Prof. MEHMET ÇALIŞKAN

Personal Information

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Education Information

Doctorate, North Carolina State University, Makina Mühendisliği, United States Of America 1976 - 1982

Academic Titles / Tasks

Professor, Middle East Technical University, Faculty of Engineering, Makine Mühendisliği Bölümü, 1973 - Continues

Advising Theses

ÇALIŞKAN M., Acoustic evaluation of the surp yerrortutyun church and acoustical proposals for its multi-functional use, Postgraduate, V.CANGÜR(Student), 2022
ÇALIŞKAN M., Random vibration analysis of an optomechanical system mounted on an air platform, Postgraduate, E.YALÇIN(Student), 2022
ÇALIŞKAN M., Estimation of heating, ventilation and air conditioning(HVAC) noise levels in hospitals, Postgraduate, M.Eroğlu(Student), 2019
ÇALIŞKAN M., Acoustic fatigue procedure validation and application on cavity wall, Postgraduate, Z.Küden(Student), 2019
ÇALIŞKAN M., Interior noise analysis of a rotary wing aircraft by hybrid statistical energy and finite element analysis, Postgraduate, R.Hilmi(Student), 2018
ÇALIŞKAN M., Numerical and analytical investigation of aerosol acoustics through ducts, Doctorate, E.Arslan(Student), 2017
ÇALIŞKAN M., Prediction of sound transmission characteristics of multiple elastomeric bulb seals, Postgraduate, B.Nebil(Student), 2017
ÇALIŞKAN M., Prediction of ground borne vibrations due to railway traffic, Doctorate, S.Alan(Student), 2016
CİĞEROĞLU E., ÇALIŞKAN M., Modeling and experimental verification of dynamic characteristics antenna structure under mechanical shock using MDOF model, Postgraduate, Y.Emre(Student), 2015
ÇALIŞKAN M., AKKÖK M., Experimental and analytical determination of friction torque of a double row roller slewing bearing, Postgraduate, A.Dindar(Student), 2015
ÇALIŞKAN M., Shock analysis of an antenna structure subjected to underwater explosions, Postgraduate, M.Emre(Student), 2015
ÇALIŞKAN M., Sound power level prediction in ducted heating, ventilating and air conditioning systems, Postgraduate, C.Yayladere(Student), 2014
ÇALIŞKAN M., ÖZGEN G. O., Vibration isolation module for a towed array, Postgraduate, Ö.Batmaz(Student), 2014
ÇALIŞKAN M., A Pilot study on the development of a new sustainable sound absorbing material, Postgraduate,

S.Avgın(Student), 2014
ÇALIŞKAN M., Numerical and experimental investigation of tubeaxial fan noise, Postgraduate, A.Bodur(Student), 2014
ÇALIŞKAN M., Optimization of design parameter for tonpilz type transducers, Postgraduate, M.Çiçek(Student), 2014
ÇALIŞKAN M., Design of a shock absorber for weapon systems, Postgraduate, E.Canik(Student), 2014
ÇALIŞKAN M., Design and implementation of an annular acoustic levitation system, Postgraduate, M.Hakan(Student), 2014
ÇALIŞKAN M., Energy harvesting from piezoelectric stacks via impacting beam, Postgraduate, Y.Özpak(Student), 2014
ÇALIŞKAN M., Numerical and experimental analysis of dissipative silencer coupled with quarter wave tube, Postgraduate, A.Dinçer(Student), 2013
ÇALIŞKAN M., Predictions on absorption and scattering characteristics of acoustic scatterers modified with micro-perforated panels, Postgraduate, E.Odabaş(Student), 2012
ÇALIŞKAN M., Prediction of noise transmission in a submerged structure by statistical energy analysis, Postgraduate, B.Cavcar(Student), 2012
ÇALIŞKAN M., Piezoelectric energy harvesting for munitions applications, Postgraduate, K.Ersoy(Student), 2011
BAKER D. K., ÇALIŞKAN M., A methodology for designing tonpilz-type transducers, Postgraduate, K.Çepni(Student), 2011
ÇALIŞKAN M., Noise source identification and adoption of proper noise control strategies on wheeled tractors, Postgraduate, M.Balaban(Student), 2010
ÇALIŞKAN M., A new method to measure vehicle pass-by noise in a finite dimensioned semi-anechoic room, Postgraduate, E.Arslan(Student), 2010
ÇALIŞKAN M., Acoustically induced stress analysis of center fuselage skin panels of a basic training aircraft using statistical energy analysis, Postgraduate, İ.Kurtoğlu(Student), 2009
ÇALIŞKAN M., Interior and exterior noise analysis of a single engine propeller aircraft using statistical energy analysis method, Postgraduate, U.Kiremitçi(Student), 2009
ÇALIŞKAN M., Model updating of a helicopter structure using a newly developed correlation improvement technique, Postgraduate, F.Altunel(Student), 2009
ÇALIŞKAN M., Development of an effective single layer micro-perforated sound absorber, Postgraduate, O.Önen(Student), 2008
ÇALIŞKAN M., Assessment of hand-type hammer drill bits under percussive loading, Postgraduate, O.Koray(Student), 2007
ÇALIŞKAN M., Modeling of ground-borne vibration from underground railway systems, Postgraduate, M.Sarıgöl(Student), 2007
ÇALIŞKAN M., Damage detection in beams by wavelet analysis, Postgraduate, H.Yanılmaz(Student), 2007
ÇALIŞKAN M., Acoustical analysis and design of horn type loudspeakers, Postgraduate, A.Ünal(Student), 2006
ÇALIŞKAN M., Cepstral deconvolution method for measurement of absorption and scattering coefficients of materials, Postgraduate, G.Aslan(Student), 2006
ÇALIŞKAN M., Fatigue life calculation by rainflow cycle counting method, Postgraduate, S.Arıduru(Student), 2004
ÇALIŞKAN M., Noise path identification for vibro-acoustically coupled structures, Doctorate, A.Hakan(Student), 2004
ÇALIŞKAN M., Determination of vibroacoustical behavior of plates by intensity methods, Postgraduate, M.İnalpolat(Student), 2004
ÇALIŞKAN M., Boundary element-finite element acoustic analysis of coupled domains, Doctorate, B.İrfanoğlu(Student), 2004
BAKIRER Ö., ÇALIŞKAN M., Acoustical properties of classical Ottoman mosques: simulation and measurements, Doctorate, İ.Levent(Student), 2003
ÇALIŞKAN M., Computer aided noise prediction in heating, ventilating and air conditioning systems, Postgraduate, F.Emre(Student), 2003
ÇALIŞKAN M., Investigation of fluid structure coupling in enclosed spaces by finite element methods, Postgraduate, Y.Haldun(Student), 2002
ÇALIŞKAN M., Evaluation of sound quality parameters in noise control studies., Postgraduate, K.Somer(Student), 2002
ÇALIŞKAN M., Statistical energy analysis of vibro acoustic systems, Postgraduate, S.Çetin(Student), 2001
ÇALIŞKAN M., A study on outdoor sound propagation: A computer implementation to predict sound pressure levels in open air, Postgraduate, Ö.Çakır(Student), 1999

ÇALIŞKAN M., Scale models and computer simulations for predicting acoustics of enclosures, Postgraduate, B.Aşan(Student), 1997
ÇALIŞKAN M., Acoustical design principles in multipurpose auditoria, Postgraduate, D.Gülhan(Student), 1997
ÇALIŞKAN M., Study on acoustical characteristics of The METU Convention and Cultural Complex, Postgraduate, G.Hakyemez(Student), 1997
ÇALIŞKAN M., Shaping of sound fileds inside acoustoelastically coupled enclosed spaces, Doctorate, A.Gönenç(Student), 1997
ÜNLÜSOY Y. S., ÇALIŞKAN M., An integrated FEM/BEM approach to the prediction of interior noise levels of vehicle body structures, Doctorate, Ş.Kopuz(Student), 1995
ÇALIŞKAN M., Active minimization of acoustic potential energy inside the structurally coupled enclosed spaces, Postgraduate, A.Gönenç(Student), 1991
ÇALIŞKAN M., A new method for the measurement of acoustic properties by cepstral analysis, Postgraduate, A.Canlı(Student), 1991
ÇALIŞKAN M., Analysis of sound field in enclosed spaces by ray tracing technique, Postgraduate, L.Topaktaş(Student), 1990
ÇALIŞKAN M., Analysis of sound field in enclosed spaces by method of image sources, Postgraduate, M.Sorguç(Student), 1990
AKKÖK M., ÇALIŞKAN M., An investigation into rolling element bearing diagnostics via digital signal processing, Postgraduate, M.Cem(Student), 1989
ÇALIŞKAN M., Multichannel signal analysis software for sound and vibration research, Postgraduate, R.Rauf(Student), 1989
ÇALIŞKAN M., Errors in determination of sound power of spheroidal bodies under exact free-field conditions, Postgraduate, A.Hakan(Student), 1987
ÇALIŞKAN M., An experimental and analytical investigation of cam follower jump phenomenon, Postgraduate, Ş.Şen(Student), 1987

Published journal articles indexed by SCI, SSCI, and AHCI

I. **Diffusion equation modeling for sound energy flow analysis in multi domain structures**
GÜL Z. S., Odabas E., Xiang N., ÇALIŞKAN M.
JOURNAL OF THE ACOUSTICAL SOCIETY OF AMERICA, vol.145, no.4, pp.2703-2717, 2019 (SCI-Expanded)
II. **Three dimensional axisymmetric sound propagation through a duct with aerosol**
Arslan E., ÇALIŞKAN M., ÖZYÖRÜK Y.
JOURNAL OF SOUND AND VIBRATION, vol.434, pp.261-272, 2018 (SCI-Expanded)
III. **Assessment of Acoustical Indicators in Multi-domed Historic Structures by Non-exponential Energy Decay Analysis**
GÜL Z. S., ÇALIŞKAN M., TAVUKÇUOĞLU A., Xiang N.
ACOUSTICS AUSTRALIA, vol.46, no.2, pp.181-192, 2018 (SCI-Expanded)
IV. **Diffusion Equation-Based Finite Element Modeling of a Monumental Worship Space**
Gul Z. S., Xiang N., ÇALIŞKAN M.
JOURNAL OF COMPUTATIONAL ACOUSTICS, vol.25, no.4, 2017 (SCI-Expanded)
V. **Experimental Determination and Analytical Model of Friction Torque of a Double Row Roller Slewing Bearing**
Dindar A., AKKÖK M., Caliskan M.
JOURNAL OF TRIBOLOGY-TRANSACTIONS OF THE ASME, vol.139, no.2, 2017 (SCI-Expanded)
VI. **Numerical Analysis of One-Dimensional Sound Propagation Through a Duct Containing Water Droplets**
Arslan E., ÖZYÖRÜK Y., ÇALIŞKAN M.
JOURNAL OF COMPUTATIONAL ACOUSTICS, vol.25, no.1, 2017 (SCI-Expanded)
VII. **Standing wave acoustic levitation on an annular plate**

Kandemir M. H., ÇALIŞKAN M.
JOURNAL OF SOUND AND VIBRATION, vol.382, pp.227-237, 2016 (SCI-Expanded)

VIII. **A Correlation Improvement Technique for Model Updating of Structures**
Altunel F., Celik M., ÇALIŞKAN M.
INTERNATIONAL JOURNAL OF STRUCTURAL STABILITY AND DYNAMICS, vol.16, no.8, 2016 (SCI-Expanded)

IX. **Investigations on sound energy decays and flows in a monumental mosque**
Gul Z. S., Xiang N., ÇALIŞKAN M.
JOURNAL OF THE ACOUSTICAL SOCIETY OF AMERICA, vol.140, no.1, pp.344-355, 2016 (SCI-Expanded)

X. **Impact of design decisions on acoustical comfort parameters: Case study of Dogramacizade Ali Pasa Mosque**
Gui Z. S., ÇALIŞKAN M.
APPLIED ACOUSTICS, vol.74, no.6, pp.834-844, 2013 (SCI-Expanded)

XI. **Analysis of near field sound radiation from a resonant unbaffled plate using simplified analytical models**
Inalpolat M., ÇALIŞKAN M., Singh R.
NOISE CONTROL ENGINEERING JOURNAL, vol.58, no.2, pp.145-156, 2010 (SCI-Expanded)

XII. **Design of a single layer micro-perforated sound absorber by finite element analysis**
Onen O., ÇALIŞKAN M.
APPLIED ACOUSTICS, vol.71, no.1, pp.79-85, 2010 (SCI-Expanded)

Articles Published in Other Journals

I. **Geçmişten Günümüze Süleymaniye Camii Akustiği**
Sü Gül Z., Çalışkan M., Tavukçuoğlu A.
Megaron, vol.9, no.3, pp.201-216, 2014 (Peer-Reviewed Journal)

Refereed Congress / Symposium Publications in Proceedings

I. **Perforated Panel System Proposal for Variable Acoustic Solutions**
Eşmebaşı M., TANYER A. M., ÇALIŞKAN M.
INTER-NOISE 2017 - 46th International Congress and Exposition on Noise Control Engineering, ÇİN HALK CUMHURİYETİ HONG KONG ÖZEL İDARİ BÖLGESİ, 27 - 30 August 2017

II. **A Discussion on the Acoustics of Süleymaniye Mosque for its original state**
Sü Gül Z., Tavukçuoğlu A., Çalışkan M.
MONUBASIN 9- 9th International Symposium on the Conservation of Monuments in the Mediterranean Basin - Improvements in Conservation and Rehabilitation – Integrated Methodologies, Ankara, Turkey, 3 - 05 June 2014, pp.359-369

III. **Numerical study of mean flow effect on sound propagation through an aerosol**
Arslan E., ÇALIŞKAN M., ÖZYÖRÜK Y.
172nd Meeting of the Acoustical Society of America, Hawaii, United States Of America, 28 November - 02 December 2016, vol.29

IV. **Sound transmission analyses of impacts of wall renovation for traditional timber framed dwellings**
Erdil M., Tavukçuoğlu A., Çalışkan M.
Internoise- 2016, Hamburg, Germany, 21 - 24 August 2016, pp.3631-3639

V. **Investigation of Sound Transmission Loss of an Automotive Door Sealing System byUsing FEA**
Atamer S., Kandemir M. H., Barutçu B. N., Çalışkan M., Özgen G. O., Altınsoy E.
Fortschritte der Akustik - DAGA 2016. 42. Jahrestagung für Akustik DAGA 2016, 14.-17. März 2016, Aachen, Aachen, Germany, 14 - 17 March 2016

VI. **Shock Response of an Antenna Structure Considering Geometric Nonlinearity**

Ozcelik Y. E., CİĞEROĞLU E., ÇALIŞKAN M.
34th IMAC Conference and Exposition on Structural Dynamics, Florida, United States Of America, 25 - 28 January 2016, pp.47-59

VII. **Implementation of finite difference method in frequency domain for solving 1 D sound propagation problem in air containing water droplets**
ARSLAN E., ÖZYÖRÜK Y., ÇALIŞKAN M.
The 12th International Conference on Theoretical and Computational Acoustics 2015, Hangzhou, Zhejiang, China, 11 - 16 October 2015

VIII. **The role of pore structure in sound absorption performance of lime based plasters**
Meric Nursal I., Tavukçuoğlu A., Çalışkan M.
INTER-NOISE 2015 - 44th International Congress and Exposition on Noise Control Engineering, California, United States Of America, 9 - 12 August 2015, pp.1-10

IX. **ACOUSTIC LEVITATON OF AIR-FILLED SHELL-TYPE MATERIALS**
Kandemir M. H., ÇALIŞKAN M.
22nd International Congress on Sound and Vibration (ICSV), Florence, Italy, 12 - 16 July 2015

X. **A methodology for designing tonpilz type transducers**
çepni k., BAKER D. K., ÇALIŞKAN M.
3rd International Conference and Exhibition on Underwater Acoustics, 21 - 26 June 2015

XI. **Assessment of sound transmission characteristics of traditional timber framed dwellings in Ankara Turkey**
Erdil M., Tavukçuoğlu A., Çalışkan M.
EuroNoise 2015 - 10th European Congress and Exposition on Noise Control Engineering, Maastricht, Netherlands, 1 - 03 June 2015, pp.967-972

XII. **Assessment of sound transmissiion characteristics of tradtional timber framed dwelllings in Ankara Turkey**
Erdil M., Tavukçuoğlu A., Çalışkan M.
Euronoise 2015, Maastricht, Netherlands, 31 May - 03 June 2015, pp.967-972

XIII. **Energy Harvesting from Piezoelectric Stacks Using Impacting Beam**
Ozpak Y., Aykan M., ÇALIŞKAN M.
33rd IMAC Conference and Exposition on Structural Dynamics, Florida, United States Of America, 2 - 05 February 2015, pp.25-37

XIV. **Prediction of sound transmission through elastomeric bulb seals**
Atamer S., Çalışkan M., Özgen G. O.
43rd International Congress on Noise Control Engineering: Improving the World Through Noise Control, INTERNOISE 2014, Melbourne, Australia, 16 - 19 November 2014

XV. **Tarihi Türk hamamlarının akustik nitelikleri: özgün hali ve bugünkü durumu**
Tavukçuoğlu A., Aydın A., Çalışkan M.
TAKDER 9. Ulusal Akustik Kongresi, Ankara, Turkey, 26 - 27 May 2011, pp.1-10

XVI. **Acoustical design of inner galleries in heydar aliyev center**
Sü-Gül Z., ÇALIŞKAN M.
20th International Congress on Acoustics 2010, ICA 2010 - Incorporating the 2010 Annual Conference of the Australian Acoustical Society, Sydney, Australia, 23 - 27 August 2010, vol.4, pp.2532-2538

XVII. **Prediction of Vibro-Acoustic Response of Enclosed Spaces by Using Structural Modification Techniques**
Demirkan O., BAŞDOĞAN F. İ., ÖZGÜVEN H. N., ÇALIŞKAN M.
International Conference on Noise and Vibration Engineering (ISMA)/Conference of USD, Leuven, Belgium, 20 - 22 September 2010, pp.4293-4306

Supported Projects

DUMAN A., MERIÇ NURSAL I., ALEESSA ALAM B., GÜNEY B. A., ERDİL M., ÇALIŞKAN M., Project Supported by Higher Education Institutions, KİREÇ ESASLI SIVALARIN SES YUTMA ÖZELLİKLERİ İLE GÖZENEK YAPILARI ARASINDAKİ İLİŞKİNİN İNCELENMESİ, 2015 - 2017

Metrics

Publication: 41
Citation (WoS): 92
Citation (Scopus): 67
H-Index (WoS): 6
H-Index (Scopus): 5

Non Academic Experience

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