



NESTOR A. AGBAYANI—PUBLICATIONS & PRESENTATIONS

- Agbayani, N., and Taylor, T., “Re-powering with New Wind Turbines on Existing Towers: Structural Engineering Considerations,” American Wind Energy Association (AWEA) Windpower 2017 Conference, Poster presentation on May 24, 2017, Anaheim, California.
- Taylor, T., and Agbayani, N., “Reconciling U.S. Building Code Wind Maps with Extreme Wind Speeds of IEC 61400-1,” American Wind Energy Association (AWEA) Windpower 2017 Conference, Poster presentation on May 24, 2017, Anaheim, California.
- Taylor, T., and Agbayani, N., “Contrasting Seismic Design Criteria for Utility-scale Wind Turbine Support Structures in Mexico and the United States,” *6th Structural Engineers World Congress—SEWC 2017*, Nov. 2017, Cancun, Mexico.
- Agbayani, N., “Tower,” [PowerPoint slides] Infocast Wind Power Finance & Investment Summit, Pre-Summit Workshop, guest panelist presentation in session titled *Case-Study—Key considerations related to the extension of project Life beyond 20 years*, February 7, 2017, San Diego, California.
- Agbayani, N., and Taylor, T., “Practical Lessons Learned in Renewable Energy (Wind and PV Solar) Projects: Structural Code Compliance Issues,” *Structural Engineers Association of California (SEAOC) 2016 Convention, Convention Proceedings*, SEAOC, Sacramento, CA, 2016, pp. 518-526.
- Agbayani, N., Taylor, T., and Cruz, E., “Seismic Design of Utility-scale Wind Farms in the Americas: A Comparison of US, Mexican, and Chilean Code Requirements,” *Proceedings of the 16th World Conference on Earthquake Engineering*. 16WCEE 2017, Santiago, Chile.
- Agbayani, N., “Structural Damage and Defects in Wind Farm Towers: Typical Examples, Practical Repairs, and Unresolved Questions,” *Proceedings of the 2015 Structures Congress*. American Society of Civil Engineers (ASCE), Reston, Virginia.
- Taylor, T., and Agbayani, N., “Design Optimization of Tubular Steel Towers for Utility-Scale Wind Turbines,” *Proceedings of the 2015 Structures Congress*. American Society of Civil Engineers (ASCE), Reston, Virginia.
- Agbayani, N., “Tower Structural Design,” [PowerPoint slides] CEE 501.007 Wind Energy Development, University of Michigan, Guest lecture presentation on November 10, 2014, Ann Arbor, Michigan.
- Agbayani, N., “A Technical Overview of ASCE/AWEA RP2011: Recommended Practice for Compliance of Large Land-based Wind Turbine Support Structures,” *Proceedings of the 2014 Structures Congress*. American Society of Civil Engineers (ASCE), Reston, Virginia.



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- Agbayani, N., “An Overview of Modern Wind Farm Tower Design: Recommended Practices and the State of the Art,” *Structural Engineers Association of California (SEAOC) 2013 Convention, Convention Proceedings*, SEAOC, Sacramento, CA, 2013, pp. 154-162.
- Agbayani, N., and Vega, R., “Wind Farm Tower Design: Introducing ASCE/AWEA RP2011,” *Structure* magazine, July 2013, National Council of Structural Engineers Associations (NCSEA), Chicago, Illinois.
- Agbayani, N., Moller, C., and Vega, R., “The ASCE/AWEA RP2011 Document: Background, Development, and One-year Performance Review,” American Wind Energy Association (AWEA) Windpower 2013 Conference, Poster presentation on May 7, 2013, Chicago, Illinois.
- Agbayani, N., and Vega, R., “The Rapid Evolution of Wind Turbine Tower Structural Systems: A Historical and Technical Overview,” *Proceedings of the 2012 Structures Congress*, 2012, American Society of Civil Engineers (ASCE), Reston, Virginia.
- Agbayani, N. “Wind Turbine Towers: Practical Advice for Stress Verification and Structural Risk Avoidance,” 2011, Speaker presentation at American Wind Energy Association (AWEA) Windpower 2011 Conference in Anaheim, California.
- Agbayani, N., Newell, J., and Vega, R., “Unresolved US Code Compliance Issues for Wind Energy Structures: The Need for Research,” *Proceedings of the 2011 Structures Congress*, 2011, American Society of Civil Engineers (ASCE), Reston, Virginia.
- Agbayani, N., “The Lack of US Structural Design Guidelines for Wind Farm Towers: Basic Code Compliance Issues at the High-Tech Frontier,” *Proceedings of the 2010 Structures Congress*, 2010, American Society of Civil Engineers (ASCE), Reston, Virginia.
- Agbayani, N., “Defects, Damage, and Repairs Subject to High-cycle Fatigue: Examples from Wind Farm Tower Design,” *Proceedings of the Fifth Congress on Forensic Engineering: Forensic Engineering 2009, Pathology of the Built Environment*, ASCE, Reston, Virginia, 2009, pp. 546-555.
- Agbayani, N., and Kyatham, V., “Fatigue-driven Wind Farm Towers: A Practical Introduction to Fatigue Calculations,” *Proceedings of the 2009 Structures Congress*, 2009, American Society of Civil Engineers (ASCE)/Structural Engineering Institute (SEI).
- Agbayani, N., and Kyatham, V., “Megacycle Fatigue Analysis Demystified: Examples from Wind Farm Tower Design,” *Proceedings of the 2008 Structural Engineers Association of California (SEAOC) Convention*, SEAOC, Sacramento, CA, 2008, pp. 303-320.



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- Agbayani, N., “Structural Engineering in Wind Energy Projects,” Guest speaker presentation at the meeting of the American Society of Civil Engineers (ASCE), Southern San Joaquin Branch, May 19, 2004.
- Agbayani, N., “Design Challenges in International Wind Power Projects: From Foreign Codes to Computer Coding in a Small Office Setting,” *Proceedings of the 2002 Structural Engineers Association of California (SEAOC) Convention*, SEAOC, Sacramento, CA, 2002, pp. 117-132.
- Agbayani, N., Jayachandran, P., and Sriram, D., “Novel Design Algorithms for K Factor Calculation and Beam-Column Selection,” *Journal of Structural Engineering*, December 1993, Vol. 119, No. 12.
- Agbayani, N., Sriram, D., and Jayachandran, P., “An Object Oriented Framework for Steel Frame Design: Implementation Issues,” *Computing Systems in Engineering*, October 1992, Vol. 3, No. 5.