

David Olowokere PhD, PE.

ACADEMIC QUALIFICATIONS

Ph.D. - Structural Engineering, State University of New York, Buffalo, NY (Feb., 1978). Thesis: Toward the optimum stability design and construction of web tapered structural steel columns.

M.Sc. - Civil Engineering, Queen's University, Kingston Ontario, Canada. (Nov.1974). (Emphasis on Soil Mechanics and Foundation Engineering)

B.Sc. - Civil Engineering, Ahmadu Bello University, Zaria, Nigeria (June, 1972). (General Civil Engineering including Architectural Engineering & Construction Management).

EMPLOYMENT HISTORY (OVER LAST 20 YEARS)

CURRENT EMPLOYMENT

Department of Engineering Technologies, Texas Southern University, Houston, Texas
Professor & Chair 7/2005 - Present

PREVIOUS EMPLOYMENT

Gallet International, Marietta, GA 9/2002 - 7/2005
Principal Partner and Chief Civil/Structural Engineer

City of Birmingham (Mayor's Office) 7/2000 – 3/2003
Administrator, Capital Improvement Projects

University of Alabama at Birmingham 9 /1993 – 6/2000
Associate Professor (Structural Engineering & Structural Mechanics)
Civil Engineering Department

University of Detroit - Detroit, MI 9/1989 - 9/1993
Associate Professor
Civil Engineering Department

Wayne State University - Detroit, MI 1/1986 - 6/1989
Visiting Associate Professor
Civil Engineering Department

PUBLICATIONS

Theses:

Olowokere, D.O., "Toward the Optimum Stability Design of Web-Tapered Structural Steel Column -- A Finite Element Approach". Ph.D. Thesis, State University of New York, Buffalo, N.Y. Feb. 1978.

Olowokere, D.O., "Strength and Deformation of Railway Ballast Subject to Repeated Loading." M.Sc. Thesis, Queen's University, Kingston, Ontario, Canada. Nov. 1974.

Refereed Publications

D.O. Olowokere, "Finite Element Formulation for Design Guides for Web-Tapered Structural Steel Member", 1st. International Conference, Congress of Theoretical and Applied Mechanics. June 1977.

D. Olowokere, J. Gaddy, S. Desai. "On the Stability of Thin Shell Dome Liners for Prestressed Concrete Nuclear Reactor Containment Structures", Proceedings of the 3rd. Engineering Mechanics - Division Specialty Conference, Sept., 1979 - Austin, Texas.

D. Olowokere, "Design Guide for Un-Equal flanged Steel Structural Column", Journal of Structural Engineering practice, Vol 2, No. 3, 1983.

D. Olowokere, "Failure of Stiffened Steel Liners for Nuclear Reactor Containment structure Under Construction", Computer and Structures, Vol. 19, No. 4, 1984.

D. Olowokere, "On the Design of Web-Tapered, Un-Equal Flanged Structural Steel Column" Journal of Constructional Steel Research, Vol. 4, No. 2, 1984.

D. Olowokere, "Strengthening of Existing Structural Steel Member," International Journal of Building and Civil Engineering Contractors. Vol. 1, No. 1, March 1984.

D. Olowokere, "Behavior of Railway Ballast when Subjected to Triaxial Loading." Journal of Civil Engineering for practicing and Design Engineers, Vol. 4, No. 12, April, 1986.

A. Oyenekan and D. Olowokere, "Shear Strength of Steel Stud Connectors in Composite Construction - A State of the Art Review." Structural Engineering -Journal of the Nigerian Institute of Structural Engineers, Vol. 1, No. 1, April, 1987.

T. Arciszewski and D. O. Olowokere, "Simplified Model of Belt-Truss Bracing System for Tall Buildings," Proceedings of the 4th International conference on Tall Buildings (Hong Kong, April 1988).

D. Olowokere and K. Chung, "Siting the Superconducting Super Collider Tunnel in Michigan - A Case Study" Proceedings of the 7th Annual Tunneling Conference. Edmonton, Canada, May 1988.

D. O. Olowokere and K. Udama; "Stability Design of Reticulated Shells Using an Equivalent Monocoque Section of a Continua." Proceedings Economic Design - 88 Conference, London, U.K., July, 1988.

N.M. Khalaf and D.O. Olowokere, "On the Stabilization of Soil with Hay." Proceedings, Economic Design - 88 Conference, London, U.K., July, 1988.

Youseff-Agha W., Aktan, H. and Olowokere, D.O. "Effect of Joint Flexibility on Seismic Response of Low-Rise Steel Frames." ASCE Journal -Structural Division, March 1989.

Uduma, K., Olowokere, D. and Arciszewski, T., "Survey of Existing Studies on the Strength and Deformation of Spherical Joints in Steel Space Trusses" AISC Engineering Journal, 2nd quarter, June 1989.

Olowokere, D. and Evans, J., "Problem of Hydro-Fracturing in Slurry Trench Cut-Off Wall". Presented at the 1989 Canadian Society of Civil Engineers Annual Conference, St. John's Newfoundland, June 1989.

Aktan, H. and Youseff-Agha, W. and Olowokere, D., "Effect of Fabrication Error on the Seismic Response of Low-Rise Steel Frames." ASCE Journal - Structural Division, January 1990.

Olowokere, D., "Development of a Simple Algorithm for the Classification of Geotechnical Materials". Proceedings 8th National Conference on Microcomputers in Civil Engineering, Orlando, FL., Nov. 1990.

Olowokere, D. Aktan H. and Akanni, A., "Toward an Exact Value for the Flexural Stiffness of Tall Rigid Frames." Journal of Computers and Structures, Vol 39, No. 1/2, 1991.

Sendjarevic, V. and Olowokere, D., "Safe Disposal of Hazardous Wastes by Means of Polymeric Isocyanate-Based Binders." Proceedings of the Polyurethane World Conference, Oct. 13, 1993.

Olowokere, D.O. and Bilal, C., "Toward an Accurate Effective Flange Width of Composite Beams". International Journal of Structural Engineering and Mechanics, Vol 2 No. 2 (1994).

Nwosu, D.I. and Olowokere, D.O., "Local Strain Computation of Crack Initiation Life of an Unstiffened Steel Tubular T-Joint". Computer and Structures: An International Journal. Vol. 57, No. 2., 1995.

Nwosu, D.I., Swamidias, A.S.J. and Olowokere, D.O., "Studies on Influence of Cracks on the Dynamic Response of Tubular T-Joints for Nondestructive Evaluation". Proceedings of the 13th International Modal Analysis Conference, Nashville, TN. Feb. 13-16, 1995.

Olowokere, D. and Nwosu, D.I., "Evaluation of Fatigue Crack Growth in Steel Tubular T-joints using Line Spring Element Technique" Journal of Engineering Failure Analysis. Vol. 2, No. 1, 1995.

Olowokere, D., "Improving the Management of our Transportation Infrastructure". Proceedings, 14th Annual International Association of Management Conference, Toronto, Canada. August 2-6, 1996.

Olowokere, D. and Nwosu, D.I., "Numerical Studies on Crack Growth in a Steel Tubular T-Joint". International Journal of Mechanical Sciences, Dec. 1996).

Abatan, A., Hu, H. and Olowokere, D., Impact Resistance Modeling of Hybrid Laminated Composites Proceedings, 12th Technical Conference of the American Society for Composites, Detroit, MI. October, 1997.

Fowler, J. and Olowokere, D., Alternative Technology for Dredging and Dewatering of Hazardous Sludge in Marine Environment. Presented at the 85th Annual Meeting of the Transportation Research Board, Washington, DC. January 2006.

Olowokere, D. and Darayan, S., Peer Tutoring at TSU Engineering Technology Program: Assessing its Outcome and Impact on Retention and Academic Achievement. Presented at the HBCU Foundations Annual Symposium, Houston, Texas. October 2006.

Olowokere, D. Combined Drydredge and Geotube Technologies for Managing Sludge in Marine Environment. Submitted to Journal of Applied Science and Engineering Technology for review and publication.

Olowokere, D. et al, An Open Hardware platform for virtual instrumentation. To be presented at the ASEE Conference. Pittsburgh, Pa. June 2008.

Olowokere, D. On the Mitigation of Hazards resulting from Hurricane-induced forces on residential buildings. Accepted for presentation at the IEEE Conference, Sanya, China. April 8 – 11 2008

SELECTED PRESENTATIONS

"Stress Redistribution in a Retrofitted Truss Structure"

To ASCE meeting, Civil Engineering Dept., Bucknell University, Lewisburg, Pa. Mar. 1989.

"Earthquakes-A General Survey of Structural and Geotechnical Considerations" To the Alumni Council of University of Detroit Faculty of Engineering. Dec. 1989.

"Interpretation of AASHTO Manual for Upgrading of Existing Bridge Structures" To City Engineering Department, City of Detroit, Detroit,MI. July 1990.

"Urgent Research Needs on Bridge Infrastructure"
Dinner speech at the ASCE South-Eastern Michigan meeting, Ypsilanti, MI. September, 1990.

"Laterized Concrete: An Untapped Structural Material in the Developing Nations"
Presentation at the UNDP - sponsored seminar on construction materials in developing nations. Lagos, Nigeria. Dec. 1990.

"Abacus and Patran : A Winning FEM Solver and Modeler Team"
Presentation at the ESD meeting on Finite Element modeling of automotive components. Jul. 1991.

"Need for the Capstone Design Course in Civil Engineering Curriculum"
Presented to the Faculty of Engineering Accreditation Committee on ABET Design requirements. University of Detroit. Oct. 1991.

" A Management Tool for Bridge Vulnerability Assessment"
To City Engineering Dept., City of Detroit. Dec. 1991.

"Bridge Architecture: An Underemphasized Aspect of Architecture Structure"
Presented to the senior design project group, School of Architecture, University of Detroit, Detroit, MI. December 1991.

"Simplified Method for Design of Bracing Systems in Tall Buildings"
Presentation at the structural engineering seminar series, Wayne State University, Detroit, MI. Jan. 1993.

"Overview of Evaluation and Rehabilitation Program for Alabama Bridges."
A presentation to the Alabama Society of Professional Engineers. March 1995. Birmingham, Alabama.

Selected specialized consultancy reports.

"Earth tremor in Cleveland: Structural Assessment of Damaged Low-Rise Steel Frames"
April 1986

"Investigation of Structural Failure of Sign-Posts in the Detroit Area"
Special report to the Michigan Department of Transportation. Nov 1986.

"Corrective Measure for Settlement Problems in the Monroe Metro Park"
Monroe, Michigan. January 1987.

"Adequacy of the Edge Balustrade of the Ziwaukee Bridge"
Report made for Michigan Dept. of Transportation. June 1987.

"Re-Evaluation of Structural Capacity of Hanger Supports for TVA HVAC Ducts"
A technical report for Sargent and Lundy, Chicago, Ill. June 1989.

"Methods for Reducing Excessive Vibrations in the Mezzanine Floor of the Fox Theatre"
Detroit, MI. Feb. 1990.

Expert witness for Ford Motor. Report on "Failure of Off-Shore Structure"
Case against Tripoca Shipping Co. Jan 1999.

Special Consultant to the Jefferson County, State of Alabama on the design of a complex steel framed proposed
West End Clinic. Jefferson County Department of Health. May 2000

AFFILIATION WITH PROFESSIONAL BODIES

Current affiliation is with the following professional bodies:

- American Society of Civil Engineers (ASCE)
- American Concrete Institute (ACI)
- American Institute of Steel Construction (AISC)
- The Masonry Society

Registered as a Professional Engineer in Michigan, Pennsylvania and Alabama; and also in Ontario and Alberta,
Canada.

Have interacted, for a period spanning over 20 year, with professional engineers and architects on issues related to
the construction process of numerous building structures, bridges and stormwater structures.

COMMUNICATION SKILL

Highly effective. I have successfully addressed scores of professional and fund-raising gatherings in various parts of
U.S., Canada, Europe and Africa.

GRANTMANSHIP

List of Selected Funded Proposals Written as Principal Investigator (PI) or Investigator(I).

- Preliminary Studies on Condition Assessment of Offshore Steel platform.(PI) 10/93
Amount: \$30,000.00 Comprehensive Minority Faculty Development
Program.
- Testing of Rigid Structural Systems Using Pseudo-Dynamic
Approach. (PI). 12/93
Amount: \$499,959.00 National Science Foundation---Research in Minority Institution (RIMI)
Program. (Unfunded)
- Preliminary Studies for Evaluation of Vulnerability of Railway Bridge
Foundations to Failure from Scouring. (PI) 12/93.
Amount: \$2,200.00 UAB Faculty Research Grant Program.
- Instrumentation of Railway bridges using An Unattended data Acquisition
System. (I) 1/94
Amount: \$11,9999.00 National Science Foundation.
- Department of Defense Environmental Scholarships/Fellowships and
Grant Program. (PI) 6/94.
Amount: \$2,079,148.00 Department of Defense. (Unfunded)

- Birmingham Community Partnership Center. (I) 3/95
Amount: \$1,548,124.00 U.S. Department of Housing and Urban Development.
- Modal techniques for Improved Maintenance of Steel Bridge Structures. (PI) 5/95
Amount: \$99,904.00 NCHRP (Unfunded)
- Modal Testing for Condition Assessment of Offshore Civil Infrastructure System. (PI) 5/95.
Amount: \$299,549.00 National Science Foundation (unfunded)
- Research Experience Site in Structural Engineering for Undergraduate (REU). (I) 6/95
Amount: \$110,000.00 National Science Foundation
- Solidification/stabilization of Incinerator Ash and Evaluation of Resulting Product for Structural Utilization. (PI) 3/96
Amount: \$57,494.00 EPA
- Outreach Program for Minority students. (PI) 5/96
Amount: \$14,000.00
- Establishing Titusville 2000 Construction Internship Program in CEE Department. (PI) 7/96.
Amount: \$23,000.00 Titusville Development Corporation
- Establishing Titusville 2000 construction Internship program (PI). (Cont.). 7/97 \$13,000.00 Titusville development Corporation.
- Fatigue Life Prediction of Welded Offshore Steel Structures. (PI) 9/99
Amount: \$549,000.00 Department of Defense (MURI) Program. (Unfunded)
- Course, Curriculum and Laboratory Improvement. (I) 11/99
Amount: \$99,829.00 National Science Foundation.
- Re-engineering residential Buildings in Jefferson county to resist tornado Forces. (PI) 12/99.
Amount: \$79,610.00 Jefferson County Commission, Alabama.
- Supplementary Engineering Support for NASA Mission Safety and Quality Assurance. (with SAIC) (PI) 5/2006.
Amount: \$1.3m NASA
- Establishing a Pre-College Engineering Summer Site at TSU. (PI). 6/2007. Amount: \$37,000.00. US. Army Research Office.
- Bridge Program for Pre-College Rising 11th Graders. (PI). Texas Higher Education Coordinating Board. \$51,000.00
- Appropriate Renewable Energy Technology for developing nations. (PI). Amount: \$30,000.00. UNCF/NASA

Science and Technology Institute Research Cluster.

- Establishing a TSU Biodiesel Initiative. A proposal submitted to BiofuelPower, Inc. of Woodlands, Texas. Amount \$175,000.00

ADMINISTRATIVE EXPERIENCE

Chair, Department of Engineering Technology, Texas Southern University, Houston, Texas.

Provides leadership for teaching and scholarly activities in this 12-faculty department. Oversight on budgeting and department personnel issues, effective liaison with the dean's office, and positive impact of departmental activities on the immediate community are all included in the duties of the position. 7/2005 - Present

Administrator, Capital Projects, City of Birmingham.

Duty includes overseeing the expenditure of over \$70million budget on capital improvement projects for the city; acting on behalf of the Mayor in providing leadership to the engineering and planning staff; acting as the Mayor's liaison for the Birmingham Water Works, Birmingham Airport Authority, Birmingham Transit Authority and Birmingham Construction Industry Authority; acting as the key adviser to the Mayor on city's infrastructure improvement. (7/2000 to 3/2003)

Chairman, Civil Engineering Department, Lagos State College of Science and Technology, Lagos, Nigeria. This was a UNDP-funded appointment to set up and manage the Civil and Building Construction program for this 4- year Technological College in Nigeria in West Africa. (1/83 to 7/85)

Director, Structural and Construction Engineering Division of the civil engineering department, University of Detroit. 8/89 to 8/93.

Administered budget for various equipment purchase for the structural laboratory.

Chairman, Design Committee, College of Engineering, University of Detroit, Detroit, MI.

Chaired the 4-man committee that reviewed all design-related courses at the college of engineering for the purpose of ensuring conformance with ABET requirements. (12/90 to 12/92)

Director, Structural and Construction Engineering Division, UNILAG Consult, University of Lagos, Lagos, Nigeria.

Directed the structural engineering division of this major consulting Organization.

- Responsible for staffing, budgeting and various administrative task.
Led and supervised the various issues connected with the design and construction inspection of the headquarters of the Nigeria Airways--an 18-story concrete structure utilizing shear wall/frame action for resistance of lateral load. (8/78 to 7/79)

Director, Center for Titusville Infrastructure Study, University of Alabama, Birmingham. (4/94 – 5/98)

Project Director, Construction Internship Program, Civil Engineering Department, University of Alabama at Birmingham. (8/95 – 4/2000)

SELECTED FULL-TIME INDUSTRIAL EXPERIENCE

- Dec.1972 - Oct.1973, Jul 1975 - May 1976 and June 1977 - October 1977.
Hooker Chemical Corp., Niagara Falls, New York.
- Acted, on each occasion, as the Principal Structural Designer in the Plant Engineering Division.
- Designed various bracing systems and pole supports for pipe network.
December 1977 - May 1978
- Commonwealth - Associates, Jackson, Michigan.
- Acted as an Associate structural Engineer for the analysis and designing of a nuclear reactor containment structure for the Ohio Edison Corp. Power Plant. October 1978 - September 1981
- Structwork Consultants - An American Multidisciplinary Consulting Engineering Firm based in Lagos, West Africa.
- Involved in the designing of concrete and steel Earth/Water Retaining Structures.
- Construction Inspection of several projects including a dam project in Ivory Coast.
- Complete project management for the construction of the extension of the U. S. Embassy in Togo.
- Supervised the design for the rehabilitation of Pepsi-Cola plant in Liberia.
December 1981 - July 1982
- Consentino & Partners, Calgary, Canada.
- Acted as the Structural Analyst for the modification of the POSTEN Computer program for the design of Post-tensioned Structural member.
- Involved in the design of various multi-story buildings using the POSTEN Computer Program.
April 1987 - September 1987
- Commonwealth Associates, Jackson, Michigan.
- Involved in the solution of the soil structure interaction problem of the superconducting super collider tunnels for the Michigan State Atomic Energy Commission.
- Involved in the structural design of the cast-in-place/precast-segmented concrete lining for the tunnels.
- Involved in the detail write-up of the final report for the project. (special consultancy work)
April 1988 - August 1988
- Sargent & Lundy, Chicago
- Performed the Analysis, Design and construction inspection for the HAVC Duct Support Systems for the Tennessee Valley Authority S.W. Plant. (special consultancy work)

PROFESSIONAL SOCIETY MEMBERSHIP/ REGISTRATION

- American Society of Civil Engineers (ASCE)
- American Concrete Institute (ACI)
- American Institute of Steel Construction (AISC)
- The Masonry Society

Registered as a Professional Engineer in Michigan, Pennsylvania and Alabama; and also in Ontario and Alberta, Canada.

NATIONAL RECOGNITION.

Member, American Society of Civil Engineers Construction and Maintenance of Highways Technical Committee.
Member, Advisory Board for Curriculum development, Clark-Atlanta University, Atlanta, GA.

INTERNATIONAL RECOGNITION.

Selected by the United Nations under the UNDP Committee on Transfer of Knowledge Through Expatriate Nationals (TOKTEN) to perform series of Capital Projects related tasks in Nigeria – essentially involving stormwater and sanitary sewer construction issues. The assignment also included management of government construction projects.