

Assoc. Prof. Dr. KONCA ŞAHER

University Lecturer, Architect, Acoustic Consultant
President of Turkish Acoustical Society

Address: Kadir Has University – Dept. of Interior Arch. and Env. Design
Central Campus, C Blok, Cibali, ISTANBUL

Email: konca.saher@khas.edu.tr;

ORCID ID: <https://orcid.org/0000-0001-6959-0385>

PROFILE

- Has unique perspective on research, teaching and consultancy through knowledge and experiences gained from both academy and industry, notably in creation and maintenance of diverse knowledge networks.
- Has extensive research and consultancy experience in architectural acoustics, sustainable material sourcing in design, and design for mega events and demonstrated her contribution through high profile projects, publications, teaching experiences and collaborations.
- Consulted on a diverse range of projects including residential developments, large master planning schemes, health care facilities, schools, auditoria, airports, train and metro stations, retails, offices and performing art spaces. Worked as the Acoustic lead to London 2012 Olympic and Paralympic Games Temporary Venues and is a BREEAM International Assessor. Works collaboratively with architects, structural engineers, mechanical engineers and Local Authorities discussing and agreeing project objectives.

EDUCATION

2013 **Delft University of Technology** **Delft, the Netherlands**
PhD in Building Technology

- Dissertation: “Acoustical Design Guidelines for Living Rooms for Adults with Intellectual Disabilities”.
Keywords: Acoustic measurements and modelling, auralizations, subjective assessment of acoustic quality, listening tests with hearing-impaired people, guidelines for architects.

2001 **Middle East Technical University** **Ankara, Turkey**
Master of Science in Building Science

- Thesis: “Sightline Analysis of Proscenium Type Auditoria”.
Keywords: Sightline design, ergonomics, sightline performance, application software development.

1998 **Middle East Technical University** **Ankara, Turkey**
Bachelor of Architecture

EXPERIENCE

2014 - Present **Kadir Has University, Department of Interior Arch. & Environmental Design** **İstanbul, Turkey**
Assoc. Prof. Dr. & Acting Head of Department

Teaching Experience (in English):

- IA 351 - Interior Arch. Design Systems – Acoustics and Lighting.
- IA 301 - Interior Design Project III – IA 401-402 Interior Design Project V-VI.
- IA 251 - Building Systems I - Building Components.
- IA 254 - Building Systems II – Materials.
- FAD 344 - Designing User Experience in Interior Architecture. (Faculty elective)

2013 - Present **AKUSTIKA**

İstanbul, Turkey

Acoustic Consultant – Founding Partner

2007 - 2013 **ATKINS** **London, United Kingdom**
Principal Acoustic Consultant

- Acoustic lead to London 2012 Olympic and Paralympic Games Temporary Venues.
- Contributing to sustainable sourcing code for London 2012 Olympic & Paralympic Games Temporary Venues.
- Project manager for public address system design & room acoustic modelling of Jeddah International Airport.
- Acoustic design review of Bond Street & Birmingham New Street Stations & CrossRail C100 Package.
- Environmental noise impact assessments of various large master planning schemes.
- Acoustic design review of high-rise residential buildings, hotels, offices in Middle East, India and Russia.
- BREEAM assessments (Acoustic credits) of educational buildings, health care facilities, office buildings and industrial developments.
- Sustainable design recommendations including healthy materials, responsible sourcing, hierarchy of materials for acoustic design.
- Project management, business development, staff management and multi discipline working.
- Working collaboratively with architects, structural engineers, mechanical engineers and Local Authorities.

2002 - 2007 **Delft University of Technology** **Delft, the Netherlands**
PhD Researcher

- Research on acoustical modelling, verification of acoustical virtual models, design for intellectually disabled, acoustic materials and acoustic design guidelines for architects.
- Utilising measurements and modelling techniques to investigate the impact of building design on acoustical quality in rooms for intellectually disabled and hearing impaired.

2005 - 2006 **Technical University of Denmark** **Copenhagen, Denmark**
Marie Curie Fellow in
"European Doctorate in Sound and Vibration Studies".

- Expert knowledge in acoustic modelling in ODEON – room acoustics software.
- Experimental research of binaural recordings, auralizations and listening tests for acoustic comfort assessment of auditoria, offices, classrooms and day care centres.

2002 - 2000 **Erciyes University** **Yozgat, Turkey**
Teaching Assistant

2020 - Present **Turkish Acoustical Society** **İstanbul, Turkey**
President of Executive Board

2020 - 2018 **Turkish Acoustical Society** **İstanbul, Turkey**
General Secretary

- The purpose of the Acoustical Society of Turkey, which is a non-profit organization, is to generate, disseminate, and promote the knowledge and practical applications of acoustics. Diverse fields of interest in acoustics include physics, engineering, architecture, noise, speech and hearing, psychology and music.
- Moreover, the society also aims to establish networking between people at different disciplines of acoustics and to discuss acoustics by organizing seminars, symposiums, congresses and other events and to support the further studies and announce the progress on standardization and regulations.

RESEARCH AREA & KEY SKILLS

- Room acoustics design, measurements, and simulations.
- Sound insulation and noise reduction calculations.
- Building services noise control.
- Room acoustics and Public Address and Voice Alarm system design. (PA/VA Design)
- Environmental noise assessments, construction noise and vibration.
- Reporting for planning and development in compliance with building regulations.
- Development of sustainable design codes, sustainable design guidelines, healthy materials, sustainable sourcing, BREEAM assessments for acoustics.
- Diffusion of knowledge from industry to academy and increase technological contribution of the university.
- Ability to provide outstanding vision to establish collaborative research initiatives with international institutions and industrial partners.
- Multi-discipline working, project management & directorship of large and small scale projects.

ACADEMIC HONORS, AWARDS AND FELLOWSHIPS

- 2005** Marie Curie Fellowship in "European Doctorate in Sound and Vibration Studies". (9 months)
Research fellowship at Technical University of Denmark, Acoustic Technology Department
- 2002** Dutch Government Scholarship for Doctoral education.
PhD scholarship at Delft University of Technology, Department of Architecture.

CERTIFICATION

- 20** D1 - Building Acoustics Measurements Certificate, Turkey.
Certified Building Acoustic Measurements Expert in line with "Regulation on Protection of Buildings against Noise" issued by Turkish Ministry of Environment and Urbanization, May 2017.
- 2018** D2 - Building Acoustics Expert Training Certificate, Turkey.
Certified Building Acoustic Expert in line with "Regulation on Protection of Buildings against Noise" issued by Turkish Ministry of Environment and Urbanization, May 2017.
- 2012** BREEAM International Assessor Training Certificate - BRE Watford, UK.
BREEAM is one of the leading sustainability assessment method for master planning projects, infrastructure and buildings.

GRANTS AND PROJECTS

- 2021** **Istanbul Development Agency (IDA)** - Financial Support Program: "Designhub-Ist Design Education and Application Centre". (Consultant)
- 2021** **H2020 MSCA-RISE PROJECT: 101008186 CONSIDER** – "Sustainable Management of Industrial Heritage as a Resource for Urban Development". (Researcher)
- 2014** **The Scientific and Technological Research Council of Turkey (TUBITAK)** – Directorate of Science Fellowships and Grant Programmes (BIDEB) - 2232 Grant. Project No: 114C105. "Improvement of Classroom Acoustics for the Hearing Impaired". (15.08.2014-11.06.2016). Project manager.

2013 **European Union Project** (Europe Aid /131352/D/SER/TR) : “Technical Assistance Project For Implementation Capacity For The Environmental Noise Directive, Turkey” by Ministry of Environment and Urbanism.)

Project Budget: EUR 6, 090, 000.00

Non key Local Expert for the Development of Strategic Noise Maps and Action Plans for Adana, Erzurum, Eskişehir in Turkey. (06.2013-12.2015)

PUBLICATIONS

Papers in Refereed Journals

- 2023** Şaher, K., Bulunuz, M., Kelmendi, J., & Nas, S. (2023). Assessment Of Speech Intelligibility During Different Teaching Activities in Classrooms with And Without Acoustic Treatment. *Applied Acoustics*, 207, 109346. (SCI-EXP)
- 2020** Dümen, A. S., & Şaher, K. (2020). Noise Annoyance During COVID-19 Pandemic: A Research on Public Opinion Before and During the Pandemic. *Journal Of the Acoustical Society of America*, 148(6), 3489–3496. (SCI-EXP)
- 2019** Şaher, K., & Karaböce, B. (2019). The Effect of Reverberation Time and Signal-To-Noise Ratio on Word Recognition Scores by Adults And Children In Classrooms. *Megaron*, 14(3), 385–396. (Design And Applied Arts Index, Avery Index to Architectural Periodicals)
- 2018** Şaher, K., Karaca, D., & Türkel, E. (2018). Auditory Dimension of Urban Planning: Eskişehir. *Mimarlık*, 402, 39–43. (Design And Applied Arts Index, Avery Index to Architectural Periodicals)
- 2017** Çetin, M., & Şaher, K. (2017). Building For Capturing Public Mind Through Ears: Evolution of Architectural Typology as A Mechanism of Auditory Deception and Urban Control. *Journal Of Civil Engineering and Architecture*, 11(1), 67–80. (Cambridge Science Abstracts, Google Scholar)
- 2016** Şaher, K., & Çetin, M. (2016). The Sounds of Crime and Punishment: A Review of Different Prison Types in Regard to Their Binary Soundscapes. *IOSR Journal of Humanities and Social Science*, 21(11), 57–67.
- 2016** K. Saher and M. Çetin; “Music and Performance as Sonic Acts of Political Struggle; Counter Political Soundscapes in Urban Realm.” *Sociology Study*, June 2016, Vol. 6, No. 6, Pg 378-391. (Google Scholar, Proquest/Csa Social Science Collection)
- 2016** Şaher, K., & Çetin, M. (2016). Music And Performance as Sonic Acts of Political Struggle: Counter Political Soundscapes in The Urban Realm. *Sociology Study*, 6(6), 378–391 (Google Scholar, Proquest/CSA Social Science Collection)
- 2016** Şaher, K. (2016). Battersea Gas Tanks. *Yapı Dergisi*, 414, 166–169. (Design And Applied Arts Index)
- 2016** Şaher, K. (2016). Mountain Bike Venue Test Event Noise Assessment: London 2012 Olympic and Paralympic Games. *AKUSTIKA*, 25, 62–65. (SCOPUS)
- 2009** Şaher, K. (2009). Auralization in acoustic quality analysis for open-plan offices. *Mimarlık*, 350, 47–50. (Design And Applied Arts Index, Avery Index to Architectural Periodicals)
- 2008** Nijs, L., Şaher, K., & van Ouden, D. (2008). Effect of room absorption on human vocal output in multi-talker situations. *Journal of the Acoustical Society of America*, 123(2), 803–813. (SCI-EXP)
- 2007** Şaher, K., & Rychtáriková, M. (2007). Impact of corner, screen absorption, and furniture to reduce noise levels in an L-shaped room. *AKUSTIKA*, 7, 2–11. (SCOPUS)

Books and Book Chapters

- 2021** A. S. Dümen, D.S.N. Budayan, K. Saher; (Eds); 14th National Acoustic Congress Proceedings. “Sound and Silence after 2020: Earthquakes, Protests, Covid-19”. Hiper Yayın. ISBN: 978-625-7499-63-7; e- ISBN: 978-625-7499-64-4. (in Turkish)

- 2019** K. Şaher, D. C. Aydın, B. S. Ozbilen, A. Sentop, N. T. Bayazit, B. Eren (Eds); 13th National Acoustic Congress Proceedings. Turkish Acoustical Society.
- 2015** S. Vergili, F. Ozis, F. Kutluk, C. Calli, K. Şaher and T. Kose; "Chapter 4: Music and Technology Evaluation of Reverberation Time Differences: An FmRi Study. "In Which Direction Music is Heading? (pg.123-132), (Eds); F. Kutluk and U. Turmen, Cambridge: Cambridge Scholars Publishing.

Papers in Refereed Conference Proceedings

- 2024** Şaher, K., Şentop-Dümen, A., Sezgin, H., Nas, S., & Kelle, D. (2024). Insights From The "Acoustics Workshop in Educational Buildings" By Turkish Acoustical Society. *Proceedings Of INTER-NOISE 2024*, Nantes, France, 10017–10021.
- 2024** Nas, S., Şaher, K., Mıhçı, G., & Aytıs, S. (2024). Exploring The Acoustic Identity of Derinkuyu Underground City. *Proceedings Of the International Congress on Sound and Vibration*, 8–11 July 2024, Amsterdam, The Netherlands.
- 2024** Luzzi, S., Bartalucci, C., Macchie, S. D., Pedrero, A., & Şaher, K. (2024). International Collaborations Among Schools as A Follow-Up of The International Year Of Sound. *Proceedings Of the International Congress on Sound and Vibration*, 8–11 July 2024, Amsterdam, The Netherlands.
- 2024** Şaher, K., Dümen, A. Ş., Sezgin, H., Nas, S., Kelle, D., & Demiral, Y. (2024). Reflections On the International Noise Awareness Day 2023 Activities. *Proceedings Of the International Congress on Sound and Vibration*, 8–11 July 2024, Amsterdam, The Netherlands.
- 2023** Şaher, K., Ozturk, A., Şentop Dümen, A., Demiral, Y., & Ozankan, A. (2023). Through Healthier Learning Environments in Turkish Schools. *Proceedings Of The 10th Convention of The European Acoustics Association, Forum Acusticum 2023*, 11–15 September 2023, Torino, Italy, 969–972.
- 2023** Aslan, A., Şaher, K., & Tozoğlu, A. E. (2023). Acoustic Transformation of Rock-Cut Caves into Performance Spaces. *Proceedings Of The 10th Convention of The European Acoustics Association, Forum Acusticum 2023*, 11–15 September 2023, Torino, Italy, 2567–2570.
- 2023** Şaher, K., Sezgin, H., Şentop Dümen, A., Nas, S., Kulak, S., & Özçetin, Z. (2023). Experiences From IYS 2020, Public Engagement and Awareness Activities in Turkey. *Proceedings Of The 10th Convention of The European Acoustics Association, Forum Acusticum 2023*, 11–15 September 2023, Torino, Italy, 5879–5880.
- 2022** Şentop Dümen, A., Şaher, K., & Kurra, S. (2022). Towards New Acoustic Policies in the 'New Normal' Of The COVID-19 Pandemic. *Proceedings Of The 24th International Congress on Acoustics*, 24–28 October 2022, Gyeongju, Korea.
- 2019** Şaher, K. (2019). Comparison Of Phonetically Balanced Monosyllabic Word Recognition Tests in Adults and Children. *Proceedings Of The 13th National Acoustic Congress*, 17–18 October 2019, Dicle University, Diyarbakır, Turkey, 175–186. (In Turkish)
- 2019** Vergili, S., Öziş, F., & Şaher, K. (2019). Speech Intelligibility as An Acoustic Evaluation Criterion In Hospital Emergency Departments. *Proceedings Of The 13th National Acoustic Congress*, 17–18 October 2019, Dicle University, Diyarbakır, Turkey, 165–173.
- 2019** Balkır, N., Şaher, K., & Mıhçı, G. (2019). Blending Science and Art: An Educational Perspective. *Proceedings Of the EDULEARN19 Conference*, 1–3 July 2019, Palma, Mallorca, Spain, 1283–1288.
- 2019** Şaher, K. (2019). London 2012 Noise Control of Greenwich Park Equestrian Event. *Proceedings Of The 14th National Service Engineering Congress*, 17–20 April 2019, İzmir, Turkey, 1702–1711. (In Turkish)
- 2018** Şaher, K. (2018). Rain Noise Sound Intensity Testing – London 2012 Olympics International Broadcasting Centre Case Study. *Proceedings Of The 8th Congress of The Alps Adria Acoustics Association*, 20–21 September 2018, Zagreb, Croatia, 154–157.
- 2018** Şaher, K. (2018). Acoustic Comfort Evaluation in Dining Halls – A Case Study. *Proceedings Of The 3rd National Building Physics and Environmental Control Congress*, 10–11 June 2018, İstanbul Technical University, Taşköprü, İstanbul, Turkey, 123–130
- 2018** Şaher, K. (2018). Rain Impact Sound Insulation of London 2012 Olympics International Broadcasting Centre Roof. *Proceedings Of The 9th National Roof and Facade Conference*, 12–13 April 2018, İstanbul Kültür University,

İstanbul, Turkey, 213–219. (In Turkish)

- 2017** Şaher, K., & Özgencil, Y. (2017). Assessment Of Auralizations in Music Practice Rooms for Piano and Guitar. Proceedings Of The 12th National Acoustic Congress, 14–15 September 2017, İzmir Institute of Technology, Urla, İzmir, Turkey.
- 2017** Şaher, K., Karaböce, B., & Nas, S. (2017). Auralization Of Phonetically Balanced Monosyllabic Word Lists in Classroom Acoustics. Proceedings Of The 12th National Acoustic Congress, 14–15 September 2017, İzmir Institute of Technology, Urla, İzmir, Turkey.
- 2017** Şaher, K., Nas, S., Karaböce, B., Kırbaş, C., & Bilgiç, E. (2017). Comparison Of Measurement and Simulation Values in The Reverberation Chamber. Proceedings Of The 12th National Acoustic Congress, 14–15 September 2017, İzmir Institute of Technology, Urla, İzmir, Turkey
- 2017** Şaher, K., & Özgencil, Y. (2017). Assessment Of Auralizations of Piano and Guitar For Music Practice Rooms. Proceedings Of The 2017 International Symposium on Musical Acoustics, 18–22 June 2017, Montreal, Canada, 129–132.
- 2017** Şaher, K., & Mihçı, G. (2017). Auditory Exploration of Derinkuyu Underground City, Cappadocia, Turkey. Proceedings Of Invisible Places 2017: Sound, Urbanism and Sense of Place, 7–9 April 2017, São Miguel Island, Azores, Portugal, 396–403
- 2016** Şaher, K., Nas, S., Karaböce, B., Kırbaş, C., & Bilgiç, E. (2016). Room acoustic modelling of a reverberation chamber. Proceedings of INTER-NOISE 2016: 45th International Congress and Exposition of Noise Control Engineering, 21–24 August 2016, Hamburg, Germany, 1043–1049.
- 2016** Şaher, K., & Karaböce, B. (2016). Auralizations Of Monosyllabic Word Lists For Hearing Impaired Students – A Preliminary Study. *Proceedings Of Euroregio 2016: 9th Iberian Acoustic Congress*, 13–15 June 2016, Porto, Portugal.
- 2016** Şaher, K. (2016). London 2012 Olympic Equestrian Event Environmental Noise Assessment. Proceedings Of The 2nd National Building Physics And Environmental Control Congress, 4–5 June 2016, İstanbul Technical University, Taşkışla, İstanbul, Turkey.
- 2015** Şaher, K., Karaca, D., Türkkel, E., & Stimac, A. (2015). Strategic Noise Mapping Of Eskişehir Pilot Area. Proceedings Of The 11th National Acoustic Congress, 21–22 October 2015, İstanbul, Turkey. (In Turkish)
- 2015** Özgencil, Y., & Şaher, K. (2015). Assessment Of Acoustic Properties Of Rehearsal Rooms In Conservatories. Proceedings Of The 11th National Acoustic Congress, 21–22 October 2015, İstanbul, Turkey. (In Turkish)
- 2015** Şaher, K., & Medley, A. (2015). Battersea Gas Holders Demolition Works Environmental Noise Impacts Study. Proceedings Of The ICOEST International Conference On Environmental Science And Technology, 9–13 September 2015, Sarajevo, Bosnia And Herzegovina.
- 2014** Şaher, K., & Cahill, B. (2014). London 2012 Olympic And Paralympic Games – Acoustic Design Aspects Of Temporary Venues. Proceedings Of Forum Acusticum 2014, 7–12 December 2014, Kraków, Poland.
- 2014** Şaher, K., Nijs, L., & Hordijk, T. (2014). Acoustic Design Guidelines For Adults With Intellectual Disability. Proceedings Of Forum Acusticum 2014, 7–12 December 2014, Kraków, Poland.
- 2013** Şaher, K., & Cahill, B. (2013). London 2012 Olympic And Paralympic Games – Acoustic Design Of Temporary Venues. Proceedings Of The 10th National Acoustic Congress, 16–17 December 2013, Yıldız Technical University, İstanbul, Turkey.
- 2011** Şaher, K., & Cahill, B. (2011). Recommendations For Public Address And Voice Alarm (PA/VA) System Design In Underground Metro Stations. Proceedings Of The 9th National Acoustic Congress, 26–27 May 2011, Middle East Technical University Congress Centre, Ankara, Turkey.
- 2011** Şaher, K., & Öziş, F. (2011). Subjective Assessment Of Location Of Absorption In A Small Room By Auralizations. Proceedings Of The 9th National Acoustic Congress, 26–27 May 2011, Middle East Technical University Congress Centre, Ankara, Turkey.
- 2011** Şaher, K., & Öziş, F. (2011). Acoustic Treatment Investigation Of A Gymnasium In A High School Designed For

Special Educational Needs Students. Proceedings Of The 9th National Acoustic Congress, 26–27 May 2011, Middle East Technical University Congress Centre, Ankara, Turkey.

- 2011** Cahill, B., Şaher, K., & Hill, N. (2011). Carbon Critical Design Considerations In Acoustics Design. Proceedings Of The Institute Of Acoustics, 33(1), Acoustic Challenges In Green Buildings Meeting, 7–14. 16 February 2011, Watford, UK
- 2010** Şaher, K., & Nijs, L. (2010). Acoustical Design Guidelines In Rooms For Adults With An Intellectual Disability. Proceedings Of The 1st EAA Euroregio Congress On Sound And Vibration, 15–18 September 2010, Ljubljana, Slovenia.
- 2009** Şaher, K., & Hill, N. (2009). Key Issues In The Design Of Educational Buildings. Proceedings Of The 34th International Acoustic Conference – EAA Symposium, 28–30 September 2009, High Tatras, Slovakia.
- 2008** Şaher, K., Hill, N., & Clouston, J. (2008). Comparison Between Column Speakers And Flat Panel Speakers In A Metro Station By ODEON. Proceedings Of The Institute Of Acoustics, 30(6), Reproduced Sound Conference, 305–313. 20–21 November 2008, Brighton, UK.
- 2008** Şaher, K. (2008). Auralization As An Assessment Tool In Open-Plan Offices. Proceedings Of The 8th National Acoustic Congress, 27–28 November 2008, Antalya, Turkey.
- 2008** Öziş, F., & Şaher, K. (2008). Determination Of Reverberation Time Requirements Of Recording Studios For Trumpet And Violin Recordings. Proceedings Of The 8th National Acoustic Congress, 27–28 November 2008, Antalya, Turkey.
- 2007** Şaher, K., Öziş, F., & Rindel, J. H. (2007). Assessment of musical instrument performances for the practice rooms by musicians. Proceedings of the 19th International Congress on Acoustics, 2–7 September 2007, Madrid, Spain, 5572–5578.
- 2007** Şaher, K., Rindel, J. H., & Nijs, L. (2007). Assessment of room absorption by normal and hearing-impaired people. Proceedings of the 19th International Congress on Acoustics, 2–7 September 2007, Madrid, Spain, 5566–5572.
- 2007** Öziş, F., & Şaher, K. (2007). Investigation of room acoustic properties for clarinet and piano in recording studios. Proceedings of INTER-NOISE 2007, 28–31 August 2007, Istanbul, Turkey, 2632–2636.
- 2007** Şaher, K., & Nijs, L. (2007). Acoustical quality investigation in actual and virtual rooms in care centres. Proceedings of INTER-NOISE 2007, 28–31 August 2007, Istanbul, Turkey, 2646–2651.
- 2006** Şaher, K., & Nijs, L. (2006). Absorption coefficient for acoustical quality in living rooms in care centres for people with intellectual disabilities. Proceedings of INTER-NOISE 2006, 3–6 December 2006, Honolulu, Hawaii, USA, 3158–3166.
- 2006** Şaher, K., & Rychtáriková, M. (2006). Impact of corner, screen, absorption and furniture to reduce noise levels in an L-shaped room. Proceedings of the 33rd International Acoustics Conference – EAA Symposium, 4–6 October 2006, Štrbské Pleso, Slovakia.
- 2006** Şaher, K. (2006). Prediction and assessment of acoustical quality in living rooms for people with intellectual disabilities. Proceedings of the 8th PhD Symposium of the Research School: Integral Design of Structures, 20–21 June 2006, Zeist, the Netherlands.
- 2006** Şaher, K., & Rindel, J. H. (2006). How does architecture sound for different musical instrument performances? Proceedings of the Architecture, Music, Acoustics International Cross-disciplinary Conference, 6–8 June 2006, Ryerson University, Toronto, Canada.
- 2006** Şaher, K., Rindel, J. H., & Nijs, L. (2006). Comparisons between binaural and in-situ recordings and auralizations. Proceedings of the 120th Audio Engineering Society Convention, 20–23 May 2006, Paris, France. (Paper #6744)
- 2006** Şaher, K., Angelakis, K., & Alvarez, J. (2006). Performance and rehearsal hall for children: Collaboration between architecture and acoustics students. Proceedings of the Institute of Acoustics, 28(2), 6th International Conference on Auditorium Acoustics, 5–7 May 2006, Copenhagen, Denmark. (Paper #195).
- 2006** Angelakis, K., Şaher, K., & Alvarez, J. (2006). Virtual representation and qualification of soundscapes of open public spaces. Proceedings of the Institute of Acoustics, 28(1), Institute of Acoustics Spring Conference: Futures in Acoustics, Today's Research – Tomorrow's Careers, 3–4 April 2006, Southampton, UK, 98–105

- 2005** Şaher, K., Rindel, J. H., & Nijs, L. (2005). Assessment of impact of reverberation time and absorption on listening conditions in multi-source environments. Proceedings of Forum Acusticum 2005, 29 August–2 September 2005, Budapest, Hungary.
- 2005** Şaher, K., Nijs, L., & van der Voorden, M. (2005). Definition of material properties in the acoustical model calibration. Proceedings of the 118th Audio Engineering Society Convention, 28–31 May 2005, Barcelona, Spain, 1364–1372.
- 2004** Şaher, K., Nijs, L., & van der Voorden, M. (2004). The impact of screen design parameters on the reduction of noise levels in multi-functional spaces. Proceedings of Acustica 2004, 14–17 September 2004, Guimarães, Portugal.
- 2004** Şaher, K., Nijs, L., van der Voorden, M., & Rychtáriková, M. (2004). Improvement of speech intelligibility in multi-functional spaces by means of architectural intervention. Proceedings of INTER-NOISE 2004, 22–25 August 2004, Prague, Czech Republic.
- 2004** Rychtáriková, M., Nijs, L., Şaher, K., & van der Voorden, M. (2004). Architectural guidelines for living rooms, classrooms, offices, sport facilities and restaurants. Proceedings of INTER-NOISE 2004, 22–25 August 2004, Prague, Czech Republic.
- 2003** Şaher, K., Nijs, L., Rychtáriková, M., & van der Voorden, M. (2003). Prediction and assessment of acoustical quality in multi-functional spaces for mentally challenged people. Proceedings of the 7th International Acoustics Colloquium, 4–5 September 2003, Zvolen-Šachtičky, Slovakia.
- 2003** Rychtáriková, M., Nijs, L., van der Voorden, M., & Şaher, K. (2003). The relevance of modeling the sound source directivity in ray-tracing software. Proceedings of the 7th International Acoustics Colloquium, 4–5 September 2003, Zvolen-Šachtičky, Slovakia.

Conference Presentations (Abstracts)

- 2021** A. S. Dümen & K. Saher; “Noise annoyance in dwellings research by Turkish Acoustical Society during the pandemics.” 14th National Acoustic Congress, Bilgi University, Istanbul, Turkey — 7-8 October 2021. (online) ([in Turkish](#))
- 2021** A. S. Dümen & K. Saher; “Noise annoyance in dwellings during the first wave of Covid-19.” 180th Meeting of the Acoustical Society of America Acoustics in Focus — 8-10 June 2021. (online)
- 2017** K. Saher and B. Karaboce; “Assessment of Auralizations of Monosyllabic Words for Hearing Impaired Students.” Acoustics '17, 173rd Meeting of the Acoustical Society of America and the 8th Forum Acusticum, 25-29 June 2017, Boston, USA.
- 2015** K. Saher and M. Cetin; “Binary Soundscapes of Prisons.” Soundscapes and Sonic Cultures in America, 42nd AAAS Conference, 6-8 November 2015, Graz, Austria.
- 2015** K. Saher and G. Mihci; “Exploration of Sonic Ecology of Derinkuyu Underground City in Turkey.” ARCHEOACOUSTICS II, Second International Interdisciplinary Conference on the Archaeology of Sound, 30, 31 October and 1 November 2015, İstanbul Technical University, Turkey.

INVITED TALKS, SEMINARS AND WORKSHOPS

- 2019** Seminar on “Acoustic Design and Cognitive Performance in Educational Facilities”; Atelier Area, Bomontiaada, İstanbul. October 11, 2019. (Sponsored by St. Gobain Rigips and SAFE Acoustics)
- 2019** Seminar on “Noise Control and Fire Safety in High Quality Buildings”; Atelier Area, Bomontiaada, İstanbul. March 06, 2019. (Sponsored by St. Gobain Rigips and Cype Turkey)
- 2019** Seminar on “Comfort Design in Offices and BIM Applications: Acoustic Comfort in Offices”; Atelier Area, Bomontiaada, İstanbul. February 01, 2019. (Sponsored by St. Gobain Rigips and Cype Turkey)
- 2016** Seminar on “Noise Control and Legislation Policy”; İzmir Economy University, Fac. Of Architecture, Dept. Architecture. İzmir, December 1, 2016
- 2016** Workshop on “Hearing the Room Skin?” Yaşar University, Fac. Of Architecture, Dept. of Interior Architecture and

Environmental Design. İzmir, October 7, 2016

- 2016** Workshop on “Meas-Art: Art of Measurement”; workshop held jointly by, Kadir Has University, Faculty of Art and Design and TÜBİTAK National Metrology Institute, İstanbul, April 28-29-30, May 1 2016 (with B. Karaböce, G. Mıhçı and N. Balkir).
- 2016** Workshop on “Sonic Exploration of Derinkuyu Underground City”; Sensory Histories of Place, Koç University, Research Centre for Anatolian Civilizations, 1-2 April 2016, İstanbul, Turkey. (with G. Mıhçı)
- 2016** Seminar on “Audible Interior Spaces”; Izmir Institute of Technology, Fac. of Architecture, Dept. of Architecture, İzmir, April 7, 2016. (Fanfare Architecture seminars.)
- 2015** Seminar on “Sustainability in London 2012 Olympic and Paralympic Games – Temporary Venues”; İzmir University of Economics, Fac. of Architecture, Dept. of Arch., İzmir, December 4, 2015.
- 2015** Seminar on “Acoustic Design in Interior Architecture”; Yaşar University, Fac. of Architecture, Dept. of Interior Architecture and Environmental Design, İzmir, March 13-20, 2015.
- 2014** Seminar on “Hearing Architecture: Exploring Aural Environment”; Yaşar University, Fac. of Architecture, Dept. of Arch., İzmir, November 26, 2014.
- 2014** Workshop on “Sound Scores Workshop”; Yaşar University, Fac. of Architecture, Dept. of Arch., İzmir, November 25-27, 2014 (with G. Mıhçı).
- 2013** Workshop 11th Turkish and German Designers Workshop “Skin of the City”: organized by İstanbul Commerce University Faculty of Engineering and Design and HFT Stuttgart University of Applied Sciences, İstanbul, November 11-15, 2013.
- 2013** Seminar on “Acoustic Design of Schools for SEN and Hearing Impaired”; Institute of Acoustics, London Branch Evening Meeting, London, UK, February 20, 2013 (the same lecture is given at Institute of Acoustics Midlands Branch at Birmingham 26 March 2013).
- 2009** Seminar on “Room Acoustics Applications”; Izmir Institute of Technology, Department of Architecture, May 9, 2009.
- 2009** Seminar on “ODEON Room Acoustics Software for Music Technology Studies”; 9 Eylül University, Music Technology Department, May 10, 2009.
- 2008** Seminar on “Auralization in Open Plan Offices and Rooms for Hearing Impaired”; Presentation for the Local Authorities, ATKINS, Surrey, UK, February 27, 2008.
- 2006** Workshop “Experience Ray Racing Modelling Workshop”; 5th Ecophon International Acousticians’ Seminar: Innovations in Acoustics, Helsingborg, Sweden, September 27-28, 2006.

CONGRESS & ACADEMIC ORGANIZATIONS

- 2022** K. Saher, Chair (2021). “International Noise Awareness Day Symposium”, 27 April 2022, 9 Eylül University, İstanbul, Turkey. (online) Turkish Acoustical Society Event in collaboration with Association of Occupational Hygienists (Turkey), Italian Association of Occupational Hygienists and Occupational Health And Safety Research And Development Institute (Turkey).
- 2021** K. Saher, General Chair. 14th National Acoustic Congress, 7-8 October 2021, Bilgi University, İstanbul, Turkey. (online)
- 2021** K. Saher, Vice Chair (2021). “Noise Awareness Day Seminars: Sound Insulation Legislation and Implementation”, 28-29 April 2021, İstanbul Bilgi University, İstanbul, Turkey. (online)
- 2019** K. Saher, Vice Chair (2019). “IEEE International Symposium on Medical Measurements and Application Conference”, 26-28 June 2019, Kadir Has University, İstanbul, Turkey.
- 2019** K. Saher, Member of 13th National Acoustic Congress Organization Board (2019). 13th National Acoustic Congress, 17-18 October 2019, Dicle University, Diyarbakir, Turkey.

THESIS SUPERVISION

- 2020** M. Emin Atakan (June, 2020) "Evaluation Of The Effects Of Acoustic Designs On The Reverberant Area In Home Studios". Bahçeşehir University, Sound Technologies Master Program, Graduate School of Natural and Applied Sciences. Master Thesis. [\(in Turkish\)](#)
- 2018** R. Kocaer (September, 2018) "Kılıç Ali Paşa Mosque Acoustic Heritage Evaluation and Acoustic Performance Comparison with a Modern Mosque". Kadir Has University, Graduate Program for the Preservation of Cultural Heritage, Graduate School of Science. Master Thesis. [\(in Turkish\)](#)
- 2015** Y. Ozgencil (May, 2015) "Acoustic Investigation of Conservatory Rehearsal Rooms and Improvement of Acoustic Design". Bahçeşehir University, Sound Technologies Master Program, Graduate School of Natural and Applied Sciences. Master Thesis. [\(in Turkish\)](#)

SELECTED PROJECT EXPERIENCE

- 2023** **ÇUKUROVA AIRPORT, TURKEY** – Acoustic assessment of Cargo Building. The scope includes room acoustics design, sound insulation assessment of interior building elements and sound and vibration insulation of mechanical rooms.
- 2023** **İZMİR METRO STATIONS", İZMİR, TURKEY** - Room Acoustic Modelling of typical underground stations forming part of the İzmir Gazıemir – Karabağlar HRS Project to assess the reverberation time and acoustic performance of station areas. Platform areas, Ticket Halls, Circulation Areas of 6 types of stations were modelled in 3D Revit software. T
- 2022** **INTERCONTINENTAL HOTEL, ANKARA, TURKEY** – The scope of works included for acoustic design review of architectural, structural, and building services designs to ensure compliance to Intercontinental Hotel Groups' performance standards.
- 2022** **INCIRLIK AIR BASE BUILDING RENOVATION, TURKEY** – The scope includes internal sound insulation, advice on reverberation and building services design. Specific focus was on the sound insulation, reverberation and speech intelligibility calculations for offices.
- 2021** **HILTON GARDEN INN, AMASYA, TURKEY** – Acoustic design for an upscale hotel project. Scope of works included for acoustic design review of architectural, structural, and building services designs to ensure compliance to Hilton Brand's performance standards. Concept design, schematic and detail design development stages.
- 2021** **LAND OF THE LEGENDS PARK NOISE MEASUREMENTS, ANTALYA, TURKEY** – A noise survey has been undertaken at the Land of the Legends Park, Belek, Turkey to examine the detailed noise emission values of the hyper coaster at the Park. This survey has been done as part of the Noise Impact Assessment for the new roller coaster to be built at Thorpe Park, London for a Client based in United Kingdom.
- 2021** **FANUC HEADQUARTERS, İSTANBUL** – The scope includes facade sound insulation, internal sound insulation, impact noise assessment, advice on reverberation and building services design. Specific focus was on the echoes, reverberation and speech intelligibility calculations for open plan offices, restaurant areas, showroom and conference room.
- 2021** **ENVIRONMENTAL NOISE BARRIER DESIGN, KARTAL, İSTANBUL** – Noise measurements, assessment of existing noise levels, design and design of 1.3 km noise barrier of sustainable materials in Samandra-Kartal Motorway in İstanbul to reduce noise exposure of sensitive buildings. The project is developed for İstanbul Greater Municipality.
- 2021** **TIRSAN TRUCK FACTORY, SAKARYA, TURKEY** – The scope covers the studies of determining the noise exposure of the employees in the production workshop of Tirsan in Sakarya, designing the measures to be taken in the building in order to prevent and reduce the exposure and making noise measurements.
- 2020** **KİLSAN BRICK FACTORY, İSTANBUL, TURKEY** – Sound insulation calculations of brick constructions that satisfy "Regulation On The Protection Of Buildings Against Noise" airborne sound insulation criteria for apartment buildings, hospitals and educational facilities.
- 2019** **İSTANBUL NEW AIRPORT, İSTANBUL, TURKEY** – Acoustic assessment of Operation Centre, Airside Staff Gate, Line

Maintenance Hangar Building, Cargo Building, Ground Service Equipment Building, Animals Quarter Area, In-Flight Storage Building. The scope includes room acoustics design, sound insulation assessment of interior building elements and sound and vibration insulation of mechanical rooms.

- 2017 DERİNCE CULTURAL CENTRE, IZMIT, TURKEY** – Design and development for acoustic design strategy of 1000 people capacity conference hall. The scope includes room acoustics design, sound insulation assessment of interior and exterior building elements.
- 2016 MIZBAH HOTEL CONGRESS CENTER, İRAN** – Design and development of an acoustic design strategy suitable for the multi-purpose character of the hall. Scope includes room acoustics design, sound insulation of internal and external partitions, and noise and vibration evaluation of mechanical systems.
- 2016 RADISON BLU OTEL, OLYMPIYSKY, RUSSIA** – Acoustic project manager for detail design project. Acoustic design services include acoustic review of architectural, structural and mechanical systems, and the recommendation of appropriate details and systems according to hotel standards. The scope of the works also includes room acoustics calculations, acoustic detailing and material recommendations for the hotel's conference and ballroom.
- 2016 BALIKESİR MUNICIPAL SERVICES BUILDING NATIONAL ARCHITECTURAL COMPETITION, BALIKESİR, TURKEY**– Acoustic consultant of the design team developing concept design for municipal services building. The scope of works include environmental noise assessments, facade sound insulation, internal sound insulation, speech privacy calculations for the offices, advice on building services design.
- 2014 TECHNICAL ASSISTANCE PROJECT FOR IMPLEMENTATION CAPACITY FOR THE ENVIRONMENTAL NOISE DIRECTIVE, TURKEY** - European Union Project (Europe Aid /131352/D/SER/TR) - Non key Local Expert for the Development of Strategic Noise Maps and Action Plans for Adana, Erzurum, Eskişehir in Turkey.
- 2014 K2 BUSINESS PARK, RUSSIA** - Review of mechanical rooms of an office block for noise and vibration assessment.
- 2013 THE PARK AT NORTHPOINT OFFICE CENTRE (BLOCK 1 &3), MOSCOW, RUSSIA** – Acoustical detailed design review for architectural, structural, mechanical and environmental aspects of an office park.
- 2013 NAMASTE HOTEL, MUMBAI, INDIA** – Acoustic project manager for the design and construction of this 'iconic' 5* hotel in the heart of Mumbai. Full acoustic design services included review and assessment of architectural, structural, MEP, interior design, audio visual and environmental design proposals.
- 2013 BATTERSEA GAS HOLDERS DEMOLITION, UK.** - Environmental Impact Assessment of Battersea Gasholders demolition works in relation to Noise and Vibration.
- 2012 DERBY LIVE ASSEMBLY ROOMS, UK** - Assessment of the Great Hall by acoustic modelling. Reverberation time, speech intelligibility and musical clarity were assessed, including amount and position of acoustic treatment to ensure high quality acoustic for both speech and music.
- 2012-2008 LONDON 2012 OLYMPICS OFF PARK VENUES, UK – Project Manager** - Acoustic lead to Off-Park Venues. Scope of works included noise surveys, noise assessments and reports for planning applications, noise management plans, environmental impact studies, architectural, environmental and MEP acoustic design for all off-Olympic Park sporting venues and on-park LOCOG venues. This involved several years of work including planning submissions, noise modelling, detailed design input and monitoring during the games.
- 2011 KING ABDULAZIZ INTERNATIONAL AIRPORT DEVELOPMENT PROJECT, SAUDI ARABIA** – Project Manager – Scope of works included Public Address / Voice Alarm system design and digital modelling to ensure compliance to NFPA fire codes and building acoustic review and design advice. PA/VA system design for main terminal buildings and the external train stations, bus stations and the mosque. The main terminal buildings include check-in hall, arrivals hall, duty free area, automated people movers stations, waiting lounges and piers.
- 2010 KAZAN RIVIERA MIXED-USE TOWER, RUSSIA – Project Manager**- Acoustic design for a mixed-use Tower in Kazan, which has residential, hotel and office cores. Scope of works included for acoustic design review of architectural, structural and building services designs to ensure compliance to performance standards. Concept design and preliminary design stages.
- 2010 YAS ISLAND WATER PARK, ABU DHABI, AED** - Acoustic design input into development of large water park located on Yas Island, Abu Dhabi. Scope of works included PA design, review of building services noise impact, and sound insulation to areas.
- 2010 BIRMINGHAM NEW STREET STATION, UK** - Technical project management of design of PA/VA system in this large

scale redevelopment project. Comprising re-design of 12 platforms, large concourse and associated spaces to ensure speech intelligibility and sound pressure coverage were in line with BS and Network Rail Standards. Specification of speakers, speaker locations, and architectural finishes were all part of the scope for this demanding project.

- 2010 CROSSRAIL, UK (2010)** – PA/VA design for platform, concourse and cross passages to ensure compliance with BS, and CrossRail Standards, in terms of speech intelligibility and sound pressure level coverage.
- 2010 MAIN MEDIA ROOMS- 2012 OLYMPICS TEMPORARY VENUES, UK** - Reverberation time and speech intelligibility analysis for the main media rooms. The analysis is done by 3d acoustic modelling in ODEON. The scope also included room acoustics and sound insulation recommendations for the control room and translation booths to ensure a high quality acoustics for Olympic conferences and broadcasts.
- 2010 KOLKATTA METRO STATIONS, KOLKATTA** - Reverberation time analysis for three metro stations.
- 2009 HOLY TRINITY SCHOOL, UK** - BB93 Assessment of a primary school. The design of the school incorporated internal noise levels, reverberation, sound insulation and noise control recommendations
- 2009 OCKENDON SCHOOL, ASSEMBLY HALL, UK** - Reverberation time measurements and acoustic modelling of the assembly hall. Advice on interior finishes.
- 2009 CAIUS HOUSE FIT-OUT, UK** - Acoustical assessment of a youth centre. Advice on design of a recording studio and control room
- 2009 MYPLACE@VINE LANE, UK** – Room acoustic design recommendations for the design of a performance hall, which was converted from a pool. Sound insulation testing and building design recommendations
- 2009 BOND STREET RAIL EXTENSION, UK** - PA/VA system design for large volume platform and concourse areas within the Station. Modelling was carried out in ODEON modelling software and output ensured compliance to British Standards and Network Rail Standards for Speech Intelligibility in Stations.
- 2009 BLACKFRIARS LUL AND RAIL STATION, UK** - Large scale rail station. Environmental planning consents for two London Boroughs formed a major part of the delivery with impact from Public Address System a potential issue. Recommendations for mitigation to ensure that sensitive receivers were not affected.
- 2008 ATKINS LAND REGISTRY OFFICES, UK** – ODEON modelling of an open plan office. Assessment of speech privacy and interference. Auralizations at various positions in the office with background noise.
- 2008 CHANNEL TOWERS, DUBAI, AED** - Preliminary design review of architectural design of three residential tower blocks. Scope of Works included review of road traffic noise and sound insulation to areas and building services noise impact.
- 2008 MAHBOULA OFFICE TOWER, KUWAIT** - The scope includes facade sound insulation, internal sound insulation, speech privacy calculations for the offices, advice on reverberation and building services design.
- 2008 IRIS MIST-SETH TOWER, DUBAI, AED** - Detail design review of architectural, structural and mechanical design of a residential complex in Dubai.
- 2008 ST. ANN SEN SCHOOL, UK** - BB93 Assessment for a SEN (special educational needs) school. Room acoustic modelling for dance/drama hall, music room, typical classroom and hydrotherapy pool.
- 2007 IBIS & NOVOTEL HOTELS, DUBAI, AED** - Full acoustic design services for high profile luxury hotel complex in Dubai. The scope of works included detail design review of architectural, structural and mechanical acoustic design services.
- 2007 GOSWELL ROAD, UK** - Residential Units PPG24 Assessment, BS8233 Assessment of façade glazing and ventilation.
- 2005 OFFICE BUILDING, ROSKILDE, DENMARK** - Constructing 3D acoustical model, speech privacy calculation, speech intelligibility and noise annoyance calculation.
- 2005 COPENHAGEN BUSINESS SCHOOL CLASSROOMS/CANTEEN** - Constructing 3d acoustical model, material recommendation, speech intelligibility and speech privacy calculation.

REFERENCES

- **Prof. Dr. Sevil Sariyildiz**

Faculty of Architecture, Delft University of Technology
Building 8, Julianalaan 134 NL-2628 BL Delft, the Netherlands
Tel: +31 6 53810353
i.s.sariyildiz@tudelft.nl

- **Prof. Dr. Jens Holger Rindel**

Managing Director, Odeon A/S, Denmark
Former Professor at the Technical University of Denmark
Odeon A/S, Scion DTU
Diplomvej Bldg. 381 DK-2800 Kgs. Lyngby, Denmark
Tel: +45 8870 8845
jhr@odeon.dk

- **Ben Cahill (Acoustic Consultant, Msc.)**

Managing Director, Cahill Design Consultants
Former Line Manager at Atkins- Noise and Vibration
Cahill Design Consultants Limited
Creative Business Centre, Studio 201,
37 Queen Street, Colchester, Essex. CO1 2PQ
Tel +44 (0) 1206 809 598
ben.cahill@CDC-limited.co.uk