

Research Updates

Charles Weatherford, Ph.D.
Vice President for Research

FAMU Board of Trustees
Academic and Student Affairs Committee Meeting
December 1, 2021



Research Data 2017 - Present

	2017-2018	2018-2019	2019-2020	2020-2021
Awards Received	\$46.2M	\$46.7M	\$60.8M	\$66.4M New record
Submitted	\$99.1M	\$182.1M	\$154.0M	\$201.5M New record
R&D Spending	\$38.0M	\$42.8M	\$41.3M	\$51.8M New record
Patents Granted	4	3	6 utility 2 plant	4



FLORIDA AGRICULTURAL AND MECHANICAL UNIVERSITY



FAMU-FSU College of Engineering



Summer REU Program



Composites Mechanical test Lab



Autoclave for Composites Fabrication



Resin and Composites Thermal Analysis Lab



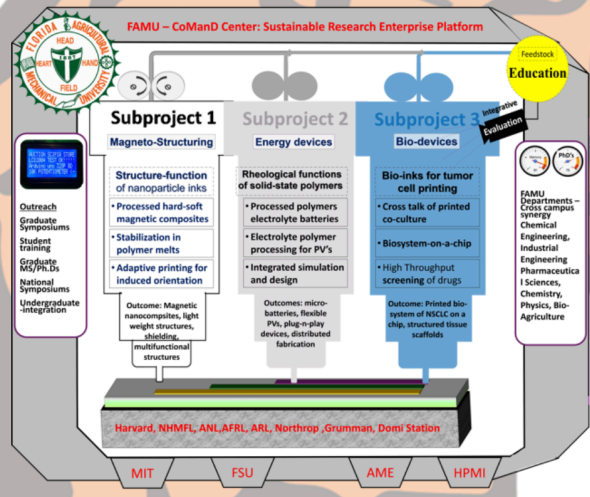
Digital manufacturing



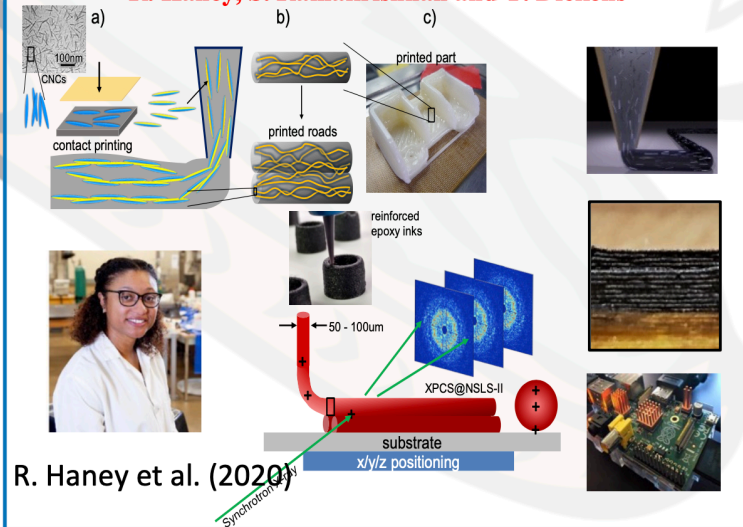
Subramanian Ramakrishnan, Ph.D, Energy – 3M Fellow



Tarik J. Dickens, Ph.D., Associate Professor, UREX Coordinator



Additive Manufacturing of Continuous Fiber Composites with Enhanced Structural and Conductive Properties R. Haney, S. Ramakrishnan and T. Dickens



Excellent student success R. Haney (PhD) – permanent civilian position at AFRL

B. Haney (PhD) – Post doctoral fellow at Harvard University



F. Muhammed – first DOD SMART fellow at FAMU

It is our goal in CoManD to combine the expertise of the faculty at FAMU to develop an integrated research and education program on additive manufacturing which not only meets the technological demands of the modern century but also trains the next generation of minority scientists and engineers.



Unit	Amount Received
College of Agriculture and Food Sciences	\$11.7M
School of the Environment	\$7.9M
College of Pharmacy and Pharmaceutical Sciences, Institute of Public Health	\$7.2M
FAMU-FSU College of Engineering	\$6.9M
College of Science and Technology	\$6.2M

Carnegie Research 1 Status by 2030

Metrics

1. R&D expenditures in STEM
2. R&D expenditures in non-STEM fields
3. STEM research staff (postdocs, lab staff) with PhDs
4. PhDs conferred per year

	2012-13	2013-14	2014-15	2015-16	2016-17	2017-18	2018-19	2019-20	2020-21
Research Doctoral Degrees	23	23	21	20	22	25	20	26	28

Calculation

Principal Component Analysis used to create two indices:

- 1. Aggregate research activity and per-capita research activity.**
- 2. R1 universities must be very high in both—A relative (somewhat subjective) judgement is then made.**

- \$90 Million in Research Awards (@\$66M)
- \$70 Million in Research Spending (@\$51.8M)
- 40 PhDs conferred per year and 40 PhD Research Staff (PhDs @ 28)
- Decrease teaching load of research productive faculty by 30%-50%
- Implement cluster hires in fields with high research productivity potential
- Improve research facilities
- **National User Facility managed by FAMU**

Questions?



FLORIDA A&M UNIVERSITY

Founded in 1887 as the State Normal College for Colored Students, Florida Agricultural and Mechanical University (FAMU) is the only historically state supported educational facility for African Americans in Florida. It has always been co-educational. In 1890, the second Morrill Act was passed. This enabled the school to become the Black Land Grant College for the State of Florida. west of its original location