

## Akinjide R. Akintunde

Assistant Professor  
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### (a) Education & Training

Tulane University	New Orleans, LA	Biomedical Engineering	Ph.D., 2019
University of Louisiana	Lafayette, LA	Physics	M.S., 2014
Obafemi Awolowo University	Nigeria	Physics	B.Sc., 2008

### (b) Research & Professional Experience

2019 – present    Assistant Professor  
Computer Science, Physics and Engineering Department  
University of Mary Hardin-Baylor  
Belton, Texas.

2015 – 2019      Graduate Assistant  
Department of Biomedical Engineering  
Tulane University  
New Orleans, Louisiana.

2014 – 2015      Graduate Assistant  
Department of Physics  
University of New Orleans  
New Orleans, Louisiana.

2012 – 2014      Graduate Assistant  
Department of Physics  
University of Louisiana  
Lafayette, Louisiana.

2009 – 2012      Associate, Senior Associate  
PricewaterhouseCoopers  
Lagos, Nigeria.

2008 – 2009      Physics Teacher  
Government Secondary School  
FCT-Abuja, Nigeria.

### (c) Courses Taught

ENGR 1310: Introduction to Engineering  
ENGR 1320: Introduction to Engineering Fundamentals  
ENGR 2301: The Effects of Climate Change  
ENGR 2311: Numerical Algorithms  
ENGR 2330: Electrical Circuit Theory (with Lab)  
ENGR 3160: Engineering Design: Bio-inspired Design  
ENGR 3260: Engineering Design: Engineering for Humanity  
ENGR 3320: Mechanics of Materials (with Lab)  
ENGR 3337: Digital Logic Design (with Lab)  
PHYS 2411: General Physics I (with Lab)  
PHYS 2412: General Physics II (with Lab)

### (d) Publications and Presentations

#### *Peer-reviewed*

1. Akinjide R. Akintunde, Daniele E. Schiavazzi, and Kristin S. Miller, Mathematical model of age-specific tendon healing, [Computer Methods, Imaging and Visualization in Biomechanics and Biomedical Engineering](#). *CMBBE 2019. Lecture Notes in Computational Vision and Biomechanics* **36**, 288–296 (2020).
2. Akinjide R. Akintunde, Kristin S. Miller, and Daniele E. Schiavazzi, Bayesian inference of constitutive model parameters from uncertain uniaxial experiments on murine tendons, [Journal of the Mechanical Behavior of Biomedical Materials](#) **96**, 285 – 300 (2019).
3. Akinjide R. Akintunde, Kathryn M. Robison, Daniel J. Capone, Laurephile Desrosiers, Leise R. Knoepp, and Kristin S. Miller, Effects of elastase digestion on the murine vaginal wall biaxial mechanical response, [Journal of Biomechanical Engineering](#) **141**, 021011–1–11 (2018).
4. Akinjide R. Akintunde and Kristin S. Miller, Evaluation of microstructurally motivated constitutive models to describe age-dependent tendon healing, [Biomechanics and Modeling in Mechanobiology](#) **17**, 793–814 (2018).
5. Akinjide Akintunde and Andi Petculescu, Infrasonic attenuation in the upper mesosphere–lower thermosphere: A comparison between navier–stokes and burnett predictions, [The Journal of the Acoustical Society of America](#) **136**, 1483–1486 (2014).

#### *Oral Presentations*

1. 16th International Symposium on Computer Methods in Biomechanics and Biomedical Engineering (CMBBE) New York City, NY. “Mathematical model of age-specific tendon healing”
2. 15th US National Congress on Computational Mechanics (USNCCM), Austin, TX. “Towards the development of a growth and remodeling model to elucidate vaginal prolapse”
3. Technical Research Exhibition at the 45th Annual Meeting of the National Society of Black

- Engineers (NSBE) Detroit, MI “Effects of elastase digestion on the murine vaginal wall biaxial mechanical response”
4. 8th World Congress of Biomechanics (WCB) Dublin, Ireland. “Constitutive modeling for tendon aging and healing under uncertain uniaxial stress-stretch response” and “Role of elastin in vaginal wall biaxial mechanical response”
  5. 18th US National Congress on Theoretical and Applied Mechanics (USNCTAM) Chicago, IL. “Towards the development of a growth and remodeling model for tendon aging and healing”
  6. BMEN Seminar Series, Department of Biomedical Engineering, Tulane University, New Orleans, LA. “Evaluation of microstructurally-motivated constitutive models to describe age-dependent Tendon Healing”
  7. Summer Biomechanics, Bioengineering, and Biotransport Conference (SB3C) Tucson, AZ “Evaluation of strain energy functions for the development of a growth and remodeling model of age-specific murine patellar tendon healing”
  8. 166th meeting of the Acoustical Society of America (ASA) “Preliminary study of infra-sonic attenuation and dispersion in the lower thermosphere based on non-continuum fluid mechanics: developing a predictive model”
  9. 30th Nigerian Institute of Physics (NIP) conference Lagos, Nigeria. “Derivation of anthropometry-based body fat predictive equation specific for Nigerian women”

### ***Poster Presentations***

1. 30th Annual Health Sciences Research Days, Tulane University, New Orleans, LA. “Effects of elastase digestion on the murine vaginal wall biaxial mechanical response”
2. 3rd Annual Meeting of the Society for Pelvic Research, New Orleans, LA. “Effects of elastase digestion on the murine vaginal wall biaxial mechanical response”
3. 12th Annual School of Science and Engineering Research Day, Tulane University, New Orleans, LA. “Effects of elastase digestion on the murine vaginal wall biaxial mechanical response”
4. 11th Annual School of Science and Engineering Research Day, Tulane University, New Orleans, LA. “Elucidating underlying extracellular matrix mechanisms of age-specific healing in the murine patellar tendon”
5. 63rd Annual Meeting of the Orthopaedic Research Society (ORS), San Diego, CA. “Towards a microstructurally-motivated constitutive model of age-dependent murine patellar tendon healing to elucidate underlying deficiencies in extracellular matrix dynamics”
6. Gordon Research Seminar (GRS) on Musculoskeletal Biology and Bioengineering, Andover, NH. “Development of a growth and remodeling model for murine patellar tendon healing”

**(e) Awards and Honors**

1. 2019 Dean of the School of Science and Engineering Award for Excellence in Research and Presentation by a Graduate Student at the Health Sciences Research Days, Tulane University.
2. 2018 Graduate Student Outstanding Achievement Award in the Department of Biomedical Engineering, Tulane University.
3. 2017 Summer Biomechanics, Bioengineering, and Biotransport Conference (SB3C) diversity travel award recipient.
4. 2015 University of Louisiana at Lafayette Nominee for the Council of Southern Graduate Schools Master's Thesis Award - Math, Physical Sciences and Engineering Category.
5. 2014 Nominee for the Phi Beta Kappa Association of Southwest Louisiana's Richard G. Neihsel Graduate Award for Academic Excellence and Community Service.

**(f) Service to the University**

- Advisor, National Society of Black Engineers, UMHB Chapter, 2020 - present
- Member, Engineering Faculty Search Committee, 2020 - present
- Member, Environmental Concerns Committee, 2020 - present
- Member, Bachelor of Science Degree Revision Committee, 2020 - 2021

**(g) Membership in Professional Organizations**

- Member, American Society for Engineering Education (ASEE)
- Member, National Society of Black Engineers (NSBE)
- Member, Biomedical Engineering Society (BMES)