

Curriculum Vitae

Name	Tamer Elnady
Affiliation	Group for Advanced Research in Dynamic Systems (ASU-GARDS) Center for Sound, Vibration and Smart Structures (CVS3) Design and Production Engineering Department Faculty of Engineering, Ain Shams University
Interests	Duct Acoustics, Machine Noise Control, Room Acoustics and Measurement Techniques. Applications: Aircraft engines, Exhaust and intake systems, Ventilation systems, Standard Measurements. 3D Scanning and Virtualization, Virtual Reality, Virtual Tours, e-Learning, online teaching and assessment.
Address	Sound and Vibration Lab., Faculty of Engineering, Ain Shams University, 1 Elsarayat St., Abbaseya, 11517 Cairo, Egypt.
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Version 18-12-2022

Employment

Period	Job Description / Institution
Mar 2020 to date	Director of ASU Grants Office Ain Shams University
Jul 2016 to date	Professor, Director of the Center for Sound, Vibration and Smart Structures (CVS3). Ain Shams University, Faculty of Engineering.
Sep 2014 to date	Member of the Council of Advisors for the President in Education and Scientific Research (Voluntary Work) Egyptian Presidency
Jan 2018 to Jan 2021	Vice Dean for Education and Student Affairs Ain Shams University, Faculty of Engineering
Aug 2017 to Mar 2018	Head of Design and Production Engineering Department Ain Shams University, Faculty of Engineering.
Sep 2013 to Jun 2015	Assistant Minister for Exploratory Centers for Science and Technology (Part time). Ministry of Education
Jun 2011 to Jun 2016	Associate Professor, Head of ASU Sound and Vibration Laboratory. Ain Shams University, Faculty of Engineering
Oct 2004 to Apr 2011	Assistant Professor, Head of ASU Sound and Vibration Laboratory. Ain Shams University, Faculty of Engineering
May 2000 to Sep 2004	Researcher and Ph.D. student Royal Institute of Technology (KTH), Aeronautical & Vehicle Engineering Department
Sep 1997 to May 2000	Teaching and Research Assistant Ain Shams University, Faculty of Engineering

Education

- **2004 - Ph.D. in Technical Acoustics**, Royal Institute of Technology (KTH) in Stockholm, Aeronautical and Vehicle Engineering Department. Thesis title: Modeling and Characterization of Perforates in Lined Ducts and Mufflers.
- **2002 - Licentiate in Technical Acoustics** (A Swedish degree corresponding to half a Ph.D.), Royal Institute of Technology (KTH) in Stockholm, Aeronautical and Vehicle Engineering Department. Thesis title: On the Use of Liners to Reduce Aircraft Jet Engine Noise.
- **2000 - M.Sc. in Mechanical Engineering**, Ain Shams University in Cairo, Faculty of Engineering, Design and Production Engineering Department. Thesis title: Reduction of Noise for Industrial Machinery.
- **1997 - B.Sc. in Mechanical Engineering**, Distinction with Honor. (commutative: $4674/4950 = 94.4\%$ GPA=4), Ain Shams University in Cairo, Faculty of Engineering, Design and Production Engineering Department. Project title: Design, Manufacturing and Testing of a Jib Crane.

Other activities/positions:

- Expert member of the Engineering Sector Committee, Supreme Council of Universities. Author of the 2020 Terms of Reference for Undergraduate Engineering Education in Egypt.
 - Member of the Equivalence Committee, Engineering Sector, Supreme Council of Universities.
 - Member of review committee of the 2020 Programs Quality Standards, National Authority for Quality Assurance and Accreditation of Education (NAQAEE).
 - Member of the EU ERASMUS+ National Higher Education Reform Expert team (the HERE – Egypt team).
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- Project Manager for the Fundamentals of Engineering Exam for Egyptian Engineers at the Egyptian Engineering Syndicate.
 - Founder and President of the Acoustical Society of Egypt.
 - One of the developers of SIDLAB Software, a 1D simulation code for the propagation of sound waves inside ducts.
 - Previous Member of the Board of Directors for the International Institute for Acoustics and Vibrations (IIAV).
 - Member of the Editorial Board of “Advances of Acoustics and Vibration” Journal.
 - Member of the Editorial Board of “SAE International Journal of Vehicle Noise and Vibration” Journal.
 - Chair of the organizing committee of the 1st COMSOL Users Conference in the Arab Countries, Dhahran, 12-13 January, 2009.
 - Member of the MEMEC EXPO International Advisory Committee, held regularly in Bahrain, 1st one held in 2007 and second one to be held in 2009.
 - Member of the scientific committee International Conference on Advanced Materials for Application in Acoustics and Vibration (AMAAV), organized by the British University in Cairo, 4-6 Jan 2009.
 - Reviewer at several international and national journals: The International Journal of Acoustics and Vibrations (IJAV), AIAA Journal, Applied Acoustics, Journal of Environmental Sciences.
 - Chair of the local organizing committee of the 17th International Congress of Sound and Vibration (ICSV), 18-22 July 2010.
 - Member of the technical committee at the Egyptian Ministry for Environmental Affairs, whose job is to revise the noise regulations in the Egyptian Law for Environment.
 - Member of the technical committee at the Housing and Building Research Center (HBRC), whose job is to develop a new code for acoustics and vibrations in buildings.

Awards

1. Egyptian State Incentive Award in Engineering Sciences for 2010.

Patents

1. Centrifugal Type Spark Arrestor Model A. Mohamed Ammar, Waled Elsallamy, Tamer Elnady and Tarek Osman. Patent no. 2015111807, Egyptian Patent Office, 2020.
2. Centrifugal Type Spark Arrestor Model B. Mohamed Ammar, Waled Elsallamy, Tamer Elnady and Tarek Osman. Patent no. 2015111806, Egyptian Patent Office, 2019.

Books

1. T. Elnady 2009. Modeling and Characterization of Perforates in Lined Ducts and Mufflers. VDM-Publishing, Germany. ISBN: 978-3-639-15699-7
2. T. Elnady and H. Bodén 2007, Sound and Vibration. Edited a translated version of the Swedish Course Book “Ljud och Vibrationer”.

Summary of Publications (as of 19 September 2020)

25 Journal Publications

65 Conference Publications

Scopus: 63 Documents, 701 Citations, h-index = 14

Google Scholar: 80 Documents, 1002 Citations, h-index = 15

Journal Publications

1. M. Nashed, T. Elnady and M. Åbom, 2022. The effect of reflections in power-based models for sound in ducts, Accepted for publication in Proceedings of Meetings on Acoustics (POMA), the Acoustical Society of America.
2. M. Ammar, T. Elnady, T. Osman and W. Elsallamy, 2021. Acoustic Modeling of Spark Arrestor for Diesel Engines, ARPN Journal of Engineering and Applied Sciences, Vol. 16(3), pp. 312–319.
3. M. Ammar, T. Elnady, T. Osman and W. Elsallamy, 2020. Design Development for Centrifugal Diesel Particulate Arrestor, ARPN Journal of Engineering and Applied Sciences, Vol. 15(21), pp. 2515–2522.
4. A. Abdulaziz, A. Elsabbagh and T. Elnady, 2019. Testing and validation of a novel segmented wind turbine blade, Journal of Testing and Evaluation, Vol. 47 (5), doi:10.1520/JTE20170238.
5. M. Kani, A. Abosrea, A. Makni, M. Taktak, M. Chabaane, T. Elnady and M. Haddar, 2019. Acoustic performance evaluation for ducts containing porous media, Applied Acoustics, Vol. 147, pp. 15-22.
6. M. Nashed, T. Elnady and M. Åbom, 2018. Modeling of duct acoustics in the high frequency range using two-ports, Applied Acoustics, Vol. 135, pp. 37-47.
7. A. Abosrea, W. El-Sallamy, T. Osman and T. Elnady, 2018. Production cost development for commercial exhaust systems, Ain Shams Engineering Journal, Vol. 9(4), pp. 2725–2735.
8. K. Morishima, M. Kuno, A. Nishio, N. Kitagawa, Y. Manabe, M. Moto, F. Takasaki, H. Fujii, K. Satoh, H. Kodama, K. Hayashi, S. Odaka, S. Procureur, D. Attié, S. Bouteille, D. Calvet, C. Filosa, P. Magnier, I. Mandjavidze3, M. Riallot, B. Marini, P. Gable, Y. Date, M. Sugiura, Y. Elshayeb, T. Elnady, M. Ezzy, E. Guerriero, V. Steiger, N. Serikoff, J.-B. Mouret, B. Charlès, H. Helal and M. Tayoubi, 2017. Discovery of a big void in Khufu's pyramid by observation of cosmic-ray muons, Nature, Vol. 552, pp. 386-390
9. C. Othmani, M. Taktak, A. Zein, T. Hantati, N. Dauchezc, T. Elnady, T. Fakhfakh and M. Haddar, 2017. Acoustic characterization of a porous absorber based on recycled sugarcane wastes, Applied Acoustics, Vol. 120, pp. 90–97.
10. M. Farooqui, T. Elnady and W. Akl, 2016. Validation of low frequency noise attenuation using locally resonant patches, Journal of the Acoustical Society of America, Vol. 139(6), pp. 3267-3276.
11. M. Farooqui, T. Elnady and W. Akl, 2016. Sound attenuation in ducts using locally resonant periodic aluminum patches, Journal of the Acoustical Society of America, Vol. 139(6), pp. 3277-3287.
12. A. Okasha, T. Elnady and M. Åbom, 2016. Analysis of Pipeline Networks using Two-ports, Applied Acoustics, Vol. 109, pp. 44-53.
13. C. Othmani, A. Zein, T. Hantati, M. Taktak, T. Elnady, T. Fakhfakh and M. Haddar, 2016. Experimental and theoretical investigation of the acoustic performance of sugarcane wastes based material, Applied Acoustics, Vol. 109, pp. 90-96.
14. M. Farooqui, T. Elnady, R. Glav and T. Karlsson, 2015. Modeling and Characterization of a Novel Porous Metallic Foam Inside Ducts, SAE International Journal of Materials and Manufacturing, Vol. 8(3), pp. 937-945.
15. W. Elsahar and T. Elnady, 2015. Measurement and Simulation of Two-Inlet Single-Outlet Mufflers, SAE International Journal of Passenger Cars– Mechanical Systems, Vol. 8(3), pp. 1026-1033.
16. C. Othmani, T. Hentati, M. Taktak, T. Elnady, T. Fakhfakh and M. Haddar, 2015. Effect of Liner Characteristics on the Acoustic Performance of Duct Systems, Archives of Acoustics, Vol. 40(1), pp. 117–127.
17. T. Elnady, M. Åbom and Y. Yang, 2014. Systematic Optimization of an Exhaust System to Meet Noise Radiation Criteria at Idle, SAE International Journal of Passenger Cars– Mechanical Systems, Vol. 7(3). doi:10.4271/2014-01-0006.
18. D. Herrin, X. Hua, Y. Zhang and T. Elnady, 2014. The Proper Use of Plane Wave Models for Muffler Design, SAE International Journal of Passenger Cars– Mechanical Systems, Vol. 7(3). doi:10.4271/2014-01-0016.
19. X. Hua, D.W. Herrin, T.W. Wu, and T. Elnady, 2013. Simulation of diesel particulate filters in large exhaust systems, Applied Acoustics, Vol. 74(12), pp. 1326–1332.

20. T. Elnady, S. Elsaadany, and D. W. Herrin, 2011. Investigation of the Acoustic Performance of After Treatment Devices, SAE International Journal of Passenger Cars– Mechanical Systems, Vol. 4(2).
21. T. Elnady, S. Elsaadany, and M. Åbom, 2011. Flow and Pressure Drop Calculation using Two-ports, ASME Journal of Vibration and Acoustics, Vol. 133(4), pp. 041016/1-8.
22. M. Ramadan, W. Akl, T. Elnady, and A. Elsabbagh, 2011. Finite Element Modeling of an Acoustic Cloak for Three Dimensional Flexible Shells with Structural Excitation. Journal of Applied Physics A: Materials Science and Processing, DOI 10.1007/s00339-011-6247-x.
23. T. Elnady, M. Åbom, and S. Allam, 2010. Modeling Perforated Tubes in Mufflers using Two-ports, ASME Journal of Vibration and Acoustics, Vol. 132(6).
24. T. Elnady, H. Bodén, and B. Elhadidi, 2009. Validation of an Inverse Semi-Analytical Technique to Educe Liner Impedance, AIAA Journal, Vol. 47(12).
25. T. Elnady, A. Elsabbagh, W Akl, V. Garcia-Chocano, D. Torrent, F. Cervera and J. Sanchez-Dehesa 2009. Quenching of acoustic bandgaps by flow noise, Applied Physics Letters, 94, 134104, April 2009.

Conference Publications

1. M. Wagih, T. Elnady and M. Åbom, 2018. Effect of Reflections on HVAC Systems Power-Based Acoustic Simulation, Inter-Noise 2018, Chicago, USA, 26-29 August.
2. M. Wagih, T. Elnady and M. Åbom, 2018. Review of splitter silencer modeling techniques, Euro-Noise 2018, Crete, Greece, 28-31 June.
3. M. Gaber, T. Elnady and A. Elsabbagh, 2018. Sound Source Localization in 360 Degrees Using a Circular Microphone Array, Euro-Noise 2018, Crete, Greece, 28-31 June.
4. M. Farooqui, T. Elnady and M. Åbom, 2017. Investigation of the impedance of a micro-perforated plate with two-sided grazing flow, 173rd Meeting of the Acoustical Society of America, Boston MA, 25–29 June.
5. M. Wagih, T. Elnady and M. Åbom, 2017. Investigation of the effect of neglecting reflections in Power-based sound in ducts, 173rd Meeting of the Acoustical Society of America, Boston MA, 25–29 June.
6. A. Abosrea and T. Elnady, 2017. Measurement of Flow-Generated Noise inside Mufflers, SAE 2017 Noise and Vibration Conference and Exhibition, Grand Rapids, USA, 12-15 June.
7. M. Kani, M. Amine, A. Abosrea, M. Taktak, T. Elnady, M. Chabbane, M. Haddar, 2017. Performance acoustique des matériaux poreux localisés dans un conduit. 7ième Congrès International Conception et Modélisation des Systèmes Mécaniques CMSM'2017, Hammamet, Tunisie, 27-29 March.
8. A. Allam and T. Elnady, 2016. Characterization of Mufflers, ICA 2016, Buenos Aires, Argentina, September 5-9.
9. M. Farooqui, T. Elnady and M. Åbom, 2016. Measurement of Perforate Impedance with grazing flow on both Sides, 22nd AIAA/CEAS Aeroacoustics Conference, Lyon, France, May 30 – June 1.
10. A. Abosrea, T. Elnady and W. Elsallamy, 2015. Flow generated noise inside mufflers, Inter-Noise 2015, San Francisco, USA, August 9-12.
11. M. Wagih and T. Elnady, 2015. Modeling industrial mufflers using two-ports, Inter-Noise 2015, San Francisco, USA, August 9-12.
12. A. Zein, T. Elnady, A. Elsabbagh and Hans Bodén, 2015. E-Laboratories for Sound and Vibration Education, 22nd International Congress on Sound and Vibration (ICSV), Florence, Italy, July 12-16.
13. A. Abdulaziz, A. Elsabbagh and T. Elnady, 2015. Using Acoustic Emission in validating a new design and manufacturing concepts of a horizontal axis wind turbine blade, 22nd International Congress on Sound and Vibration (ICSV), Florence, Italy, July 12-16.
14. M. Farooqui, T. Elnady, R. Glav and T. Karlsson, 2015. Modeling and Characterization of a Novel Porous Metallic Foam Inside Ducts, SAE 2015 Noise and Vibration Conference and Exhibition, Grand Rapids, USA, 23-25 June.
15. W. Elshahar and T. Elnady, 2015. Measurement and Simulation of Two-Inlet Single-Outlet Mufflers, SAE 2015 Noise and Vibration Conference and Exhibition, Grand Rapids, USA, 23-25 June.

16. M. Farooqui, T. Elnady and W. Akl, 2015. Low Frequency noise attenuation inside ducts using locally resonant periodic flush mounted steel patches, EuroNoise 2015, 31 May - 3 June, Maastricht.
17. E. Zidan, T. Elnady and A. Elsabbagh, 2014. Comparison of Sound Power Prediction Models of Wind Turbines, Proceedings of the International Conference on Advances in Agricultural, Biological & Environmental Sciences (AABES-2014), Dubai, UAE, Oct 15-16, pp. 67-73.
18. M. Wagih, T. Elnady, and M. Åbom, 2014. Analysis of Flow and Sound Propagation in HVAC Ducts Using Two-Ports, ASHRAE Summer Conference, Seattle, USA, June 28 – July 2.
19. L. Zhou, H. Bodén, C. Lahiri, F. Bake, L. Enghardt, S. Busse-Gerstengarbe and T. Elnady, 2014. Comparison of impedance reduction results using different methods and test rigs, AIAA Aviation and Aeronautics Forum and Exposition 2014, Atlanta, USA, June 16-20.
20. R. Kabral, L. Zhou, H. Bodén and T. Elnady, 2014. Determination of liner impedance under high temperature and grazing flow conditions, AIAA Aviation and Aeronautics Forum and Exposition 2014, Atlanta, USA, June 16-20.
21. T. Elnady, M. Åbom, and Y. Yang, 2014. Systematic Optimization of an Exhaust System to Meet Noise Radiation Criteria at Idle, SAE 2014 World Congress and Exhibition, Detroit, USA, April 8-10.
22. D.W. Herrin, X. Hua, Y. Zhang, and T. Elnady, 2014. The Proper Use of Plane Wave Models for Muffler Design, SAE 2014 World Congress and Exhibition, Detroit, USA, April 8-10.
23. W. Elsahar, T. Elnady, and M. Åbom, 2013. Validation of two-port temperature models for heat dissipation in exhaust systems, 166th Meeting of the Acoustical Society of America, San Francisco, December 2-6.
24. M. Farouqui, W. Akl, and T. Elnady, 2013. Sound attenuation in ducts using locally resonant periodic flush mounted flexible silicon aerogel patches, 166th Meeting of the Acoustical Society of America, San Francisco, December 2-6.
25. M. Wagih, T. Elnady, and M. Åbom, 2013. Analysis of duct networks at high frequencies using two-ports, Inter-Noise 2013, Innsbruck, Austria, September 16-18.
26. A. Okasha, T. Elnady, and M. Åbom, 2013. Acoustic response analysis of pipeline networks using two-ports, Inter-Noise 2013, Innsbruck, Austria, September 16-18.
27. T. Elnady, W. Elsahar, and M. Åbom, 2012. Estimation of temperature drop in exhaust systems, Inter-Noise 2012, New York, USA, August 19-22.
28. W. Elsahar, T. Elnady, and D. Herrin, 2012. Modeling DPF units beyond the plane wave range, Inter-Noise 2012, New York, USA, August 19-22.
29. X. Hua, D. Herrin, T. Wu, and T. Elnady, 2012. Simulation of diesel particulate filters in large exhaust systems, Inter-Noise 2012, New York, USA, August 19-22.
30. S. Elsaadany, T. Elnady, M. Åbom, and S. Boij, 2011. Optimization of Exhaust Systems to Meet the Acoustic Regulations and the Engine Specifications, 18th International Congress on Sound and Vibration, Rio de Janeiro, Brazil, July 10-14.
31. T. Elnady, S. Elsaadany, and D. W. Herrin, 2011. Investigation of the Acoustic Performance of After Treatment Devices, SAE 2011 Noise and Vibration Conference and Exhibition, Grand Rapid, USA, May 2011.
32. X. Hua, J. Liu, D. W. Herrin, and T. Elnady, 2011. Numerical Simulation of Diesel Particulate Filters in Exhaust Systems, SAE 2011 Noise and Vibration Conference and Exhibition, Grand Rapid, USA, May 2011.
33. W. Akl, T. Elnady, A. Elsabbagh, and M. Ramadan, 2010. Improving acoustic cloak bandwidth using nonlinear coordinate transformations, 17th International Congress on Sound and Vibration, Cairo, Egypt, July 18-22.
34. A. Elsaabagh, T. Elnady, and W. Akl, 2010. Using Virtual Reality Environment in the Teaching of Acoustics, 17th International Congress on Sound and Vibration, Cairo, Egypt, July 18-22.

35. T. Elnady, M. Åbom, and S. Elsaadany, 2010. Acoustic Response Analysis of Oil & Gas Pipeline Networks to Prevent their Fatigue and Failure, 17th International Congress on Sound and Vibration, Cairo, Egypt, July 18-22.
36. S. Elsaadany, T. Elnady, M. Åbom, and S. Boij, 2010. Insight into Exhaust Systems Optimization Techniques, 17th International Congress on Sound and Vibration, Cairo, Egypt, July 18-22.
37. O. Mohammady, G. El-Bayoumi, M. Bayoumi, B. Elhadidi, and T. Elnady, 2010. Analysis, Design, and Implementation of a Sound Tracking System to Track a Moving Object, 17th International Congress on Sound and Vibration, Cairo, Egypt, July 18-22.
38. T. Elnady, W. Akl, A. Elsabbagh, O. Mohammady, and Hans Bodén, 2010. Flat Sensors for Acoustic Pressure Measurements. 16th AIAA/CEAs Aeroacoustics Conference, Stockholm, Sweden, June 7-9.
39. M. Ramadan, W. Akl, T. Elnady, and A. Elsabbagh, 2010. Finite Element Modeling of an Acoustic Cloak for Three Dimensional Flexible Shells with Structural Excitation. International Conference on Metamaterials, Photonic crystals and Plasmonics, Cairo, Egypt, February 22-25.
40. T. Elnady, S. Elsaadany, and M. Åbom, 2009. Investigation into Modeling of Multi-Perforated Mufflers, 16th International Congress on Sound and Vibration, Krakow, Poland, July 6-9.
41. T. Elnady, 2009. Operational Modal Analysis of Ramses II Statue, International Operational Modal Analysis Conference IOMAC, Ancona, Italy, May 2-4.
42. A. Kamal, T. Elnady, and A. Yones, 2009. Parametric Study of Sound Attenuators for Industrial Fans, BUE Conference on Advanced Materials for Application in Acoustics and Vibration (AMA AV), Cairo, Egypt, January 4-6.
43. W. El-Sallamy, T. Elnady, W. Akl, and T. Osman, 2009. Investigation of Active Noise Control in Ducts, BUE Conference on Advanced Materials for Application in Acoustics and Vibration (AMA AV), Cairo, Egypt, January 4-6.
44. W. El-Sallamy, T. Elnady, T. Osman, and A. Khattab, 2009. Active Noise Control in Flow Ducts, BUE Conference on Advanced Materials for Application in Acoustics and Vibration (AMA AV), Cairo, Egypt, January 4-6.
45. T. Elnady, S. Elsaadany, and M. Åbom, 2008. Flow and Pressure Drop Calculation using two-ports, 15th International Congress on Sound and Vibration, Daejeon, Korea, July 6-10.
46. T. Elnady, 2007. A Platform to Measure Transmission Loss of Mufflers with Flow, Inter-Noise 2007, Istanbul, Turkey, August 28-31.
47. T. Elnady, 2007. Vibration Measurements during the Relocation of Ramses II Statue, Inter-Noise 2007, Istanbul, Turkey, August 28-31.
48. T. Elnady and H. Bodén, 2007. A Tempus experience: New Curriculum in Sound and Vibration Control in Egypt. 14th International Congress on Sound and Vibration, Cairns, Australia, July 9-12.
49. T. Elnady and M. Åbom, 2006. SIDLAB: new 1D sound propagation simulation software for complex duct networks, 13th International Congress on Sound and Vibration, Vienna, Austria, July 2-6.
50. Y. Elnemr and T. Elnady, 2006. Design, construction, and validation of a reverberation room, 13th International Congress on Sound and Vibration, Vienna, Austria, July 2-6.
51. R. Fairbrother, M. Åbom, T. Elnady, F. Ollivier, 2006. Linear acoustic simulation and experimental characterization of a modular automotive muffler, 13th International Congress on Sound and Vibration, Vienna, Austria, July 2-6.
52. T. Elnady, M. Musharrof, H. Bodén, B. Elhadidi, 2006. Validation of an Inverse Analytical Technique to Educe Liner Impedance with Grazing Flow, 12th AIAA/CEAS Aeroacoustics Conference, Cambridge, MA, May 8-10, 2006-2639.
53. S. Tawfik, and T. Elnady, 2006. Arabic computer-based remediation program, a new development: Acoustic Manipulation, Central Auditory Processing Disorder "From Theory to Clinical Practice", Marriott Hotel, Cairo, March 25-26.
54. T. Elnady and M. Åbom, 2005. Modeling perforates in mufflers using two-ports, 12th International Congress on Sound and Vibration, Lisbon, Portugal, July. 11-14.

55. T. Elnady and H. Bodén, 2004. Direct Calculation of Liner Impedance from its Indirect Measurement, 11th AIAA/CEAS Aeroacoustics Conference, Monterey, CA, May 23-25.
56. T. Elnady, 2005. Investigation of Mode Scattering by Hard Strips in Lined Ducts Using Collocation, Eleventh International Conference on Aerospace Sciences and Aviation Technology, Military Technical College, Cairo, May 17-19.
57. T. Elnady, 2005. Acoustic Network Models for Perforated Tube Mufflers, First Ain Shams International Conference on Environmental Engineering, Cairo, April 9-11.
58. T. Elnady and H. Bodén, 2004. An Inverse Analytical Method for Extracting Liner Impedance from Pressure Measurements. 10th AIAA/CEAS Aeroacoustics Conference, Manchester, UK, May 10-12, 2004-2836.
59. T. Elnady, H. Bodén and T. Kontio, 2004. Impedance of SDOF liners at high temperatures, 10th AIAA/CEAS Aeroacoustics Conference, Manchester, UK, May 10-12, 2004-2842.
60. T. Elnady and H. Bodén, 2003. Mode Scattering by Hard Strips in Lined ducts. 10th International Congress on Sound and Vibration, Stockholm, Sweden, July. 7-10.
61. T. Elnady and H. Bodén, 2003. On semi-empirical liner impedance modeling with grazing flow. 9th AIAA/CEAS Aeroacoustic Conference, Hilton Head, SC, USA, May 12-14, 2003-3304.
62. T. Elnady and H. Bodén, 2002. Hard strips in lined ducts, 8th AIAA/CEAS Aeroacoustic Conference, Breckenridge, CO, USA, Jul. 17-19, 2002-2444.
63. T. Elnady, 2002. Impedance modeling of acoustic liners, Sixth International Conference on Production Engineering and Design for Development (PEDD-6), Cairo, Egypt, Feb. 12-14.
64. T. Elnady and H. Bodén, 2001. Application of the point matching method to model circumferentially segmented non-locally reacting liners, 7th AIAA/CEAS Aeroacoustic Conference, Maastricht, The Netherlands, May. 28-30, 2001-2202.
65. T. Elnady, 2000. Noise Assessment in Egyptian Airports, Year 2000 International Airport Noise Symposium, San Diego, CA, USA, Feb. 14-16.

Academic and Research Projects

I have been involved in the following projects as part of the research and education activities at the Faculty of Engineering, Ain Shams University since 2004 to Present. These projects were under the umbrella of ASU Sound and Vibration Lab., ASU Virtual Reality Lab., ASU Group for Advanced Research in Dynamic Systems (ASU-GARDS), and the Center of Sound, Vibration and Smart Systems (CVS3).

1. 2021 – Virtual Patient for Nursing Education, Ain Shams University.
2. 2020 - Geothermal Energy Capacity Building in Egypt [GEB], Erasmus+, KA2.
3. 2019 - Reframing Cultural Heritage Educaiton in Egypt [Re-HeED], Erasmus+, KA2.
4. 2019 - Center of Excellence for Energy with Massachusetts Institute of Technology (MIT), USAID.
5. 2019 - Improving Air Handling Units at Tanta Motors to Meet Exportation Norms, Science and Technology Development Fund.
6. 2019 - Development of Communication Facilities to Support Search and Rescue in the Sea, Egyptian Academy for Scientific Research.
7. 2018 - Academic System Resource Planning: A Fully-Automated Smart Campus [ASRP] – ASU is the Grant Holder, Erasmus+, KA2.
8. 2018 - Development of OpenBTS (Open Base Transceiver Station) for Remote Applications, Egyptian Academy for Scientific Research.
9. 2017 - Innovative Lifelong e-Learning for Professional Engineers [eProfEng], Erasmus+, KA2.
10. 2017 - Integrative Multidisciplinary People-centered Architectural Qualification & Training [IMPAQT], Erasmus+, KA2.

11. 2017 - Progression of Accessibility Centres in higher Education for Students with disabilities in North Africa [PACES], Erasmus+, KA2.
12. 2017 - Wind Engineering Skills in Egypt and Tunisia [WESET], Erasmus+, KA2.
13. 2017 - ICT Framework to enhance Egypt as a Touristic destination [ICT FET], Egyptian Academy for Scientific Research.
14. 2016 - Education and Capacity Building in Museum Studies [EduMust] – ASU is the Grant Holder, Erasmus+, KA2.
15. 2016 - International E-based Diploma and Professional Certificates in Special Education and Inclusion [Sp-Edu], Erasmus+, KA2.
16. 2016 - Blended Vocational-Engineering-Industry Shared Learning Environment for Stream of Socially- and Technically-Competent Technicians and Engineers [VET-ENG], Erasmus+, KA2.
17. 2016 - Acoustic design of Heating, Ventilation and Air Conditioning (HVAC) systems, Science and Technology Development Fund.
18. 2016 - Development of Communication Facilities to Support Search and Rescue by the Roads, Egyptian Academy for Scientific Research.
19. 2015 - International Diploma for School Teachers in STEM Education [eSTEM] – ASU is the Grant Holder, Erasmus+, KA2.
20. 2015 - IT-Based International Diploma and Professional Certificate in Clinical Toxicology [ITCT], Erasmus+, KA2.
21. 2015 - Integrating Blended Entrepreneurial and Manufacturing Technology Competency into Socioeconomic Development in Egypt [BEMT], Erasmus+, KA2.
22. 2015 - Smart Control Systems for Energy Management: New Master's Degree [SEM-SEM], Erasmus+, KA2.
23. 2015 - Control of sound recording inside studios, Egyptian Academy for Scientific Research
24. 2015 - Presence in the Past: Preservation of Egyptian maritime archaeological sites through 3D digital modelling and Virtual Reality presentation in the laboratory for modern day exploration of lost heritage, STDF-British Council (Newton-Mosharafa, Institutional Links).
25. 2014 - e-Laboratories for Chemistry Education, EU-Egypt Innovation Fund (RDI).
26. 2013 - Academic-Industry Partnership towards Development of Trainers and Educators for Technicians in Egypt [AIP], Tempus
27. 2012 - Capacity Building Grant: Research Center for Acoustics, Vibration and Smart Structures, Science and Technology Development Fund.
28. 2012 - Using Virtual Reality in Cultural Heritage Education [VirCult] – ASU is the Grant Holder, Tempus.
29. 2012 - Acoustical characterization of acoustic liner materials from agriculture wastes. Cooperation project with National Engineering School of Sfax, Tunisia, Egyptian Academy for Scientific Research.
30. 2011 - Marie Curie Initial Training Network (ITN) on Silent Air Flows in transport, buildings, and power generation [FlowAirS], European Commission (FP7).
31. 2011 - e-Laboratories for Physics and Engineering Education [eLab], Tempus.
32. 2011 - Clean Energy and Research in Environmental Studies [CERES], Tempus.
33. 2010 - Prototyping Metamaterial Antennas, Information Technology Industry Development Agency (ITIDA).
34. 2010 - Advanced Engineering Systems, and Bridging the Gap between Academia and Industry [AES], Tempus.
35. 2010 - X-Noise EV. This is a continuation of the FP6 project X3-Noise which is a Network of Excellence, European Commission (FP7).

36. 2010 - Innovative Techniques for Design and Manufacturing of Wind Turbine Blades. The study covers a new technique to manufacture wind turbine blades and its effect on flutter and acoustics, Science and Technology Development Fund.
37. 2009 - Acoustic Response Analysis of Oil & Gas Pipeline Networks to Prevent their Fatigue and Failure, EU-Egypt Innovation Fund (RDI).
38. 2009 - Simulation of Diesel Particulate Filters in Exhaust Systems. Cooperation project with the University of Kentucky, USA, US-Egypt Joint Research Grants.
39. 2009 - Modeling and Optimization of Thermo Acoustic Heat Engine. Cooperation project with the University of Madrid, Spanish Agency for Intl. Cooperation.
40. 2009 - Swedish Research Links: Simulation of High Frequency Sound in Ducts. Cooperation project with the Royal Institute of Technology, Sweden, Swedish Research Council.
41. 2009 - Development of a Masters of Engineering Program in Sound and Vibration [MSV], Tempus.
42. 2009 - Optimization for low Environmental Noise impact AIRcraft [OPENAIR]. A large project with 47 partners from all over Europe. Ain Shams University role is to develop and characterize a new paint sensor, European Commission (FP7).
43. 2008 - Acoustic Control using Phononic Crystals. Cooperation project with the University of Valencia, Spanish Agency for Intl. Cooperation.
44. 2007 - Using Virtual Reality in Engineering Education. Establishment of the first Virtual Reality Lab in Egypt [VRLab], Tempus.
45. 2006 - X3-Noise: Aircraft External Noise Research Network and Coordination. The ASU Sound & Vibration Lab is the Regional Focal Point for this network in the Arab-Mediterranean Countries, European Commission (FP6).
46. 2006 - Swedish Research Links: Reduction of noise using microperforates. Cooperation project with the Royal Institute of Technology, Sweden, Swedish Research Council.
47. 2004 - Development of new curricula for sound and vibration control [SvibCon], Tempus. Establishment of a Sound and Vibration Laboratory at Ain Shams University with cooperation with the Royal Institute of Technology in Stockholm and the Institute of Sound and Vibration Research in Southampton.

I have been involved in the following projects during the period I was a PhD student at the Royal Institute of Technology (KTH) from 2000 to 2004.

48. 2003 - Reduction of Aircraft Jet Engine Noise Using Liners, Swedish Research Council.
49. 2001 - Modeling of inlet/outlet noise from turbo-charged diesel engines [ARTEMIS], European Commission (FP6). Modeling of a complicated Renault Laguna perforated silencer.
50. 2000 - NFFP: Hot stream acoustic liners, Swedish Defense Material Administration FMV.
51. 2000 - Basic research on duct acoustics and radiation [DUCAT], European Commission (FP5). Modeling of non-locally reacting liners and added a model for spliced liners.

Engineering Services Projects in Acoustics and Vibration

1997 - Present Several Projects for National, Regional and International Clients in the field of Mechanical Noise and Vibration Control, Industrial Acoustics, Architectural Acoustics Design, Environmental Noise Studies, Product and System Sound Design, Acoustic Design of Mufflers

1. 2021 – Acoustics design of the residential Alamein Towers Buildings, Chinese Construction Company (CSCEC), Egypt.
2. 2021 – Acoustics design for the redesign of Central bank, New Capital, ECG, Egypt.
3. 2021 – Acoustics design of rehearsal rooms and Laundry of new Opera house, Orascom Constructions, Egypt.
4. 2021 – Acoustic study of 3 studios in the Canadian University, Eco-Arch. Consultant, Egypt.

5. 2021 – Acoustics design of Magdy Yacoub Hospital, Orascom Constructions, Egypt.
6. 2021 – Outdoor noise levels Measurements for Cairo Festival City, INFOSIGHT, Egypt.
7. 2020 – NC, RT and STC measurements in HSBC head office, JLL, Egypt.
8. 2020 – Acoustic study for Dynamometer Lab, Design & Consultant House, Egypt.
9. 2020 – Acoustics design of World defense show building, Saudi Architects, Saudi Arabia
10. 2020 – Noise modelling and outdoor noise measurements for an Egyptian Petrochemical Plant, ThyssenKrupp, Egypt.
11. 2020 – Acoustics design of SAX restaurant in Maarasi Golf hotel, Emaar, Egypt
12. 2020 – Acoustic design of Auditoriums of the International law college – New Alamein city, Redcon, Egypt.
13. 2020 – Environmental Impact Assessment for Shell Egypt Deep Water Seismic Survey in the Mediterranean Sea, Environics.
14. 2020 – Acoustic and Vibration Design of the new Senator Building in New Capital, Engineering Consultants Group (ECG), Egypt.
15. 2020 – Acoustic and Vibration Design of the new Central Bank of Egypt in New Capital, Elite Interiors, Egypt.
16. 2020 – Design, manufacturing and commissioning of a test rig for the measurement of muffler performance with Flow, FORD Dunton Technical Center, United Kingdom.
17. 2020 – Acoustic and Lighting Design of Lecture Halls in Alamein University, Redcon Construction, Egypt.
18. 2019 – Acoustic Design of Mechanical Rooms in Al-Massa Alamein, Orascom Construction, Egypt.
19. 2019 – Acoustic and Vibration Design of the Railway Stations of the 10th of Ramadan Railway Project, China Railway Eryuan Engineering Group (CREEC), Egypt.
20. 2019 – Acoustic and Vibration Design of the new National Bank of Egypt in New Capital, Engineering Consultants Group (ECG), Egypt.
21. 2019 – Acoustic Study for Alexandria East Waste Water Treatment Plant (WWTP) Cogen Facility, Egyptrol, Egypt.
22. 2019 – Acoustic Design of New Opera House Project in New Capital, Orascom Construction, Egypt.
23. 2019 – Noise monitoring in South Helwan Power Station, Engineering Consultants Group (ECG), Egypt.
24. 2018 – Acoustic Study for PAGA system of Zohr project Phase 2, Giza Systems, Egypt.
25. 2018 – Noise Modeling and Acoustic Treatment Recommendation for Transfer Pumping Station, Trinity Environmental Consultancy International, UAE.
26. 2018 – Noise modeling for Phosphoric Acid plant in Abu Tartour, New Valley Governorate, Environics, Egypt.
27. 2018 – Acoustic Design for Arab Academy for Science and Technology new Campus in Alalamein, Engineering Consultants Group (ECG), Egypt.
28. 2018 – 3D scanning and stress analysis of 43 Monuments to be moved from the old Egyptian Museum to the New Egyptian Museum, Arab Contractors, Egypt.
29. 2018 – Design, manufacturing and commissioning of a test rig for the measurement of muffler performance with Flow, Honeywell Aerospace, USA.
30. 2018 – Measurements and Treatments Recommendation Services for Eldyar Elqatarya Building, Engineering Consultants Group (ECG), Egypt.
31. 2018 - Acoustic Design and Treatments Recommendation Services for Mivida School Project, Distance Studio Consultants (DSC), Egypt.

32. 2018 - Noise Modelling of Transfer Pumping station project-Qatar, Trinity Environmental Consultancy International, Qatar.
33. 2018 - Designing a Soundproof Enclosure for two models of generators, MANTRAC Group, Egypt.
34. 2018 - Sound and Vibration Design of Packaging Area at Lipton Factory, UNILEVER, Egypt.
35. 2018 - Noise modelling for the Ayoun Moussa USC Coal-fired Power Plant, Engineering Consultants Group (ECG), Egypt.
36. 2017 - 3D scanning and virtualization of the inner corridors inside Khufu Pyramid, leading to the discovery of a bug void above the grand gallery, ScanPyramids Project.
37. 2017 - Noise Impact Assessment Beni Suef Combined Cycle Power Plant, Siemens Elsewedy Electric.
38. 2017 - Noise Impact Assessment for an Exhibition Hall for Islamic culture Heritage for the General Directorate of Endowments in Qatar, UNii Engineering Consultancy, Qatar.
39. 2017 - Acoustic analysis of 3 CAT filters, Yara Marine Technologies AB, Sweden.
40. 2016 - Design, manufacturing and commissioning of a test rig for the measurement of muffler performance with Flow, FAW, China.
41. 2016 - Design, manufacturing and commissioning of a test rig for the measurement of muffler performance with Flow, SAIC, China.
42. 2016 - Noise baseline measurements for a number of Power Plants in Egypt, Damietta, Assiut, and Qena, Engineering Consultants Group (ECG).
43. 2016 - Acoustics consultation measurements for chiller units of a commercial mall in Marsilia compound, Alexandria.
44. 2016 - Acoustic study for PAGA system of Zohr project, CSI-Egypt.
45. 2016 - Noise Impact Assessment for Zekreet Phase-1 plant at Ras Lafan, Qatar, Trinity Environmental Consultancy, Qatar.
46. 2015 - Structural Design of an Engine-Alternator skid for power generation, Mantrac, Egypt.
47. 2015 - Acoustic Design and Treatments Recommendation Services for New National Cancer Institute Foundation "NNCIF" Project (Hospital 500500), Sheikh Zayed City, Egypt, Raafat Miller Consulting.
48. 2015 - Noise mapping for ElZaafarana wind turbine farm, Ain Shams University, Egypt.
49. 2015 - Thermal and Acoustics Re-design for some spaces inside the Grand Egyptian Museum, Orascom Construction.
50. 2014 - Design, manufacturing and commissioning of a test rig for the measurement of muffler performance with Flow, Umfotec, Germany.
51. 2014 - Structural Design of an Enclosure Shelter for Diesel Generator, Mantrac, Egypt.
52. 2013 - Design optimization of a passenger car exhaust system, TJFAW, China.
53. 2013 - KJO Noise Survey Program. Development of an Environmental Noise Division at KJO, noise survey and measurements for the whole site including on and off-shore facilities, Khafji Joint Operations, Saudi Arabia.
54. 2012 - Noise modeling and Noise study report for central processing facilities Phase I for Badra oil field, Iraq, Petrofac, UAE.
55. 2012 - Noise measurements and control for Anixas 22 MW Diesel Power Station, Walves Bay, Namibia, Barloworld Equipment, Namibia.
56. 2012 - Structural Design of an engine skid for Oil pump in Tazama, Tanzania.
57. 2011 - Validation of a Public Address / General Alarm System in a Tank farm, Dolphin Power, Qatar.
58. 2010 - Noise Impact Assessment for Saudi Aramco Jubail Export Refinery, Environmental Consulting Bureau, Saudi Arabia.

59. 2010 - Troubleshooting an existing Public Address / General Alarm System in a Tank farm, Qatar Construction Company QCON.
60. 2010 - Noise Mapping of Alsawah Island, Abu Dhabi, Ozone Intl., UAE.
61. 2009 - Propose and analyze new noise control solutions for Gas Turbines, General Electric, France.
62. 2009 - Modeling of Selective Catalytic Reducer (SCR) Systems, Wärtsilä, Finland.
63. 2009 - Measurement of Sound Power of Fan Coil Units to be installed in the new building for the Saudi Embassy in Cairo, Ministry of Foreign Affairs, Saudi Arabia.
64. 2009 - Noise impact study for underground Line number 4 in Greater Cairo, Japan International Cooperation Agency.
65. 2009 - Selection of Noise monitoring Terminals locations around Hurghada Airport, Egyptian Airport Co.
66. 2009 - Study of the mechanical stresses for sleeve pipes used to surround corroded parts of oil pipelines, Saudi Aramco, Saudi Arabia.
67. 2009 - Design of Advanced system to measure Sound Reduction Index of Building Materials according to ASTM E90, Materials Laboratory in Dubai.
68. 2009 - Design of Public Address / General Alarm System for Common Low Sulphur Condensate Storage & Export Facilities, Qatar Construction Company QCON.
69. 2008 - Noise Impact Assessment for El-Ezz Steel Plants at Ein Elsokhna, Environics, Egypt.
70. 2008 - Noise Impact Assessment for Abu Dabbab Mine at Safaga, Environics, Egypt.
71. 2008 - Conduct a parametric study using Finite Element Analysis of the variation the electrical impedance between 2 electrodes surrounded by fluids within a range of (Resistivity, fluid velocity, frequency) parameters, Saudi Aramco, Saudi Arabia.
72. 2008 - Noise Control of Air Conditioning Chillers on top of the building, Safeer Hotel, Egypt.
73. 2008 - Manufacturing and validation of muffler test rig elements. Measurements of acoustic properties of selected muffler elements, Caterpillar Technical Center, USA.
74. 2008 - Research and Development of a new theory for the prediction of the acoustic properties of big resistive mufflers, Wärtsilä, Finland.
75. 2008 - Noise Impact Assessment for a Refinery at Ein Elsokhna, Environics, Egypt.
76. 2007 - Design, implementation and personnel training for a system to measure Sound Reduction Index of Building Materials according to ASTM E90, Materials Laboratory in Dubai.
77. 2007 - Development of a software for the design of Diesel Engine exhaust systems installed on ships, Wärtsilä, Finland.
78. 2007 - Study on the noise control of the main pumping plant at Rod Elfarag (8 Pumps, each 1750 kW), Egyptian Company for Potable Water.
79. 2007 - Measurement of Sound Power of fan coil units according to ISO 3744, Egat Factory.
80. 2007 - Environmental Impact Assessment during the construction works of the new runway at Cairo International Airport, Cairo Airport Authority.
81. 2006 - Vibration measurements and monitoring during the project of relocation of Ramses II statue (weight = 83 tons, height = 12 m), Supreme Council for Antiquities in Egypt.
82. 2006 - Noise control in the packing area, Procter & Gamble – Egypt.
83. 2006 - Muffler Design and Measurement, Caterpillar Technical Center, USA.
84. 2005 - Acoustic Manipulation within the development of a computer software for Language Learning Impaired Children, Audiology Unit, ASU.
85. 2005 - Development of a Matlab Toolbox for the design of exhaust systems, Swenox AB, Sweden.
86. 1999 - Environmental Noise Assessment in Sidi Krer Power Generation Plant, Bechtel Co.

87. 1999 - Noise pollution assessment for International Airports in Egypt. (Aswan, Sharm Elsheikh, Elnozha and Taba International Airports), Egyptian Civil Aviation Authority.
88. 1998 - Vibration damping for textile machines located on the second floor of a concrete building, KasemTex Co., Egypt.
89. 1998 - Evaluation of the environmental consequences and effect on urban life of Sinbad Funfair, Ministry of the Environment in Egypt.
90. 1998 - Evaluation of the environmental consequences and effect on urban life of a natural gas pressure-reduction station while it is being built, National Gas Company.
91. 1997 - Design, manufacture and testing of a vibration-free rack mounted on trucks for the transportation of some electronic tools, Shlumberger Logelco Inc. in Egypt.

Engineering Services Projects in Mechanical Design

1. 2004 - Design of Ramses II statue transporter, Arab Contractors.
2. 1999 - Performing regular measurements on some imported Automotive spare parts, Egyptian Authority for Monitoring Exports & Imports.
3. 1998 - Design, manufacture and testing of a tilting mechanism of a rotary melting furnace and its fixation, A small Casting Factory.
4. 1998 - Reverse engineering for some spare parts, Philips Company.
5. 1997 - Participated in evaluation of an induction furnace and a continuous casting machine, Cairo Bank.
6. 1997 - Design, manufacture and testing of a mechanism to raise a railway bridge (weight = 170 tons, span = 34 m), Nile Contractors Co.
7. 1997 - Installation of an overhead crane (capacity = 10 tons, span = 12 m), Egyptian Army.
8. 1997 - Design, manufacture and testing of a material handling equipment (Jib crane: capacity = 0.5 tons, height = 4.5 m, reach = 4.5 m), Graduation Project.
9. 1995 - Design and manufacture of a centrifugal pump for irrigation, Student Project.

Teaching the Following Academic Courses

Machine Construction – Acoustics – Mechanical Vibrations – Stress Analysis – Systems' Modeling and Simulation - Mechatronics Machine Design.

Organized Workshops and Other Scientific Events

1. Smart-Learn 2018: Learning for Tomorrow, 8-9 Oct 2018.
2. ICT-Learn 2017: 11th International Conference and Exhibition on e-Learning and Education Technology; Towards a Smart Learning Society, 5-6 Dec 2017.
3. e-Learning to Support Education in Egypt. Smart Innovative Solutions: e-Laboratories, Cairo, 15 Dec 2014.
4. Progress Meeting for FP7 ITN Project: Silent Air Flows in transport, buildings, and power generation (FlowAirS), 31 Nov 2014.
5. International Workshop on Acoustics and Vibration in Egypt (IWAVE2014) [The Tenth Swedish-Egyptian Workshop in Sound and Vibration Research], Cairo, 29-30 Nov 2014.
6. Exhaust/Intake Systems for General Aviation Applications, Innsbruck, Austria, 19 Sep 2013.
7. International Workshop on Acoustics and Vibration in Egypt (IWAVE2012) [The Ninth Swedish-Egyptian Workshop in Sound and Vibration Research], Cairo, 13-14 Oct 2012.
8. International Workshop on Acoustics and Vibration in Egypt (IWAVE2011) [The Eighth Swedish-Egyptian Workshop in Sound and Vibration Research], Cairo, 22-23 Oct 2011.
9. The 17th International Congress in Sound and Vibration (ICSV17), Cairo, 18-22 Jul 2010.

10. International Workshop on Acoustics and Vibration in Egypt (IWAVE2009) [The Seventh Swedish-Egyptian Workshop in Sound and Vibration Research], Cairo, 24-25 Oct 2009.
11. 1st COMSOL Users Conference in the Arab Countries, Dhahran, Saudi Arabia, 26-27 Jan 2009.
12. International Workshop on Acoustics and Vibration in Egypt (IWAVE2008) [The Sixth Swedish-Egyptian Workshop in Sound and Vibration Research], Cairo, 11-12 Oct 2008.
13. International Workshop on Acoustics and Vibration in Egypt (IWAVE2007) [The Fifth Swedish-Egyptian Workshop in Sound and Vibration Research], Cairo, 8-9 Sep 2007.
14. International Workshop on Acoustics and Vibration in Egypt (IWAVE2006) [The Fourth Swedish-Egyptian Workshop in Sound and Vibration Research], Cairo, 4-5 Nov 2006.
15. International Workshop on Acoustics and Vibration in Egypt (IWAVE2005) [The Third Swedish-Egyptian Workshop in Sound and Vibration Research], Cairo, 30 Sep – 1 Oct 2005.
16. The Second Swedish-Egyptian Workshop in Sound and Vibration Research. Cairo – Alexandria, 27-29 Nov 2004.

Organized and lectured in the following short courses

During my PhD Study, I have gained good experience in the field of the Acoustic Design of Mufflers. Since 2005 to date, I have been involved in teaching several courses in several countries related to ducts, mufflers and general topics related to noise control.

1. 26 Aug 2018, Acoustic Design of Mufflers, Inter-Noise 2018, Chicago, USA.
2. 20-22 Aug 2018, Acoustic Design of Mufflers, Naval Nuclear Laboratory - Bettis Laboratory, Pittsburgh, USA.
3. 27 May 2018, Acoustic Design of Mufflers, Euro-Noise 2018, Crete Greece.
4. 4-5 May 2017, Acoustic Design of Mufflers, Università degli Studi di Brescia, Brescia, Italy.
5. 8 Sep 2016, Acoustic Design of Mufflers, ICA2016, Catholic University of Argentina, Buenos Aires, Argentina.
6. 12-13 May 2016, Acoustic Design of Mufflers, The University of Kentucky, Lexington, KY, USA.
7. 20-22 Oct 2015, Acoustic Design of Mufflers, Vibrattec, Lyon, France.
8. 13 Aug 2015, Acoustic Design of Mufflers, Internoise 2015, San Francisco, CA, USA
9. 26 Jun 2015, Acoustic Design of Mufflers, SAE 2015 Noise and Vibration Conference and Exhibition, Grand Rapids, MI, USA
10. 2-4 Dec 2014, Passive Noise Control, FlowAirS Initial Training Network workshop, funded by EU, Cairo, Egypt.
11. 19-21 Nov 2014, Acoustic Design of Mufflers, Great Lakes Sound & Vibration, USA.
12. 18 Nov 2014, Acoustic Design of Mufflers, Textron Systems, USA.
13. 11-12 Jul 2014, Acoustic Design of Mufflers, ACE Alfaris FZC, Dubai, UAE.
14. 1-3 April 2014, Acoustic Design of Mufflers, Vibrattec, Lyon, France.
15. 15 Sep 2013, Acoustic Design of Mufflers, Internoise 2013, Innsbruck, Austria
16. 17-18 Sep 2012, Acoustic Design of Mufflers, Shanghai, China
17. 19 Aug 2012, Acoustic Design of Mufflers, Internoise 2012, New York, USA
18. 13-14 May 2012, Ray and Room Acoustics, ASU Sound & Vibration Lab., Cairo.
19. 22-23 Apr 2012, Human Factors issues in design and development of virtual environments for education, South Valley University, Aswan.
20. 6-8 Feb 2012, Digital Signal Processing, Rotating Machinery and Sound Quality, ASU Sound & Vibration Lab., Cairo.

21. 1-2 Nov 2011, Sound in pipes and ducts - analysis and design of low noise systems, Grand Rapids, MI, USA
22. 14-15 Sep 2011, Acoustic Design of Mufflers, The Royal Institute of Technology, Stockholm.
23. 16-17 Oct 2010, Acoustic Design of Mufflers, SAE-Brazil, Florianopolis
24. 10-12 May 2010, Acoustic and Vibration Measurements, ASU Sound & Vibration Lab., Cairo.
25. 5-6 May 2010, Modal Analysis, ASU Sound & Vibration Lab., Cairo.
26. 26-27 Oct 2009, Vibration Isolation, Theory and Practice, ASU Sound & Vibration Lab., Cairo.
27. 20-22 Oct 2009, Acoustic Design of Mufflers, Abouelyazeed Mufflers Company, 6th October City.
28. 18-19 Oct 2009, Signal Analysis Techniques, ASU Sound & Vibration Lab., Cairo.
29. 10-13 Dec 2008, Machine Noise Control and Acoustic Design of Muffler, Indian Institute of Technology in New Delhi (IIT-Delhi), India.
30. 19, 20 Nov 2008, Acoustic Design of Mufflers, The Royal Institute of Technology, Stockholm.
31. 12, 13 Sep 2007, Acoustic Design of Mufflers, ASU Sound & Vibration Lab., Cairo.
32. 5-7 Sep 2007, Machine Noise & Vibration Control, ASU Sound & Vibration Lab., Cairo.
33. 19-21 Jun 2007, Vibration Measurement, ASU Sound & Vibration Lab., Cairo.
34. 12-14 Jun 2007, Vibration Measurement, ASU Sound & Vibration Lab., Cairo.
35. 30 May 2007, Acoustics and Noise Control, Saudi Aramco, Dhahran, SA.
36. 26-27 May 2007, Finite Element Modeling using COMSOL Multiphysics, Saudi Aramco, Dhahran, SA.
37. 23-25 Dec 2006, Machine Condition Monitoring, ASU Sound & Vibration Lab., Cairo.
38. 7-9 Nov 2006, Machine Condition Monitoring, ASU Sound & Vibration Lab., Cairo.
39. 1-10 Sep 2006, Introduction to MATLAB, ASU Sound & Vibration Lab., Cairo.
40. 15-17 Jul 2006, Finite Element Modeling using COMSOL Multiphysics, SABIC Research and Technology, Riyadh, SA.
41. 21-23 Mar 2006, Insight into Engineering Noise Control, ASU Sound & Vibration Lab., Cairo.
42. 11-13 Mar 2006, Introductory Course in Building Acoustics, ASU Sound & Vibration Lab., Cairo.
43. 6-8 Aug 2005, Finite Element Modeling using COMSOL Multiphysics, King Abdulaziz City for Science and Technology (KACST), Riyadh, SA.

Guest Lecturer

1. 25 Jun 2015, Exhaust/Intake Silencer Design, SAE 2015 Noise and Vibration Conference and Exhibition.
2. 21-22 Dec 2014, Dynamics of Wind Turbines, Joint Egyptian-Jordanian Workshop on Technical and Research Collaboration.
3. 25 Nov 2014, Tempus Success Story in Egypt: e-laboratories for Physics and Engineering Education, National Tempus Information Day, Cairo, Egypt.
4. 29 Jun 2014, Modeling of Acoustics in Duct Networks, ASHRAE Technical Committee 2.6 Meeting: Sound & Vibration Control. 2014 ASHRAE Annual Conference, Seattle, USA.
5. 23 Apr 2014, Multidisciplinary efforts for the development of e-laboratories in education, The Interdisciplinary & Multidisciplinary Studies and the Needs of the Labor Market Conference, Ain Shams University, Cairo.
6. 19 May 2013, Modeling Sound in Ducts in High Frequency using Two-Ports, Vibro-Acoustic Consortium (VAC) regular workshop, Grand Rapids, MI, USA.
7. 27 Apr 2013, Environmental and Industrial Acoustics, Egyptian Engineering Syndicate, Cairo, Egypt.
8. 13 Jan 2013, Tempus Success Story in Egypt: Innovative Education Solutions at Ain Shams University, National Tempus Information Day, Cairo, Egypt.

9. 20 Sep 2012, Recent Advances in Muffler Design, Automotive Testing Expo Shanghai 2012, China.
10. 23 May 2012, Recent Advances in Muffler Design, The 2nd Science and Technology Festival – NVH Technology Forum, Great Wall Motors, Baoding, China.
11. 3 Nov 2011, Flow Generated Noise in Duct Systems and Mufflers, Vibro-Acoustic Consortium (VAC) regular workshop, St. Charles, IL, USA.
12. 16 May 2011, Muffler Optimization for a Truck Exhaust System, Vibro-Acoustic Consortium (VAC) regular workshop, Grand Rapids, MI, USA.
13. 4 Nov 2010, Measurement of Diesel Particulate Filter Transmission Loss with Flow, Vibro-Acoustic Consortium (VAC) regular workshop, St. Charles, IL, USA.
14. 18 Jan 2010, Tempus success story in Egypt: Sound and Vibration Education at Ain hams University, National Tempus Information Day, Cairo, Egypt.
15. 21-27 Mar 2009, Finite Element Modeling using COMSOL Multiphysics, Guest Researcher for one week, Mechanical Engineering Department, Kuwait University, Kuwait.
16. 22 Jan 2009, Swedish Egyptian Co-operation in Sound and Vibration, National Tempus Information Day, Stockholm, Sweden.
17. 22-23 Dec 2008, Design of Engineering Labs for Sound and Vibration Education, Expert in a Tempus Project on New Curriculum in CAD/CAE/CAM and Computer Modeling at Tashkent Automotive Road Institute (TARI), Tashkent, Uzbekistan.
18. 5 Nov 2008, A Test Rig for Measuring Muffler Performance with Flow, Vibro-Acoustic Consortium (VAC) regular workshop, Indianapolis, IN, USA.
19. 14 Jul 2008, Noise Impact Studies in Egypt, Examples, Environmental Impact Assessment in Egypt, National Research Center, Cairo, Egypt.
20. 31 Aug 2007, Noise Polices in Egypt, Workshop on Noise Polices in Developing Countries, Istanbul, during Internoise 2007.
21. 26 May 2007, A proactive approach to functional performance engineering, Vibration Institute, Saudi Arabia Local Chapter Meeting, Dhahran, Saudi Arabia.
22. 10 May 2007, Use of LABVIEW in teaching sound and vibration courses, National Instruments Academic Day, Beirut.
23. 2 Nov 2006, Swedish-Egyptian Cooperation in Sound and Vibration, Tempus Contact Seminar Egypt-Sweden. Organized by the National Tempus Office in Egypt and the International Program Office in Sweden, Cairo.
24. 19 Apr 2006, Computer-Based Measurements of Sound and Vibration for Education and Research, Computer Based Measurement and Automation for Industrial Applications. Organized by Akhbar Elyoum Academy and National Instruments Arabia, Cairo.
25. 2006 – 2007, Passive Acoustic Damping Inside Ducts, Postgraduate course on Special Topics in Aircraft Structures: Passive damping. Cairo University, Aerospace Department.

Supervised Theses

Ph.D.

Year	University	Name	Title
--	Royal Institute of Technology, SWE	Mina Wagih	Acoustic Design of Heating, Ventilation and Air Conditioning (HVAC) Systems
2008	Cairo University	Walid El-Sallamy	Active Noise Control in Flow Ducts
2016	Royal Institute of Technology, SWE	Maaz Farooqui	Innovative techniques for sound reduction inside ducts.

Licenciate

Year	University	Name	Title
2012	Royal Institute of Technology, SWE	Sara Elsaadany	Investigation and Optimization of the acoustic performance of the Exhaust Systems

M.Sc.

Year	University	Name	Title
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2018	Ain Shams Univ.	Mohamed Gaber	360 Degree Sound Source Localization in Free Field
2017	Cairo University	Ahmed AboSrea	Muffler Design Optimization for Cost Reduction
2016	Ain Shams Univ.	Ahmed Hisham	Testing of segmented wind turbine blade.
2015	Ain Shams Univ.	Eman Zidan	Noise Impact Assessment of Wind Turbines
2014	Ain Shams Univ.	Weam Elshahar	1D Modeling of Heat Transfer in duct networks using two-ports
2014	Ain Shams Univ.	Ahmed Okasha	Analysis of pressure pulsations in pipeline networks to prevent vibration induced failures
2014	Ain Shams Univ.	Mina Wagih	Modeling of Duct Acoustics in the High Frequency Range Using Power Method
2009	Ain Shams Univ.	Sara Elsaadany	On the Simulation of Sound Propagation Inside Ducts
2009	Ain Shams Univ.	Moustafa Mahmoud	Acoustic Source Localization using Microphone Arrays

B.Sc.

Year	University	Number of Students	Title
2012	Ain Shams Univ.	5	Web-based controlled machines
2012	Ain Shams Univ.	8	Data Acquisition and analysis of pressure variations in Oil & Gas pipeline networks
2011	Ain Shams Univ.	5	Development of a Flight Simulator in Virtual Reality
2011	Ain Shams Univ.	3	Wind Turbine Control Schemes aiming at providing reliable and stable generated power
2011	Ain Shams Univ.	7	Design and Development of an Omni-directional Treadmill
2011	Ain Shams Univ.	4	Development of Student Experiments in Virtual Reality
2010	Ain Shams Univ.	4	Design and Development of an Active Vehicle Suspension System
2010	Ain Shams Univ.	5	Modeling Of Public Transport Vehicle Using Virtual Reality
2010	Ain Shams Univ.	5	Modeling of Robotic Cells in Virtual Reality
2009	Ain Shams Univ.	5	Modeling Vehicle Dynamics in Virtual Reality
2009	Ain Shams Univ.	5	Using Virtual Reality in the Design of Centrifugal Pumps
2009	Ain Shams Univ.	4	Modeling and Simulation of Sound Propagation in Virtual Reality
2009	Ain Shams Univ.	2	Drawing Cairo City Noise Map
2008	Ain Shams Univ.	12	Balancing Machine
2008	Ain Shams Univ.	5	Environmental Noise Control
2008	Ain Shams Univ.	4	Modeling of Perforates Inside Mufflers for Acoustic Attenuation
2008	Ain Shams Univ.	3	Finite Element Modeling of Non-Conventional Transporters

Training Experience and Attended Courses

At the beginning of my career, I have attended different courses in different domains.

1. 2015 (2 days) – Strategic Planning, Ain Shams University.
2. 2015 (2 days) – Ethics of Profession, Ain Shams University.
3. 2015 (2 days) – Communication Skills in different Education Patterns, Ain Shams University.
4. 2010 (3 days) – Organization of Scientific Conferences, Ain Shams University.
5. 2009 (3 days) – Ethics of Scientific Research, Ain Shams University.
6. 2009 (3 days) – Management of Research Team, Ain Shams University.
7. 2007 (3 days) – The Credit Hour System, Ain Shams University.
8. 2006 (3 days) – Publishing Research Articles in International Journals, Ain Shams University.
9. 2006 (3 days) – Effective Management of Meetings, Ain Shams University.
10. 2005 (3 days) – Advanced Noise Control Course, The Institute of Sound and Vibration Research (ISVR).
11. 2005 (3 days) – Vibration Isolation Course, The Institute of Sound and Vibration Research (ISVR).

12. 2003 (3 days) – I-RITE (Integrating Research Into the Teaching Environment) program. How to communicate research to non-experts, Stanford University, CA, USA. Held at KTH, Stockholm. (<http://www.stanford.edu/group/i-rite/statements/2003/elny.html>)
13. 2003 (2 days) – A course on FEMLAB, Introduction and advanced Modeling, COMSOL, Sweden.
14. 2001 (5 days) – A course on Aeroacoustic Theories and Modeling, Technical University in Eindhoven, Netherlands.
15. 1997 (5 days) – A course in Modal Testing for Vibration Analysis, Vibration Institute USA (Cairo).
16. 1996 (75 days) – Developing software to increase Capacity Utilization of Syndets production line. Developing Process Training on Syndets production, Procter & Gamble - Egypt.

Non-Academic Activities

Field	Activities
Sports	<ul style="list-style-type: none"> • Judo, Football, Swimming, Tennis, Horse-Riding and Innebandy. • Champion of Egypt in Judo (1992, 1996). Member of the Egyptian National Team (1992-1997). • Carrier of Black Belt in Judo (2nd Dan). • Swedish Elit license in Judo refereeing. • Building and Flying Remote-Controlled Model Aircrafts.
Youth Conferences	<ul style="list-style-type: none"> • Attending an Environmental Youth Conference in Greece organized by the European Union representing Egypt (1997). • Participating in the 3rd Egyptian International Model European Union (EIMEU'98) as the Delegate of Spain, Euro-Mediterranean dialogue; organized by CDAEEY (The Cooperation and Development Association for Egyptian and European Youth) (1998). • Participating in the Outreach Program – Training course on the tools of environmental education, organized by CDAEEY (1999).
University	<ul style="list-style-type: none"> • Member of Student's Union (1993 – 1997). • President of Sports Committee in the Students' Union (1997). • Editor of the Mechanical Department Newsletter, printed monthly (1998 – 2000). • Organizer of Athletic Games between students and lecturers (1999 – 2000).