# **CURRICULUM VITAE**

Title, Name, Last Name: Assistant Professor of Practice, Zühre Sü Gül.

## 1. PERSONAL DATA

1.1. Date & Place of Birth: 7/3/1980, Antalya, Turkey

1.2. Address: Department of Architecture.

Bilkent University, 06800 Bilkent, Ankara, Turkey

1.3. Phone :+90 312 290 2641 Ext.

1.4. Fax :+90 312 266 4127

1.5. E-mail: zuhre@bilkent.edu.tr

## 2. ACADEMIC DEGREES

2.1. Assoc. Prof.

Architecture - Inter University Council-ÜAK, Turkey, March

2022

2.2. Ph.D. Architecture - Middle East Technical University

2015

- 2.3. MS. Graduate Program in Architectural Acoustics Rensselaer Polytechnic Institute (RPI) 2006
- 2.4. MFA. Interior Architecture and Environmental Design Bilkent University

2004

2.5. BS. Architecture - Middle East Technical University

2002

## 3. EMPLOYMENT HISTORY

3.1. 02/2020 - Present Assistant Professor of Practice,

Bilkent University, Dept. of Architecture

3.2. 02/2018 - 01/2020 Visiting Assistant Professor

Bilkent University, Dept. of Architecture

3.3. 02/2017 - 01/2018

Part-Time Instructor

Bilkent University, Dept. of Architecture

3.4. 09/2013 - 2015

Part-Time Instructor

Bilkent University, Dept. of Interior Architecture and

**Environmental Design** 

3.5. 07/2009 -

Founding Partner

MEZZO Stüdyo Ltd., Ankara

3.6. 09/2006 - 06/2008

Intern Architect- Acoustician

Russ Berger Design Group, Dallas, TX

3.7. 08/2005 - 08/2006

Research Assistant

Rensselaer Polytechnic Institute (RPI), School of

Architecture

3.8. 09/2003 - 06/2005

**Teaching Assistant** 

Bilkent University, Dept. of Interior Architecture and

**Environmental Design** 

 $3.9. \ 09/2002 - 08/2003$ 

Architect

Kural Architecture, Ankara

# 4. PROFESSIONAL AWARDS

4.1. Globally Born Incubator Finalist Nominee Award, Turkish Ministry of Industry 2012

# 5. HONORS, SCHOLARLY AND PROFESSIONAL DUTIES AND ACHIEVEMENTS

- 5.1. Chairman of the Technical Session on Acoustics in Coupled Volume Systems, 24<sup>th</sup> International Congress on Acoustics (ICA), Gyeongju, Korea, 24-28 October 2022
- 5.2. Co-chair of the Technical Session on Acoustics of Cultural Heritage Buildings, 24<sup>th</sup> International Congress on Acoustics (ICA), Gyeongju, Korea, 24-28 October 2022
- 5.3. "Exploration of Room Acoustics Coupling in Hagia Sophia of İstanbul for its Different States" JASA, 149.1 (2021): 320-339, technical area pick of the journal, August 2021
- 5.4. Co-chair of the Technical Session on Acoustics of Cultural Heritage Buildings" 23<sup>rd</sup> International Congress on Acoustics (ICA), Aachen, Germany, 9-13 September 2019

- 5.5. "Best Thesis of the Year" Mustafa Parlar Foundation Thesis Awards (PhD), METU, 2016
- 5.6. "2006 Medalist" of Robert B. Newman Award for Merit in Architectural Acoustics for Excellence in the Study of Acoustics and in its Application to Architecture, USA, 2006
- 5.7. "Second Price" in the Best Student Paper Award Competition in the Area of Architectural Acoustics for June 2006 ASA Meeting, USA, 2006
- 5.8. "Commendation" from 2006 ASA Student Design Competition A City Municipal Building, USA, 2006
- 5.9. Graduate Teaching Assistant Fellowship, Rensselaer Polytechnic Institute (RPI), NY, USA, 2005-2006
- 5.10. Graduate Teaching Assistant Fellowship, Bilkent University, Ankara, 2003-2005

# 6. MEMBERSHIP

- 6.1. Full Member of Acoustical Society of America (MASA), 2008-
- 6.2. Member of Acoustical Society of Turkey (TAKDER), 2019 –
- 6.3. Member of Architectural Chamber of Turkey (TMMOB,) 2002 -

## 7. INVITED LECTURES AND INVITED TALKS

- 7.1. "The Dome Effect and the Acoustics of Historical Masterpieces." Music and the b 2022: Sound, Space, and the Aesthetics of the Sublime, Stanford University, Stanford, CA, USA, 21-22 May 2022.
- 7.2. Seminar Series for D1 Certification on "Turkish Regulation on Noise Control in Buildings", TAKDER, Başkent University, Ankara, 24 May 4 June 2021.
- 7.3. "Basic Principles of Acoustical Design," Guest Lecturer for IAD 131, Interior Architecture and Environmental Design in Interior Architecture," Ankara Bilim University, Ankara, 30 April 2021.
- 7.4. "Sound in Architecture," Guest Lecturer for FA 102, Department of Fine Arts, Bilkent University, Ankara, 5 March 2020.
- 7.5. "Sound Fields in Acoustically Coupled Spaces: Case Studies of Monumental Historical versus Contemporary in Architecture," Department of Architecture, Bilkent University, Ankara, 30 November 2017.
- 7.6. "Architectural Acoustics Design Process in Professional Practice: Case Studies of Heydar Aliyev Center and Flame Towers in Baku, Azerbaijan," Guest Lecturer for Arch342, Department of Architecture, Bilkent University, Ankara, 31 October 1 November 2017.

- 7.7. "A Field of Expertise in its Childhood: the Architectural Acoustics Consultancy and its Reflections on Architecture," Building Science Spring Activities of Architectural Chamber of Turkey; TMMOB Yapı Bahar Etkinlikleri, Ankara, 31 May 2017.
- 7.8. "Revealing Unknowns of the Acoustic Characteristics of Süleymaniye Mosque and Hagia Sophia Museum," Archaeometry Seminar Series by METU Graduate School of Natural and Applied Sciences, Middle East Technical University, Ankara, 25 March 2016.
- 7.9. "An Academic and Professional Chronology on Sound," KOBİFEST by METU International Commerce and Logistic Society, Middle East Technical University, Ankara, 24 February 2015.
- 7.10. Laudatio for BASWA Acoustic AG awarded with the Innovation Recognition Prize of the Chamber of Commerce and Industry of Central Switzerland, Luzern, Switzerland, 5 December 2012.
- 7.11. "Acoustics as a Profession in Architectural Grounds" Technical Lecture Series of BASWA Acoustic AG, Baldegg, Switzerland, 4 December 2012.
- 7.12. Interview for "Azerbaijan's Amazing Transformation," Discovery Science, Build it Bigger, Season 5, Episode 3, Baku, Azerbaijan, 15 December 2010.

#### 8. ARTISTIC EXHIBITS OR PERFORMANCES

8.1. FA 101 Basic Design I Studio Projects, Dept. of Art Design and Architecture, Bilkent University, "3D - Animal Habitat Exhibition", 27 November - 2 December 2017, hosted by TMMOB Chamber of Architecture, Ankara

# 9. TEACHING (current)

# 9.1. Graduate Courses:

Arch 515 Topics in Architectural Technology (Spring Semester)

# 9.2. <u>Undergraduate Courses:</u>

Arch 341 Architectural Lighting and Acoustics (Fall Semester)

Arch 201 Architectural Design Studio I (Spring Semester)

Arch 202 Architectural Design Studio II (Spring Semester)

#### 10. GRADUATE STUDENT SUPERVISION

10.1. Aslı Altun, MS, "An Investigation on the Effects of Variable Sound Absorption Systems on the Acoustic Performance in Concert Halls for Various Music Types: The Case of Bilkent Music Hall", 09/2021 – ongoing

- 10.2. Damla Tarman, MS, "Sustainable Acoustical Material Investigation Using Fruit Seeds", 09/2020 ongoing
- 10.3. Gülnihan Atay, MS, "Clay Pots in Ottoman Architecture: A Discussion on Their Acoustical Employment", July 2022, completed. (recipient of Student Grant Award recipient, selected by the Committee for International Research and Education (CIRE) of the Acoustical Society of America (ASA), 2022)
- 10.4. Rozhin Naeemaee, MS, "Assessment of Perceived Reverberation in Large Atriums", July 2022, completed.
- 10.5. Zeynep Bora Özyurt, PhD, "Examination of the acoustic properties of traditional Turkish baths with subjective and objective methods and a design methodology approach for adaptive re-use", Depart. of Architecture, Uludağ University, Supervisor: Filiz Şenkal Sezer, Co-Supervisor: Zühre Sü Gül, 09/2018- ongoing
- 10.6. Ali H. Adeeb, MS, "An Archeoacoustic Study of Cappadocia; Acoustical Identification of Religious and Secular Indoor Spaces", September 2021, completed.
- 10.7. Beyza Yazıcı, MS, "An Experimental Study on Acoustical Metamaterials (AMM) for Architectural Applications", August 2020, completed. (recipient of Student Grant Award recipient, selected by the Committee for International Research and Education (CIRE) of the Acoustical Society of America (ASA), 2021)
- 10.8. Hasan Yıldırım, MS, "Theater and Music in Palazzo Ducale of Mantova an Analysis of the Historical Spaces for Music in the Palacean Palace", School of Architecture, Urban Planning Construction Engineering, Politenico Milano, Supervisor: Antonio Giovanni Mazzeri, Co-supervisor: Zühre Sü Gül, May 2020, completed.

## 11. PATENTS / UTILITY MODEL

11.1. "Sound Scattering and Absorbing Panel System for Interior Spaces". (Utility Model) No: TR-2012-03077-Y. Co-owners: Sü Gül, Z., Çalışkan, M. and Odabaş, E.

#### 12. SCHOLARLY PUBLICATIONS

- 12.1. Ph.D. Dissertation
- 12.1.1. "Assessment of Non-Exponential Sound Energy Decays within Multi-Domed Monuments by Numerical and Experimental Methods." January 2015, Ayşe Tavukçuoğlu, Middle East Technical University

# 12.2. MS Dissertation

12.2.1. "Systematic Investigations on Energy Decays in Acoustically Coupled Spaces using Scale-model Technique", July 2006, Ning Xiang, Rensselaer Polytechnic Institute (RPI)

# 12.3. MFA Dissertation

12.3.1. "Acoustical Performance Analysis of Bilkent University Amphitheater - ODEON", May 2004, Semiha Yılmazer, Bilkent University

# 12.4. <u>Articles in refereed journals</u>

- 12.4.1. Sü Gül, Z., Eşmebaşı, M. and Bora Özyurt, Z. "The Effects of Stage House Coupling on Multipurpose Auditorium Acoustics" Applied Acoustics, 198, Published online on 19-08-2022.
- 12.4.2. Sü Gül, Z. and Çalışkan, M. "Acoustics for Architects: A Potpourri of Undergraduate and Graduate Level Teaching Styles, Tools and In-course Projects" Journal of Acoustical Society of America, 151.4 (2022): 2326-2335.
- 12.4.3. Adeeb, A. H. and Sü Gül, Z. " Investigation of a Tuff Stone Church in Cappadocia via Acoustical Reconstruction" Journal Acoustics, 4, (2022): 419-440. "Special issue on Acoustics, Soundscapes and Sounds as Intangible Heritage"
- 12.4.4. Atalay, T.B., Sü Gül, Z., Sena, E.D., Cvetkovic, Z. and Hacıhabiboğlu, H. "Scattering Delay Network Simulator of Coupled Volume Acoustics" IEEE/ACM Transactions on Audio/Speech and Language Processing, 30 (2022):582-593.
- 12.4.5. Adeeb, A. H., Sü Gül, Z. and Henry, A. "Characterizing the Indoor Acoustical Climate of the Religious and Secular Rock-Cut Structures of Cappadocia" International Journal of Architectural Heritage, Published online: 23 Dec 2021
- 12.4.6. Yazıcı, B., Sü Gül, Z. "Biomimetic Metamaterial Design Simulation and Evaluation for Building Acoustics by Impedance Measurements" Journal of Testing and Evaluation, 49.5 (2021):3183-3203.
- 12.4.7. Sü Gül, Z. "Exploration of Room Acoustics Coupling in Hagia Sophia of İstanbul for its Different States" Journal of Acoustical Society of America, 149.1 (2021): 320-339. technical area pick of JASA, August 2021
- 12.4.8. Sü Gül, Z., Odabaş E. and Çalışkan M. "Comparative Evaluation of Ray Tracing and Diffusion Equation Modeling in Room Acoustics Design of Subway Stations." Acoustics Australia, 48.1 (2020): 93-105.

- 12.4.9. Sü Gül, Z. "Acoustical Impact of Architectonics and Material Features in the Lifespan of Two Monumental Sacred Structures." Journal Acoustics, 1.3 (2019): 493-516. Special issue book chapter Historical Acoustics: Relationships between People and Sound over Time
- 12.4.10. Sü Gül, Z., Odabaş E., Xiang N. and Çalışkan M. "Diffusion Equation Modeling for Sound Energy Flow Analysis in Multi Domain Structures." Journal of Acoustical Society of America, 145.4 (2019): 2703-2717. (special issue cover page image) "Special Issue on Room Acoustics Modeling and Auralization"
- 12.4.11. Sü Gül, Z., Çalışkan M., Xiang N. and Tavukçuoğlu, A. "Assessment of Acoustical Indicators in Multi-domed Historic Structures by Non-exponential Energy Decay Analysis." Acoustics Australia, 46.2 (2018): 181-192.
- 12.4.12. Sü Gül, Z., Xiang N. and Çalışkan, M. "Diffusion Equation Based Finite Element Modeling of a Monumental Worship Space." Journal of Computational Acoustics, 25.4 (2017): 1750029 1-16. "Special Issue on Numerical Methods for Vibro-Acoustics and Aeroacoustics"
- 12.4.13. Sü Gül, Z., Xiang N. and Çalışkan, M. "Investigations on Sound Energy Decays and Flows in a Monumental Mosque." Journal of Acoustical Society of America, 140.1 (2016): 344-355.
- 12.4.14. Sü Gül, Z., Çalışkan, M. and Tavukçuoğlu, A. "On the Acoustics of Süleymaniye Mosque: From Past to Present." Megaron, 9.3 (2014): 201-216.
- 12.4.15. Sü Gül, Z. and Çalışkan, M. "Impact of Design Decisions on Acoustical Comfort Parameters: Case Study of Doğramacızade Ali Paşa Mosque." Applied Acoustics, 74.6, (2013): 834-844.
- 12.4.16. Sü, Z. and Yılmazer, S. "The Acoustical Characteristics of the Kocatepe Mosque in Ankara, Turkey." Architectural Science Review, 51.1 (2008): 21-30.
- 12.4.17. Sü, Z. and Çalışkan, M. "Acoustical Design and Noise Control in Metro Stations: Three Cases in Ankara Metro System." Building Acoustics, 14.3 (2007): 231-249.
- 12.4.18. Yılmazer, S. and Sü, Z. "A Touching Past and A Desperate Future: History and Acoustics of Kocatepe Mosque." Arkitekt, 3, (2007): 12-18.
- 12.4.19. Sü, Z. and Yılmazer, S. "The Acoustical Performance Analysis of Bilkent Amphitheater: Proposal for Acoustical Renovation." Architectural Science Review, 49.2 (2006): 167-178.
  - 12.5. Articles in non-refereed or general journals
    - 12.5.1. Atay, G., and Sü Gül, Z. "Clay Pots of Ottoman Architecture: Acoustics, Structure and Ventilation" Proceedings of Meetings on Acoustics (POMA), 42, 015003 (2020): 1-12.

- 12.5.2. Sü Gül, Z., Çalışkan M., and Bora Özyurt, Z. "Acoustical Design Challenges of Public Interiors: Cultural Centers and Terminal Buildings" Proceedings of Meetings on Acoustics (POMA), 42, 015002 (2020): 1-13.
- 12.5.3. Sü Gül, Z. "Konforun Üç Bilinmeyenli Denklemi X: Akustik." Konsept Projeler, 42 (2014): 98-108.
- 12.5.4. Sü Gül, Z. and Çalışkan, M. "Heydar Aliyev Merkezi Oditoryumu Akustik Tasarım Süreci; the Acoustic Design Process for the Auditorium at the Heydar Aliyev Center." Yapı, March (2014): 144-150.

# 12.6. Refereed proceedings

- 12.6.1. Sü Gül, Z., Atay, G., Naeemaee, R., Atalay, T.B. and Hacıhabiboğlu, H. "Investigating the Effects of Coupling Factor on Sound Energy Decays of Coupled Volumes." (Invited Paper) ICA2022 42th International Congress on Acoustics, Proceedings of the 24th International Congress on Acoustics, Gyeongju, Korea, 24-28 October 2022.
- 12.6.2. Tarman, D. and Sü Gül, Z. "Sustainable Acoustic Material Investigation Using Fruit Seeds." ICA2022 42th International Congress on Acoustics, Proceedings of the 24th International Congress on Acoustics, Gyeongju, Korea, 24-28 October 2022.
- 12.6.3. Edwards, N, Kemp, J.A. and Sü Gül, Z. "Measurement, Modelling and Subjective Responses to the Sound Decay from Coupled Volumes in the McPherson Room, St Andrews University." (Invited Paper) ICA2022 42th International Congress on Acoustics, Proceedings of the 24th International Congress on Acoustics, Gyeongju, Korea, 24-28 October 2022.
- 12.6.4. Eşmebaşı, M., Bora Özyurt, Z. and Sü Gül, Z. "Contemporary Sports Arena Room Acoustics Design." ICSV28-International Congress on Sound and Vibration, Singapore, 24-28 July 2022.
- 12.6.5. Çalışkan, M., Irklı Eryıldız, D. and Sü Gül, Z. "Past Challenges in the Study of Ancient Open-Air Theatre Acoustics." (Invited Paper) Proceedings of the 2nd Symposium: The Acoustics of Ancient Theatres, Verona, Italy, 6-8 July 2022.
- 12.6.6. Sü Gül, Z. "The Sounds of Hagia Sophia" International Hagia Sophia Symposium - II (Invited Paper) Ayasofya Medresesi, İstanbul, 27-29 May 2022.
- 12.6.7. Naeemaee, R. and Sü Gül, Z. "Assessment of Reverberation Perception in Atrium Spaces." (Invited Paper) Euronoise 2021, Madeira, Portugal, (Virtual) 25-27 October 2021.

- 12.6.8. Atay, G. and Sü Gül, Z. "Investigation of the Acoustical Properties of the Clay Pottery Employed in the Dome of Süleymaniye Mosque." Proceedings of 14th National Acoustics Congress (TAKDER), İstanbul Bilgi University, İstanbul, Turkey, (Virtual), 7-8 October 2021, pp. 341-352.
- 12.6.9. Sel, E., Düzova, İ., Şireli, A.E., Yazıcı, B. and Sü Gül, Z. "Reuse of Coffee and Tea Waste for Acoustical Panel Applications in Architectural Design Studios" Inter-Noise 2021, Washington, DC, (Virtual) 1-5 August 2021.
- 12.6.10. Bora Özyurt, Z., Eşmebaşı, M. and Sü Gül, Z. "City Hospitals in Turkey: A review of Acoustical Criteria and Design Principles." Proceedings of Inter-Noise 2020, Seoul, South Korea, (Virtual) 23-26 August 2020. INTER-NOISE and NOISE-CON Congress and Conference Proceedings, pp. 2762-2773 (12).
- 12.6.11. Sü Gül, Z. "The Analysis Methods of Multiple-decay Rates in Room Acoustics Coupling." Proceedings of 13th National Acoustics Congress (TAKDER), Diyarbakır, Turkey, 17-18 October 2019, pp. 67-80.
- 12.6.12. Yazıcı, B. and Sü Gül, Z. "Proposals of 3D Labyrinthine Type Acoustical Meta-Materials for Sound Control in Architecture" Proceedings of 13th National Acoustics Congress (TAKDER), Diyarbakır, Turkey, 17-18 October 2019, pp. 187-196.
- 12.6.13. Sü Gül, Z., Sinal, Ö. and Odabaş, E. "Acoustical Comfort in Technology Offices: The Case of BASF Turk Office" Proceedings of 13th National Acoustics Congress (TAKDER), Diyarbakır, Turkey, 17-18 October 2019, pp. 309-320.
- 12.6.14. Erdem, E., Sü Gül, Z. and Çalışkan, M. "Noise Barrier design for Chiller Noise" Proceedings of 13th National Acoustics Congress (TAKDER), Diyarbakır, Turkey, 17-18 October 2019, pp. 249-260.
- 12.6.15. Bora Özyurt, Z., Eşmebaşı, M. and Sü Gül, Z. "Evaluation of Acoustic Design Criteria and Principles in Integrated Health Campuses" Proceedings of 13th National Acoustics Congress (TAKDER), Diyarbakır, Turkey, 17-18 October 2019, pp. 153-164.
- 12.6.16. Eşmebaşı, M., Çalışkan, M. and Sü Gül, Z. "Acoustical Design of the Halls in the Music and Fine Arts University" Proceedings of 13th National Acoustics Congress (TAKDER), Diyarbakır, Turkey, 17-18 October 2019, pp. 285-296.
- 12.6.17. Nursal, I. M., Eşmebaşı, M., Erdem, E. and Sü Gül, Z. "Acoustic Design and Analysis Methods of Underground Subway Stations" Proceedings of

- 13th National Acoustics Congress (TAKDER), Diyarbakır, Turkey, 17-18 October 2019, pp. 273-284.
- 12.6.18. Sinal, Ö., Bora Özyurt, Z., Sü Gül, Z. and Çalışkan, M. "Acoustical Design of Music Practice Rooms: CSO Concert Hall Individual and Choir Practice Rooms" Proceedings of 13th National Acoustics Congress (TAKDER), Diyarbakır, Turkey, 17-18 October 2019. pp. 297-308.
- 12.6.19. Sü Gül, Z. "Review on Acoustics Timeline of Hagia Sophia and Süleymaniye Mosque in İstanbul" (Invited Paper) Proceedings of 23rd International Congress on Acoustics (ICA 2019), Aachen, Germany, 9-13 September 2019, pp.2351-2358.
  - 12.6.20. Sü Gül, Z., Odabaş E. and Çalışkan, M. "Single versus Multi-domain Analysis in Diffusion Equation Modeling for Sound Field Analysis of Distinct Room Shapes" (Invited Paper) Proceedings of 21st International Congress on Acoustics (ICA 2019), Aachen, Germany, 9-13 September 2019, pp.6020-6027.
  - 12.6.21. Yazıcı, B. and Sü Gül, Z. "3D Labyrinthine-type Acoustical Metamaterial Proposals for Sound Control in Architectural Applications" Inter-Noise 2019, Madrid, Spain, 16-19 June 2019, INTER-NOISE and NOISE-CON Congress and Conference Proceedings, 259.3, pp. 6543-6554. Institute of Noise Control Engineering. Publication date: 30 September 2019.
- 12.6.22. Sü Gül, Z., Odabaş E. and Çalışkan, M. "Acoustical Assessment of Subway Stations by Diffusion Equation Modelling." Proceedings of Wespac 2018: the 13th Western Pacific Conference on Acoustics, New Delhi, India, 11-15 November 2018. ISSN 0973-3302, p.41 (2018).
- 12.6.23. Sü Gül, Z., Meriç Nursal, I., Bora, Z. and Çalışkan, M. "Acoustical Design of Awaza Convention Center." Proceedings of the 22nd International Congress on Acoustics (ICA2016), Buenos Aires, Argentina, 5-9 September 2016. ISBN 978-987-24713-6-1, p.222 (2016).
- 12.6.24. Sü Gül, Z., Odabaş, E., Meriç Nursal, I. and Çalışkan, M. "Acoustical Design of İzmir Opera House." International Symposium on Musical and Room Acoustics (ISMRA2016), La Plata, Buenos Aires, Argentina, 11-13 September 2016.
- 12.6.25. Sü Gül, Z., Xiang N. and Çalışkan, M. "Sound Field Analysis of Monumental Structures by the Application of Diffusion Equation Model." COMSOL Conference 2014, Cambridge, UK, 17-19 September 2014.

- 12.6.26. Sü Gül, Z., Tavukçuoğlu, A. and Çalışkan, M. "A Discussion on the Acoustics of Süleymaniye Mosque for its Original State." 9th International Congress on Conservation of Monuments in Mediterranean Basin (MONUBASIN9), METU, Ankara, Turkey, 3-5 June 2014. Improvements in Conservation and Rehabilitation Integrated Methodologies, Materials Conservation Laboratory, METU, Abstracts Book, (2014), p.46.
- 12.6.27. Sü Gül, Z., Çalışkan, M. and Tavukçuoğlu, A. "Acoustical Characteristics of Süleymaniye Mosque after 2007-2011 Renovations: Measurements and Comparative Evaluations." 10th National Acoustics Congress (TAKDER), Yıldız Teknik Üniversitesi, İstanbul, Turkey, 16-17 December 2013. pp. 21-28.
- 12.6.28. Sü Gül, Z. and Çalışkan, M. "Acoustical Design of Turkish Religious Affairs Mosque." Proceedings of 21st International Congress on Acoustics (ICA 2013), Montreal, Canada, 2-7 June 2013. Proceedings of Meetings on Acoustics, Vol. 19, 015083 (2013).
- 12.6.29. Sü Gül, Z., Xiang N. and Çalışkan, M. "Investigations on Multi-Slope Sound Energy Decays in Domed Structures." Inter-Noise 2012, New York City, NY, USA, 19-22 August 2012.
- 12.6.30. Sü Gül, Z. and Çalışkan, M. "Acoustical Design of Underground Stations within Warsaw Metro System Phase II." 9th National Acoustics Congress (TAKDER), METU, Ankara, Turkey, 26-27 May 2011.
- 12.6.31. Odabaş, E., Sü Gül, Z. and Çalışkan, M. "Acoustical Design of Doğramacizade Ali Paşa Mosque and Assessment of Acoustical Characteristics by Real-size Measurements." 9th National Acoustics Congress (TAKDER), METU, Ankara, Turkey, 26-27 May 2011.
- 12.6.32. Sü Gül, Z. and Çalışkan, M. "Acoustical Design of Inner Galleries in Heydar Aliyev Center" Proceedings of 20th International Congress on Acoustics (ICA 2010), Sydney, Australia, 23-27 August, 2010, p.157.
- 12.6.33. Sü Gül, Z. and Çalışkan, M. "Acoustical Considerations in the Design of Heydar Aliyev Center Auditorium." Proceedings of the International Symposium on Room Acoustics (ISRA 2010), Melbourne, Australia, 29-31 August 2010. ISBN:978-0-646-54052-8, p.16.
- 12.6.34. Xiang, N., Jasa, T. and Sü, Z. "Schroeder Decay Function Decomposition for Sound-Energy Decay Analysis of Acoustic Coupled-Volume Systems." Proceedings of Wespac IX: the 9th Western Pacific Acoustics Conference, Seoul, Korea., 6-28 June, 2006.

- 12.6.35. Arslan, S., Sü, Z. and Çalışkan, M. "Contribution of the Computer Simulation to the Process of Design in the Courses of Architectural Acoustics: A Study of 500 Seated Concert Hall." 7th National Acoustics Congress (TAKDER), Cappadocia, Nevsehir, Turkey, 17-19 November 2004, pp.129-137.
- 12.7. <u>Published conference abstracts (or extended abstracts)</u>
  - 12.7.1. Sü Gül, Z. "The Dome Effect and the Acoustics of Historical Masterpieces." (Invited Paper) Music and the Brain 2022: Sound, Space, and the Aesthetics of the Sublime, Stanford University, Stanford, CA, USA, 21-22 May 2022.
  - 12.7.2. Sü Gül, Z. "Coupled Spaces: from Theory to Practice" (Invited Paper) Acoustics in Focus, the 180th Meeting of the Acoustical Society of America, 8-10 June 2021. The Journal of the Acoustical Society of America 149.4, A116 (2021).
  - 12.7.3. Atalay, T.B., Sü Gül, Z., Sena, E.D., Cvetkovic, Z. and Hacıhabiboğlu, H. "Simulation of Coupled Volume Acoustics with Coupled Volume Scattering Delay Network Models" Acoustics in Focus, the 180th Meeting of the Acoustical Society of America, 8-10 June 2021. The Journal of the Acoustical Society of America 149.4, A117 (2021).
  - 12.7.4. Atay, G. and Sü Gül, Z. "Clay Pots in Ottoman Architecture: A Discussion on Their Acoustical Employment" 179th Meeting of the Acoustical Society of America, Acoustics Virtually Everywhere, 7-11 December 2020. The Journal of the Acoustical Society of America 148, 2797 (2020).
  - 12.7.5. Sü Gül, Z., Çalışkan, M. and Bora Özyurt, Z. "Acoustical Design Challenges of Colossal Public Interiors" 179th Meeting of the Acoustical Society of America, Acoustics Virtually Everywhere, 7-11 December 2020. The Journal of the Acoustical Society of America 148, 2772 (2020).
  - 12.7.6. Sü Gül, Z. "Diffusion Equation Modeling in Sound Field Analysis of Disproportionate Rooms and Coupled Spaces." (Invited Paper) 177th Meeting of the Acoustical Society of America, Louisville, KY, USA, 13-17 May 2019. The Journal of the Acoustical Society of America 145, 1890 (2019).
  - 12.7.7. Sü Gül, Z., Xiang N. and Çalışkan, M. "Non-exponential Sound Energy Decay Analysis of a Monumental Worship Space by Diffusion Equation Modeling in a Finite Element Medium." The 12th International Conference on Theoretical and Computational Acoustics (ICTCA), Hangzhou, Zhejiang, China, 11-16 October 2015, Book of Abstracts, pp. 105-106.

- 12.7.8. Sü Gül, Z. "Acoustic Adventures over Continents, among Cultures: Under Tides of Academia and Profession." (Invited Paper) 169th Meeting of the Acoustical Society of America, Pittsburgh, PA, USA, 18-22 May 2015. The Journal of the Acoustical Society of America 137, 2359 (2015).
- 12.7.9. Sü Gül, Z., Xiang N. and Çalışkan, M. "Investigations on Multi-Slope Energy Decay Formation within Single-Space Monumental Structures by Diffusion Equation Modeling and Intensity Probe Measurements." 169th Meeting of the Acoustical Society of America, Pittsburgh, PA, USA, 18-22 May 2015. The Journal of theAcoustical Society of America 137, 2393 (2015).
- 12.7.10. Sü Gül, Z., Xiang N. and Çalışkan, M. "Investigations on Acoustical Coupling within Single-Space Monumental Structures using a Diffusion Equation Model." 168th Meeting of the Acoustical Society of America, Indianapolis, Indiana, USA, 27-31 October 2014. The Journal of the Acoustical Society of America 136, 2219 (2014).
- 12.7.11. Sü Gül, Z. and Çalışkan, M. "Acoustical Considerations in Design and Construction of Turkish Contractors Association Headquarters." 167th Meeting of the Acoustical Society of America, Providence, Rhode Island, USA, 5-9 May 2014. The Journal of the Acoustical Society of America 135, 2333 (2014).
- 12.7.12. Sü Gül, Z., Xiang N. and Çalışkan, M. "Multiple-Slope Sound Energy Decay Investigations in Single Space Enclosures with Specific Geometrical and Material Attributes." (Invited Paper) 166th Meeting of the Acoustical Society of America, San Francisco, California, USA, 2-6 December 2013. The Journal of the Acoustical Society of America 134, 3985 (2013).
- 12.7.13. Sü, Z. and Xiang, N. "Further Investigations on Acoustically Coupled Spaces using Scale-model Technique." Fourth Joint Meeting of Acoustical Society of America and Acoustical Society of Japan, Honolulu, Hawaii, USA, 28 November 2 December 2006. The Journal of the Acoustical Society of America 120, 3263 (2006).
- 12.7.14. Sü, Z., Xiang, N. and Summers, J.E. "Experimental Investigations of Acoustically Coupled Spaces." 151st Meeting of Acoustical Society of America, Providence, RI, USA, 5-9 June, 2006. The Journal of the Acoustical Society of America 119, 3208 (2006).

# 13. TOTAL NUMBER OF CITATIONS (LISTED IN CITATION INDEX) TO PUBLICATIONS IN (12):

- 13.1. Scopus, Total: 137 (h-index-7)
- 13.2. Google Scholar, Total: 347 (h-index:11)

# 14. CURRENT RESEARCH INTEREST(S)

- 14.1. Acoustics of coupled volume systems
- 14.2. Diffusion equation model applications in room acoustics
- 14.3. Acoustics of cultural heritage buildings
- 14.4. Worship space acoustics

## 15. GRANTS

- KOSGEB Industrial Applications Funding Support by Turkish Ministry of Science, Industry and Technology, 2014
- 15.2. KOSGEB Research, Development and Innovation Funding Support by Turkish Ministry of Science, 2013
- 15.3. Technological Enterprise Funding Support by Turkish Ministry of Industry and Commerce, 2009

15.4.

#### 16. EDUCATIONAL DEVELOPMENT ACTIVITIES

16.1. Workshops with students on acoustical material development for design studios of architecture, 2019-2022

## 17. CONTRIBUTION TO BILKENT UNIVERSITY

- 17.1. Course Coordinator
  - 17.1.1. ARCH 341 Architectural Lighting and Acoustics, Department of Architecture, Bilkent University, since 2019.
  - 17.1.2. ARCH 202 Architectural Design Studio II, Department of Architecture, Bilkent University, since 2019.
  - 17.1.3. ARCH 201 Architectural Design Studio I, Department of Architecture, Bilkent University, since 2018.
  - 17.1.4. FA 102 Basic Design II, Department of Art Design and Architecture, Bilkent University, 2018.

## 17.2. Committees

17.2.1. Recruitment Committee Member, Department of Architecture, Bilkent University

- 17.2.2. Departmental Degree Qualifications Committee Member,
  Department of Architecture, Bilkent University
- 17.2.3. Departmental Advisory Board Committee Member, Department of Architecture, Bilkent University
- 17.2.4. Keystone Academic, Departments Committee Member, Graduate School of Engineering and Science, Bilkent University
- 17.2.5. Open House Committee Member, Graduate School of Engineering and Science, Bilkent University

## 18. CONTRIBUTION TO SOCIETY AT LARGE

#### 18.1. Ad-Hoc Referee

- 18.1.1. Journal of Acoustical Society of America
- 18.1.2. Journal of Testing and Evaluation ASTM (American Society for Testing and Materials)
- 18.1.3. Journal of Building Acoustics
- 18.1.4. Journal of Materials and Design
- 18.1.5. Journal Acoustics
- 18.1.6. ICONARP (International Journal of Architecture and Planning)
- 18.1.7. METU Journal of the Faculty of Architecture
- 18.1.8. Turkish National Construction Congress Technical Board Member

# 18.2. PhD, MS, MFA Jury Membership

- 18.2.1. Irem Merve Makinacı, MS Thesis Defense Jury Member, Dept. of Architecture, Bilkent University, July 2022
- 18.2.2. Franck Zagala, PhD Thesis Defense Jury Member, Mechanical, Acoustic, Electronics and Robotics Sciences of Paris SMAER, Institut Jean le Rond d'Alembert & IRCAM, Sorbonne University, June 2022
- 18.2.3. Özge Demirci, MS Thesis Defense Jury Member, Dept. of Architecture, Middle East Technical University, June 2022
- 18.2.4. Vicdan Cangür Ateş, MS Thesis Defense Jury Member, Dept. of Architecture, Middle East Technical University, February 2022
- 18.2.5. Elif Mercan, MFA Thesis Defense Jury Member, Dept. of Interior Architecture and Environmental Design, Bilkent University, July 2022
- 18.2.6. Suard Cengu, MS Thesis Defense Jury Member, Dept. of Architecture, Bilkent University, July 2021
- 18.2.7. Beyza Erçakmak, PhD Qualifying Exam Jury Member, Dept. of Interior Architecture, Çankaya University, May 2021

- 18.2.8. Zekiye Şahin, MS Thesis Defense Jury Member, Dept. of Architecture, Dept. of Interior Architecture and Environmental Design, Bilkent University, July 2020
- 18.2.9. Ege Erdem, MS Thesis Defense Jury Member, Dept. of Multimedia Informatics, Middle East Technical University, January 2020
- 18.2.10. Merve Eroğlu, MS Thesis Defense Jury Member, Dept. of Mechanical Engineering, Middle East Technical University, September 2019
- 18.2.11. Merve Eşmebaşı, MS Thesis Defense Jury Member, Dept. of Architecture, Middle East Technical University, August 2019
- 18.2.12. R. Hilmi Kanlıoğlu, MS Thesis Defense Jury Member, Dept. of Mechanical Engineering, Middle East Technical University, September 2018