

## CURRICULUM VITAE

**Name:** Edward E. Osakue  
**College/School:** College of Science and Technology  
**Department:** Department of Industrial Technology  
**Date & Rank on First Appointment:** Sept. 2005, Adjunct Professor  
**Current Rank:** Associate Professor  
**Date of Current Rank:** September, 2012  
**Terminal Degree:** Ph.D.

### Schools Attended:

1. University of New Brunswick (UNB), Canada: 1993-1999, (PhD)
2. University of Benin (UNIBEN), Nigeria: 1987 – 1992, (MEng)
3. University of Benin (UNIBEN), Nigeria: 1979- 1983, (BEng)

### Degrees Earned:

1. Doctor of Philosophy (Mechanical Engineering), 19991
2. Master of Engineering (Production), 1992
3. Bachelor of Engineering (Production: *First Class Honors*), 1983

### Special Training Programs:

1. PDMS Piping Design (3D): AVEVA Group Plc. Houston, Texas, Aug. 3 – 7, 2015
2. GibbsCam, Texas Online; Houston, Texas, June 25 – 29, 2007
3. PDMS Piping Design (3D): AVEVA Group Plc. Houston, Texas, Nov. 2004
4. Piping Design and Pipe Stress Analysis, Houston, Texas, ASME; Sept. 2001
5. 3D Modeling (AutoCAD R14), CAD/CAM Center, Houston, Texas, Feb. 1999

### Fields of Interest:

**Teaching:** Engineering Design Graphics; Product Design (Mechanical/Structural/Piping); Oil and Gas Systems and Technology; Manufacturing Engineering/Technology; Construction/Concrete Technology; Facilities Engineering/Management; Industrial Equipment Maintenance and Reliability; and Mechanical Engineering/Technology

**Research:** Engineering Graphics and Visualization; Product Design (Mechanical/Structural/Piping); Low Impact/Friction Systems; Renewable Energy Systems; and Effective Course Delivery Methods

**Employments:**

**Texas Southern University**

**Houston**

**Sept. 2012 – Present:**

**Associate Professor**

**Sept. 2006 – Aug. 2012:**

**Assistant Professor**

Teach courses in design, construction, industrial technology, and manufacturing. Courses include Fundamentals of Drafting with AutoCAD and Solid Edge; Mechanical Drafting with AutoCAD; Pipe Drafting with AutoCAD; Architectural Design with AutoCAD; Machine Design with Solidworks; Piping System Design with PDMS; Strength of Materials; Manufacturing Processes; Concrete Technology; Quantity Survey; Estimating and Computer-Aided Design.

Advises about 35 students per semester in academic issues like course selection per semester, degree plan implementation, add and drop courses, academic probation, and change of majors; Serves as active member in departmental, college, and University committees.

**Sept. 2005 – May 2006**

**Adjunct Professor**

Taught Fundamentals of Drafting with Solid Edge, Pipe Drafting with AutoCAD, Computer-Aided Design with AutoCAD, Concrete Technology, and Industrial Safety.

**ITT Technical Institute**

**Houston**

**Jan. 2006 – June 2006:**

**Adjunct Instructor**

Taught CAD Methods with AutoCAD, Engineering Graphics with AutoCAD, Descriptive with AutoCAD and Rapid Visualization

**Oct. 1999 – December 2005**

**Department Chair /Education supervisor**

Increased program enrollment by more than 50% in three years; Improved quality of graduating students with employers making calls for possible employments (about 2 calls per week in my last term as chair); Managed curriculum for Design and Drafting; Directly supervised 4 to 11 instructors; Implemented and maintained approved classroom schedules; Performed classroom observation, quarterly and annual

performance evaluations on instructors; Resolved conflicts amongst instructors and students; Organized Advisory Board meetings; Advised students on attendance and academics; Monitored students' performances in attendance and academics; Gathered and analyzed students' attendance and attrition data; Developed individual student's degree plan; Added and dropped students from courses and program. Taught courses that included CAD Methods with AutoCAD; Engineering Graphics with Inventor; Piping Design with PDMS; Architectural Drafting and Design with AutoCAD; Project Development, Descriptive Geometry with AutoCAD; Rapid Visualization; and Success Orientation

*University of New Brunswick,*

*Canada*

*Jan. 1995 – Aug. 1999*

*Graduate Research Assistant*

Designed and built precision low velocity impact apparatus; Performed static and dynamic calibration of force transducers and proximity sensors; Studied oblique elastic impact with friction at low velocities experimentally and analytically; Developed new solution models and computer simulation algorithms for planar elastic impact; Performed project in finite element analysis using ANSYS

*Sept 1993 – May. 1997*

*Undergraduate Teaching Assistant*

Assisted Dr. Bohnam in Engineering Graphics and Dr. Rogers in Mechanics (Dynamics); Assisted students during Engineering Graphics Labs.; Kept and updated students' grades, Graded assignments and Examination Scripts

*University of Benin*

*Nigeria*

*Jan. 1990 – Dec. 1992:*

*Lecturer I*

Supervised senior projects; Supervised manufacturing technology laboratory staff; Planned and implemented laboratory exercises for 2<sup>nd</sup> year to 4<sup>th</sup> year engineering students; Assisted students in metrology, quality control laboratory exercises and workshop practices; Advised students in selecting courses every semester so as to meet credit requirements and improve on academic performance; Served as departmental examination officer and kept and updated students' academic records for departmental and faculty board meetings; Helped developed new course "Foundry Technology"; Served as secretary for Nigerian Institution of Production Engineers (NiProde); Served as secretary for 3<sup>rd</sup> UNIBEN Conference on Engineering and Technological Development

Taught Machine Design; Materials Selection; Engineering Design; Manufacturing Engineering/Technology; Machine-Tool Technology; Plastic Working of Metals.

*Oct. 1984 – Dec. 1990*

*Assistant Lecturer*

Taught Manufacturing Technology; Workshop Technology; Design of Machine Elements and Materials Selection; Everyday Technology, Manufacturing Technology; Plastic Working of Metals

Served as Assistant Departmental Examination Officer; Supervised senior projects; Registered students for courses; Planned and implemented manufacturing laboratory exercises

**Consultantships & Professional Services:**

*SmartKoncepts*

*Houston*

*August 2009 – Present:*

*Consultant/Presenter*

Conducted Facilities Engineering and Project Development Training in Angola (Nov. 2012)

Performs routine training in Facilities Engineering and Management.

Performs routine training in Oil and Gas Equipment Maintenance and Reliability.

Performs routine training in Computerized Maintenance Management Systems.

Performs routine training in Project Development and Management of Oil and Gas facilities.

Performs routine training in Reliability Engineering at Houston Office.

*Diversity Technologies*

*Houston, Texas*

*May 2005 – April 2013*

*Design Drafting Consultant*

*May 2013 – July 2013*

*Press CNC Programmer*

Prepared 3D and 2D engineering graphics and 2D drawing; Document conversion to Adobe Portable Format (pdf). Programmed bending presses for AC equipment panels.

## Scholarly Activities:

### A) Journal Papers

1. Osakue, E. E. (2015), *Reliability-Based Selection of Standard Steel Beams*, Int'l Journal of Research in Engineering and Technology, Vol. 4, Is. 7, p. 125 – 137.
2. Osakue E. E., Anetor, L. & Odetunde, C. (2015), *Fatigue Shaft Design Verification for Bending and Torsion*, International Journal of Engineering Innovation and Research (IJEIR), Vol. 4, Issue 1, ISSN 2277-5668, p. 197-206
3. Osakue, E. E. (2014), *Probabilistic Fatigue Design of Shaft for Bending and Torsion*, Int'l Journal of Research in Engineering and Technology, Vol. 3, Is. 9, p. 370 – 386.
4. Anetor, L., Odetunde, C. Osakue, E. E. (2014), *Computational Analysis of the Extended Zeldovich Mechanism*, Int'l Journal of Arabian Science and Engineering, DOI: 10.1007/s13369-014-1398-7.
5. Osakue, E. E. (2013), *Probabilistic Design with Gerber Fatigue Model*, Mechanical Engineering Research, Vol. 1, pp. 99 -117, doi:10.5539/mer.v3n1p99.
6. Osakue, E. E. (2012), *A Linearized Gerber Fatigue Model*, International Journal of Modern Engineering, Vol. 12, No 1, p. 64 - 72.
7. Osakue, E. E., Anetor, L. and Odetunde, C., (2012), *A Generalized Linearized Gerber Fatigue Model*, Machine Design, Vol. 4, ISSN 1821-1259, p. 1-10.
8. Anetor, L., Osakue, E., and Odetunde, C, (2012), *Reduced Mechanisms Approach of Modeling Premixed Propane-Air Mixture Using ANSYS Fluent*, Engineering Journal, Vol. 16, Issue 1, p. 67 – 86.
9. Anetor, L., Odetunde, C., and Osakue, E. (2012), *Experimental Studies of Flow Fields in Internal Combustion Engines*, Arabian Journal for Science and Engineering, Special Issue
10. Christopher Odetunde, Lucky Anetor and Edward Osakue, *On the Efficacy of ANSYS Fluent in Predicting Transonic Flow Characteristics*, NSE Technical Transactions Vol. 47, No 1, January – March 2012.
11. Osakue, E. E. and Thomas G, (2011), *Students' Perception of Project Assisted Learning*, Latin American and Caribbean Journal of Engineering Education, Vol. 5, No. 1, pp. 12 -17.
12. Osakue, E. E. (2007), *Plot Scale Factor Models for Standard Orthographic Views*, The Journal of Technology Studies, Vol. 33, No 2, pp.108-113.
13. Osakue, E. E. and Rogers, R. J., (2001); *A Study of Friction during Planar Elastic Impact-Part 1: Experiments*, ASME Journal of Pressure Vessel Technology, Vol. 123, pp. 493-500.

### ***B) Referred Conference Papers***

1. Edward E. Osakue, Lucky Anetor and Christopher Odetunde, (2015), *Reliability-based Component Design*, Proceedings of International Mechanical Engineering Congress and Exposition 2015 MECE, Paper Number IMECE2015-50700, November 13-19, Houston, Texas, USA, (In Print).
2. Osakue, E. E, (2015), *Teaching Solid Modeling with AutoCAD*, ASEE (American Society for Engineering education) National Conference, Seattle, WA, June 14-17
3. Osakue, E. E. and Smith, D. (2014), *A 6S Experience in a Manufacturing Facility*, ASEE (American Society for Engineering education) National Conference, Indianapolis, June 15-18.
4. Osakue, E. E. and Lewis, J. J. (2013), *Teaching SI Units in Engineering and Technology Programs*, ASEE (American Society for Engineering education) National Conference, Atlanta, June 23-26.
5. Osakue, E. E., (2011), *Project Based Learning*, Conference for Industry and Education Collaboration, American Society for Engineering Education, February 2-4, San Antonio, Texas.
6. Osakue, E. E., (2011), *Plot Scale Factor Models for Iso-Insert Views*, Conference for Industry and Education Collaboration, American Society for Engineering Education, February 2-4, San Antonio, Texas.
7. Osakue, E. E. and Thomas G, (2010), *Using Project Assignment to Improve Students' Knowledge and Skills*, Conference for Industry and Education Collaboration, American Society for Engineering Education, February 3-5, Palm Spring, California.
8. Osakue, E. E. and Rogers, R. J., (2001); *A Study of Friction During Planar Elastic Impact- Part 1: Experiments*, Symposium on Flow-Induced Vibration, ASME Pressure Vessel and Piping Conference, July 22 – 26, (FIV 01/58), Atlanta, Georgia, USA.
9. Osakue, E. E., Salami, L. A. and Ithoro, O. J. (1987), *Design, Fabrication and Testing of a Power Sawing Machine*; Proc. of 1st Uniben Conference on Engineering and Technological Development, Benin City, Nigeria, pp. 235-242.

### ***C) Conference Presentations:***

1. Osakue, E. E. (2015), *Teaching Solid Modeling with AutoCAD*, ASEE (American Society for Engineering education) National Conference, Seattle, June 14-17.

2. Osakue, E. E. (2014), A 6S Experience in a Manufacturing Facility, ASEE (American Society for Engineering education) National Conference, Indianapolis, June 15-18.
3. Osakue, E. E. and Lewis, J. J. (2013), Teaching SI Units in Engineering and Technology Programs, ASEE (American Society for Engineering education) National Conference, Atlanta, June 23-26.
4. Osakue, E. E., (2011), “Training Competent Technology and Engineering Students in Metric Units”, CIEC, ASEE, February 2 - 4, San Antonio, Texas.
5. Osakue, E. E., (2011), “Project Based Learning”, CIEC, ASEE, February 2-4, San Antonio, Texas.
6. Osakue, E. E., (2011), “Plot Scale Factor Models for Iso-Insert Views”, CIEC, ASEE, February 2-4, San Antonio, Texas.
7. Osakue, E. E. and Thomas G, “Using Project Assignment to Improve Students’ Knowledge and Skills, CIEC, ASEE, February 3-5, 2010, Palm Spring, California.

#### ***D) Other Achievements***

- Journal/Conference Paper Reviews
  1. Advances in Engineering Software
  2. American Journal of Engineering Education
  3. American Society for Engineering Education Conferences
- Website: Fedohills.net/New (Academic Resource)
- Laboratory Guide: AutoCAD Quick Start, 2<sup>nd</sup> ed. 2011
- Study of Friction During Low-Velocity Impact, Ph.D. Dissertation, (1999), University of New Brunswick, Fredericton, Canada
- Design, Fabrication, and Testing of a Power Sawing Machine, M.Eng. Thesis, (1990), University of Benin, Benin City, Nigeria
- Detail Design of a 6-Speed Floor Type Drilling Machine, B.Eng. Senior Project, (1983), University of Benin, Benin City, Nigeria

#### **Awards:**

- Canadian Commonwealth/Scholarship Award: 1993 - 1997
- Silver Jubilee Design Competition Joint Winner (1984)
- Honorable Mention, Nigeria Society of Engineers (NSE)

- Best Student, 4th Year Degree Examination, Prod. Eng. Dept. Uniben, Nigeria

### Grants:

- 2011/2012 Seed Grant Application, “Influence of Project-Based Learning on Students’ Competence”
- Submitted a proposal for STEM Summer Program in Spring 2011 jointly with Dr. Odetunde.
- Contributed to submitted Zero-Gravity proposal with Dr. R. Thomas (PI) in Fall, 2007.
- Contributed to submitted proposal “Center for Computing and Optimization Studies in Applied Sciences” (C<sup>2</sup>OSAS) with Dr. C. R. Handy (PI) in Spring, 2006.

### Services

#### A) *Texas Southern University:*

- |  |        |                        |
|--|--------|------------------------|
| • COSET By-Laws Committee  | Member | Sept. 2013 – Present   |
| • COSET Faculty Workload Committee                                   | Member | Sept. 2014 – Present   |
| • COSET Faculty Evaluation Committee                                 | Member | Sept. 2009 – Present   |
| • COSET Research Committee   | Member | Sept. 2009 – Present   |
| • COSET Enrollment Committee   | Member | Sept. 2011 – Present   |
| • COSET Events Committee   | Member | Sept. 2009 – 2013      |
| • COSET Curriculum Committee   | Member | Sept. 2009 – 2013      |
| • COSET Student Complaint Committee                                  | Member | Sept. 2009 – Aug. 2010 |
| • University Curriculum Committee                                    | Member | Sept. 2008 – Aug. 2009 |
| • COSET Thesis Committees (March 2015)                               |        |                        |
| a) Graduate Representative for Mr. Elvis Okoro (Biology Department)  |        |                        |
| b) Graduate Representative for Ms. Shari Galvin (Biology Department) |        |                        |

#### B) *Department of Industrial Technology:*

- *NAIT/ATMAE Accreditation Visit Committee:*
  - Collated and analyzed admission, retention, and placement data for NAIT/ATMAE Accreditation visit in 2009. Department was reaccredited in April, 2011 for another six years.
- Reviewed and revised Design Technology concentration curriculum in 2010.



- Revised Design Technology concentration Degree Plan in 2007/2009
- Revamped and updated several courses in the Design Technology concentration (MFG-333, MFG-231, DRFT-231, DRFT-232, DRFT-331)
- Participates in “One Stop Registration”
- *Students’ Mentoring*
  - Mr. Derrick Smith
    - a) Promoted Quality Manager (July, 2015)
    - b) Graduated Dec. 2014
    - c) Student was co-author for 2014 ASEE Conference
    - d) Student mentored in Quality Engineering
    - e) Student now certified and working as Quality Engineer
    - f) Student recently accepted for MBA program
  - Helped prepared two students (Frederick Whitley and Chikezie Osunkwo) for SPED level I Examination in March 2008. Mr. Osunkwu passed the Exam.
  - Supervised senior projects for some undergraduate students (Mr. Derrick Smith, Mr. Quoc, Mr. Animashuan, etc.)
  - Provides references for students
- *Students’ Advicement*
  - Student academic advicement is a regular activity. Officially, I am responsible for the academic advicement of students with last name starting with M through Z in the Design Technology concentration. However, I freely attend to the academic issues of all students in the department. A conservative estimate of the number of students I advise per semester is about 35. Advicement include course selection, degree plan implementation, add and drop, etc.
  - Responds to calls for students’ advicement in summer when I am officially unemployed.
  - Provides tutorials to students

**C) Professional Organizations:**

- Society of Manufacturing Engineers: Senior Member
- American Society of Mechanical Engineers: Member

- America Society for Quality: Member
- American Society for Engineering Education: Member

***D) Public***

- Osakue, E. E., (2011), “Education Advantage”, Urban Camp Ministries, Camp 2011, July 3 – 6, Brenham, Texas. ***Presentation***
- Osakue, E. E., (2011), “Education in America”, Urban Camp Ministries, Camp 2011, July 3 – 6, Brenham, Texas. ***Presentation***
- Houston Community College (Drafting and Design Technology):  
Advisory Board Member; Sept. 2008 - Present
- Society of Piping Engineers and Designers Educational Consortium:  
Member; March 2006 - Present
- Urban Camp Ministries Huddle Leader July 3 – 6, 2011
- Sugar Creek Baptist Church: Sunday School Teacher Since 2006
- Bini Club of Houston; Audit Committee Chair Since 2009
- Katrina Evacuee Rehabilitation: Volunteer 2005