**1. Name, Surname, Title :** Zeynep Durmuş Arsan, Assoc. Prof. Dr.

**2. Education Credentials :**

|  |  |  |  |
| --- | --- | --- | --- |
| **Degree** | **Department** | **University** | **Year** |
| B. Arch. | Architecture | Dokuz Eylül University | 1988-1992 |
| M. Arch. | Architecture | Middle East Technical University | 1992-1997 |
| PhD | Architecture | Izmir Institute of Technology | 1997-2004 |

**3. Academic Experience :**

|  |  |  |  |
| --- | --- | --- | --- |
| **Title** | **Department** | **University/Place** | **Year** |
| Research Assistant | City and Regional Planning | Middle East Technical University | 1995-1996 |
| Instructor | Architecture | Izmir Institute of Technology | 1997-2019 |
| Assoc. Prof. Dr. | Architecture | Izmir Institute of Technology | 2019-continue |

**4. Areas of Expertise in Architecture**

A. Sustainable Development, Design and Architecture: Sustainable Architecture in Turkey

B. Research on Building Performance: Historic and Existing Buildings, Performance Monitoring and Simulations

C. Relationship between Nature & Built Environment: Rural Life, Vernacular Architecture, Permaculture Design, Alternative Living Environments

**5. Courses Taught (Last Two Years)**

|  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- |
| **Academic Year** | **Semester** | **Code** | **Name of Course** | **Weekly Hours** | | **Number of Students** |
| Theory | Application |
| 2018-2019 | Fall | AR 161 | Graphic Communication | 2 | 2 | 45 |
| AR 301 | Architectural Design III | 4 | 8 | 20 |
| Spring | CP154 | Building Technology and Built Environment | 2 | 2 | 32 |
| AR 302 | Architectural Design IV | 4 | 8 | 18 |
| 2019-2020 | Fall | AR 161 | Graphic Communication | 2 | 2 | 46 |
| AR 301 | Architectural Design III | 4 | 8 | 20 |
| AR 581 | Introduction to Building Physics | 2 | 2 | 13 |
| Spring | AR 302 | Architectural Design IV | 4 | 8 | 20 |
| AR 584 | Introduction Building Energy Simulation | 3 | 0 | 7 |
| 2020-2021 | Fall | AR 281 | Building Physics 1 | 2 | 2 | 51 |
|  |  | AR 301 | Architectural Design III | 4 | 8 | 16 |

**6. Supervised Graduate Theses / Dissertations**

**6.1. Masters**

Özsavaşçı, U., “Indoor Performance Analysis of Re-Functioned Museums: Case Study in Tire – Izmir / Yeniden İşlevlendirilen Müzelerin İç Mekan Performans Analizi: Tire – İzmir’de Alan Çalışması,” Izmir Institute of Technology, Department of Architecture Graduate Programme, 2020. (*ongoing)*

Çağırgan, U., “The Effect of Restoration Interventions on the Indoor Climate of Historic Buildings: Case Study of Tire Necip Paşa Library, İzmir, Turkey / Restorasyon Müdehalelerinin Tarihi Yapıların İç Mekan İklimi Üzerine Etkisi: Tire Necip Paşa Kütüphanesi Alan Çalışması, İzmir, Türkiye,” Izmir Institute of Technology, Department of Architecture Graduate Programme, 2020. (*ongoing)*

Ergün, B., “Comparative Energy Performance Analysis About Hemp-Clay Building Material / Kenevir Bazlı Toprak Yapı Malzemesinin Kullanımı Hakkında Karşılaştırmalı Enerji Performans Analizi,” Izmir Institute of Technology, Department of Architecture Graduate Programme, 2019. (*ongoing)*

Şahin, A. E., “Rural Design Guidelines Through Heritage-Led Sustainable Strategies: Case Study in Yukarıbey, Izmir / Miras Esaslı Sürdürülebilir Stratejiler Yoluyla Kırsal Tasarım Rehberleri: Yukarıbey, İzmir’de Alan Çalışması,” Izmir Institute of Technology, Department of Architecture Graduate Programme, 2019. (*ongoing)*

Gülmez Rafaat, R., “Process-centered modeling experience from architect's perspective: A case study in a residential building in İzmir / Mimarın bakış açısıyla süreç-odaklı modelleme deneyimi:İzmir'de bir konutta alan çalışması,” Izmir Institute of Technology, Department of Architecture Graduate Programme, 2019. *(completed)*

Ulu, M., “Retrofit strategies for energy efficiency in historic urban fabric: a case study in Basmane district, Izmir / Tarihi kentsel dokuda enerji etkin iyileştirme stratejileri: İzmir, Basmane semtinde alan çalışması,” Izmir Institute of Technology, Department of Architecture Graduate Programme,” Izmir Institute of Technology, Department of Architecture Graduate Programme, 2018. *(completed)*

Bughrara, K. S. M., “Adaptive thermal comfort analysis of historic mosques: The case study of Salepcioğlu mosque, Izmir, Turkey / Tarihi camilerin uyarlanır ısıl konfor çalışması: Salepçioğlu camisi alan çalışması, İzmir, Türkiye,” Izmir Institute of Technology, Energy Engineering Interdisciplinary Programme, 2016. *(completed)*

Gerçek, M., “Energy and environmental performance based decision support process for early design stage of residential buildings / Konut yapılarının erken tasarım aşaması için enerji ve çevresel performansa dayalı karar destek süreci,” Izmir Institute of Technology, Department of Architecture Graduate Programme, 2016. *(completed)*

Kılıç, M. A., “Rebuilding the relationship ignored between children and natural-built environment through school garden designed by permaculture method / Gözardı edilen çocuk ve doğal–yapılı çevre ilişkisini permakültür yöntemi yoluyla tasarlanan okul bahçesiyle yeniden kurma,” Izmir Institute of Technology, Department of Architecture Graduate Programme, 2014. *(completed)*

Aral, D., “Life cycle environmental impact assessment of a multi-storey residential building in İzmir / İzmir'de çok katlı bir konut yapısının yaşam döngüsü çevresel etki değerlendirmesi,” Izmir Institute of Technology, Department of Architecture Graduate Programme, 2012. *(completed)*

Yıldız, Y., “Retrofitting existing mass housing for energy efficiency: A case study in Gaziemir Emlak Bank housing area, Izmir, Turkey / Mevcut toplu konutların enerji verimli yenilenmesi: Gaziemir Emlak Bankası konut alanında bir çalışma, İzmir, Türkiye,” Izmir Institute of Technology, Department of Architecture Graduate Programme, 2008. *(completed)*

**Graduate Theses as Co-Advisor:**

Akın, D., “Thermal Characteristics of Aya Vukolos Church in İzmir / İzmir Aya Vukolos Kilisesi’nin Isıl Özellikleri,” Izmir Institute of Technology, Department of Architectural Restoration Graduate Programme, 2020. (*ongoing)*

Coşkun, T., “Modelling of indoor climate of historic libraries for preventive conservation of paper based collections / Kağıt kökenli koleksiyonların önleyici korunması için tarihi kütüphanelerin iç ortam iklim koşullarının modellenmesi,” Izmir Institute of Technology, Energy Engineering Interdisciplinary Programme, 2016. *(completed)*

Şahin, C. D., “Energy efficient retrofitting of historical buildings: A case study on the building of Basmane Semt Merkezi – İzmir / Tarihi yapıların enerji verimli iyileştirilmesi: Basmane Semt Merkezi binası – İzmir örnek çalışması,” Izmir Institute of Technology, Energy Engineering Interdisciplinary Programme, 2016. *(completed)*

Akdemir, M., “Dynamic energy and exergy analysis of an existing building in IZTECH / İYTE’deki mevcut bir binanın farklı HVAC uygulamaları için enerji ve ekserji analizi,” Izmir Institute of Technology, Energy Engineering Interdisciplinary Programme, 2016. *(completed)*

**6.2. PhD**

Avcı, A.B., “Evaluation of Thermal Comfort Conditions During Training in Physical Fitness Spaces / Egzersiz Mekanlarında Çalışma Altındaki Isıl Konfor Koşullarının Değerlendirilmesi,” Izmir Institute of Technology, Department of Architecture Graduate Programme, 2020. (*ongoing)*

Aral, D., “Automatic Generation of Architectural Space Layout to Optimize the Energy and Life Cycle Performance of Buildings / Automatic Generation of Architectural Space Layout to Optimize the Energy and Life Cycle Performance of Buildings,” Izmir Institute of Technology, Department of Architecture Graduate Programme, 2020. (*ongoing)*

Karagözler, S., “Determination of Decision Making Processes for Adaptive Reuse of Historic Buildings based on Building Performance Criteria: Historic Khan Buildings / Tarihi Yapıların Yeniden İşlevlendirilmesinde Bina Performans Kriterlerine Bağlı Karar Verme Süreçlerinin Tanımlaması: Tarihi Han Yapıları,” Izmir Institute of Technology, Department of Architecture Graduate Programme, 2020. (*ongoing)*

Ulu, M., “Use of Geospatial Data for Neighborhood Scale Retrofit Proposals in Historic Building Stock / Tarihi Konut Stoğunda Coğrafi Mekansal Verinin Komşuluk Ölçeğinde İyileştirme Önerileri İçin Kullanımı,” Izmir Institute of Technology, Department of Architecture Graduate Programme, 2020. (*ongoing)*

**7. Publications**

**7.1. Articles published in international referred journals (SCI, SSCI, Arts and Humanities, Area Indexed)**

Ulu, M.; & Durmuş Arsan, Z. (2020). “Retrofit Strategies for Energy Efficiency of Historic Urban Fabric in Mediterranean Climate,” Atmosphere, 11, 742. Doi: 10.3390/atmos11070742 (Başlıca Yazar) (SCI Expanded)

Durmuş Arsan, Z., & Yöney, Ekin G. (2019). “Impact of High Thermal Mass for Future Energy Consumption: Case Study in Adobe Brick House,” International Journal of Global Warming, 19, 1/2, 220–232. Doi: 10.1504/IJGW.2019.101783 (Başlıca Yazar) (SCI Expanded)

Turhan, C., Gökçen Akkurt, G., & Durmuş Arsan, Z. (2019). “Impact of Climate Change on Indoor Environment of Historic Libraries in Mediterranean Climate Zone,” International Journal of Global Warming, 18, 3/4, 206–220. Doi: 10.1504/IJGW.2019.10022707. (SCI Expanded)

Gerçek, M., & Durmuş Arsan, Z. (2019). “Energy and Environmental Performance Based Decision Support Process for Early Design Stages of Residential Buildings Under Climate Change,” Sustainable Cities and Society, 48, 101580–0. Doi: 10.1016/j.scs.2019.101580. (Başlıca Yazar) (SCI Expanded)

Şahin, C. M., Coşkun, T., Durmuş Arsan, Z., &. Gökçen Akkurt, G. (2017). “Investigation of Indoor Microclimate of Historic Libraries for Preventive Conservation of Manuscripts. Case Study: Tire Necip Pasa Library, Izmir-Turkey,” Sustainable Cities and Society, 30, 66-78. Doi: 10.1016/j.scs.2016.11.002. (Ortak Akademik Tez Danışmanlığı) (SCI Expanded)

Şahin, C. D., Durmuş Arsan, Z., Tunçoku, S. S., Broström, T., & Gökçen Akkurt, G. (2015). “A Transdisciplinary Approach on the Energy Efficient Retrofitting of a Historic Building in the Aegean Region of Turkey,” Energy and Buildings, 96, 128-139. Doi: 10.1016/j.enbuild.2015.03.018. (Ortak Akademik Tez Danışmanlığı) (SCI Expanded)

Yıldız, Y., Korkmaz, K., Göksal Özbalta, T., & Durmuş Arsan, Z. (2012). “An Approach for Developing Sensitive Design Parameter Guidelines to Reduce the Energy Requirements of Low Rise Apartment Buildings,” Applied Energy, 93, 337-347. Doi: 10.1016/j.apenergy.2011.12.048. (SCI)

Yıldız, Y., & Durmuş Arsan, Z. (2011). “Identification of the Building Parameters that Influence Heating and Cooling Energy Loads for Apartment Buildings in Hot Humid Climates,” Energy, 36(7), 4287-4296. Doi: 10.1016/j.energy.2011.04.013. (SCI)

Yıldız, Y., & Durmuş Arsan, Z. (2011). “Thermal Simulation of Retrofits to Existing Mass Housing in Turkey for Energy Efficiency,” Energy Education Science and Technology Part A: Energy Science and Research, 26(2), 189-203. (Başlıca Yazar) (SCI Expanded)

**7.2. Articles published in other international refereed journals**

Coşkun, T., Gülhan, Ö., Şahin, C. D., Durmuş Arsan, Z., & Gökçen Akkurt, G. (2017). “The Effect of Spatial Interventions on Historic Buildings’ Indoor Climate (Case Study: Tire Necip Pasa Library, Izmir-Turkey),” Energy Procedia, 133, 358-366. Doi: 10.1016/j.egypro.2017.09.362. (Ortak Akademik Tez Danışmanlığı) (Diğer: Scopus, EIC, EBSCO)

Bughrara, K. S. M., Durmuş Arsan, Z., & Gökçen Akkurt, G. (2017). “Applying Underfloor Heating System for Improvement of Thermal Comfort in Historic Mosques: The Case Study of Salepçioglu Mosque, Izmir, Turkey,” Energy Procedia, 133, 290-299. Doi: 10.1016/j.egypro.2017.09.390. (Başlıca Yazar) (Diğer: Scopus, EIC, EBSCO)

**7.3. Papers presented in international conferences and published as proceedings**

Bughrara, K. S. M., Durmuş Arsan, Z., & Gökçen Akkurt, G. (2018). “Effect of Intervention Strategies on Seasonal Thermal Comfort Conditions in a Historic Mosque in the Mediterranean Climate,” The 3rd International Conference on Energy Efficiency in Historic Buildings (EEHB2018), 26-27.09.2018, Uppsala University, Visby, Sweden, 363-371.

Turhan, C., Durmuş Arsan, Z., & Gökçen Akkurt, G. (2018). “Impact of Climate Change on Indoor Thermal Comfort for Historic Libraries in Mediterranean Climate Zone,” 7th Global Conference on Global Warming (GCGW-2018), Conference Proceedings, 24-28.06.2018, İ. Dinçer, C. Ö. Çolpan, M. A. Ezan, A. Tokuç (Eds), İzmir, Turkey, 712-715.

Yöney, E. G., & Durmuş Arsan, Z. (2018). “Impact of High Thermal Mass in Future Energy Consumption: Case Study in Adobe Brick House in Konya,” 7th Global Conference on Global Warming (GCGW-2018), Conference Proceedings, 24-28.06.2018, İ. Dinçer, C. Ö. Çolpan, M. A. Ezan, A. Tokuç (Eds), İzmir, 716-719.

Yöney, E. G., İlal, M. E. & Durmuş Arsan, Z. (2018). “Data Transfer from Building Information Modelling Software to Energy Analysis Tools: Two Alternative Methods,” AES 2018: 4. Uluslararası Katılımlı Anadolu Enerji Sempozyumu, Bildiri Kitapçığı, Trakya Üniversitesi, 18-20.04.2018, Edirne, 1053-1062, 2018.

Diler, Y., Gökçen Akkurt, G., & Durmuş Arsan, Z. (2017). “Tarihi Yapıların İç Ortam Mikro Klima Koşullarını Kalibre Edilmiş Dinamik Isıl Performans Modelleri Yoluyla Değerlendirme,” 6. Tarihi Yapıların Korunması ve Güçlendirilmesi Sempozyumu, Bildiri Kitabı, Karadeniz Teknik Üniversitesi, 02-04.11.2017, Trabzon, 549-558.

Ulu, M., & Durmuş Arsan, Z. (2017). “The State of the Art Survey for Energy-Efficient Retrofit of Historic Residential Buildings in Both the EU and Turkey,” REHAB 2017: Proceedings of the 3rd International Conference on Preservation, Maintenance and Rehabilitation of Historical Buildings and Structures, R. Amoêda, S. Lira ve C. Pinheiro (Eds.), 14-16.06.2017, Braga, Portugal, 1173-1184.

Coşkun, T., Gülhan, Ö., Şahin, C. D., Durmuş Arsan, Z., & Gökçen Akkurt, G. (2017). “The Effect of Spatial Interventions on Historic Buildings’ Indoor Climate (Case Study: Tire Necip Pasa Library, Izmir-Turkey),” CLIMAMED 2017 Conference: Historical Buildings Retrofit in the Mediterranean Area, Conference Proceedings, 12-13.05.2017, Matera, Italy, 681-691.

Bughrara, K. S. M., Durmuş Arsan, Z., & Gökçen Akkurt, G. (2017). “Applying Underfloor Heating System for Improvement of Thermal Comfort in Historic Mosques: The Case Study of Salepçioglu Mosque, Izmir, Turkey,” CLIMAMED 2017 Conference: Historical Buildings Retrofit in the Mediterranean Area, Conference Proceedings, 12-13.05.2017, Matera, Italy, 602-615.

Şahin, C. D., Coşkun, T., Gülhan, Ö., Durmuş Arsan, Z., & Gökçen Akkurt, G. (2016). “Humidity Control to Reduce Degradation Risks of Manuscripts in Necip Pasa Library Tire-Izmir, Turkey,” CLIMA 2016 – Proceedings of the 12th REHVA World Congress: Volume 9, Heiselberg, P. K, (Ed.), 22-25.05.2016, Aalborg University, Aalborg, Denmark.

Turhan, C. Coşkun, T., Durmuş Arsan, Z., & Gökçen Akkurt, G. (2016). “Energy Efficient Retrofits in Residential Buildings in Turkey: A Case Study for a Flat in Izmir,” 8th International Ege Energy Symposium (IEESE-8), Symposium Proceedings, F. O. Hocaoğlu (Ed.), 11-13.05.2016, Afyon Kocatepe University, Afyonkarahisar, Turkey, 325-329, Afyonkarahisar, Turkey.

Coşkun, T., Şahin, C. D., Gülhan, Ö., Durmuş Arsan, Z., & Gökçen Akkurt, G. (2016). “Ventilation Strategies for the Preventive Conservation of Manuscripts in Necip Pasa Library, Izmir, Turkey,” Proceedings of the 8th International Exergy, Energy and Environment Symposium (IEEES-8), 01-04.05.2016, Antalya, Turkey, 383-388.

Coşkun, T., Turhan, C., Durmuş Arsan, Z., & Gökçen Akkurt, G. (2015). “The Importance of Internal Heat Gains for Building Cooling Design,” International Conference on Energy Systems (ICES 15), Conference Proceedings, 23-25.12.2015, Yıldız Technical University, İstanbul, Turkey, 23-26.

Gerçek, M., & Durmuş Arsan, Z. (2014). “Impact of Thermal Mass Oriented Measures Over CO2 Emissions of a Thermally Insulated Low-Rise Apartment Building in Izmir, Turkey,” International Congress of Architecture - Innovative Approaches in Architecture and Planning (ICONARCH II), Proceedings E-Book, 20-22.11.2014, Selçuk University, Konya, Turkey, 55-68.

Şahin, C. D., Tunçoku, S. S., Ö., Durmuş Arsan, Z., Erikksson, P., & Gökçen Akkurt, G. (2014). “A Case Study for Energy Efficient Retrofitting of Historical Buildings,” XI. International HVAC-R Technology Symposium, Proceedings Book, 08-10.05.2014, Istanbul, Turkey, Turkish Society of HVAC & Sanitary Engineers, 464-468.

Gökçen Akkurt, G., Şahin, C. D., Takan, S., & Durmuş Arsan, Z. (2013). “Testing Simplified Building Energy Simulation Program via Building Energy Simulation Test (BESTEST),” VII. Mediterranean Congress of Climatization (CLIMAMED 13): Net Zero Energy Use in Buildings, Proceedings Book, 03-04.10.2013, İstanbul, Turkey, Turkish Society of HVAC & Sanitary Engineers, 49-57.

Atça, E., İlal, M. E., Başaran, T. Kazanasmaz, Z. T., & Durmuş Arsan, Z. (2013). “Renovating a Lecture Hall with a Glass Roof: A Case Study for Performance Based Design,” Proceedings of the 2nd Central European Symposium on Building Physics (CESBP 2013), A. Mahdavi ve B. Martens (Eds.), 09-11.10.2013, Vienna University of Technology, Vienna, Austria, 551-557.

Sökmen, N., & Durmuş Arsan, Z. (2010). “Monitoring and Simulating a Private House for Building Performance Analysis,” Third German-Austrian IBPSA Conference, Building Performance in a Changing Environment (BAUSIM 2010), Proceedings Book, 20-22.09.2010, Vienna University of Technology, Vienna, Austria, 196-197.

Yıldız, Y., Durmuş Arsan, Z., & Göksal Özbalta, T. (2010). “Sıcak-Nemli İklim Koşulları için Tasarım Rehberi Geliştirilmesi: Pasif Soğutma Stratejileri,” Proceedings of the International Sustainable Buildings Symposium (ISBS 2010), Gültekin, A. B., Gökçe, H. S., Çavuş, M. ve R. Kılıç (Eds.), 26-28.05.2010, Gazi University, Ankara, 733-735.

Yıldız, Y., Göksal Özbalta, T. ve Z. Durmuş Arsan, “Analyzing Effect of Double Skin Façade on Seasonal Energy Performance of an Education Building in Izmir, Turkey via Building Simulation Model,” 10th REHVA World Congress - Sustainable Energy Use in Buildings (CLIMA 2010), 09-12.05.2010, Antalya, Turkey, Turkish Society of HVAC & Sanitary Engineers, 2010.

Yıldız, Y., & Durmuş Arsan, Z. (2009). “Binalarda Pasif Soğutma Stratejileri Konulu Son On Yıla Ait Yayın Taraması,” Uluslararası Ekolojik Mimarlık ve Planlama Sempozyumu, Bildiri Kitabı, Engincan Bol, P., Yaşar, H. ve M. Uçak (Eds.), 22-25.10.2009, Mimarlar Odası Antalya Şubesi Yayınları, Antalya, 103-110.

Yıldız, Y., & Durmuş Arsan, Z. (2009). “Retrofit of an Existing Apartment Block for Energy Efficiency in Izmir, Turkey,” 4th International Building Physics Conference (IBPC4), 15-18.06.2009, Istanbul Technical University, Istanbul, Turkey.

Güçyeter, B., Terim, B., & Durmuş Arsan, Z. (2007). “Thermal Effect of Orientation Differentiations in an University Building in Izmir, Turkey,” 2nd PALENC Conference and 28th AIVC Conference - Building Low Energy Cooling and Advanced Ventilation Technologies in the 21st Century, Proceedings Book, Volume 1, M. Santamouris and P. Wouters (Eds.), 27-29.09.2007, Crete Island, Greece, Heliotopos Conferences publications: Greece, Athens, 406-410.

Onmuş, O., Durusoy Onmuş, I. R., Okan, B., Durmuş Arsan, Z., Soner, B., Eken, G. (2007). “An Atlas of Breeding Birds in Gediz Delta Ramsar Site (Western Turkey, 2002),” 17th International Conference of the European Bird Census Council - Monitoring for Conservation and Management, 17-22.04.2007, Chiavenna, Italy, 52-53. (Özet Bildiri)

Güçyeter Önen, B., & Durmuş Arsan, Z. (2006). “A Research on Energy Efficient Window Types for Retrofitting Applications in Turkey,” Fifth International Conference on Sustainable Energy Technologies (SET 2006), Proceedings Book, F. Busato, R. Lazzarin, F. Minchio, M. Noro, L. Zamboni (Eds.), 30.08-01.09.2006, Universita di Padova, Vicenza, Italy, SGEditoriali, Padova.

Durmuş Arsan, Z. (2006). “The Use of Saint-Gobain Glass Roof Tile in New Urban Districts of Turn-of-the-Century Izmir,” Proceeding of The Second International Congress on Construction History, Volume 1, M. Dunkeld, J. Campbell, H. Louw, M. Tutton, B. Addis, C. Powell, and R. Thorne (Eds.), 29.03-02.04.2006, Cambridge, UK, Queens’ College, Cambridge University, UK, The Construction History Society, Exeter, 1007-1022.

**7.4. International books or chapters**

C2.3. Coşkun, T., Şahin, C. D., Gülhan, Ö., Durmuş Arsan, Z., & Gökçen Akkurt, G. (2018). “Ventilation Strategies for the Preventive Conservation of Manuscripts in Necip Pasa Library, Izmir-Turkey,” Exergetic, Energetic and Environmental Dimensions, ed. I. Dinçer, C. Ö. Çolpan and Ö. Kızılkan, 179-192, Academic Press Elsevier, London, Sayfa Sayısı 1116, ISBN: 9780128137345. (International Book Chapter)

**7.5. Articles published in national refereed journals**

Coşkun, T. Turhan, C. Durmuş Arsan, Z. & Gökçen Akkurt, G. (2017). “The Importance of Internal Heat Gains for Building Cooling Design,” Journal of Thermal Engineering, 3(1), 1060-1064. (Technical note) (Other: ESCI)

Yıldız, Y. Göksal Özbalta, T., & Durmuş Arsan, Z. (2011). “Farklı Cam Türleri ve Yönlere Göre Pencere/Duvar Alanı Oranının Bina Enerji Performansına Etkisi: Egitim Binası, Izmir”, Megaron, 6(1), 30-38. (TR-Dizin)

Durmuş Arsan, Z. (2008). “Türkiye’de Sürdürülebilir Mimari,” Mimarlık, 45(340), 21-30. (Area Indexed: Avery Index)

**7.6. Papers presented in national conferences and published as proceedings**

Velibeyoğlu, K., Özdemir, S., Baba, A., Durmuş Arsan, Z., Duran, H. E., Gündüz, O., Kaplan, A., Boyacı, M., Kurucu, Y., Esetlili, M. T., Yıldız, Ö., Y., Erdoğan, N., Yazdani, H., & Uçar, A. (2017). “Peyzaj Politikalarının Varlık Odaklı Yerel Katılım Süreçleri ile Geliştirilmesi: Küçük Menderes Havzası Deneyimi,” Türkiye Peyzajları II. Ulusal Konferansı, Peyzaj Politikaları, Bildiri Kitabı, H. E. Tunçay ve A. Türk (Eds), 20-21.11.2017, İstanbul Teknik Üniversitesi, İstanbul, 242-255.

Velibeyoğlu, K., Özdemir, S., Baba, A., Durmuş Arsan, Z., Duran, H. E., Gündüz, O., Kaplan, A., Boyacı, M., Kurucu, Y., Esetlili, M. T., Yıldız, Ö., Y., Erdoğan, N., Yazdani, H., Hazar, D., & Uçar, A. (2017). “Yerelin Bilgisiyle Yaşam Stratejileri Geliştirmek ve Birlikte Hayata Geçirmek: Izmir Havzaları Deneyimi,” 8 Kasım Dünya Şehircilik Günü 41. Kolokyumu: Planlamada Kırsal Alan ve Bölge, Bildiriler Kitabı (Basılı), 7-9.11.2017, Selçuk Üniversitesi, Konya, TMMOB Şehir Plancıları Odası, Ankara, 245-258.

Şahin, C. D., Durmuş Arsan, Z., & Gökçen Akkurt, G. (2015). “İzmir’de Bulunan Bir Konutta Ölçülen Hava Sızdırmazlık Değerinin Yıllık Isıtma Amaçlı Enerji Tüketimi Üzerine Etkisinin İncelenmesi,” 12. Ulusal Tesisat Mühendisliği Kongresi: Sağlık Için Isıl Konfor ve İç Hava Kalitesi (TESKON 2015), Bildiriler Kitabı, 08-11.04.2015, İzmir, Cilt: 3, Makina Mühendisleri Odası Yayınları, İzmir, 2195-2208.

Gülmez Rafaat, R. A., & Durmuş Arsan, Z. (2015). “İzmir, Kaynaklar’da Hava Kaynaklı Isı Pompası ile İklimlendirilen Müstakil Bir Konutun İzlenmesi ve Modellenmesi,” 12. Ulusal Tesisat Mühendisliği Kongresi: Sağlık Için Isıl Konfor ve İç Hava Kalitesi (TESKON 2015), Bildiriler Kitabı, 08-11.04.2015, İzmir, Cilt: 3, Makina Mühendisleri Odası Yayınları, İzmir, 2297-2316.

Şahin, C. D., Gökçen Akkurt, G., & Durmuş Arsan, Z. (2013). “Bina Enerji Performansı Simülasyonlarının Geçerliliği: Bestest (Building Energy Simulation Test) Prosedürü,” 11. Ulusal Tesisat Mühendisliği Kongresi: Yarının Yapıları Enerji Konfor Çevre Ekonomi (TESKON 2013), Bildiriler Kitabı, 17-20.04.2013, İzmir, Cilt: 1, Makina Mühendisleri Odası Yayınları, İzmir, 933-945.

Atça, E., İlal, E. M., Başaran, T., Kazanasmaz, Z. T., & Durmuş Arsan, Z. (2013). “Başarım Odaklı Tasarım: Tasarımın Erken Evrelerinde Benzetim Araçlarının Önemi,” 11. Ulusal Tesisat Mühendisliği Kongresi: Yarının Yapıları Enerji Konfor Çevre Ekonomi (TESKON 2013), Bildiriler Kitabı, 17-20.04.2013, İzmir, Cilt: 2, Makina Mühendisleri Odası, İzmir, 2015, Mimarlar Odası Yayınları, Ankara, 1411-1423.

Ciravoğlu Demirdizen, A., Öztürk, A., Özmen, B., Tuna, R., Akyüz Levi, E. E., & Durmuş Arsan, Z. (2011). “Çevre Kavramları Üzerinden Mimarlıkta Güncel Eğilimleri Tartışmak,” Mimarlık ve Eğitim Kurultayı – VI: Mimarlık Eyleminin Gelişimi ve Çeşitlenmesi, 16-18.11.2011, Dokuz Eylül Üniversitesi, İzmir, 308-334.

Yıldız, Y., & Durmuş Arsan, Z. (2011). “İklim Değişikliğinin Apartman Binalarındaki Isıtma /Soğutma Yükleri Üzerindeki Etkisinin İncelenmesi,” 10. Ulusal Tesisat Mühendisliği Kongresi: Enerji, Dünden Daha Az (TESKON 2011), Bildiriler Kitabı, 13-16.04.2011, İzmir, Cilt: 1, Makina Mühendisleri Odası Yayınları, İzmir, 943-950.

Yıldız, Y., Göksal Özbalta, T., & Durmuş Arsan, Z. (2010). “Farklı Cam Türleri İçin Pencere /Duvar Alanı Oranının Enerji Performansına Etkisi: İzmir İçin Bir Uygulama Örneği,” Yapı Fiziği ve Sürdürülebilir Tasarım Kongresi, 04-05.03.2010, Yıldız Teknik Üniversitesi, İstanbul, 79-88.

Yıldız, Y., & Durmuş Arsan, Z. (2008). “Türkiye’de Geçmişten Günümüze Enerji Verimliliği Çalışmalarının Yapı Sektörü Bağlamında Değerlendirilmesi,” 1. Ulusal Temiz Enerji Kurultayı, 15-17.10.2008, Hacettepe Üniversitesi, Ankara.

**7.7. National books or chapters**

Durmuş Arsan, Z. (2019). “Kırsal Yerleşimlerde Mimarların Ne İşi Olabilir?, Ters Köşe Ekoloji, ed. A. Ciravoğlu, 100-105, Puna Yayın, İstanbul, Sayfa Sayısı 149, ISBN: 978-605-65864-2-2. (Chapter in National Research Book)

Durmuş Arsan, Z. (2010). “Yerel Sürdürülebilirligin Bir Aracı Olarak Yerel Mimari,” Kentte - Yaşamda - Mimaride Ekolojik Perspektifler, ed. A. Ciravoğlu, 187-199, Mimarlar Odası İstanbul Büyükkent Şubesi Yayınları, İstanbul, Sayfa Sayısı 305, ISBN:978-605-01-0024-2. (Chapter in National Research Book)

Durmuş Arsan, Z., Mohamed, K. E., & Gerçek, M. (2017). BIF Bornova İçin Fikirler, Gençlik Sosyal Merkezi Tasarım Projesi, Bornova Belediyesi, İzmir, Sayfa Sayısı 48. (Course Book)

Velibeyoğlu, K., Özdemir, S., Baba, A., Durmuş Arsan, Z., Duran, H. E., Kaplan, A., Boyacı, M., Kurucu, Y., Erdoğan, N., Yıldız, Ö., Esetlili, M. T., & Gündüz, O. (2016). Küçük Menderes Havzası Sürdürülebilir Kalkınma ve Yaşam Stratejisi, İzmir Büyük Şehir Belediyesi, İzmir, Sayfa Sayısı 396, ISBN: 9789751802200. (Scientific Research Book)

Durmuş Arsan, Z., Mohamed, K. E., & Gerçek, M. (2016). BIF Bornova İçin Fikirler, Bornova Belediyesi Kültür Merkezi Tasarım Projesi, Bornova Belediyesi, İzmir, Sayfa Sayısı 88. (Course Book)

Velibeyoğlu, K., Özdemir, S., Baba, A., Durmuş Arsan, Z., Duran, H. E., Yazdani, H., Kaplan, A., Boyacı, M., Kurucu, Y., Erdoğan, N., Yıldız, Ö., & Esetlili, M. T. (2015). Gediz-Bakırçay Havzası Sürdürülebilir Kalkınma Stratejisi, İzmir Büyük Şehir Belediyesi, İzmir, Sayfa Sayısı 421. (Scientific Research Book)

Velibeyoğlu, K., Özdemir, S., Baba, A., Durmuş Arsan, Z., Duran, H. E., Yazdani, H., Hazar, D., Kaplan, A., Boyacı, M., Kurucu, Y., Erdoğan, N., Yıldız, Ö., Erkan, H., & Eser, K. (2014). Yarımada Sürdürülebilir Kalkınma Stratejisi, Izmir Kalkınma Ajansı, İzmir, Sayfa Sayısı 288, ISBN: 978-605-5826-13-0. (Scientific Research Book)

**7.8. Other Publications**

Öztürk, Y., Durmuş Arsan, Z., & Kazanasmaz, Z. T. (2017). “Improving Energy Efficiency in a Low Storey Apartment by Retrofitting the Lighting Systems,” Second International Congress on Engineering, Architecture and Design, Congress Proceedings, 12-13.05.2017, Kocaeli, Turkey, 133-134. (Oral Presentation in a Conference-Paper as Summary)

Gerçek, M., & Durmuş Arsan, Z. (2014). “Impact of Thermal Mass Oriented Measures Over CO2 Emissions of a Thermally Insulated Low-Rise Apartment Building in Izmir, Turkey,” Iconarp International Journal of Architecture and Planning, 2(2), 59-72. (national non-refereed journal)

Gökçen Akkurt, G., Şahin, C. D., Takan, S., & Durmuş Arsan, Z. (2013). “Basitleştirilmiş Konut Enerji Simülasyon Programı KEP-SDM’nin BESTEST (Building Energy Simulation Test) Prosedürü ile Test Edilmesi,” TTMD Isıtma, Soğutma, Havalandırma, Klima, Yangın ve Sıhhi Tesisat Dergisi, (88), 23-30. (national non-refereed journal)

Yıldız, Y., & Durmuş Arsan, Z. (2010). “First Studies to Develop Early Design Guideline for Passive Cooling Strategies in Residential Buildings for Izmir, Turkey by Using Simulation Software,” 10th REHVA World Congress - Sustainable Energy Use in Buildings (CLIMA 2010), 09-12.05.2010, Antalya, Turkey, Turkish Society of HVAC & Sanitary Engineers. (Full Paper-Poster in Conference)

Yıldız, Y., & Durmuş Arsan, Z. (2009). “İzmir’de Mevcut Bir Toplu Konut Bloğu İçin Enerji Verimli Yenileme Senaryoları,” TTMD Isıtma, Soğutma, Havalandırma, Klima, Yangın ve Sıhhi Tesisat Dergisi, (64), 34-38. (national non-refereed journal)

Durmuş Arsan, Z. (2009). “Enerji Etkin Mimarlık Yaklasımları Üzerine Bir Elestiri,” Ege Mimarlık, (68), 18-23. (national non-refereed journal)

Ülkeryıldız, E., Durmuş Arsan, Z., & Akış, T. (2009). “Ögrenci Zihin Haritalarında Kente İlişkin Deneyimle Değişen Çevre Algısı,” Balıkesir Üniversitesi Fen Bilimleri Enstitüsü Dergisi, 11(1), 72-82. (national non-refereed journal)

Emir, S., Durmuş Arsan, Z., & Kiper, N. (2005). “Karaburun Yarımadası (İzmir) Kırsal Mimarlık Envanteri 2004 Yılı Çalışmaları: Çullu ve Hisarcık Köyleri,” Türkiye Bilimler Akademisi (TÜBA) Kültür Envanteri Dergisi, (4), 161-186. (national non-refereed journal)

Durmuş Arsan, Z. (2002). “Ekomimarlık Platformu: Ekolojik bir Yasamın Mimarîsiyle İlgilenenlere Çağrı,” Yapı Dergisi, (246), 38-39. (national non-refereed journal)

Durmuş Arsan, Z. (2002). “A Critical View to the Concept of Sustainable Architecture in Turkey,” International Conference on Sustainable Building 2002 (SB02)-The Challenge, The Knowledge, The Solutions, 23-25.09.2002, Oslo, Norway, 467-482, The Norwegian EcoBuild Program & The Municipality of Oslo. (Full Paper-Poster in Conference)

**8. Scientific Research Projects**

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| A. Tarihi Binalarda Görülen Malzeme Bozulmalarının Mikroklima Açısından Araştırılması |
| R&D Project  İşveren: İYTE Teknoloji Geliştirme Bölgesi, İZTEK İzmir San. Tic. A.Ş.-Atmosfer Tranfer Ofisi  Coordinator: G. Gökçen Akkurt, Researcher: Z. Durmuş Arsan  24/02/2020-27/10/2020 |
| B. Heritage for Rural Regeneration / Rural Regeneration Through Systemic Heritage-Led Strategies  (Project acronym: RURITAGE)  (Grant agreement no: 776465)  Total Budget: 10 Milyon Avro  Funded by: AB Horizon 2020 Programme, H2020-SC5-2016-2017 Call  TR Porject Partners: Izmir Institute of Technology, İzmir Metropolitan Municipality, Demir Energy  Team of Izmir Institute of Technology: K. Velibeyoğlu (yürütücü), A. Baba, Z. Durmuş Arsan  Team of İzmir Metropolitan Municipality: Zeliha Demirel, Yağmur Han Şenel, Demet Gezgin, Hüseyin Çırak  Team of Demir Energy: Esra Demir, Caner Demir, Baha Kuban, Oya Tabanoğlu, Gonca Demir  31/05/2018 – (continued) |
| C. Kırsal Yapım Kültürünün Tespiti: Izmir Tire İlçesinde Alan Çalışması (IYTE BAP 2016IYTE55)  Funded by: Izmir Institute of Technology  Coordinator: Z. Durmuş Arsan  01/07/2016 (continued) |
| D. İzmir, Küçük Menderes Havzası Sürdürülebilir Kalkınma ve Yasam Stratejisi  Funded by: İzmir Metropolitan Municipality  Coordinator: K. Velibeyoğlu, Researchers: S. Özdemir, A. Baba, Z. Durmuş Arsan, H. E. Duran, A. Kaplan, M. T. Esetlili, M Boyacı, Y. Kurucu, N. Erdoğan, Ö. Yıldız, O. Gündüz  22/03/2016 - 28/12/2016 |
| E. IYTE Test Odasının Higrotermal Davranışının Deney ve Simulasyon Yoluyla İncelenmesi (IYTE BAP 2015IYTE02)  Funded by: Izmir Institute of Technology  Coordinator: G. Gökçen Akkurt, Researchers: Z. Durmuş Arsan, C. D. Şahin  06/05/2015 (completed) |
| F. İzmir, Gediz-Bakırçay Havzası Sürdürülebilir Kalkınma Stratejisi  Funded by: İzmir Metropolitan Municipality  Coordinator: K. Velibeyoğlu, Researchers: S. Özdemir, A. Baba, Z. Durmuş Arsan, H. E. Duran, A. Kaplan, M. T. Esetlili, M. Boyacı, Y. Kurucu, N. Erdoğan, Ö. Yıldız, H. Yazdani,  22/01/2015 - 20/08/2015 |
| G. İzmir, Urla-Çesme-Karaburun Yarımadası Sürdürülebilir Kalkınma Stratejisi  Funded by: Izmir Development Agency (IZKA)  Coordinator: K. Velibeyoğlu, Researchers: S. Özdemir, A. Baba, Z. Durmuş Arsan, A. Kaplan, M Boyacı, Y. Kurucu, N. Erdoğan, Ö. Yıldız, H. Erkan, K. E. Afşar, H. Yazdani, D. Hazar  01/05/2013 - 31/12/2013 |
| H. İzmir İl Özel İdaresi Yetkisindeki Kırsal Alanda Yöresel Mimari Özelliklerin Belirlenmesi ve Örnek Yapı Projeleri Oluşturulması AR-GE Projesi  Funded by: İzmir İl Özel İdaresi  Coordinator: H. M. Günaydın, Researchers: Ü. İnceköse, A. Avar, S. S. Tunçoku, T. Akış, Z. Durmuş Arsan  22/10/2010 - 28/12/2010 |
| I. Mevcut Bir Konutun Sıfır Enerjili Ev Standartlarını Sağlamak Üzere Yenilenmesi (IYTE BAP 2010IYTE29)  Funded by: Izmir Institute of Technology  Coordinator: Z. Durmuş Arsan, Reseracher: N. Sökmen  01/01/2010 - 31/12/2010 |
| J. IYTE Fakülte Dersliklerinde İç Hava Kalitesi ve İşitsel Konfor Şartları Değerlendirmesi (IYTE BAP 2009IYTE42)  Funded by: Izmir Institute of Technology  Coordinator: Z. Durmuş Arsan, Researchers: B. Güçyeter, B. Terim  26/03/2009 - 31/12/2009 |
| K. Kamu Binalarının Enerji Verimli Hale Dönüştürülmesi (IYTE BAP 2007IYTE23)  Funded by: Izmir Institute of Technology  Coordinator: Z. T. Kazanasmaz, Researchers: M. Young, B. Terim, A. Çelik, Z. Durmuş Arsan, B. Güçyeter, H. M. Günaydın  01/09/2007 - 01/09/2009 |
| L. IYTE Fakülte Dersliklerinin Akustik Açıdan Değerlendirilmesi ve İyilestirilmesi (IYTE BAP 2005IYTE10)  Funded by: Izmir Institute of Technology  Coordinator: Z. Durmuş Arsan, Researcher: A. Döşemeciler  15/02/2005 - 31/12/2005 |
| M. Rural Architectural Inventory Project of Karaburun Peninsula, Izmir, Turkey  Funded by: Turkish Academy of Sciences in the framework of this Academy’s Cultural Sector of Turkey: Turkey’s Cultural Inventory—TÜBA-TÜKSEK  Coordinator: S. Emir, Co-Coordinator: Z. Durmuş Arsan, Researcher: N. Kiper  01/07/2004 - 30/12/2004 |
| N. Kampüs Yakın Çevresi Geleneksel Doku Araştırması: Geleneksel Dokunun İnsan Doğa İlişkileri ve Ekolojik Veriler Doğrultusunda İrdelenmesi ve Bilgisayar Ortamına Aktarılması (IYTE BAP 1998MIM07)  Funded by: Izmir Institute of Technology  Coordinator: Z. Durmuş Arsan,  01/01/1998 - 30/12/1999 |

**9. Administrative Duties**

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| **Name of Duty** | **University** | **Year** |
| Advisory of Undergraduate Students by 2017 | Izmir Institute of Technology; Department of Architecture | Since 06.2018 |
| Membership of Continuous Research and Development Commission | Izmir Institute of Technology; Department of Architecture | Since 2017 |
| Waste Management Officer of Department | Izmir Institute of Technology; Department of Architecture | Since 2016 |
| Membership of Departmental Transfer Commission | Izmir Institute of Technology; Department of Architecture | Since 2013 |
| IYTE Strategic Plan, Community Service Working Group Membership | Rectorate of Izmir Institute of Technology | 2012 |
| Advisory of Undergraduate Students by 2011 | Izmir Institute of Technology; Department of Architecture | 2011-2016 |
| Graduate Program Revision Committee Membership | Izmir Institute of Technology; Department of Architecture | 2009-2010 |
| Central Building Physics Laboratory, Air Conditioning Unit Responsibility | Izmir Institute of Technology; Faculty of Architecture | Since 04.2010 |
| Orientation Week Faculty Organization Committee Membership | Izmir Institute of Technology; Faculty of Architecture | 2008 |
| Central Building Physics Laboratory, Air Conditioning and Acoustics Units Responsibility | Izmir Institute of Technology; Faculty of Architecture | 2007-2010 |
| Socrates – Erasmus Departmental Coordinator | Izmir Institute of Technology; Department of Architecture | 2006-2009 |
| Mechanical Equipment Purchase Faculty Tender Commission Full Membership | Izmir Institute of Technology; Faculty of Architecture | 2006-2012 |
| Head of Committee of Summer Internship of Undergraduate Students | Izmir Institute of Technology; Department of Architecture | 07 June 2000 – 2009 |
| Associate Coordinator of the Office, and Academic Supervisor of Doctoral and Postdoctoral Grant Applications Support Desk | Izmir Institute of Technology, Office of International Relations | 2004-2005 |
| Organizational Consultant to Founding Coordinator | Izmir Institute of Technology, Office of International Relations | 25 February 2004 – 30 September 2004 |
| Central Building Materials and Structure Laboratory Responsibility | Izmir Institute of Technology; Faculty of Architecture | 2001-2005 |
| Departmental Coordinator: Summer Practice on Construction Site for the second year undergraduate students | Izmir Institute of Technology Department of Architecture | 02 July 2001 – 10 August 2001 |
| University Committee Service: Forestation and Landscape Studies Group | Izmir Institute of Technology, Campus Area | 28 December 1997 – 28 December 1998 |
| Academic Adviser to Student Society: Mountaineering and Nature Society | Izmir Institute of Technology, Student Clubs | 1997 – 2003 |
| Representative in Izmir Institute of Technology Department of Architecture | Izmir Metropolitan Municipality Local Agenda 21 City Council | 1998 – 1999 |

**10. Memberships / Fellowships**

A. International Energy Agency (IEA), Solar Heating and Cooling Programme (SHC) TASK 59: Deep Renovation of Historic Buildings Towards Lowest Possible Energy Demand and CO2 Emissions (NZEB) National Committee Membership, since 18.10.2018.

B. Chamber of Union of Architects, Izmir Chapter, since August 1997.

C. Chamber of Union of Architects, 41. and 42. Term, Ecological Architecture and Energy Efficient Buildings Working Group Membership, 2008-2012.

D. Founder: Izmir Chapter, Eco-Architecture Commission to the Chamber of Union of Architects, March 2002 – January 2003; Head of commission for six months.

E. Founder and member: Aegean Society for the Conservation of Nature (EgeDoğa), Izmir, Turkey, 18.11.2006-2007.

F. Chamber of Union of Architects, Ankara Chapter, June 1992 – July 1997

**11. Awards**

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**12. Other (Design, Art, or related Events involved)**

A. Permaculture Designer Certificated Programme, Turkish Permaculture Institute, 14.07.2018, Educators: Mustafa F. Bakır, Iraz Candaş.

B. Exhibition: International Building Biology Forum; Poster of New/Anew Earth Construction Techniques, 2017-2018, Organized by Turkish Building Biology and Ecology Institute, Yeşilova Höyüğü Ziyaretçi Merkezi, İzmir.