

CV & Sample Publications (2 pages max)

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| Name: Aly Mousaad Aly, Ph.D., P.E., M.ASCE Position Title: Associate Professor Citizenship: USA Website: https://faculty.lsu.edu/aly/ | Address: 3230 H Patrick F. Taylor Hall, Baton Rouge, LA - 70803 Phone: (225) 578-6654 Email: aly@lsu.edu |
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(a) Education

| Institution | Degree | Year | Field of Study |
|----------------------------------|---------|-------------|------------------------|
| Alexandria University | B.Sc. | 2001 | Mechanical Engineering |
| Alexandria University | M.Sc. | 2005 | Mechanical Engineering |
| Polytechnic University of Milan | Ph.D. | 2009 | Mechanical Engineering |
| Florida International University | Postdoc | 2009 – 2010 | Wind Engineering |
| University of Western Ontario | Postdoc | 2012 – 2013 | Wind Engineering |

(b) Appointments

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| 2013-Present | Assistant/Associate Professor, Civil Engineering, Louisiana State University |
| 2012-2013 | Research Fellow, Wind Engineering, University of Western Ontario |
| 2011-2012 | Visiting Researcher, Wind Engineering, Polytechnic University of Milan |
| 2010-2011 | Assistant Professor, Mechanical Engineering, Alexandria University |
| 2009-2010 | Postdoctoral Res. Assoc., Wind Engineering, Florida International University |
| 2006-2009 | Research Assistant, Wind Engineering, Polytechnic University of Milan |
| 2001-2006 | Assistant Lecturer, Mechanical Engineering, Alexandria University |

(c) Sample Products (underlined authors are students, for more products <https://faculty.lsu.edu/aly/publications.php>)

1. Aly, A.M., da Fonseca Yousef, N. (2021), "High Reynolds number aerodynamic testing of a roof with parapet," Engineering Structures 234, 1120061. <https://doi.org/10.1016/j.engstruct.2021.112006>
2. Aly, A.M., Dougherty, E. (2021), "Bridge Pier Geometry Effects on Local Scour Potential: A Comparative Study," Ocean Engineering, 234, 109326. <https://doi.org/10.1016/j.oceaneng.2021.109326>
3. Aly, A.M., Thomas, M. (2021), "Experimental investigation of the aerodynamics of a large industrial building with parapet," Advances in Aerodynamics, 3, 26. <https://doi.org/10.1186/s42774-021-00080-z>
4. Khaled, M.F., Aly, A.M., Elshaer, A. (2021), "Computational Efficiency of CFD Modeling for Building Engineering: An Empty Domain Study," Journal of Building Engineering, 102792. <https://doi.org/10.1016/j.jobbe.2021.102792>
5. Chapain, S., Aly, A.M., (2021), "Vibration attenuation in wind turbines: A proposed robust pendulum pounding TMD," Engineering Structures 233, 111891. <https://doi.org/10.1016/j.engstruct.2021.111891>
6. Aly, A.M., Gol-Zaroudi, H., Rezaee, M. (2021), "A Framework for Vibration Attenuation in Traffic Mast Arm Structures under Wind Loads," Experimental Techniques. <https://doi.org/10.1007/s40799-021-00495-9>
7. Zucca, M., Longarini, N., Simoncelli, M., Aly, A.M. (2021), "Tuned Mass Damper Design for Slender Masonry Structures: A Framework for Linear and Nonlinear Analysis," Applied Sciences 11 (8), 3425. <https://doi.org/10.3390/app11083425>
8. Chacon, P.J., Park, J.Y., Aly, A.M., Voyadjis, G.Z., Choi, J.W., (2021), "A moving vehicle height monitoring sensor system for overheight impact avoidance," Infrastructures, 6(6), 91. <https://doi.org/10.3390/infrastructures6060091>

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9. Aly, A.M., Rezaee, M. (2021), "Accelerated Controller Tuning for Wind Turbines Under Multiple Hazards," *Journal of Energy and Power Technology* 3(1), 1-31. DOI: 10.21926/jept.2101011.
 10. Aly, A.M., Gol Zaroudi, H. (2020), "Peak pressures on low rise buildings: CFD with LES versus full scale and wind tunnel measurements," *Wind and Structures*, 30(1), 99-117. <https://doi.org/10.12989/was.2020.30.1.099>
 11. Aly, A.M., Dragomirescu, E. (2018). *Wind Engineering for Natural Hazards: Modeling, Simulation, and Mitigation of Windstorm Impact on Critical Infrastructure*. American Society of Civil Engineers, ISBN 0784481849, 9780784481844, 238 pages. <https://ascelibrary.org/doi/book/10.1061/9780784415153>
 12. Chapain, S., Aly, A.M. (2019), "Vibration Attenuation in High-Rise Buildings to Achieve System-Level Performance under Multiple Hazards," *Engineering Structures*, 197(15): 109352. <https://doi.org/10.1016/j.engstruct.2019.109352>
 13. Rezaee, M., Aly, A.M. (2019), "Proposed Theory of Semiactive Gains for Smart Dampers in MDOF Systems," *Journal of Structural Engineering*, ASCE, 145(12): 04019155. [https://doi.org/10.1061/\(ASCE\)ST.1943-541X.0002453](https://doi.org/10.1061/(ASCE)ST.1943-541X.0002453)
 14. Aly, A.M., Chokwitthaya, C., Poche*, R. (2017), "Retrofitting building roofs with aerodynamic features and solar panels to reduce hurricane damage and enhance eco-friendly energy production," *Sustainable Cities and Society*, 35, 581-593. *Undergraduate student (sophomore when started) <https://doi.org/10.1016/j.scs.2017.09.002>
 15. Rezaee, M., Aly, A.M. (2018), "Vibration Control in Wind Turbines to Achieve Desired System-Level Performance under Single and Multiple Hazard Loadings," *Structural Control and Health Monitoring*, 2018;25:e2261. <https://doi.org/10.1002/stc.2261>

(d) Synergistic Activities:

1. Vice Chair and previous Secretary, EMI Fluid Dynamics Committee, ASCE.
 2. Associate Editor, Practice Periodical on Structural Design and Construction, ASCE.
 3. Editor, *Wind and Structures*.
 4. Member of the editorial board of the journal "Frontiers in Built Environment: Wind Engineering and Science."
 5. Edited a special journal issues for 'Shock and Vibration.'
 6. Edited a special issue for the journal 'Wind and Structures': "Wind Impact on High-Rise Structures: Load Characterization, Response Evaluation, and Mitigation", *Wind and Structures*, 5(21).
 7. Organized mini-symposium: ASCE EMI 2021; ASCE EMI 2016, Fluid Dynamics in Natural Hazards, Nashville (Aly edited a special EMI/ASCE publication); organized two mini-symposiums for the ASCE EMI2017 conference (MS 93: Control of Structures for Multiple Hazards, and MS 98: Wind Engineering in Natural Hazards); organized mini-symposium for EMI2018, MIT; chaired conference sessions and organized symposium: The 2014 and 2012 International Conference on Advances in Wind and Structures (twice).
 8. Served on a technical committee: 2017 ASCE Report Card (Bridges) on Louisiana's Infrastructure.
 9. Served on a scientific committee: WSBE17 and 8th BBAA, 2016.
 10. Served as a panelist and reviewer of several proposals and for several journals.
 11. Fellow with Louisiana Sea Grant's Louisiana Discovery, Integration, and Application Program (LaDIA).
 12. An expert panel, Council on Tall Buildings and Urban Habitat (CTBUH).
 13. Participation of Groups Underrepresented in STEM: In Aly's research team, diversity is fundamental to creating a learning environment that embraces individual differences. This is especially emphasized, by forming a research team that includes students at different levels (graduate, undergraduate, and middle school), with special consideration to minorities.
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