

Biographical Sketch

Dr. Landon Onyebueke is a Professor and the Interim Chair of the Department of Mechanical and Manufacturing Engineering at Tennessee State University (TSU). He is also the Director of the Design Methodologies Laboratory at TSU. His research and publications are in the areas of Modeling and Simulation, Design Methodologies including Probabilistic and Axiomatic Design Methods, Engineering Systems Design and Analysis, and Characterization of the Mechanical Properties of Nanomaterials. He has supervised several Ph.D., graduate and undergraduate projects. He was a PI on a funded project from the US Navy to conceptualize, design and manufacture an umbilical retract mechanism. A device used in Navy submarines for retracting umbilical plugs from missiles when launched. He received the distinguished researcher award from the Tennessee State University (TSU) office of sponsored research in 2001. He received research funding as PI from the Boeing company for eighteen consecutive years. One of the research projects he worked on resulted in a joint U.S. patent between Boeing and TSU (US Patent no. US 6,947,875 B2) and is titled “Apparatus and Method for Virtual Accommodation”. His most recent accomplishment was the development of a “Seat Comfort Design Tool” for the design of airplane seats, ejection seats and office chairs. The project was funded by the Boeing Company. He also received funding from AFRL for research in energy harvesting and storage systems. His current research is titled “Partnership for Research and Education Consortium in Ceramics and Polymers” and is funded by DOE/NNSA. The current funding involves research in piezoelectric materials, ionic liquids, and additive manufacturing. He has received recognition awards from NASA, US Navy, Boeing Company, TSU etc. He is a Boeing Welliver Fellow.

EDUCATION:

Ph.D. Mechanical Engineering, Institut National Polytechnique de Lorraine (I.N.P.L.), Nancy, France, 1989.

M.S. Mechanical Engineering, Institut National Polytechnique de Lorraine (I.N.P.L.), Nancy, France, 1986.

B.S. Mechanical Engineering, University of Ibadan, Nigeria, 1982.

ACADEMIC

EXPERIENCE:

Tennessee State Univ.	Interim Dept. Chair	2017 – Present	Full-Time
	Professor	2007 - Present	Full-Time
	Associate Professor	2001 – 2007	Full-Time
	Assistant Professor	1996 – 2001	Full-Time
	Research Associate	1993 – 1996	Full- Time
	INPL, France	Post-doctoral	1989 – 1992

NON-ACADEMIC EXPERIENCE

Production/Maintenance Engineer, U.A.C. of Nigeria, Lagos, Nigeria; July 1983 – January 1994

Production/Maintenance Engineer, Delta Steel Company, Warri, Nigeria;
July 1982 – June 1983

**CURRENT
MEMBERSHIP IN
PROFESSION
ORGANIZATIONS**

American Society of Mechanical Engineering (ASME)
International Society of Automotive Engineering (SAE)

PATENTS:

“Apparatus and Method for Virtual Accommodation”,
US Patent no. US 6,947,875 B2

**HONORS AND
AWARDS**

Inductee – Million Dollar Club, Division of Research and Sponsored
Programs, Tennessee State University, April 15, 2013
Faculty All-Star Award from the Office of the President, TSU, May 2006
Nominee for the First Annual NAFEO NOBLE Prize Award, March 2006
United States Patent Award from Boeing, February 2006
Boeing Phantom Works Silver Award, October 2005
Boeing A.D. Welliver Faculty Summer Fellowship Award 2005
Certificate of Appreciation for Outstanding Achievement in the Field of
Education from TSU/Office of the Mayor, August 2003
Deans Outstanding Faculty Award, December 2003 (Third time)
Special Invention Award from Boeing, August 2002
Supplier Diversity Advocacy Award from Boeing, June 2002.
Certificate of Recognition for Outstanding Performance from Boeing, June
2002.

**SERVICE
ACTIVITIES**

Member, Tennessee State University Center for Extended Education
Advisory Committee
Member, Faculty Development Committee
Member, Tennessee State University Scholarships and Awards Committee
Member, Tennessee State University Budget and Finance Committee
Member, Tenure and Promotion Committees

PI, “Partnership for Research and Education Consortium in Ceramics and
Polymers (PRE-CCAP)”, (\$897,873.00) from DOE/NNSA, Oct. 2018 –
Sept 2021.
Co-PI, Mathematical Modeling of Micro-grid Energy System with Li-ion
Storage Bank” (\$422,175.00) from TN-SCORE, Sept. 2013 – Dec. 2016
Co-PI, “Modeling and Simulation of Li-ion Batteries”, (\$191,210.00) from
AFRL, Sept. 2013 to Nov. 2015.
PI, “Energy Harvesting and Storage Systems”, (\$385,840.00) from the
Boeing Company, Sept. 2012 –December. 2015.
PI, “Seat Comfort Design”, (\$1,380,000.00) from the Boeing Company
2007 – 2012.
P.I., “Conceptualization, Design, Fabrication, and Testing of a Portable
Heater System for Launch Tube Maintenance”, (\$150,000.00) from the
U.S. Navy, 2002-2003
P.I., “Conceptualization, Design, and Fabrication and Testing of an
Umbilical Retract Mechanism”, (\$100,000.00) from U.S. Navy, 1999-
2000
PI, “Development of an Expanded Accommodation Analysis Tool for

Crew Station Design” (\$843,782.00) from the Boeing Company, 1997-2005.

PUBLICATIONS:

“Comparative Analysis of the Strength properties of Specimens Printed from Three Different Types of 3-D Printers”, Shamsu, M., Segni T., Joaquim, O., Fagbuyi, O., Onyebueke, L., and Ouyang, L., ASME 2020 IMECE.

“Design and Optimization of a Microgrid System with Hybrid Renewable Energy Sources for Sub Saharan Africa”, Fagbuyi, O., Joaquim, O., Ezeilo, C., Onyebueke, L., Ouyang, L., ASME 2020 IMECE.

“Modeling of a Hybrid Energy System Integrated with an Intermittent Power Grid in Developing Countries”, Oke, K., Bello, O., and Onyebueke, L., ASME 2014 IMECE

“Optimization of Smart Grid Renewable Energy Application”, Bello, O., and Onyebueke, L., ASME 2014 IMECE

“Economic Modeling of Hybrid Energy System”, Bello, O., Onyebueke, L., and Roberts-Smith, D., ASME 2013 IMECE.

“The Integration of Quality Function Deployment and Computer Aided Design in Seat Comfort Design Analyses”, Amer, S., and Onyebueke, L., ASME 2013 IMECE

“Determining Compatibility of Battery Storage Systems with Hybrid PV-Wind-Diesel Energy System”, Roberts-Smith, D. and Onyebueke, L., ASME 2012 IMECE.

“Experimental Validation of the Computer Aided Design Technique for Seat Comfort Design and Evaluation”, Amer, S., and Onyebueke, L., SAE International 2012.

“Expanded Accommodation Technique with Application to Maintenance Environment”, Onyebueke, L., Ojetola, A., and Winkler, E., SAE International 2011

“Characterizing and Modeling Mechanical Properties of Nanocomposites-Review and Evaluation”, Hu, H., Onyebueke, L., and Abatan, A., JMMCE Vol. 9, No. 4, pp 275-319, 2010

**PROFESSIONAL
DEVELOPMENT
ACTIVITIES**

Attended a conference/workshop on COMSOL Multiphysics software, 2014.

Attended the 2013 SACSCOS Institute on Quality Enhancement and Accreditation.

Attended the SolidWorks World 2012

Attended the Autodesk University 2010 and 2011