooling (RIDFT) equipment to their Jasper GA facility. I also led my team to provide training for their personnel on the use of the equipment to manufacture composite components.

My work with ATK Launch Systems conducted the process analysis for the ATK Ares I First Stage Element. I led my student teams in interactions with ATK personnel to meet the requirements of the statements of work over the 5-year duration of this effort. My students and I worked between the ATK facilities in KSC, and Marshall space Flight Center. My interactions with the ATK engineers was a learning experience on both sides. In order to be successful, we needed to coordinate the ATK work schedules to our (FAMU-FSU students). The goal was to produce clearable engineers to work on NASA related jobs. These efforts led to my FY **2013 NASA George C. Marshall Space Flight Center Small Business Subcontractor Excellence Award**. This was presented to Florida A&M University in recognition of exemplary subcontracting support to ATK Aerospace Systems under the MSFC Space Launch System Booster Contract. My interactions with NASA through ATK led to our organizing and hosting of **NASA's HBCU/MSI Technology Infusion Road Tour** at FAMU in 2016. This event brought together over 20 NASA prime contractors with over 200 attendees from HBCUs/MSIs and industry to learn how to foster meaningful collaborations. My efforts with this event led to our (FAMU) IDIQ with

Lockheed Martin, with the goal of producing trained US minority graduates ready for the workforce through research collaborations and internships.

More recently, upon the request of the Naval Surface Warfare Center (NSWC) I was instrumental to the development of our new MS Systems Engineering program to meet their training needs. The NSWC is within five miles of the FSU Panama City campus, and has a workforce of over 1400 employees of which over 950 are scientists and engineers. The program as designed, is highly applicable to advanced work in NSWC's mission areas, as well as to the Naval R&D establishment at a national level. As such, consultative discussions spanning over 18 months were held between the NSWC and the IME department in conjunction with FAMU, FSU, and FSU Panama City Campus administration to come up with a workable program. Initial costs were shared between the universities and the NSWC (through a Navy grant). This program began in fall 2018 with 11 students. There are currently 76 enrolled. We plan to expand to the two proximate air force bases. We also began the online option in fall 2020.

I am currently in discussions with Pratt & Whitney-UTC, ACMT, and GM Financial, to team as research and education partners. This will allow us utilize our expertise and capabilities in engineered materials and industrial engineering to work collaboratively on research critical to their success. Bearing in mind, our focus on producing highly qualified minority and female engineers at the BS, MS, and PhD levels, this is particularly important as our students graduate with the skillset requisite to their organizational needs.

As you can see, my philosophy towards leading an academic unit focuses on participation. It is based on my vision of achieving student-centric learning in view of the tenets of our profession – teaching, research, and service. I will continue my endeavor to attain excellence in these areas as Dean, of the University of Memphis, Herff College of Engineering.

References

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7. New Deans

Presentation

Presented by Abby Parrill

The University of Memphis Board of Trustees

Presentation

For Information

Date: September 7, 2022

Committee: Academic, Research and Student Success Committee

Presentation: Three New Deans

Presented by: Dr. Abby Parrill, Interim Provost

Background:

We have three new deans:

- School of Public Health, Dr. Ashish Joshi
- Loewenberg College of Nursing, Dr. Linda Haddad
- Vice Provost and Dean of Graduate School, Dr. Deborah Tollefsen

Dr. Ashish Joshi has been named dean of the School of Public Health, effective Aug. 1.

Joshi is currently senior associate dean of Academic and Student Affairs and professor of Epidemiology and Biostatistics at the CUNY Graduate School of Public Health and Health Policy-New York. He is active in several research and entrepreneurial initiatives funded by the city, state, National Institute of Health and other international agencies. Joshi is chair of the Global Health Informatics Working Group at the American Medical Informatics Association.

Joshi has participated in global health projects in India, Haiti, Nigeria, Bangladesh, Brazil and Egypt. He has presented his work at the World Health Organization, United Nations and other agencies worldwide. Having published more than 100 peer-reviewed articles in the area of population health informatics and designs, he develops and implements technological innovations and interventions at the intersection of clinical care and population health to enhance health and well-being of communities.

Joshi has been active in the response to COVID-19 in New York and other parts of the world. He led CUNY SPH collaboration with the Housing Recovery Office of the Mayor of New York City to secure a nearly $10 million grant to contribute towards the implementation of the City's innovative Resource Navigator Test and Trace Program.

Joshi received a bachelor's degree in medicine and surgery from Punjabi University in India, a Master of Public Health from Boston University and a PhD in health informatics from the University of Texas Health Science Center at Houston.

Dr. Linda Haddad has been named dean of the Loewenberg College of Nursing, effective Aug. 1.

Dr. Haddad is an Irwin Belk distinguished professor and currently the director of the School of Nursing at the University of North Carolina Wilmington (UNCW). Prior to joining UNCW, Dr. Haddad served as the associate dean for academic affairs at the University of Florida College of Nursing, the dean of the Faculty of Nursing at the Jordan University of Science and Technology (JUST), the director of the World Health Organization Collaborating Center for Health and Development, and the deputy director of the JUST-affiliated King Abdullah University Hospital.

A native of Jordan, she has extensive experience with international health initiatives through consulting and working on projects to help train medical professionals and improve community health in the Middle East. She is a productive scholar with an extensive portfolio of publications and grant awards. Her research focuses on tobacco cessation among minority groups, and her background is in community and public health nursing. Dr. Haddad is a fellow of the American Academy of Nursing and a member of the Society on Research for Nicotine and Tobacco, Sigma Theta Tau International, and the Board of Commissioners for the National League for Nursing Commission for Nursing Education Accreditation.

Dr. Haddad earned a Doctor of Philosophy in nursing from the University of Maryland, a Master of Nursing Science from the University of Pennsylvania, and a Bachelor of Science in nursing from Jordan.

Dr. Deborah Perron Tollefsen has been named University of Memphis vice provost and dean of the Graduate School, effective Sept. 1.

Tollefsen joined the Department of Philosophy at the UofM in August of 2022 and has previously served as the department's director of graduate studies (2005-08) and chair (2008-13). In 2015, she became associate dean in the College of Arts and Sciences and remained in that position until August 2021. During her time as associate dean, she also served as co-lead on the University's Process Management Group.

Tollefsen's research focuses on the metaphysics, epistemology and ethics of group. She has published more than 40 articles and book chapters on topics such as collective responsibility, shared agency, collective knowledge and group minds. Her 2015 book "Groups as Agents" serves as an opinionated introduction to debates regarding group agency and is used throughout the US and Europe in undergraduate and graduate courses.

Tollefsen received a Bachelor of Arts in Philosophy from St. Anselm College ('92), a Master of Arts in Philosophy from the University of South Carolina ('95) and a PhD in Philosophy from The Ohio State University ('02).

8. Interim Deans

Presentation

Presented by Abby Parrill

The University of Memphis Board of Trustees

Presentation

For Information

Date: September 7, 2022

Committee: Academic, Research and Student Success Committee

Presentation: Interim Deans

Presented by: Dr. Abby Parrill, Interim Provost

Background:

We have four interim deans:

- College of Arts and Sciences, Dr. Gary Emmert
- College of Communication and Fine Arts, Dr. Ryan Fisher
- Herff College of Engineering, Dr. Russ Deaton
- Fogelman College of Business and Economics, Dr. Greg Boller

Dr. Greg Boller has been named Interim Dean of the Fogelman College of Business & Economics, effective July 15.

Dr. Boller is an Associate Professor of Marketing and current Chairman of the Department of Marketing and Supply Chain Management. He teaches Creative Marketing Communications, Creativity and Innovation, Ethics, Negotiation, Global Marketing Strategy and Philosophy of Science. Previously, he was Director and Department Chair of MBA Programs (2002-05). Dr. Boller holds a BS, MS and PhD degree in Marketing from Penn State University.

Dr. Boller's current research interests center on empathy, business ethics and performance ethnography. His research has been published in *The Journal of Consumer Research*, *The Journal of Advertising*, *The Journal of Business Research* and others. His poetry has appeared or is forthcoming in *Neologism Poetry Journal*, *River Paw Press* and others.

Dr. Boller regularly conducts creativity, leadership, negotiation and communications training seminars for companies and executive development programs. He has served as an advertising consultant to the US Navy and as a political research consultant to ABC News, the Foundation for National Progress and the National Institute on Media and the Family. He also served as a lobbying strategy consultant for the National Hardwood Lumber Association and Family Business First.

In addition, Dr. Boller is an enthusiastic member of the Memphis theatre community, having served in various board of director roles. He is a Teaching Artist at Playhouse on the Square, where he teaches beginning through advanced adult acting, as well as advanced acting for teens, and is actively engaged in acting roles.

Dr. Ryan Fisher has been named interim dean of the College of Communication and Fine Arts, effective July 25.

Ryan Fisher, Professor of Music Education, most recently served as Associate Dean for Academic Affairs of the College. He joined the School of Music in 2013 as division head/coordinator of the music education program. Dr. Fisher is an active choral conductor and researcher. His research interests involve the male voice change, assessment in music education and self-efficacy. Fisher also serves as faculty affiliate for the Institute for Intelligent Systems and the Institute for Arts and Health.

He currently serves as President of the Tennessee Music Education Association and has previously served as President-Elect of the Arkansas Music Educators Association, Vice President of the Texas Private Schools Music Educators Association and held positions on the National Association for Music Education-Choral Council, the Tennessee-American Choral Directors Association state board, and the Update: Applications of Research in Music Education editorial committee.

He earned a BME from Lee University, a MM in choral conducting and a PhD in music education from the University of North Texas. In 2016, he was recognized as Distinguished Alumnus of the Year by the Lee University School of Music.

Dr. Russell Deaton, Professor of Electrical and Computer Engineering, has been named the interim dean of the Herff College of Engineering. effective July 1 through December 31, 2022. The announcement of the new dean will soon follow.

Dr. Deaton most recently served as Associate Dean for Academic Affairs and Administration of the College. He began his career as faculty in the Electrical and Computer Engineering Department in 1992. From 2000-2012, he was a Professor of Computer Science and Computer Engineering at the University of Arkansas, where he was a member of the faculty senate and won several teaching, research and service awards. He returned to the University of Memphis in 2012 to be the Chair of Electrical and Computer Engineering. He continues to do research in algorithmic self-assembly of DNA-based nanostructures, in which he holds several patents. His work has been supported primarily by NSF, and he has published in several IEEE Transactions, PLOS ONE, Applied Physics Letters, Journal of Applied Physics, Physical Review Letters, Physical Review E, Physical Review Research and Angewandte Chemie International Edition.

Dr. Deaton was born and raised in Memphis. He has a Ph.D. and M.S. in Electrical Engineering from Duke University, a B.S. in Electrical Engineering from the University of Memphis and a B.A. in English from the University of North Carolina. He is a Senior Member of IEEE, a program evaluator for ABET and a member of ASEE.

Dr. Gary Emmert has been named interim dean of the College of Arts & Sciences, effective July 1.

At this time, Emmert serves as associate dean of the College and a professor in the Department of Chemistry. He joined the department in 2002 and served as chair from Aug. 2015-Aug. 2019.

His research, teaching and scholarship have been recognized with numerous honors, including The College of Arts & Sciences Early Career Research Award, the First Horizon Entrepreneurship and Innovation Fellow, the Dunavant University Professorship, the College of Arts & Sciences Distinguished Research Award and the W. Russell and Audrey E. Nesossi-Smith Teaching Excellence Award.

The primary themes in his current research center on analytical and environmental chemistry, automated methods of analysis, microfabrication and microfluidics, on-line monitoring, chemistry of drinking water disinfection, chemical kinetics of water treatment processes, and the nexus of research and business.

Emmert earned his PhD in Analytical Chemistry from Miami University, Ohio (1999), and his MS in Chemistry (1992) and BS in Chemistry (1988) from Tennessee Technological University.

9. Research and Innovation Update

Presentation

Presented by Jasbir Dhaliwal

The University of Memphis Board of Trustees

Presentation

For Information

Date: September 7, 2022

Committee: Academic, Research and Student Success Committee

Presentation: Annual Research Report & Update

Presented by: Jasbir Dhaliwal, Executive Vice President for Research and Innovation

Background:

Annual presentation of the research awards report for Fiscal Year 22.

Annual Report of UofM Research

Academics, Research & Student Success Committee

Jasbir Dhaliwal
Executive Vice President for Research & Innovation

September 7, 2022

Board of Trustees
SEPT. 2022

Carnegie R1 Status Achieved!

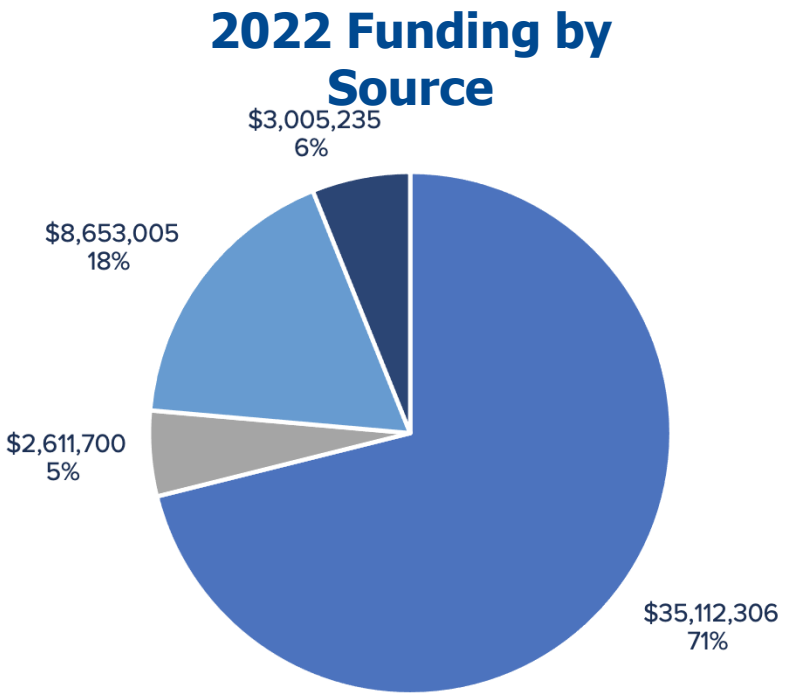
December 15, 2021

With a focused three-year strategic initiative that built upon years of persistent faculty efforts, the University of Memphis joined the top-tier of research institutions in the United States.

2022 Faculty Driven Success

THE UNIVERSITY OF MEMPHIS | Board of Trustees

UofM Continues Research Progress

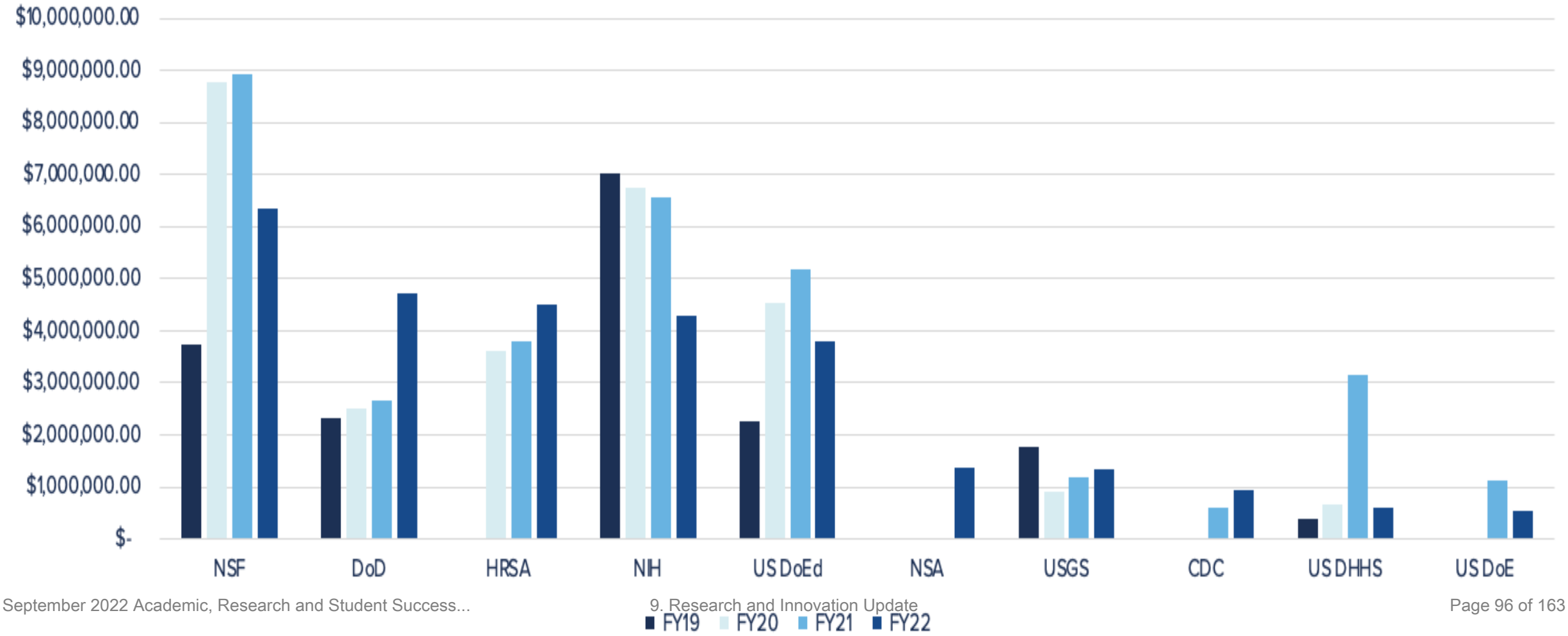


Measure	2022 Data	Achievement
Federal Research Awards	$35,112,306	Maintained FY21 Record
# of PI with Total Award ≥ $500k:	37	Highest in University History (25% more than FY21 record)
NSF Principal Investigators	53	11 Departments now have NSF funded faculty
Total Research Award Dollars	$49,382,245	Within 3% of FY21 record
First-Time Principal Investigators	40	Largest Cohort to Date

Changing Research Culture

- ***Between FY18 and FY22 the research culture at the UofM has become more vibrant with more faculty and departments contributing than ever before.***
- ***Newer Faculty Involved*:** 42% Increase in First-Time Principal Investigators
- ***More Research Funding Sought* :** 66% Increase in Proposed Grant Budgets
- ***More Participation from Faculty:*** 14% Increase in Faculty Submitting Proposals
- ***More Departments Leading Research***: 45% Increase in Departments with >$1M

Top Federal Funding Sources



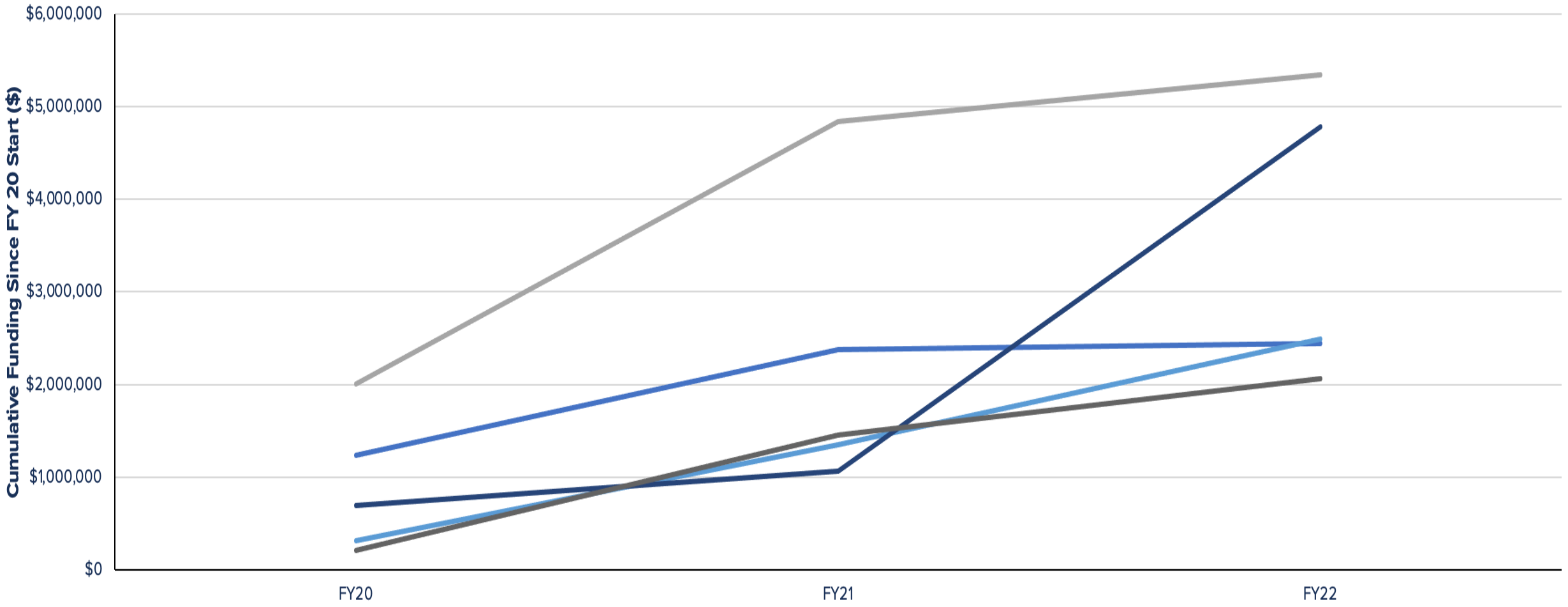
Some 2022 Award Highlights

- Multi-UAS Multi-Sensor Intelligence, Surveillance, and Reconnaissance (ISR) **| Eddie Jacobs (EECE)**
  - ***$4,757,689.69 – Department of Defense Army Research Lab***
- CyberCorps: New Scholarships for Service (SFS) Program at the University of Memphis **| Kan Yang (CS)**
  - ***$3,806,815 – National Science Foundation***
- iCODE: Investigating and Scaffolding Students' Code Comprehension Processes To Improve Learning, Engagement, and Retention **| Vasile Rus (CS/IIS**)
  - ***$1,999,596 – Department of Education***
- Change the Odds: A Multi Platform Approach to Gambling Treatment *(multi-year award)* **| James Whelan (Psychology)**
  - ***$1,205,000 – TN Department of Mental Health and Substance Abuse***
- Cybersecurity education for Critical Infrastructure protection (in Community Development) through Regional Coalition **| Dipankar Dasgupta (CS)**
  - ***$1,014,076 – National Security Agency***
- Investigating chemosensory evolution in longhorned beetles using a comparative phylogenomic framework that integrates genomic, morphological, and biochemical data **| Duane McKenna (Biological Sciences)**
  - ***$1,271,532 – National Science Foundation***
- COVID-19 Health Disparities in Communities that are at High-Risk and Underserved **| Marian Levy (School of Public Health)**
  - ***$478,566 – Shelby County Health Department***

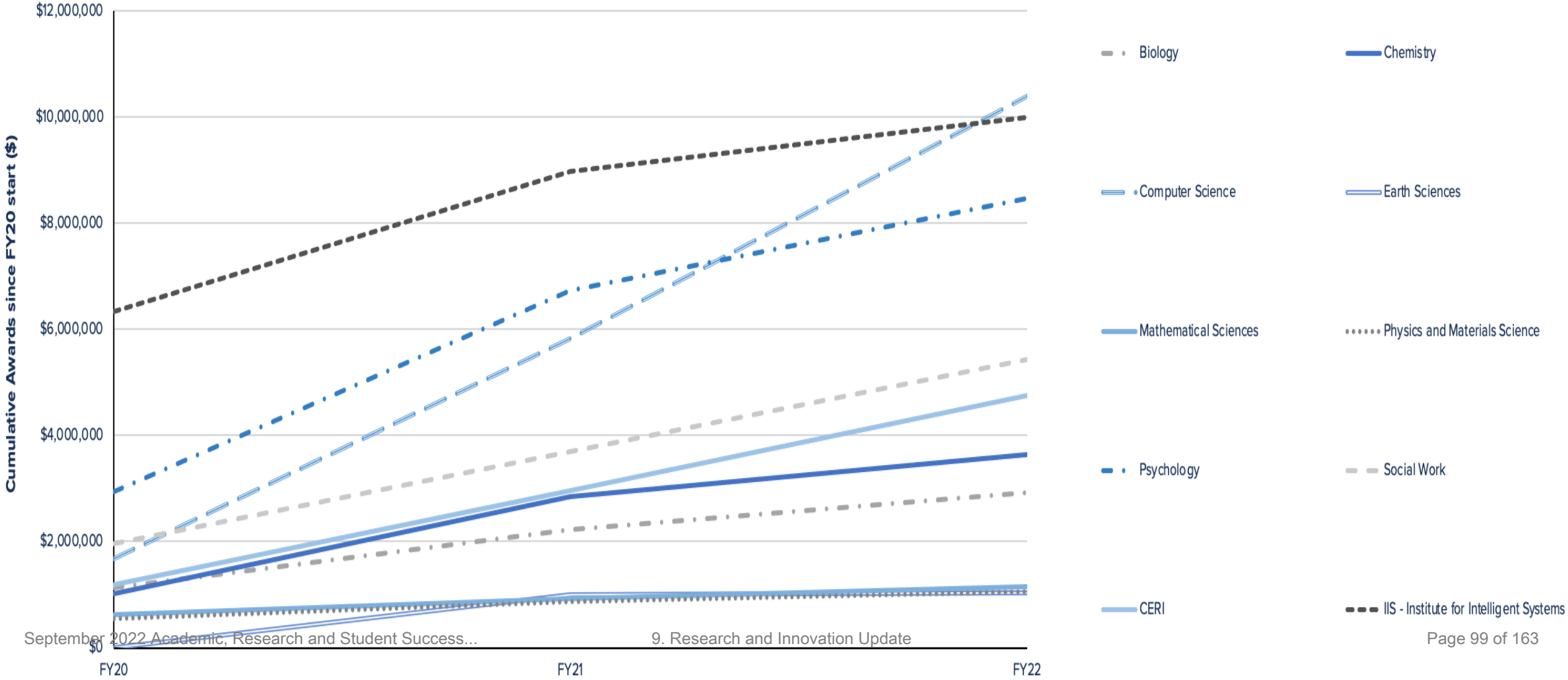
Junior Faculty Highlights

- CAREER: Exocyclic Imine Bridges for Electron Transfer **| Kensha Clark**
  - ***$590K – National Science Foundation***
- CAREER: From Slow to Fast, Micro to Macro, Single Events to Cascades: A Multi-scale Study of Seismic Event Triggering in Lab and Nature **| Thomas Goebel**
  - ***$611,610 – National Science Foundation***
- ERI: Compositionally modulated ferrimagnets for spin-orbitronic devices **| Shawn Pollard**
  - ***$181,745 – National Science Foundation***
- ERI: Formation Mechanisms and Modeling of Wake Meandering in Wind Farms **| Daniel Foti**
  - ***$198,766 – National Science Foundation***

Progress of Engineering Departments



Progress of Arts & Sciences Departments



2022 UMRF Professorships

UNIVERSITY OF MEMPHIS RESEARCH FOUNDATION

NSF CAREER Recipients:

- Dr. Thomas Goebel, Center for Earthquake Research and Information (CERI)
- Dr. Kensha Clarke, Chemistry

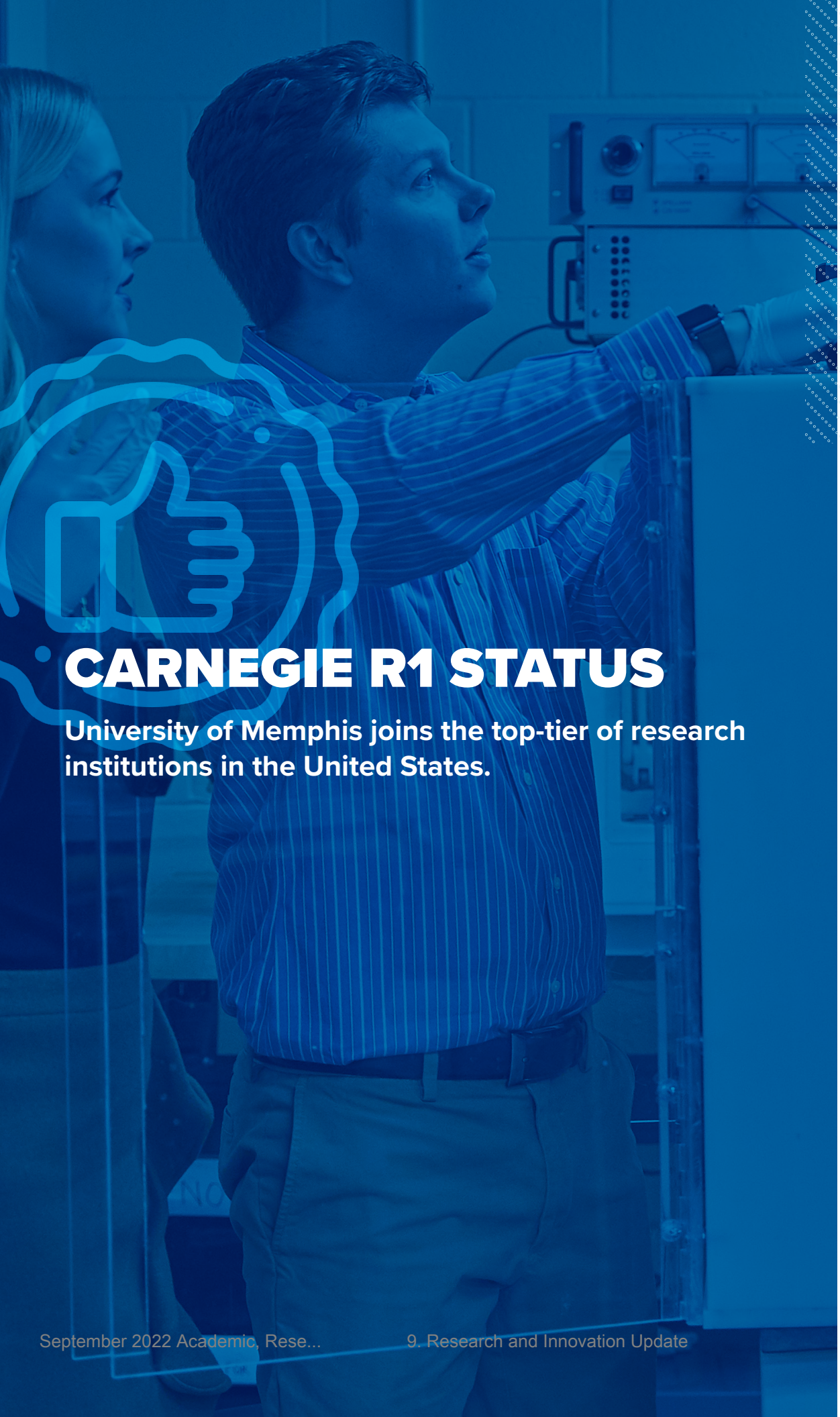
2022 New University Professorships Awarded

- Dr. Andrew Olney, CAS, Institute for Intelligent Systems
- Dr. Kathryn Howell, CAS, Psychology
- Dr. Roger Kreuz, CAS, Psychology
- Dr. Joy Goldsmith, CCFA, Communication & Film
- Dr. Andre Johnson, CCFA. Communication & Film
- Dr. Mary Wilson, CCFA, School of Music
- Dr. Brandt Pence, CHS
- Dr. Laura Casey, COE, Instruction and Curriculum Leadership
- Dr. Gavin Bidelman, CSD
- Dr. George Deitz, FCBE, Marketing and Supply Chain Management
- Dr. Mark Gillenson, FCBE, Business Information and Technology
- Dr. Jamin Speer, FCBE, Economics
- Dr. Mihalis Gkolias, HCOE, Civil Engineering
- Dr. Sabya Mishra, HCOE, Civil Engineering
- Dr. Brian Waldron, HCOE, Civil Engineering
- Dr. Eddie Jacobs, HCOE, Electrical Computer Engineering
- Dr. Satish Kedia, SPH
- Dr. Latrice Pichon, SPH
- Dr. Matthew Smeltzer, SPH
- Dr. Hongmei Zhang, SPH

RESEARCH REPORT

FY22

THE UNIVERSITY OF MEMPHIS®
Research & Innovation



CARNEGIE R1 STATUS

University of Memphis joins the top-tier of research institutions in the United States.

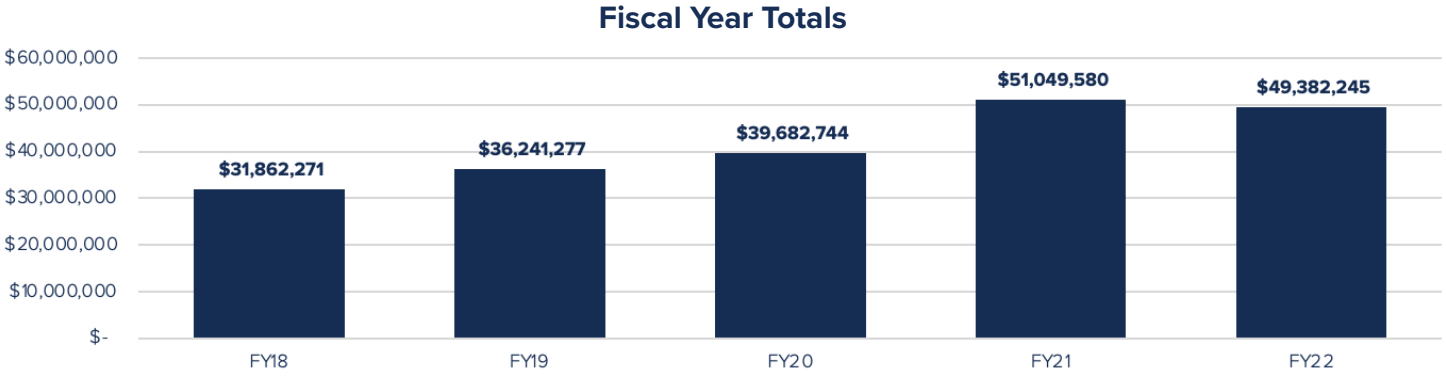
TABLE OF CONTENTS

SUMMARY

The University ensures continued research success.

As a Carnegie R1 research institution, the University of Memphis is among the most prominent research institutions in the country. With the dedication of our world-class faculty across campus, achieving this designation during the COVID-19 pandemic and in only three years makes the recognition all the more meaningful and bolsters the future of the University.

FY22 saw tremendous change on our campus with the exciting arrival of President Hardgrave, signifying a commitment and investment to the next chapter of success for the University. Additionally, we have experienced consistent award growth across many units, and the same is true for PIs submitting proposals. Research awards remain on an upward trajectory, reinforcing the commitment of our faculty and where they are leading the University. Finally, the Tennessee Governor and state legislature recognized and celebrated UofM's research capabilities by approving a $50M research endowment for the University to be matched, yielding a $100M endowed foundation for future investment in the UofM to grow research more than any other time in the history of the University.



FY22
Total Award Dollars

$49.3M

PIs with $500K, or More, in Awards
(25% greater than FY21)

37

Increase in
Private Grant Funding

58%

First-time Principal Investigators in FY22
(Largest cohort to date)

40

Number of Federal Agencies
$1M, or More, in FY22

8

Number of Departments
with $1M, or More, in Awards

16

Unique Units Receiving
Awards in FY22

75

Increase in Federal Research Proposals
Between FY18-FY22

62%

Increase in Defense
Research Awards

84%

PIs Submitting Research Proposals
(Largest cohort to date)

213

Average
Award Size

$160,854

Total Proposal
Amount Submitted

$224M

MAJOR TRENDS

The FY22 results are the result of research that occurred in the midst of the pandemic. Despite the challenges of these unprecedented circumstances, the University of Memphis research community has shown remarkable consistency, which positions us well for future growth. **In FY22, the University set a record for the number of PIs submitting research proposals and the total number of proposals submitted.** Awards received in FY22 held close to FY21 record, the number of federal agencies funding $1M, or more, remains at the same record level as FY21, and the number of PIs winning $500K, or more, continues to grow indicating a more vibrant and active research community that includes more research disciplines than ever before.

MILLIONAIRE PIs

Tracy Collins

Brian Waldron

Susan Neely-Barnes

Dipankar Dasgupta

Jeremy Whittaker

Kan Yang

Santosh Kumar

James Whelan

Richard Irwin

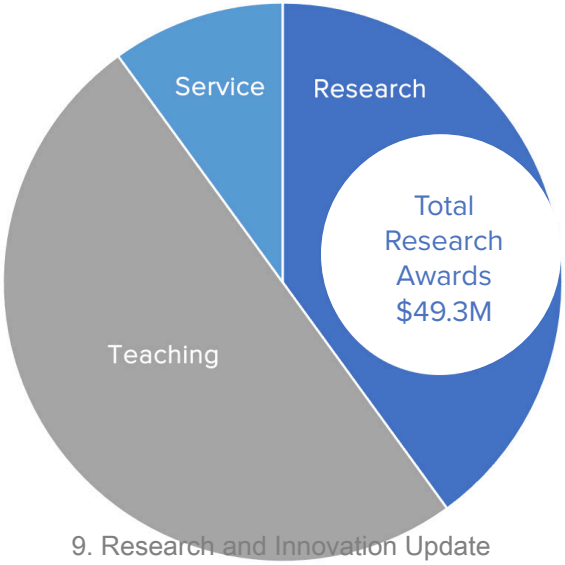
Mitchell Withers

Eddie Jacobs

Recieved the First National Defense Authorization Act allocation to UofM.

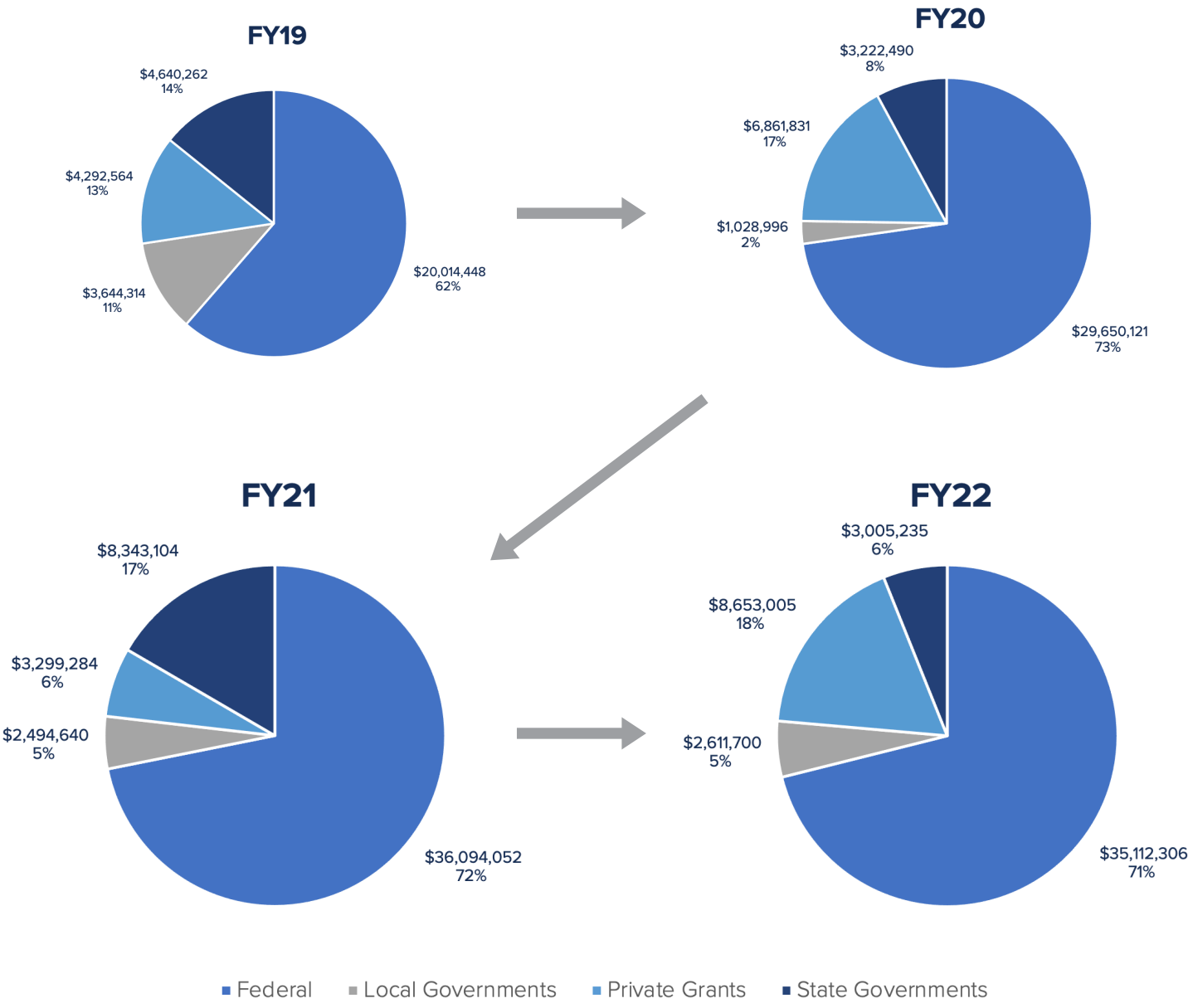
Total Faculty Salary and Benefits: $132M

The average faculty contract is divided into three parts:
Research – 40%
Teaching – 50%
Service – 10%



Externally Funded Research Awards Equal 95% of Faculty Research Effort

FISCAL YEAR DATA



INVESTMENT IN RESEARCH BEGINS TO SHOW AS COVID-19 PANDEMIC SLOWS

The commitment by President Hardgrave to invest $34M in research space and infrastructure improvements marks the first major investment in existing research facilities in nearly a decade and shows the importance of our research for sustaining our designation as one of the top-tier research institutions in the country. This investment will also boost our research capacity. As we begin to move past the pandemic, we are seeing greater numbers of faculty and academic units contributing to our research infrastructure, which continues to strengthen the overall research portfolio. **The number of PIs earning $500K, or more, increased to 37 in FY22; a record number for the University.** Indicating that, despite the pandemic, we did not see a reduction in research effort. Entering into this next chapter will lead to more growth and new avenues for research.

STRATEGIC RESEARCH DEVELOPMENT

University Professorships

As part of the university's push for top-tier Carnegie R1 status, the office of the Provost and the Division of Research & Innovation partnered to celebrate research excellence on campus. As part of that recognition, twenty university professorships were awarded to various UofM faculty.
Those awarded include:

- **Andrew Olney**
  CAS, Institute for Intelligent Systems
- **Kathryn Howell**
  CAS, Psychology
- **Roger Kreuz**
  CAS, Psychology
- **Joy Goldsmith**
  CCFA, Communication & Film
- **Andre Johnson**
  CCFA. Communication & Film
- **Mary Wilson**
  CCFA, School of Music
- **Brandt Pence**
  CHS
- **Laura Casey**
  COE, Instruction and Curriculum Leadership
- **Gavin Bidelman**
  CSD
- **George Deitz**
  FCBE, Marketing and Supply Chain Management
- **Mark Gillenson**
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  HCOE, Civil Engineering
- **Sabya Mishra**
  HCOE, Civil Engineering
- **Brian Waldron**
  HCOE, Civil Engineering
- **Eddie Jacobs**
  HCOE, Electrical Computer Engineering
- **Satish Kedia**
  SPH
- **Latrice Pichon**
  SPH
- **Matthew Smeltzer**
  SPH
- **Hongmei Zhang**
  SPH

Ongoing Faculty Support Programs and Key Outcomes

- **Communities of Research Scholars (CoRS):**
  - Designed to facilitate collaborations and grow research engagement
  - 51 CoRS funded, including faculty from over 50 disciplines
  - FY21 program included a focus on engaging community partners
- **UofM Research Council**
  - Advanced two policies to University administration for consideration in FY22
- **Research Proposal Review Services**
  - Over 65 proposals reviewed in FY22, leveraging internal and external reviewers from multiple institutions and agencies
- **Gap Funding Program**
  - 16 proposals funded to date
  - The program helps faculty who are between grants or revising and resubmitting to federal agencies to continue their research
  - Over $15M in revised and resubmitted proposals
  - Over $5M funded to date
- **NSF CAREER Academy**
  - Growing new faculty through professional development and comprehensive review services
  - Career Stats:
    - NSF CAREER Awards: 7
    - DoE CAREER Award: 1
    - Applications: 60
    - UofM among top 25% of NSF CAREER winning institutions
- **Fine Arts, Humanities & Social Sciences Grants**
  - 16 proposals funded to date
  - 12 monographs or edited volumes published
  - One album released
- **Defense Research Academy**
  - NDAA support secured for FY21, FY22, FY23
  - DoD Young Investigator Program: Six submissions in FY21
  - Defense research networking preparation for faculty
  - 40+ faculty engaged in defense research initiatives
- **FedEx Institute of Technology**
  - FRONTIERS program includes 10 faculty-FedEx partnerships established to support industry engagement
  - Nine FIT research clusters funding over 90 faculty across campus
  - 44% of the 97 researchers affiliated with the FedEx Institute of Technology were awarded a total of $22.9M from FY19-21
- **Carnegie R1 Doctoral Fellowships**
  - 48 PhD students funded to date
  - Students included in over 60 grant proposals in two years
- **Carnegie R1 Postdoc Program**
  - 50+ postdocs funded to date
  - 60+ grant proposals submitted with effort included for continued postdoc funding
  - Provided comprehensive grantsmanship training to all postdoc members
  - Current number of PhD qualified research staff: 45
  - Current postdoc count: 37
- **UMRF Ventures Junior Professorships**
  - All NSF Career recipients are awarded a junior professorship
  - 2021 Recipients – Maryam Salehi and Ana Doblas
  - 2020 Recipients – Ranga Gopalakrishnan, Amber Jennings, Thomas Watson
- ***The Conversation* Support**
  - Subscription to *The Conversation* aides faculty in publishing to a general readership audience
  - 2.5M+ article reads for UofM faculty authors to date
  - Articles published in *Chicago Tribune, USA Today, CNN, Business Insider*, etc.
- **First Gen STEM**
  - Nine PhD students funded to date
- **RISE Fellowship**
  - Seventy PhD students funded to date
- **Research Equipment Database**
  - Searchable database of all UofM research instrumentation, as reported by departments
- **Academic Analytics**
  - A database resource that helps to identify trends in research, build teams in similar research areas both at our university and other institutions, and helps to identify funding opportunities based on publication history
- **West Cancer Foundation Research Initiative**
  - Four projects funded to date
  - Established in the fall of 2020, the West Cancer Foundation Initiative was created to cultivate research across the UofM campus in areas that advance cancer treatment, promote community health and wellness, and/or provide supportive patient care.
- **INFER**
  - Innovative Non-profit and Foundation Engaged Research (INFER) founded in 2020
  - Seeks to bridge the efforts of researchers (in the areas of social science, life science and the humanities) and nonprofits (with social, human and health services-related missions) to ensure that research efforts are relevant and useful to practitioners and that practice is effective and grounded in “best practice.”
- **PECIR**
  - The University of Memphis and Meharry Medical College partnered to fund six projects that build interdiscplinary partnership between institutions

CELEBRATING CAREER AWARD WINS

Career awards are among the most prestigious junior faculty research awards offered by federal agencies. The University of Memphis has strategically grown participation and support for these programs and we are pleased to celebrate the researchers who have achieved this designation. The success rate is a testament to the quality of the support provided to these PIs and the strength of junior faculty research at the UofM.

Kensha Clark ('22)
Chemistry

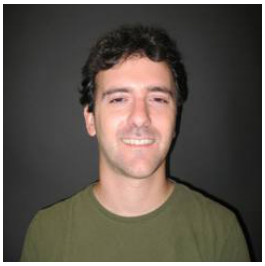
Thomas Goebel ('22)
CERI

Maryam Salehi ('21)
Civil

Ana Doblas ('21)
EECE

Jessica Jennings ('20)
Biomedical

Thomas Watson ('20)
Computer Science



Nate DeYonker ('19)
Chemistry

DOE Career

Ranganathan Gopalakrishnan ('21)
Mechanical

BUILDING REGIONAL PARTNERSHIPS

Strengthening regional partnerships and building avenues for funding that support collaborative research in the region is critical to longterm growth. The University of Memphis launched two rounds of funded collaborations with regional institutions in FY22.

ENDEAVOR

ENDEAVOR, which stands for Energy, Defense and AgriTech Innovation Research, will pursue connected multi-discipline research to address shifts in population, the environment and policy in a rapidly evolving and increasingly challenging world.

An early emphasis of ENDEAVOR will be to develop strategic partnerships with other regional research communities in order to focus on issues specific to the Mid-South and Southeast. The objective is to create a regional ecosystem where science and technology are used to address key sector challenges and foster innovation that attracts the best scholars, students, businesses and research infrastructure.

The effort is led by Dr. Lou Qualls, who joined the UofM from Oak Ridge National Laboratory (ORNL) where he served as a distinguished researcher and an adjunct professor in the University of Tennessee Department of Nuclear Engineering.

Program to Enhance Collaborative and Interdisciplinary Research (PECIR)

PECIR was launched with Meharry Medical College in Nashville, TN. Building partnerships with medical schools like Meharry are critical to growing the research capacity of the University and providing research-driven service to our wider community. The effort led to six funded projects:

- Seok Won Jin, PhD (UofM), and Jennifer Cunningham-Erves, PhD, MPH, MAEd, MS and Maureen Sanderson, PhD, MPH (MMC) for the project, “Assessing Vaccine Hesitancy for Flu, HPV and COVID-19 Vaccines in Tennessee”

- Latrice Pichon, PhD (UofM) and L. Lauren Brown, PhD, LCSW (MMC) for the project, “Inform Future Delivery of Trauma Informed Care in Community-Based HIV Service Organizations (CBO), Faith-Based Organizations (FBO), the Local Health Department (HD), and Federally Qualified Health Care Centers (FQHC)”

- Amanda Young, PhD (UofM), and Shyamali Mukherjee, PhD, MS (MMC) for the project, “A Focus Group Study of the Communication and Educational Needs of Parents and Patients with Sickle Cell Disease or Sickle Cell Traits”

- Melissa Puppa, PhD (UofM), and Smita Misra, PhD, MS (MMC) for the project, “Elucidating Mechanisms for the Sexually Dimorphic Response to Diet Induced Obesity and Metabolic Syndrome”

- Yongmei Wang, PhD (UofM), and Zhenbang Chen, PhD, MS (MMC) for the project, “Discovery of Exosome-based Molecular Biomarkers for Predicting Prostate Cancer Impending Metastasis”

- Angela Antipova, PhD (UofM), and Dr. Flora Ukoli, MD, MPH (MMC) for the project, “Eliminating Socially-Driven Infant Obesity Disparities in Minority Communities of Memphis and Nashville: A Community-Based Intervention”

UofM-UTIA Agritech Research Partnership

The University also launched a partnership with University of Tennessee Institute of Agriculture to advance agriculture technology research and regional approaches to innovation as part of the Energy, Defense and AgriTech Innovation Research (ENDEAVOR), led by Dr. Lou Qualls. The effort seeks to capitalize on the unique strengths of both institutions and build collaborative research engagements that strengthen our connection to one of the largest industry sectors in the region. Funded projects include:

- Dr. Debasish Saha (UTIA) and Dr. Shawn Brown (UofM) for the project, "Unraveling the roles of nitrous oxide reducing microbial communities and associated pathways in mitigating nitrous oxide emissions from regenerative agricultural practices"

- Dr. Mi Li (UTIA) and Dr. Charles Garner (UofM), for the project "Design and Engineering of Cellulose-Metal Organic Frameworks (Cello-MOF) for Catalytic Conversions".

CULTIVATING A DYNAMIC RESEARCH ECOSYSTEM

- UMRF Research Park
- UMRF Ventures
- Phi Kappa Phi Innovation in Excellence Award Semifinalist
- American Association of State Colleges and Universities Award
- APLU Innovation Award Finalist
- 21 Licensed Technologies
- Patents2Products (P2P)
- Four companies launched

AASCU American Association of State Colleges and Universities
Delivering America's Promise

UMRF Research Park

The Honor Society of Phi Kappa Phi
Excellence in Innovation Award

UMRF Ventures Inc

Association of Public & Land-Grant Universities

Patents2Products
Deep Science Entrepreneur Post-Doc Fellowships

MakeScope
diagnostic microscopy platform

POPCHECK Technologies
Rest More. Worry Less.

Nuvelus

NUTT bio

TECHNOLOGY TRANSFER HIGHLIGHTS

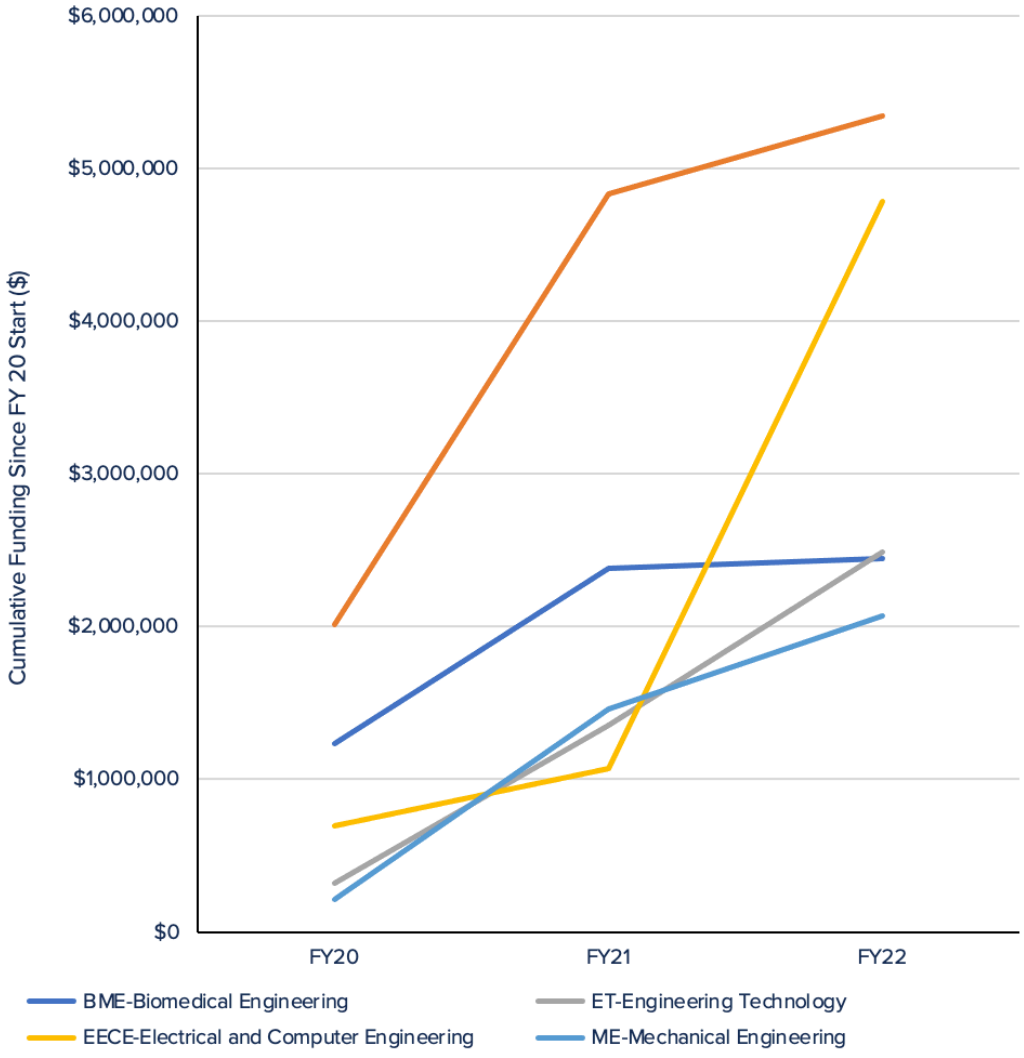
Received January 1, 2021-June 30, 2022

- **Systems and Methods for Dispersion of Dry Powders** by Dr. Gopalakrishnan, U.S. Patent 11,358,112
- **Autotaxin Inhibitors** by Dr. Parrill-Baker, U.S. Patent 11,124,490
- **Light Weight Flexible Temperature Sensor Kit** by Dr. Sabri, U.S. Patent 11,047,747
- **Adaptive Multi-Factor Authentication System and Multi-User Permission Strategy to Access Sensitive Information** by Dr. Dasgupta, U.S. Patent 11,038,896
- **Fully Reconfigurable Modular Body-Worn Sensors** by Dr. Morshed, U.S. Patent 10,973,430
- **Chitosan Nanofiber Compositions, Compositions Comprising Modified Chitosan, and Method of Use** by Dr. Bumgardner
- **Multi-Focal Light-Sheet Structured Illumination Fluorescence Microscopy System** by Dr. Preza
- **Si2Te3 Resistive Memory** by Dr. Cui
- **Compositions and Methods for Enhancing Healing and Regeneration of Bone and Soft Tissue** by Dr. Bowlin

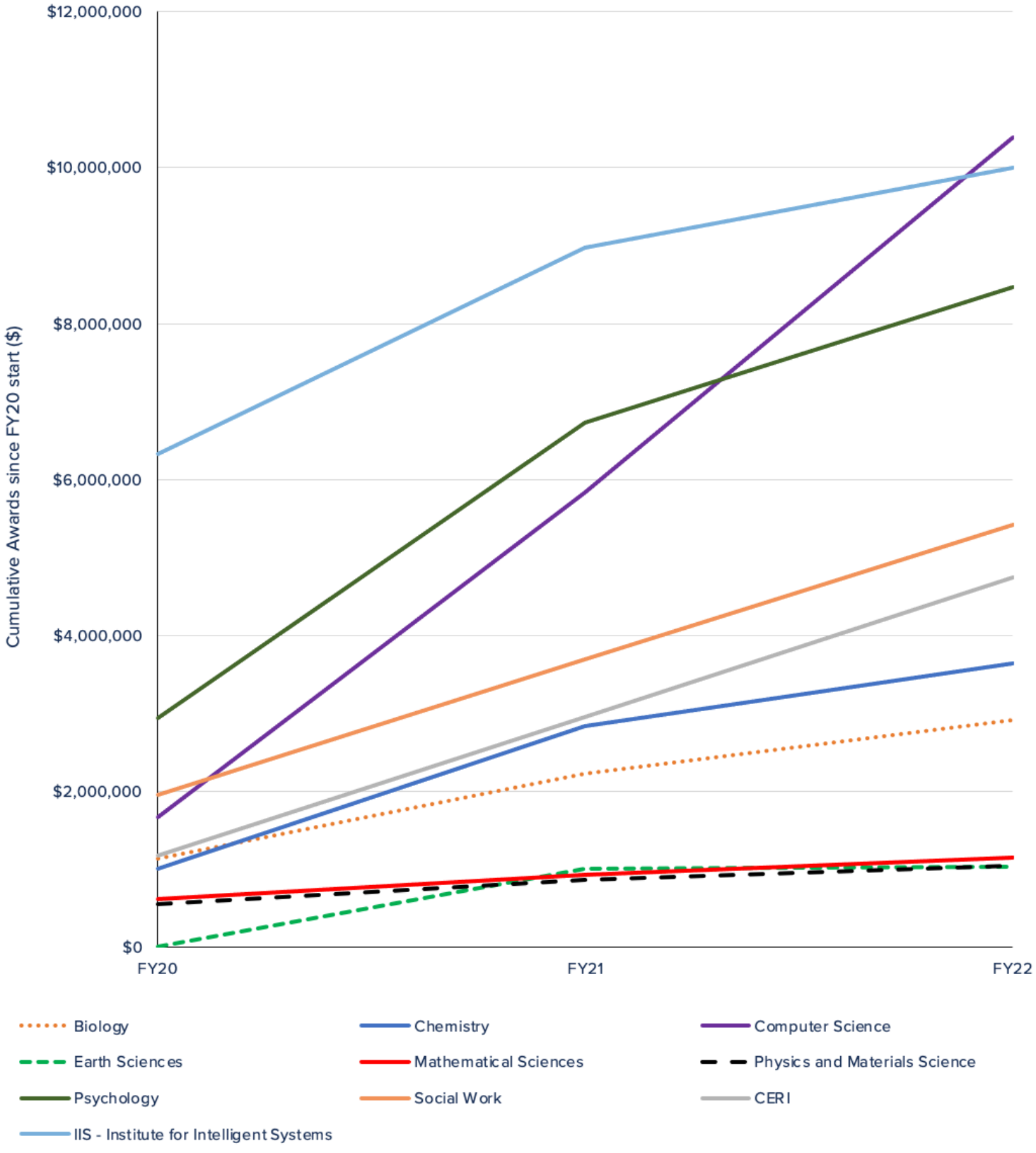
Companies Currently Licensing UofM Technologies

PROGRESS OF STEM ACADEMIC UNITS

Engineering Departments



Arts and Sciences Departments



Principal Investigators with $500K+ in Awards

**Note: $$ obligated amount in FY*

FY20 Faculty	
Olney, Andrew	$3,439,035
Kaldon, Carolyn	$1,512,626
Rus, Vasile	$1,239,097
Casey, Laura	$1,220,960
Neely-Barnes, Susan	$1,212,046
Kumar, Santosh	$1,193,319
Waldron, Brian	$869,276
Schiro-Geist, Chrisann	$852,386
Withers, Mitchell	$793,974
Murphy, James	$790,458
Howell, Kathryn	$763,018
Jennings, Jessica	$758,226
James, Wesley	$741,352
Kedia, Satish	$697,100
Bidelman, Gavin	$691,706
Boykins, Anita	$679,355
Bailey, Eric	$648,000
Parrill-Baker, Abby	$634,888
Zhang, Hongmei	$632,938
Karmaus, Wilfried	$614,648
Rudd, Loretta	$597,008
West, Steven	$570,150
Meindl, James	$530,651
Sabatini, John	$525,018
Harding, Melvyn	$518,834
Salehi Esfandarani, Maryam	$507,025
Oller, David	$504,913

FY 21 Faculty	
Marshall, Melissa	$4,919,559
Casey, Laura	$3,140,880
Waldron, Brian	$2,812,461
Kumar, Santosh	$2,398,500
Rus, Vasile	$1,707,863
James, Wesley	$1,486,806
Boykins, Anita	$1,360,830
Gopalakrishnan, Ranganathan	$1,114,477
Neely-Barnes, Susan	$1,095,290
Berisso, Kevin	$1,035,237
Ivey, Stephanie	$1,004,449
Ozdenerol, Esra	$1,000,000
Murphy, James	$889,701
Wang, Lan	$865,000
Salehi Esfandarani, Maryam	$851,597
Withers, Mitchell	$841,311
Fagan, Thomas	$770,364
Hunter, William	$750,000
Zhao, Xuan	$726,990
Rudd, Loretta	$694,845
Parrill-Baker, Abby	$651,741
Karmaus, Wilfried	$589,485
Santo, Charles	$575,537
Harding, Melvyn	$536,993
Smeltzer, Matthew	$532,965
Mishra, Sabyasachee	$519,359
Pichon, Latrice	$505,336
Sutter, Thomas	$502,250

FY 22 Faculty	
Jacobs, Eddie	$3,231,722
Waldron, Brian	**$2,278,614**
Neely-Barnes, Susan	**$1,558,317**
Dasgupta, Dipankar	$1,265,422
Whittaker, Jeremy	$1,264,215
Yang, Kan	$1,261,161
Collins, Tracy	$1,257,855
Kumar, Santosh	**$1,232,151**
Whelan, James	$1,205,000
Irwin, Richard	$1,120,905
Withers, Mitchell	**$1,058,028**
Bekis, Barbara	$945,839
LeDoux, Mark	$911,040
Hirschi, Melissa	$844,097
Zoblotsky, Todd	$823,783
Smeltzer, Matthew	$803,553
Ramsey, Kathryn	$786,870
Levy, Marian	$776,757
Goebel, Thomas	$769,960
Rus, Vasile	**$715,941**
Hunter, William	$700,000
Schauss, Eraina	$700,000
Rudd, Loretta	**$684,209**
Bloomer, Richard	$679,364
Ivey, Stephanie	**$640,028**
Parrill-Baker, Abby	**$628,317**
Pichon, Latrice	$628,285
McGinnis, James	$599,997
Clark, Kensha	$590,000
Muller Sanchez, Francisco	$579,419
West, Steven	$566,365
Sabatini, John	$556,777
Harding, Melvyn	**$536,993**
Berisso, Kevin	$533,971
Kedia, Satish	$518,555
McKenna, Duane	$506,597
Murphy, James	**$501,805**

SINCE 2019:

53 NSF Principal Investigators
26 NIH Principal Investigators

****Bold:** Received $500K, or more, in FY20, FY21 and FY22 (3 consecutive years)*

Units with $1M+ in Awards

**Note: $$ is obligated amount in FY*

Academic Unit	FY19	FY20	FY21	FY22
Computer Science	$4,558,806	$1,675,828	$4,157,486	$4,280,761
Electrical and Computer Engineering (EECE)				$3,974,650
Psychology	$1,294,557	$2,758,135	$3,611,995	$3,915,705
Loewenberg College of Nursing		$1,499,830	$1,995,433	$3,154,502
Social Work		$1,958,753	$1,738,217	$2,987,173
Center for Applied Earth Science and Engineering Research (CAESER)	$3,639,421		$2,960,579	$2,424,912
Institute for Intelligent Systems (IIS)		$6,332,919	$2,645,793	$2,290,619
Center for Earthquake Research & Information (CERI)	$1,899,837	$1,180,062	$1,782,242	$2,016,646
Counseling Educational Psychology & Research (CEPR)		$1,637,536	$1,173,694	$1,943,669
Social and Behavioral Sciences				$1,547,681
Center for Research in Educational Policy (CREP)		$2,107,158		$1,243,390
Instruction and Curriculum Leadership (ICL)	$1,652,731	$1,884,702	$3,890,880	$1,159,096
Engineering Technology			$1,035,237	$1,133,968
School of Law				$1,101,203
Biological Sciences		$1,137,560	$1,093,838	$1,020,292

COMMUNITIES OF RESEARCH SCHOLARS (CORS)

FY22 Awarded Projects

Socioecological Determinants of Cardiometabolic Health in Memphis: Establishment of a Database, Abu Mohammed Naser Titu, *School of Public Health*

Identifying Opportunities for Renewables and Energy Storage in the Mid-South Alexander, John Headley, *Mechanical Engineering*

Name, Image, and Likeness in Tennessee: A Historic Policy Change for College Athletics, Brennan K. Berg, *Sport Commerce*

University Schools Engaged Scholarship & Research Consortium (USES+RC): Grant Writing Awards, Carolyn Kaldon, *CREP*

Development of Collaborative Hypersonic Research at the Intersection of Aerothermodynamics and Materials Science, Daniel Vincent Foti, *Mechanical Engineering*

Disaster Studies Consortium, Davia Cox Downey, *Public and Non-Profit Administration*

Breaking Through Invisible Barriers to Literacy, Deborah Moncrieff, *School of Communication Sciences and Disorders*

Nursing Workforce Diversity: An Exploration of Minority Nurses Intent to Pursue Doctoral Studies, Deundra Hearne, *Nursing*

Grandparents' Views on Grandparent Caregiving, Gloria Fulton Carr, *Nursing*

Exploring Potential Mediating/Moderating Effects of Negative Emotionality on Outcomes with Hearing Aids for Older Adults, Jani Annette Johnson, *School of Communication Sciences and Disorders*

Conveningminds to Address Youth Justice and Youth Violence in Memphis, TN, Jennifer Turchi, *School of Public Health*

Regional Strategy for Agriculture Innovation, Conservation, and Sustainability, Leah Windsor, *English/Institute for Intelligent Systems*

Memphis Women+'s Mentorship Network, Leigh Harrell-Williams, *English/Institute for Intelligent Systems*

Hiring a Third-Party to Do a Needs Assessment Survey of Faculty, Staff and Students in the Rudi E. Scheidt School of Music and write a Report to be Used for Future Grant Proposals, Lily Afshar, *School of Music*

The University of Memphis/MVP3 Studios Master Class Series, Marty Lang, *Communication and Film*

Developing a Multidimensional and Data-driven Understanding of Sexual Positioning Identity Among Cisgender Men Who Have Sex With Men, Meredith A. Ray, *Biostatistics*

Establishing a data pipeline to decipher the neural basis of risky decision-making, Nicholas W. Simon, *Psychology*

Exploring the Role of Social Determinants of Health on Sepsis Readmissions Among Survivors of Sepsis Within the National Readmission Dataset, Reba Umberger, *Nursing*

Research on Intimate Partner Violence Collaborative, Sarah R. Leat, *Social Work*

Working Group on Diversity and Inclusion, Simranjit Khalsa, *Sociology*

Moral Foundations and Vaccine Hesitancy of Traditional Communities in the Southern US, Xiaolei Huang, *Computer Science*

Examine the Influence of the Ongoing COVID-19 Outbreak to Health Behaviors and Mental Health, Yong Yang, *Social and Behavioral Sciences*

FIRST-TIME PRINCIPAL INVESTIGATORS FOR FY22

The largest cohort to date.

Michael Schmidt, *Art*

Carl Herickhoff, *Biomedical Engineering*

Tammy Haut Donahue, *Biomedical Engineering*

Fawaz Mzayek, *Biostatistics*

Yu Jiang, *Biostatistics*

Huigang Liang, *Business Information and Technology*

Alisha Rose, *Career Services*

Farhad Jazaei, *Civil Engineering*

Ryan Fisher,
College of Communication and Fine Arts

Josef Hanson,
College of Communication and Fine Arts

Shelia Moses, *College of Engineering*

Jacquelyn Pence, *College of Health Sciences*

Michelle Stockton, *College of Health Sciences*

Tracy Bruen, *College of Health Sciences*

Chidambaram Ramanathan,
College of Health Sciences

Kan Yang, *Computer Science*

Weizi Li, *Computer Science*

Myounggyu Won, *Computer Science*

Christos Papadopoulos, *Computer Science*

Xiaolei Huang, *Computer Science*

Timothy McCuddy, *Criminal Justice*

Dorian Burnette, *Earth Sciences*

Youngsang Kwon, *Earth Sciences*

Abu Mohammed Naser Titu, *Epidemiology*

Napoleon Overton,
Finance, Insurance, Real Estate

Mark Hendricks,
Health Systems Management Policy

Isaiah Surbrook, *Herff College of Engineering*

Thouraya Al-Nasser, *Instruction and Curriculum Leadership*

Teressa Del Rosso,
Journalism and Strategic Media

Jeremy Whittaker,
Loewenberg College of Nursing

Tracy Collins, *Loewenberg College of Nursing*

Larry Slater, *Loewenberg College of Nursing*

Bradley Harrell, *Loewenberg College of Nursing*

Daniel Foti, *Mechanical Engineering*

Shawn Pollard, *Physics and Material Sciences*

Joanne Rhodes, *Physics and Material Sciences*

William Gibbons, *School of Urban Affairs*

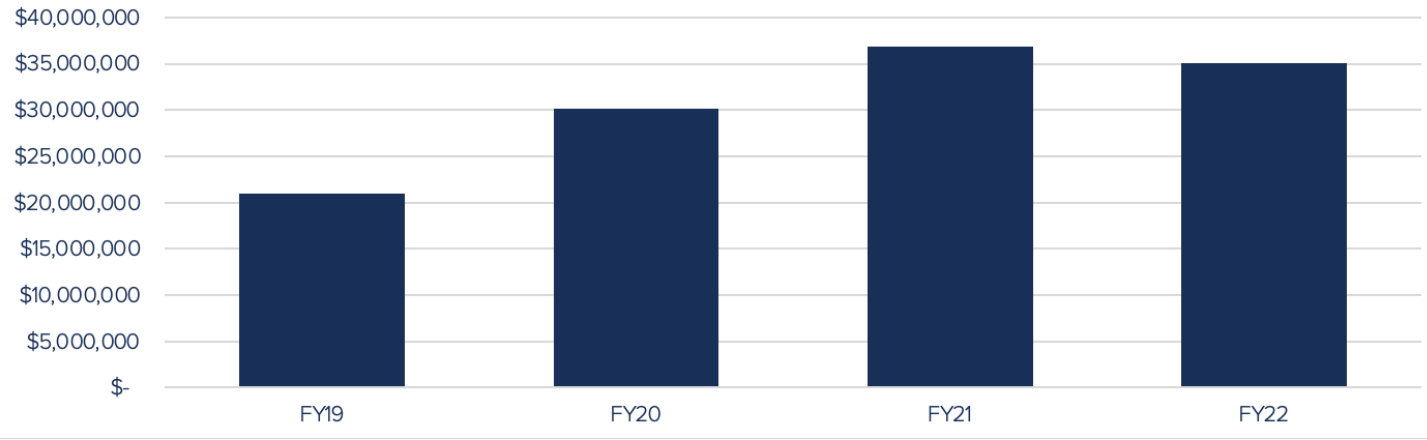
Jennifer Turchi, *Social and Behavioral Sciences*

Ophrah Payne, *Student Services Academics*

Diana Ruggiero, *World Languages and Literatures*

DETAILED VIEW | FEDERAL AWARDS

**Note: $$ is obligated amount in FY*



Federal Funding By Source

Funding Source	FY19	FY20	FY21	FY22
National Science Foundation (NSF)	$3,728,217	$8,774,516	$8,919,989	$6,453,195
Health Resources and Services Administration (HRSA)		$3,592,226	$3,598,890	$6,356,954
Defense Department (ARO, ONR, AFOSR, DoD, DARPA)	$2,312,102	$2,520,091	$2,669,139	$4,919,795
National Institutes of Health (NIH)	$7,029,329	$6,759,200	$6,573,211	$4,289,048
US Department of Education (US DoEd)	$2,251,692	$4,522,972	$5,168,042	$3,809,096
US Geological Survey (USGS)	$1,772,183	$993,862	$1,190,591	$1,495,911
National Security Agency (NSA)	$9,863			$1,365,186
Centers For Disease Control (CDC)	$18,000	$71,200	$634,917	$1,172,105
US Department of Energy (US DoE)	$315,986	$106,484	$1,239,315	$714,615
Federal Emergency Management Agency (FEMA)				$599,997
US Department of Health and Human Services (US DHHS)	$401,400	$660,321	$3,142,301	$598,901

Top 10 Federally Funded Projects By Fiscal Year

**Note: $$ is obligated amount in FY*

FY21

UofM CBEI Services | Laura Casey
$1,622,400

Learner Data Institute: Harnessing the Data Revolution to Improve the Effectiveness, Efficiency, and Engagement of the Learning Ecosystem | Vasile Rus
$1,534,309

Evaluate Impact of Health and Education Programs in the Mississippi Delta | Wesley James
$1,471,806

Health, Education, and Access for Rural Tennesseans (HEART) *(multi-year award)* | Anita Boykins
$1,360,830

mHealth Center for Discovery, Optimization & Translation of Temporally-Precise Interventions (mDOT) *(multi-year award)* | Santosh Kumar
$1,334,467

UofM Home/Community Based Early Intervention (HCBEI) Servicese/Community Based Early Intervention (HCBEI) Services | Laura Casey
$1,111,500

Workforce Opportunity for Rural Communities (WORC) / DRA:Automation and Advanced Robotics Center | Kevin Berisso
$1,013,896

ASPIRED: Adaptations for Sustainable Policies and Increased Recruitment Excellence in Diversity | Esra Ozdenerol
$1,000,000

Operation of the Mid-America Integrated Seismic Network 2020-2024 (CERI) *(multi-year award)* | Mitchell Withers
$841,311

CC* Integration-Large: mGuard: A Secure Real-time Data Distribution System with Fine-Grained Access Control for mHealth Research | Lan Wang
$825,000

FY22

Multi-UAS Multi-Sensor Intelligence, Surveillance, and Reconnaissance (ISR) | Eddie Jacobs
$2,707,364

Supporting the Retention of Next Generation Registered Nurses (STRONG-RNs) | Jeremy Whittaker
$1,264,215

CyberCorps: New Scholarships for Service (SFS) Program at the University of Memphis | Kan Yang
$1,261,161

Health, Education, and Access for Rural Tennesseans (HEART) *(multi-year award)* | Tracy Collins
$1,257,855

mHealth Center for Discovery, Optimization & Translation of Temporally-Precise Interventions (mDOT) *(multi-year award)* | Santosh Kumar
$1,154,454

Cybersecurity Education for Critical Infrastructure Protection (in Community Development) through Regional Coalition | Dipankar Dasgupta
$1,014,076

INTEGRATE (INterprofessional TEams GRounded in Apprenticeship, Telehealth, and Evidence) | Susan Neely-Barnes
$931,153

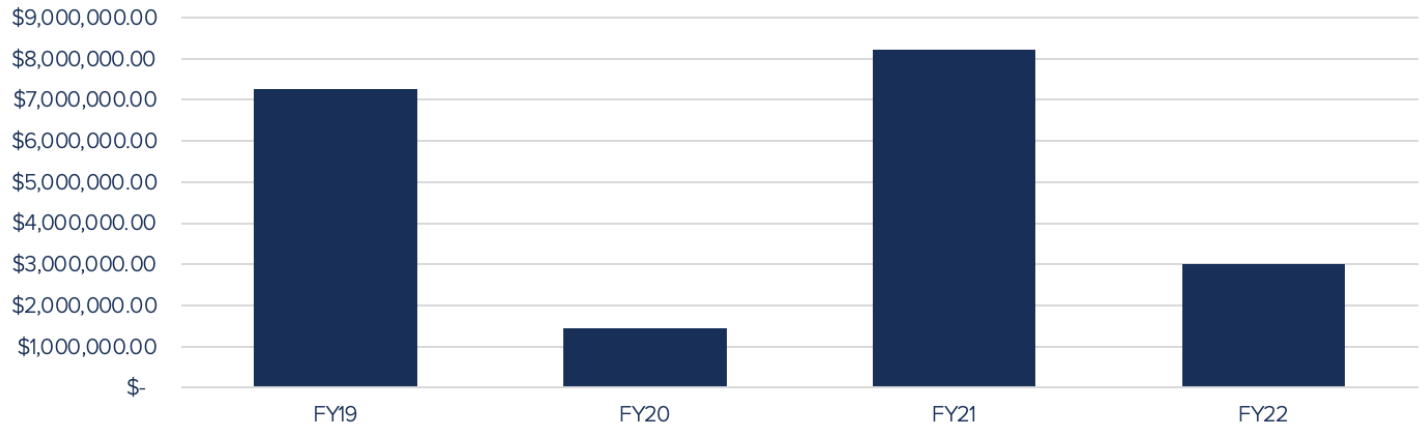
External Evaluator - ERVA: The Vision for Engineering Leadership -a Multi-sector Alliance (VELMA) | Todd Zoblotsky
$799,798

Operation of the Mid-America Integrated Seismic Network 2020-2024 (CERI) *(multi-year award)* | Mitchell Withers
$702,675

iCODE: Investigating and Scaffolding Students' Code Comprehension Processes To Improve Learning, Engagement, and Retention | Vasile Rus
$650,600

DETAILED VIEW | STATE AWARDS

**Note: $$ is obligated amount in FY*



State Funding By Source

Funding Source	FY19	FY20	FY21	FY22
TN Department of Mental Health and Substance Abuse Services	$187,752	$180,000	$360,000	$1,205,000
Tennessee Department of Transportation (TDOT)	$4,150,941	$174,959	$5,621,965	$675,905
Tennessee Department of Education (TDoEd)	$1,738,245	$238,245	$1,012,245	$238,245
Tennessee Higher Educ Commission (THEC)	$138,555	$220,282	$152,300	$217,500
Tennessee Student Assistance Corporation				$205,000
Tennessee Department of Health (TDoH)	$10,000	$148,000	$166,300	$155,300
Tennessee College of Applied Technology (TCAT)				$150,000
Tennessee Department of Health (TDoH)	$10,000	$193,700	$166,300	$148,300
Alaska Department of Fish & Game				$101,465
Virginia Department of Education	$89,495	$89,950	$91,400	$92,308

Top 10 State Funded Projects By Fiscal Year

**Note: $$ is obligated amount in FY*

FY21

Keep Tennessee Beautiful Program | Melissa Marshall
$4,919,559

West Tennessee PBIS Project - RISE | William Hunter
$750,000

Peak Flow Estimation Urban Areas | Claudio Meier
$253,517

Dept of Ag West TN | Brian Waldron
$240,000

Governor's School for International Studies *(multi-year award)* | Keri Brondo
$238,245

Change the Odds: A Multi Platform Approach to Gambling Treatment *(multi-year award)* | James Whelan
$360,000

Lone Oaks | Brian Waldron
$165,000

Operation and Maintenance of the Arkansas Seismic Network | Stephen Horton
$162,000

Understanding Freight Impacts On Tennessee Communities | Michail Gkolias
$149,994

Connecting Demand Response Transit With Fixed Service Transit | Sabya Mishra
$149,600

FY22

Change the Odds: A Multi Platform Approach to Gambling Treatment *(multi-year award)* | James Whelan
$1,205,000

University of Memphis, Byway Management Program | Richard Irwin
$675,905

Governor's School for International Studies *(multi-year award)* | Keri Brondo
$238,245

Administration of the Minority Engineering Scholarship | Isaiah Surbrook
$205,000

GIVE 2.0 | Bradley Harrell
$150,000

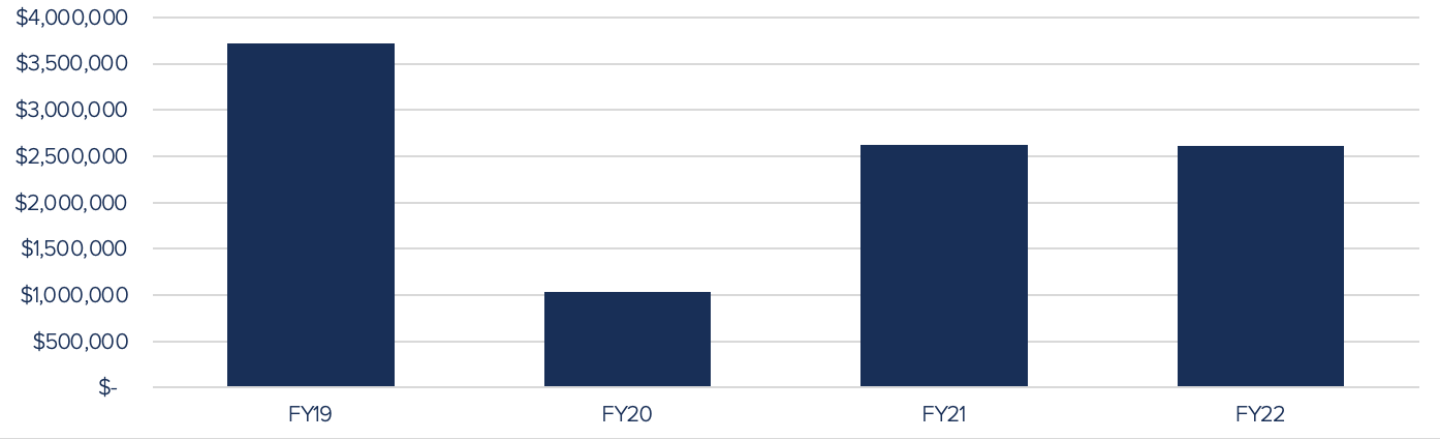
Loewenberg College of Nursing - Lactation Support Program | Genae Strong
$148,300

At press, the UofM was awarded $25M from Tennessee Department of Human Services for GROWWTH

Principal Investigator: Dr. Richard Irwin

DETAILED VIEW | LOCAL PUBLIC AWARDS

**Note: $$ is obligated amount in FY*



Top Local Public Funding Sources for Research

Funding Source	FY19	FY20	FY21	FY22
Memphis Light Gas and Water (MLGW)	$2,235,000		$1,509,000	$1,642,887
City of Memphis	$838,520	$449,755	$174,276	$560,913
Shelby County Schools (SCS)	$374,712	$66,051	$90,898	$133,340
City of Collierville	$9,500	$41,500	$73,500	$73,500
City of Germantown	$45,000	$45,000	$45,000	$45,000
City of Memphis Police Department (CMPD)	$36,000	$36,000	$45,000	$45,000

Top 5 Locally Funded Projects By Fiscal Year

**Note: $$ is obligated amount in FY*

FY21

MLGW Aquitard Year 3 *(multi-year award)* | Brian Waldron
$1,509,000

VSA 2020 | Brian Waldron
$447,917

Asset Management Plan for Memphis Transit Fleet | Sabyasachee Mishra
$120,000

Evaluating Public Compliance with COVID-19 Response Directives | Marian Levy
$75,000

Zoning Phase 2 | Brian Waldron
$55,043

FY22

MLGW Aquitard Year 4 *(multi-year award)* | Brian Waldron
$1,342,887

City of Memphis Neighborhood Preservation Clinic | Daniel Schaffzin
$314,333

MLGW General | Brian Waldron
$300,000

CoM Stormwater GIS reintegration | Brian Waldron
$190,000

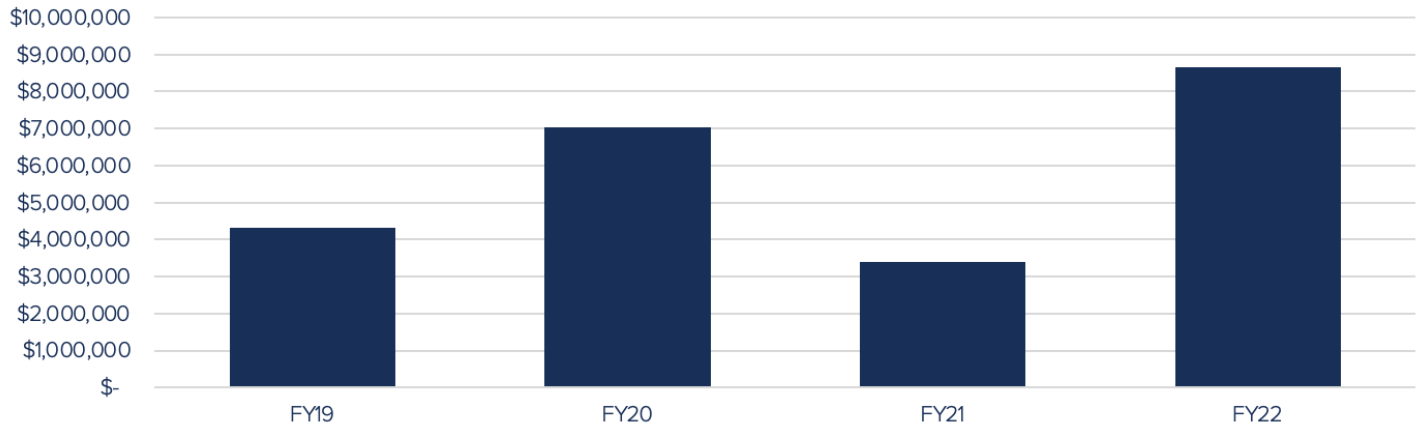
SCS Culinary Arts Program at Bolton High | Radesh Palakurthi
$94,000

Collierville GW Quality Research | Daniel Larsen
$64,000

BCS 2.0 | Brian Waldron
$56,580

DETAILED VIEW | CORPORATE & FOUNDATION AWARDS

**Note: $$ is obligated amount in FY*



Top Corporate & Foundation Funding Sources for Research

Funding Source	FY19	FY20	FY21	FY22
The Urban Child Institute (TUCI)	$271,119	$2,206,049	$854,845	$2,506,600
Peer Power Foundation Inc	$933,182			$945,839
Vanderbilt University	$34,730	$81,856	$36,675	$762,298
Memphis and Shelby Crime Commission (MSCC)		$525,000	$525,000	$525,000
Mannatech Incorporated				$361,265
Women's Foundation for a Greater Memphis	$44,500	$25,000	$55,000	$347,512
Robert Wood Johnson Foundation				$273,060
Conch Technologies, Incorporated	$656,160	$379,734	$227,272	$269,848
FedEx Corporate Services, Incorporated (FCS)	$199,000			$230,000
Hyundai Motor Company				$157,200

Top Corporate & Foundation Funded Projects By Fiscal Year

**Note: $$ is obligated amount in FY*

FY21

Public Safety Institute *(multi-year award)* | Abby Parrill-Baker
$525,000

Community Partnership to Enhance Kindergarten Readiness Through Quality Caregiver/Parent-Child Interactions *(multi-year award)* | Loretta Rudd
$404,845

Fostering Resilience and Well-being in the Pediatric Trauma Population: Counseling Interventions for an At-Risk Population | Eraina Schauss
$350,000

Coordinated Effort to Enhance Development | Loretta Rudd
$290,000

Master - MLGW GSR | Brian Waldron
$227,272

MDIVI-1 as an Immunometabolic Regulator to Treat Atherosclerosis | Brandt Pence
$200,000

Promoting Health and Well-being in Children and Families: Evaluating a Prenatal Intervention Program *(multi-year award)* | Kathryn Howell
$160,000

ETS Sponsored Research Agreement | Alistair Windsor
$98,242

The Evolution of Civil Rights Enforcement and Economic Prosperity of Minorities | Jamein Cunningham
$74,000

ECON CLUB Contract | Damon Fleming
$73,012

FY22

Peer Power Institute | Barbara Bekis
$945,839

MLP/Memphis CHiLD | Kathryn Ramsey
$786,870

Multi-Tiered Systems of Support for Behavior and Academics | William Hunter
$700,000

Fostering Resilience and Well-being in the Pediatric Trauma Population: Counseling Interventions for an At-Risk Population | Eraina Schauss
$700,000

Community Partnership to Enhance Kindergarten Readiness Through Quality Caregiver/Parent-Child Interactions *(multi-year award)* | Loretta Rudd
$553,876

Public Safety Institute *(multi-year award)* | Abby Parrill-Baker
$525,000

School Mental Health Access to Resources through Teletherapy (SMART) Research, Training, and Treatment Center | Susan Elswick
$356,875

University of Memphis: Eradicating Systemic Racism and Promoting Social Justice through Academic Public Health | Marian Levy
$273,060

Digital Inclusion in South City-Phase II | Gregory Washington
$250,757

Improving FedEx Supply Chain Demand Forecasting in Turbulent Environments | Huigang Liang
$230,000

HIGH IMPACT SCHOLARS AT THE UOFM

Author Name	Department	Scopus H-Index
Bowlin, Gary L.	Biomedical Engineering	55
Sutter, Tom	Biological Sciences	52
Karmaus, Wilfried Joachim Jurgen	School of Public Health	51
Fatemi, Ali	Mechanical Engineering	50
Lasiecka, Irena	Mathematical Sciences	49
Beck, J. Gayle	Psychology	47
Rudd, Michael David	Psychology	45
Ward, Kenneth D.	School of Public Health	45
Bollobas, Bela	Mathematical Sciences	44
Murphy, James G.	Psychology	43
Lindner, Ernö	Biomedical Engineering	42
Skalli, Omar	Biological Sciences	39
Triggiani, Roberto	Mathematical Sciences	39
Bumgardner, Joel David	Biomedical Engineering	38
Oller, D. Kimbrough	Communication Sciences and Disorders	38
Langston, Charles A.	Center for Earthquake Science and Information (CERI)	37
Mishra, Sanjay R.	Physics	37
Dasgupta, Dipankar	Computer Science	36
Gallagher, Shaun	Philosophy	36
Huang, Xiaohua	Chemistry	36
Bloomer, Richard J.	College of Health Studies	34
Kumar, Santosh	Computer Science	34
Haggard, Warren O.	Biomedical Engineering	33
Lewis, Gladius	Mechanical Engineering	33
Berman, Jeffrey Scott	Psychology	33
Parrill, Abby L.	Chemistry	33
Yang, Kan	Computer Science	33
Bidelman, Gavin	Institute for Intelligent Systems	32
Pierce, Charles A.	Fogelman College of Business and Economics	32
Bayer, Randall James	Biological Sciences	31
Williams, John Leicester	Biological Sciences	31

Faculty Name	Department	Google Scholar Citation Count
Gallagher, Shaun	Philosophy	36539
Huang, Xiaohua	Chemistry	33590
Bowlin, Gary L.	Biomedical Engineering	21606
Dasgupta, Dipankar	Computer Science	19630
Oller, D. Kimbrough	Communication Sciences and Disorders	18732
Lasiecka, Irena	Mathematical Sciences	18460
Fatemi, Ali	Mechanical Engineering	16978
Rudd, Michael David	Psychology	15165
Liang, Huigang	Business Information and Technology	13944
Kraiger, Kurt	Management	13680
Sutter. Thomas	Biological Sciences	11791
Langston, Charles A.	Center for Earthquake Science & Information (CERI)	10670
Murphy, James G.	Psychology	10629
Lindner, Ernö	Biomedical Engineering	9794
Rezaee, Zabihollah	School of Accountancy	9790
Wang, Lan	Computer Science	9642
Kumar, Santosh	Computer Science	9339
Pence, Brandt	School of Public Health	8364
Papadopolous, Christos	Computer Science	8322
McInish, Thomas	Finance	7635
McKenna, Duane	Biological Sciences	7576
Bumgardner, Joel David	Biomedical Engineering	7491
Anastassiou, George	Mathematical Sciences	7443
Zhang, Hongmei	Biostatistics	7174
Yang, Kan	Computer Science	6505

Note on Citations: *Citations in peer reviewed publications are a key metric for impact of research.*

Note on H-index: *H-index is an author-level metric that attempts measures both productivity and citation impact of peer-reviewed scholarship. The h-index is defined as the maximum value of h such that the given author has published at least h papers that have each been cited at least h times. For example, an author with an h-index of 25 has at least 25 papers that were cited 25 times. The data for these h-index calculations was drawn from Scopus on 8/3/22.*

Note on Reporting: *All reported award amounts follow best practices at research institutions, are reported by report date and represent the entire amount reported. If, for example, you are awarded $1M over three years and the report date reports the entire three year amount, then $1M will be reported in the first year and no funds will be reported in subsequent years. If the report date on year one only shows the year one amount, then subsequent years will report their respective amounts. For questions please email* ***research@memphis.edu***

UNIVERSITY OF MEMPHIS RESEARCH COUNCIL

The activities of the Division of Research & Innovation are guided by the UofM Research Council. Thank you to the FY22 members.

University of Memphis Research Council Membership Roster, 2021-2022

Dean's Representatives

Gary Emmert, College of Arts and Sciences
Jeremy Orosz,
College of Communication & Fine Arts
Alfred Hall, College of Education
Chuck Pierce,
Fogelman College of Business & Economics
Stephanie Ivey, Herff College of Engineering
Cody Havard,
Kemmons Wilson School of Hospitality
Jermain Johnson, Lambuth Campus
Alena Allen, Law School
Marie Gill, Loewenberg College of Nursing
Kim Oller, Communication Sciences & Disorders
Brandt Pence, School of Health Studies
Hongmei Zhang, School of Public Health
Colin Chapell, University College
John Evans, University Libraries

Chairs/Centers of Excellence Representatives

Gayle Beck, Psychology
Santosh Kumar, Computer Science
Chuck Langston,
Center for Earthquake Research and Information

At-Large Representatives

Brian Waldron, CAESER
Latrice Pichon, School of Public Health

Faculty Senate Representatives

Amber Jennings, Biomedical Engineering
Sajjan Shiva, Computer Science
Reza Banai, City and Regional Planning
Kris-Stella Trump, Political Science
Deborah Moncrieff,
Communication Sciences & Disorders
Sanjay Mishra, Physics
Michail Gkolias, Civil Engineering

Faculty Representatives

Mehdi Amini, Marketing & Supply Chain
Gary Bowlin, Biomedical Engineering
Dipankar Dasgupta, Computer Science
Ali Fatemi, Mechanical Engineering
Ryan Fisher, School of Music
Chunrong Jia, School of Public Health
Satish Kedia, School of Public Health
Katherine Lambert-Pennington, SUAPP
Jim Murphy, Psychology
Max Paquette, School of Health Studies
Sarah Potter, Marcus Orr Center
Chrysanthe Preza, Electrical/Comp Engineering
Tom Sutter, Biological Sciences
Steve Zanskas, CEPR
Genae Strong, Loewenberg College of Nursing

THANK YOU

Thank you to the research support staff across our campus who help enable the growth of our research enterprise. From Business Officers to Pre-Award Specialists and all those who help in the production of research, we appreciate your work and contributions.


on the Mississippi
by Mark Twain
The Tale of Peter Rabbit
Einstein's Dreams
Alan Lightman


THE UNIVERSITY OF
MEMPHIS
Research & Innovation

10. R1 Challenge Update

Presentation

Presented by Joanna Curtis

The University of Memphis Board of Trustees

Report

For Information

Date: September 7, 2022

Committee: Academic, Research, and Student Success Committee

Presentation: R1 Match Challenge Status

Presented by: Joanna Curtis, Vice President for Advancement

Background:

State supported the creation of a $50 million research endowment fund, to be matched with $50M in private support to create a $100 million endowment to help sustain our R1 research university status. To date, we have $21.3 million secured toward the $50 million goal. An additional $12.7M is in proposal/pending status.

R1 Match Challenge Status

Academic, Research, and Student Success

Joanna Curtis
Vice President for Advancement

September 7, 2022
Maxine A. Smith University Center

Goal: $50M

Complete	**$21,264,000**
Pre-Solicitation/ Pending	$12,725,000
Total	$33,989,000

HIGHLIGHTS

- **Billy Dunavant Endowed Chairs/Professorships in Supply Chain Management**
- **Rudd Institute for Veteran and Military Suicide Prevention**
- **FedEx Institute of Technology**
- **Graf Endowed Chair in Research & Innovation**
- **Martin Center Endowed Fund**
- **Cox Graduate Fellowship in CSD**

AREAS OF FOCUS FY23

- AGTECH
- SUPPLY CHAIN
- CYBERSECURITY

11. Hooks Institute

For Review

Presented by Abby Parrill

The University of Memphis Board of Trustees

Presentation
For Information

Date: September 7, 2022

Committee: Academic, Research and Student Success Committee

Presentation: Benjamin L Hooks Institute for Social Change at the University of Memphis

Presented by: Dr. Abby Parrill, Interim Provost

Background:

The Benjamin L. Hooks Institute for Social Change is a university interdisciplinary center with a mission of teaching studying and promoting civil rights and social change. The Institute preserves civil rights history through the creation of collections housed in Special Collections, including the digitization of the personal papers of civil rights activist Dr. Benjamin L. Hooks: the largest in the university's history. Hooks Institute award winning documentaries both preserve and interpret civil rights history. The Hooks Institute's National Book award, given to a book published in a calendar year that best furthers the legacy of the American civil rights movement, is a highly competitive and receives nominations from the most prestigious academic and trade presses from around the world. Faculty who are recipients of Hooks Institute grant funds examine complex issues of health, economic, educational, and other disparities with the goal of publishing their research outcomes to create real-world interventions. The Hooks Institute policy papers examine social justice and racial disparities and have been cited and/or published by the media. Additionally, they provide valuable information for policy makers and civic leaders. The Hooks African American Male Initiative and A Seat at the Table are programs that target students for intensive academic interventions and/or coaching and mentoring by university staff and community professionals to create successful academic outcomes and responsible citizens. The Hooks Institute connects to the public online and in person through its lecture series, symposia, and other public events.

Founded in 1996 by the late Dr. Benjamin L. Hooks and staff in the Department of Political Science, the Hooks Institute received its initial funding from federal and State of Tennessee appropriations. The Institute is currently funded through university support and sustained fundraising by the Hooks Institute staff from private, foundation, and government agencies.

The Benjamin L. Hooks Institute for Social Change

PowerPoint for the
Academic, Research and Student Success Committee of
University of Memphis Board of Trustees

@benhooksinstitute @hooksinstitute @hooksinstitute

WHO WE ARE

- The Benjamin L. Hooks Institute for Social Change is a university interdisciplinary center with a mission of teaching, studying, and promoting civil rights and social change.
- Founded in 1996 by the late Dr. Benjamin L. Hooks and staff in the Department of Political Science, the Hooks Institute received its initial funding from federal and State of Tennessee appropriations. The Institute is currently funded through university support and fundraising by the Hooks Institute staff from private, foundation, and government agencies.
- The Institute preserves civil rights history through the creation of collections housed in Special Collections, including the digitization of the personal papers of civil rights activist Dr. Benjamin L. Hooks: the largest collection in the university's history. Hooks Institute award winning documentaries both preserve and interpret civil rights history.
- The Hooks Institute's National Book Award is highly competitive and is given to a book published in a calendar year that best furthers the legacy of the American civil rights movement. The Institute receives nominations from the most prestigious academic and trade presses from around the world.

WHO WE ARE

- Faculty who are recipients of Hooks Institute grant funds examine complex issues of health, economic, educational, and other disparities with the goal of publishing their research to create real-world interventions.
- The Hooks Institute Policy Papers examine social justice and racial disparities and have been cited and/or published by the media. Additionally, they provide valuable information for policy makers and civic leaders.
- The Hooks African American Male Initiative (HAAMI) and A Seat at the Table (ASATT) are programs that offer students intensive academic interventions and/or coaching and mentoring by university staff and community professionals to create successful academic outcomes and responsible citizens.
- The Hooks Institute connects with the public online and in person through its lecture series, symposia, and other public events.

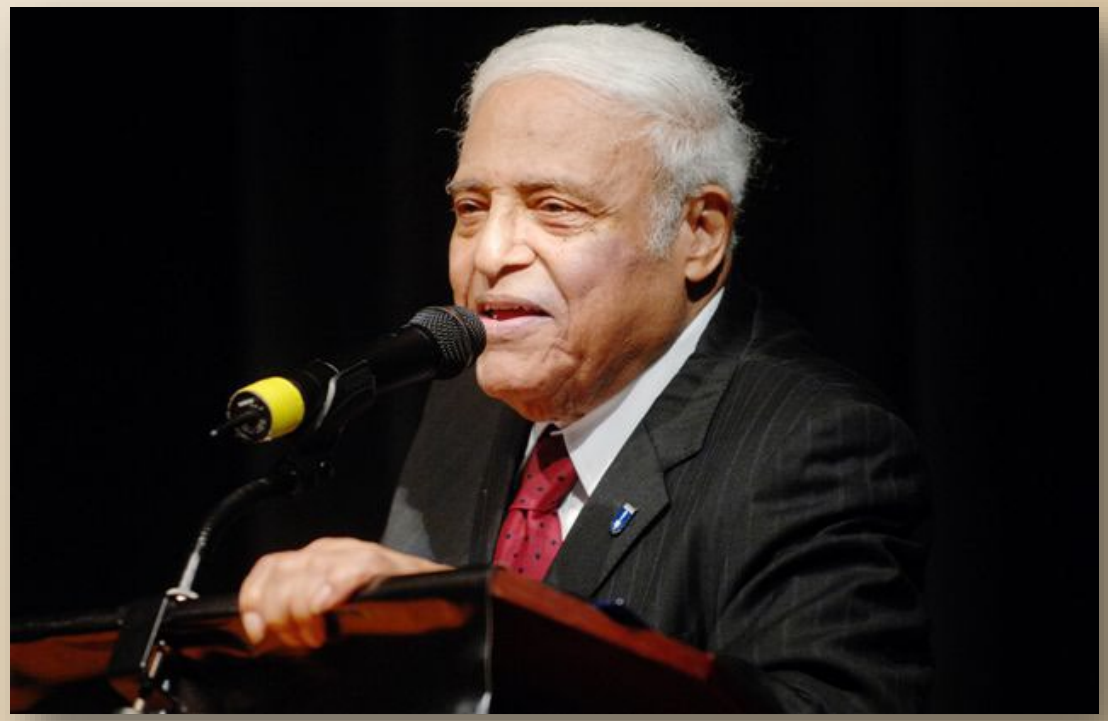
HIGHLIGHTS OF SELECTED PROGRAMS

MEMPHIS INTERNATIONAL AIRPORT TO FEATURE HOOKS INSTITUTE'S EXHIBIT ON VOTING - FALL 2022

- Professional photographer Art Shay, on assignment for LIFE Magazine, photographed grass roots organizing and a demonstration march by Fayette County, Tennessee civil rights and student activists in 1965. This exhibit will feature 13 of Shay's photographs of Africa American activists, student activists from Cornell University, and others.
- The late Art Shay was a photojournalist and photographed the rich and famous including Elizabeth Taylor, Richard Burton, President John F Kennedy, Robert Kennedy, and Dr. Martin Luther King. This exhibit highlights moments from the Fayette County civil rights movement and the artistic genius of Shay.
- The Memphis Int'l Airport will host the exhibit for a year with the option to renew for a second year.

THE DIGITIZATION OF THE PERSONAL PAPERS OF THE LATE DR. BENJAMIN L. HOOKS

- In collaboration with the University of Memphis Libraries, the Hooks Institute raised the funds required to hire an archivist and equipment to digitize the personal papers of the late Dr. Benjamin L. Hooks.
- Dr. Hooks donated over 400 boxes of personal papers, videos, and audio recordings that expanded his career as a minister, civil rights activist, and the first African American appointed to the United States Federal Communications Commission (1972-1977).
- When the digitization was completed by the University Libraries, the project was the largest digitization project in its history.
- https://www.memphis.edu/hookspapers/



THE HOOKS AFRICAN AMERICAN MALE INITIATIVE (HAAMI)

- Established in 2015 to enrich the collegiate experience and improve graduation outcomes for African American undergraduate male students at the UofM
- Program pillars: Academic Achievement, Personal Development, Career Readiness
- Enrollment: 40-50 students annually
- 6-year graduation rate for Fall 2015 cohort: 50%
- Graduates since program inception: 42 (10 honors graduates)
- Funding source: private donations and grants https://www.memphis.edu/benhooks/haami/

A SEAT AT THE TABLE (ASATT)

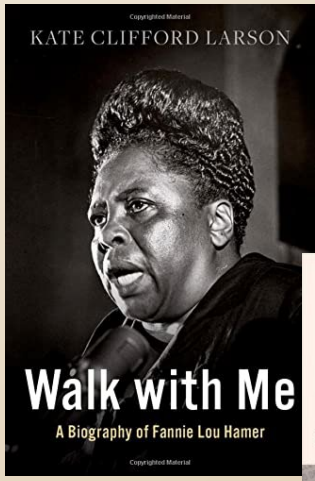
- Established in 2021 to empower undergraduate women at the UofM to strengthen their personal development, career exploration, and career readiness
- Enrollment: 14 students
- Events: panel discussions, personal financial literacy, Memphis Business Journal Super Women in Business Awards Program
  https://www.memphis.edu/benhooks/asatt/

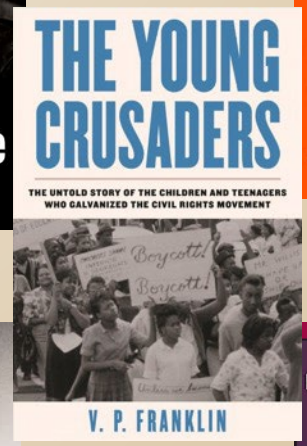
HOOKS TRAININGS OF CITY AND FEDERAL STAFF

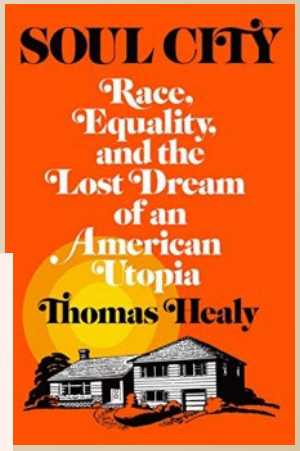
- On Oct. 16 and 26, 2020, the Hooks Institute and the UofM's School of Urban Affairs and Public Policy led training for the City of Memphis Code Enforcement on land installment contracts (or rent to own agreements), in Memphis. These agreements can have insidious consequences for poor and minority renters. Speakers included Brittany Williams, Code Enforcement Prosecutor, City of Memphis; Mike Fearnly; Apperson Crump; and Charia Jackson, Frayser Community Development Corporation.
- On July 30-31, 2020, the Hooks Institute led training for the staff of the Community Relations Service, U.S. Department of Justice titled, "Looking Back, Looking Forward." This training focused on the social justice and civil rights issues today, poverty, workforce automation, transportation, and other disparities in Memphis.

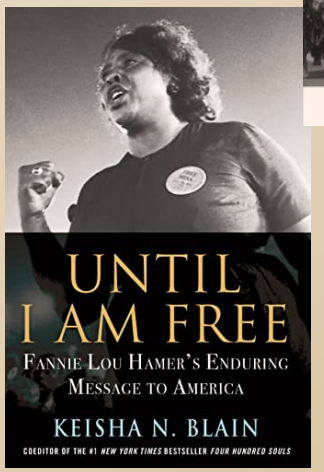
HOOKS INSTITUTE'S NATIONAL BOOK AWARD

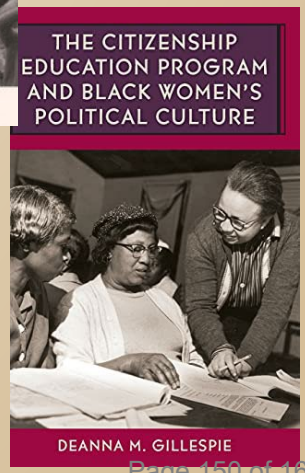
- The Hooks Institute's National Book Award is presented to a non-fiction book published in the calendar year that best furthers understanding of the American civil rights movement and its legacy.
- Finalists were chosen from 43 books that were nominated for the 2021 award. The award winner will be chosen summer 2022 by a panel of judges representing various disciplines and academic institutions in Memphis. The book award winner will speak at an event hosted by the Hooks Institute.
- The following were selected finalists for the 2021 Hooks National Book Award:
  - *The Citizenship Education Program and the Black Women's Political Culture*. Deanna Gillespie. University Press of Florida
  - *Soul City: Race, Equality, and the Lost Dream of an American Utopia*. Thomas Healy, Esq. Metropolitan Books
  - *Until I Am Free: Fannie Lou Hamer's Enduring Message to America*. Keisha Blain. Beacon Press
  - *Walk With Me: A Biography of Fannie Lou Hamer*. Kate Clifford Larson. Oxford University Press
  - *The Young Crusaders: The Untold Story of the Children and Teenagers Who Galvanized the Civil Rights Movement.* V.P. Franklin. Beacon Press





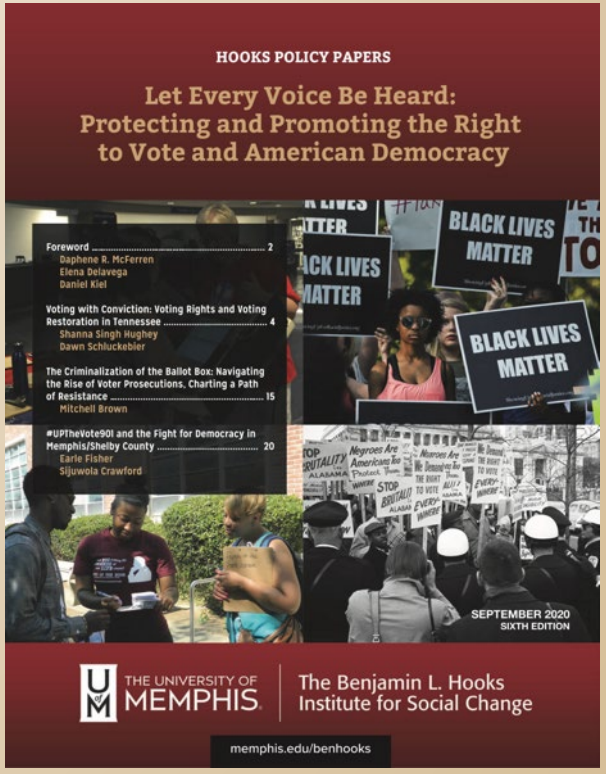






HOOKS POLICY PAPERS

- The Hooks Institute Policy Papers are published annually about current civil rights, social justice and equity issues. They provide a detailed analyses of contemporary social justice issues and proposed policy changes. The policy papers are written with the goal of reaching audiences from the grassroots to government. Find digital versions of the Policy Papers at **memphis.edu/benhooks/policypapers**.
- On September 22, 2020, 6pm, the Hooks Institute held a Facebook live event on its 2020 Policy Papers, "Let Every Voice Be Heard: Protecting and Promoting the right to Vote and American Democracy." Panelists (each of whom published an article in the 2020 edition), included Shanna Singh Hughey and Dawn Schlukebier (ThinkTennessee, Nashville), Mitchell Brown (Southern Coalition for Justice, Durham, North Carolina) and Earle Fisher and Sijuwola Crawford (#UptheVote901). Daniel Kiel, Hooks Institute Associate.
- Nashville Public Television (NBT) based some of its documentary content on the Hooks Policy papers for NPT's documentary, "The Fight to Vote: Black Voter Suppression in Tennessee: The Citizenship Project"



COMMUNITY PROGRAMS FOCUS ON CONTEMPORARY ISSUES

- **A Complete Embrace: The LGBTQIA+ Black Community and the Black Lives Matter Movement | Oct. 1, 6 pm | Hooks Institute Facebook Page**
  This event addressed challenges faced by the LGBTQIA+ community as well as law, policies, and practices that impact their life experiences. Panelists were Gwendolyn D. Clemons and Davin D. Clemons, co-founders of Relationship Unleashed.

- ***Reimagining Policing* Panel Discussion | *Nov. 10,* 6–7 PM**
  Hooks Institute Facebook Page
  In response to local and national protests and demands for systemic changes in policing, panelists discussed policing policies, practices, and reforms. Panelists include Lynda Williams, president, National Organization of Black Law Enforcement Executives (NOBLE) (Alexandria, Virginia); Shahidah Jones, founder, Black Lives Matter, Memphis Chapter; Myesha Braden, director of special justice initiatives, Alliance for Justice (Washington, DC); and Richard McKinney, II, sergeant, Shelby County Sheriff's Department. Marc Perrusquia, award-winning journalist and director of the Institute for Public Service Reporting moderated the discussion.

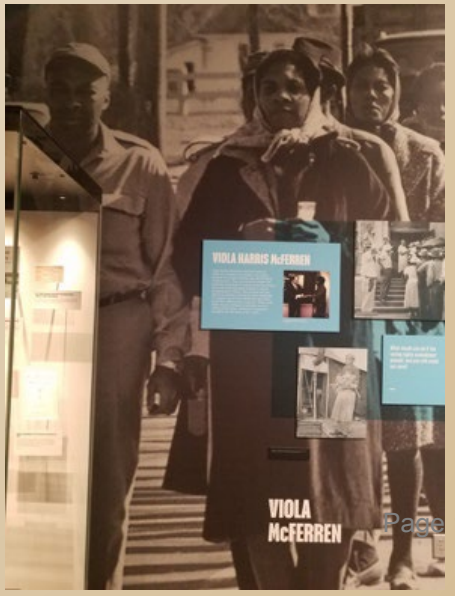
DOCUMENTARIES ON CIVIL RIGHTS

- ***Facing Down Storms*: Ida B. Wells Documentary, Red Carpet Premiere, April 19, 2022**
  Ida B. Wells (1862-1931) was a civil and women's rights activist who received posthumously the Pulitzer Prize in 2020 for anti-lynching crusade which she began in 1892 after the lynching of two African American men in south Memphis.
- The Hooks Institute held its red-carpet premiere for this documentary on April 19, 2022, at the Halloran Centre for the Performing Arts. The Memphis community sold out the two screenings on July 21 and 28, 2022 at Malco Studio on the Square.
- **Ida B. Wells: A Chicago Stories Special , May 21, 2021**
  Along with Pulitzer Prize-winning journalist Nikole Hannah-Jones, creator of the Ida B. Wells Society for Investigative Reporting and the landmark 1619 Project, Daphene R. McFerren, executive director of the Hooks Institute, explored the activism of Ida B. Wells in the WTTW Chicago Special- "Ida B. Wells: A Chicago Stories Special." The documentary, which also features historians and descendants of Ida B. Wells, premiered on WTTW Chicago on May 21 in addition to being shown on WKNO Memphis, the week of July 16, 2021, in honor of the Ida B. Wells celebration unveiling in downtown Memphis.
- **The Fight to Vote: Black Voter Suppression in Tennessee, Feb. 22, 2021**
  Daphene R. McFerren, executive director, Hooks Institute, spoke about the history of voter suppression in Fayette County, Tennessee and efforts underway to suppress voting nationally in the documentary "The Fight to Vote: Black Voter Suppression in Tennessee," produced by Nashville Public Television (NPT). This documentary featured a host of activists and historians.

Photograph: Facing Down Storms production team films B-Roll for the documentary on Ida B. Wells. Aug. 28, 2021)

HOOKS INSTITUTE COLLABORATIONS AND RESEARCH GRANTS

- **Viola Harris McFerren and Fayette County Civil Rights Movement Featured in Tennessee State Museum's Suffrage Exhibit: Ratified! Tennessee Women and The Right To Vote. Open to the Public, July 31, 2020, to Sept. 26, 2021**
- To honor of her legacy and commitment to the right to vote, Viola Harris McFerren, a Fayette County civil rights movement leader, was featured in this exhibit hosted by the Tennessee State Museum. Working with UofM Special Collections, the Hooks Institute worked with the museum to find photographs and other historical materials. The exhibit was open to the public from at the Tennessee State Museum in Nashville.
- **Hooks Current Research Grant Awards**
  - Sohye Lee, PhD, RN (UofM Loewenberg College of Nursing) and Jaime Sabel, PhD (Assistant Professor, UofM Department of Biological Sciences) were awarded social change research grants by the Benjamin L. Hooks Institute for Social Change at the University of Memphis. The Hooks Institute awarded Lee a grant of $5,000 and Sabel a grant of $2,500 to support their research that addresses social change issues.
  - Sohye Lee and her research team's grant-winning project, "Assessing Perceived Racial Discrimination and Health Outcomes among Asian Americans and African Americans," will examine the relationships between perceived racial discrimination and health outcomes among Asian Americans and African Americans after the COVID-19 pandemic.
  - Jaime Sabel's grant-winning project, "Exploring Factors That Contribute to Persistence in Underrepresented Biology Students," will work to determine factors and interventions to better support graduation of students seeking degrees in the life science field with an emphasis on African American students.



HOOKS COMMUNICATION STRATEGY

The Hooks Institute's communication strategy effectively uses social media, newsletters and video and postcard mailings to share its programming with the greater Memphis community to create a more equitable society. Our metrics were as follows:

- 4,651 followers on Facebook
- 2,401 subscribers through Constant Contact
- 1,919 recipients on our U.S. mailing list
- 25,000 yearly views on YouTube | 2,043 Subscribers on YouTube
- 47,000 people reached through Hooks livestream videos on Facebook

Hooks Institute Leadership Team

Daphene R. McFerren, J.D. - Executive Director

Rorie Trammel - Associate Director, Director of the HAAMI Program

Nathaniel C. Ball - Assistant Director

James L. Beasley - Hooks HAAMI Coordinator

Jessyka Allen - Hooks Administrative Coordinator

Elena Delavega, PhD - Programs Research Advisor

ADVISORY BOARD TO THE HOOKS INSTITUTE

In May 2008, the Hooks Institute's Advisory Board (Board) was created to assist the Hooks Institute in the strategic development and implementation of its mission and programs.

The Board is composed of accomplished individuals dedicated to uplifting communities in Memphis and the nation. Members have included community activists, attorneys, engineers, corporate, public relations officials, and the clergy.

ADVISORY BOARD TO THE HOOKS INSTITUTE

Board Officers | Executive Committee

Andrew Meyers, PhD
Chair, Hooks Advisory Board
Emeritus Professor of Psychology
(University of Memphis), Memphis

Detlef Heck, PhD
Vice Chair, Hooks Advisory Board
Professor of Neurobiology
University of Tennessee
Health Science Center, Memphis

Steve Swain
Secretary, Hooks Advisory Board
Senior Vice President and Community Lending Manager
Pinnacle Financial Partners, Memphis

Board

Yolanda Baptist-Green
Office of Professionalism and Accountability
Shelby County Division of Corrections, Memphis

Claire Brulatour
Program Management Coordinator
Blue Cross Blue Shield of Tennessee
Community Trust and Health Foundation, Memphis

Kenya Hooks
Chief Prosecutor at City of Memphis, Memphis

Michelle Garner-Janna
Executive Director, Corporate Health, Safety and Environment
Cummins Inc., Memphis

Rev. Dr. LaSimba Gray, Jr.
Pastor (retired) of New Sardis Baptist Church, Memphis

ADVISORY BOARD TO THE HOOKS INSTITUTE

Board (Continued)

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Marketing Specialist
Memphis Area Transit Authority, Memphis

David Schwartz, MD, FACR
Professor and Vice-Chairman
Department of Radiation Oncology
UTHSC-West Cancer Center, Memphis

Midion A. Smith
Director of Retail Sales
PepsiCo., Memphis

Gretchen Stroud
Sr. Vice President, Talent & Inclusion
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Memphis Medical District Collaborative
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Marketing Manager, FedEx

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Vice President of Marketing
FedEx, Memphis

Patricia Hooks Gray
Daughter of the late
Dr. Benjamin L. and Frances D. Hooks
Cincinnati

Johnnie R. Turner
Civil Rights Activist
Former Tennessee House of Representative,
District 85, Memphis

CONCLUSION

The Hooks Institute is committed to providing the highest-quality work to facilitate our mission of teaching, studying, and promoting civil rights and social change. In this way, we can create positive change in Memphis community and beyond using the collective scholarship and engagement of the university community.

THE BENJAMIN L. HOOKS INSTITUTE FOR SOCIAL CHANGE
AT THE UNIVERSITY OF MEMPHIS

12. Additional Business

Presented by David Kemme

13. Adjournment

Presented by David Kemme