

CURRICULUM VITAE

PERSONAL INFORMATION

Name : Assoc. Prof. Dr. Zuhall AKYÜREK

Date and Place of Birth : 21 March 1979, Denizli/TURKEY

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Address : Burdur Mehmet Akif Ersoy University
Faculty of Engineering and Architecture
Department of Energy Systems Engineering
İstiklal Campus 15030, Burdur/TURKEY



DEGREES CONFERRED

- 2007 **Doctor of Philosophy in Chemical Engineering**
Middle East Technical University (METU)
Subject: "Co-firing Biomass with Coal in Bubbling Fluidized Bed Combustors"
Prof. Dr. Nevin Selçuk, Supervisor, Prof. Dr. Ekrem Selçuk, Co-supervisor.
(CGPA: 3.71/4.00). *High Honor Degree*
- 2003 **Master of Science in Chemical Engineering**
Middle East Technical University (METU)
Subject: "Synthesis and Characterization of ZSM-35"
Prof. Dr. Hayrettin Yücel, Supervisor, Prof. Dr. Ali Çulfaz, Co-supervisor.
(CGPA: 3.50/4.00). *High Honor Degree*
- 2001 **Bachelor of Science in Chemical Engineering**
Middle East Technical University (METU)
(CGPA: 3.33/4.00) *Honor Degree*

AREAS OF INTEREST

- Renewable energy, Biomass/Waste to energy conversion technologies (Pyrolysis, combustion, gasification, anaerobic digestion)
- Biomass and coal co-firing in Fluidized bed combustion (FBC) Technology
- Ash deposition in FBC
- Trace elements behavior in FBC
- Adsorption on biochar
- Zeolite synthesis and characterization
- Boron flame retardants for textile products
- Energy Efficiency in Industry and in Buildings
- Energy Management, Energy Management System (ISO 50001)
- Financial Mechanisms for Energy Efficiency Projects
- Energy Audits

PROFESSIONAL EXPERIENCE

- 2020- **Associate Professor Dr.**
Burdur Mehmet Akif Ersoy University
Faculty of Engineering and Architecture
Energy Systems Engineering Department
- 2016 -2020 **Assistant Prof. Dr.**
Burdur Mehmet Akif Ersoy University
Faculty of Engineering and Architecture
Polymer Engineering Department
- 2011-2016 **Engineer**
Republic of Turkey Ministry of Energy and Natural Resources
General Directorate of Renewable Energy (YEGM)
Energy Efficiency Department
- 2001-2007 **Teaching Assistant**
Chemical Engineering Department
Middle East Technical University
- 2001-2003 **X-Ray Diffractometer (Phillips PW1840) Operator**
Chemical Engineering Department
Middle East Technical University
- 2000 **Intern Engineering Student**, Deniz Textile Inc.

CERTIFICATES

- ✓ **English Summer School, London Southbank University, London, England, 01-31 July 1997.**
- ✓ **“Management, Leadership, Personal Improvement Model (Enneagram), Time Management, Performance Management, Professional Presentation Technics, Body Language and Communication, Team work and Motivation”, Ministry of Energy and Natural Resources (MENR), 14- 18 May 2012.**
- ✓ **“Project Preparation and Project Cycle Management”, Ministry of Energy and Natural Resources (MENR), 23- 24 May 2012.**
- ✓ **“EU Energy Policy”, Ministry of Energy and Natural Resources (MENR), 28- 29 May 2012.**
- ✓ **“Business and Finance Plan for Energy Efficiency Programs”, Ministry of Energy and Natural Resources (MENR), UNDP, GEF, UNECE, ESCAP, 17-21 June 2013.**
- ✓ **Business Health and Security Training, Ministry of Energy and Natural Resources (MENR), 24 March 2016.**
- ✓ **Energy Manager, Ministry of Energy and Natural Resources (MENR), December 2016.**
- ✓ **Training of Instructors Certificate, Burdur Mehmet Akif Ersoy University, 2021.**

FOREIGN LANGUAGES

- English: Fluent
- German: Basic

PUBLICATIONS IN JOURNALS

1. **AKYÜREK ZUHAL, HANDE ÇELEBİ, GAYE ÇAKAL, SEVNUR TURGUT** (2022), Enhanced Arsenic(V) Removal from Aqueous Solution by a Novel Magnetic Biochar Derived from Cattle Manure”, Korean Journal of Chemical Engineering Research, *article in press*.
2. **AKYÜREK ZUHAL** (2021). Torrefaction for Energy Valorization of Cattle Manure: Combustion Performance, Kinetics, Thermodynamics. Solid Fuel Chemistry, 55, S1-S10, Doi: 10.3103/S0361521921070028 (*Index: SCI-Exp*),
3. **AKYÜREK ZUHAL** (2021). Synergetic Effects during Co-Pyrolysis of Sheep Manure and Recycled Polyethylene Terephthalate. Polymers, 13(14), 2363,

Doi: 10.3390/polym13142363 (*Index: SCI*)

4. **AKYÜREK ZUHAL** (2021). Carbon Dioxide Sequestration Assessment through Pyrogenic Biomass: Case for Turkey. *Polish Journal of Environmental Studies*, 30(3), 2467-2475, Doi: 10.15244/pjoes/129688 (*SCI-Exp*)
5. **AKYÜREK ZUHAL, COŞKUN SEMİH** (2021). Kinetics and thermodynamic behaviour evaluation of olive residue/recycled polyester pyrolysis. *Indian Journal of Chemical Technology*, 28(4), 473-478. (Index: *SCI-Exp*)
6. **AKYÜREK ZUHAL, GÜNGÖR AFŞİN** (2021). Emission Assessment of Agro-Waste Combustion. *European Journal of Science and Technology*, 27, 1-5., Doi: 10.31590/ejosat.926468 (Index: *TR-Dizin, Scilit, Index Copernicus, CiteFactor, International Innovative Journal Impact Factor, Eurasian Scientific Journal Index, SJIFactor, DRJI, Scientific Indexing Services, Google Scholar*)
7. **AKYÜREK ZUHAL, GÜNGÖR AFŞİN** (2021). Gasification of Forest Residues For Sustainable Development in the Mediterranean Region of Turkey, *Academic Platform Journal of Engineering and Science*, (Index: *TR-Dizin, Index Copernicus, Scilit, Sobiad*)
8. **BEKİR CAN LÜTFÜOĞLU, ESAT PEHLIVAN, ZUHAL AKYÜREK, ALİ ÖZHAN AKYÜZ, AFŞİN GÜNGÖR** (2021), Hydrogen production from groundnut shell via circulating fluidized bed technology, *International Journal of Energy Applications and Technologies*. <https://dx.doi.org/10.31593/ijeat.804913> (*ResearchBib, Eurasian Scientific Journal Index*)
9. **AKYÜZ ALİ ÖZHAN, AKYÜREK ZUHAL, NAZ MUHAMMAD YASIN, SULAIMAN SHAHARIN ANWAR, GÜNGÖR AFSIN** (2020). Hydrogen Conversion Using Gasification of Tea Factory Waste. *Journal of the Serbian Chemical Society*, 85(7), 967-977., Doi: <https://doi.org/10.2298/JSC190215013> (*SCI-Exp*)
10. **AKYÜREK ZUHAL** (2020). LMDI Decomposition Analysis of Energy Consumption of Turkish Manufacturing Industry: 2005-2014. *Energy Efficiency*, 13(4), 649-663., Doi: 10.1007/s12053-020-09846-8. (*SCI-Exp*)
11. **AKYÜREK ZUHAL, AKYÜZ ALİ ÖZHAN, NAZ MUHAMMAD YASIN, SULAIMAN SHAHARIN A, LÜTFÜOĞLU BEKİR CAN, GÜNGÖR AFSIN** (2019). Numerical simulation of stoichiometric thermodynamic Equilibrium model of a downdraft biomass air gasifier. *Solid Fuel Chemistry*, 53(6), 426-435., Doi: 10.3103/S0361521919070012 (*SCI-Exp*)
12. **AKYÜREK ZUHAL** (2019). Sustainable Valorization of Animal Manure and Recycled Polyester: Co-pyrolysis Synergy. *Sustainability*, 11(8), 2280, Doi: 10.3390/su11082280 (*SCI-Exp*)
13. **AKYÜREK ZUHAL** (2019). One-dimensional mathematical modeling of the capsule flow in a horizontal pipe. *Materiali in Tehnologije*, 53(4), 559-564., Doi: 10.17222/mit.2018.221 (*SCI-Exp*)
14. **AKYÜREK ZUHAL** (2019). Energy Recovery and Greenhouse Gas Emission Reduction Potential of Bio-Waste in the Mediterranean Region of Turkey. *El-Cezeri Journal of Science and Engineering*, 6(3), 482-490., Doi: 10.31202/ecjse.551780 (*SCOPUS, TR-Directory, Google Scholar, DRJI, CiteFactor, DOAJ, International*)

- 15. AKYÜREK ZUHAL, COSKUN SEMİH (2019).** Determination of Biogas Energy Potential of Aegean Region Based on Animal Waste. Celal Bayar Üniversitesi Fen Bilimleri Dergisi, 15(2), 171-174., Doi: 10.18466/cbayarfbe.492880 (*DOAJ, CiteFactor, OAJI, Tr-Directory*)
- 16. AKYÜREK ZUHAL (2019).** Energy Recovery from Animal Manure: Biogas Potential of Burdur, Turkey. Eskişehir Technical University Journal of Science and Technology a- Applied Sciences and Engineering, 20(2), 161-170., Doi: 10.18038/aubtda.456873 (*EBSCO, DOAJ, TR-Directory*)
- 17. AKYÜREK ZUHAL, AKYÜZ ALI ÖZHAN, GÜNGÖR AFSİN (2019).** Potential of Hydrogen Production from Pepper Waste Gasification. El-Cezerî Journal of Science and Engineering, 6(2), 382-387., Doi: 10.31202/ecjse.532770 (*SCOPUS, TR-Directory, Google Scholar, DRJI, CiteFactor, DOAJ, International Institute of Organized Research (I2OR), Index Copernicus, Scientific Indexing Services*).
- 18. AKYÜREK ZUHAL, AKYÜZ ALI ÖZHAN, GÜNGÖR AFSİN (2019).** Investigation of Ideal Buildings in terms of Energy Performance Value and Energy Identity Certificate in Antalya and Erzurum. International Journal of Engineering Design and Technology, 1(2), 36-41. (*DRJI*)
- 19. AKYÜREK ZUHAL, AKYÜZ ALI ÖZHAN, GÜNGÖR AFSİN (2019).** Optimizing the Tilt Angle of Solar Panels to Reduce Carbon Footprint: Case for the West Mediterranean Region of Turkey. International Journal of Engineering Design and Technology, 1(1), 10-15. (*DRJI*)
- 20. AKYÜREK ZUHAL, GÜNGÖR AFSİN, AKYÜZ ALI ÖZHAN (2019).** Energy potential from gasification of agricultural residues in Burdur, Turkey. Scientific Journal of Mehmet Akif Ersoy University, 2(1), 15-19. (*ResearchBib, DRJI*)
- 21. AKYÜREK ZUHAL (2018).** Potential of Biogas Energy from Animal Waste in the Mediterranean Region of Turkey. Journal of Energy Systems, 2(4), 160-167., Doi: 10.30521/jes.455325 (*Scopus*)
- 22. ÇAKAL GAYE ÖZGÜR, AKYÜREK (GÖGEBAKAN) ZUHAL, COSKUN SEMİH (2011).** Investigation of Synergistic Effect of Boron on Fire Retardancy of Cotton Fabrics. Journal of Textile and Apparel, 21(3), 265-271. (*SCI-Exp*)
- 23. AKYÜREK (GÖGEBAKAN) ZUHAL, SELÇUK NEVIN (2009).** Trace elements partitioning during co-firing biomass with lignite in a pilot-scale fluidized bed combustor. Journal of Hazardous Materials, 162(2-3), 1129-1134., Doi: 10.1016/j.jhazmat.2008.05.149 (*SCI*)
- 24. AKYÜREK (GÖGEBAKAN) ZUHAL, GÖGEBAKAN YUSUF, SELÇUK NEVIN, SELÇUK EKREM (2009).** Investigation of Ash Deposition in a Pilot-scale Fluidized Bed Combustor Co-firing Biomass with Lignite. Bioresource Technology, 100(2), 1033-1036., Doi: 10.1016/j.biortech.2008.07.037. (*SCI*)
- 25. AKYÜREK (GÖGEBAKAN) ZUHAL, GÖGEBAKAN YUSUF, SELÇUK NEVIN (2008).** Co-Firing of Olive Residue with Lignite in Bubbling FBC. Combustion Science and Technology, 180(5), 854-868., Doi: 10.1080/00102200801894117. (*SCI*)

26. **AKYÜREK (GÖGEBAKAN) ZUHAL, SELÇUK NEVIN** (2008). Cofiring Lignite with Hazelnut Shell and Cotton Residue in a Pilot-Scale Fluidized Bed Combustor. *Energy and Fuels*, 22(3), 1620-1627., Doi: 10.1021/ef700650x (*SCI*)
27. **AKYÜREK (GÖGEBAKAN) ZUHAL, YÜCEL HAYRETTIN, ÇULFAZ ALI** (2007). Crystallization Field and Rate Study for the Synthesis of Ferrierite. *Journal of Industrial and Engineering Chemistry Research*, 46(7), 2006-2012., Doi: 10.1021/ie061013 (*SCI*)
28. **SELÇUK NEVIN, GÖGEBAKAN YUSUF, AKYÜREK (GÖGEBAKAN) ZUHAL** (2006). Partitioning behavior of trace elements during pilot-scale fluidized bed combustion of high ash content lignite. *Journal of Hazardous Materials*, 137(3), 1698-1703., Doi: 10.1016/j.jhazmat.2006.05.011 (*SCI*)

BOOK CHAPTER

1. **AKYÜREK ZUHAL** (2022) Agricultural waste: Environmental impact, useful metabolites and energy production, *Energy Valorization of Animal Waste: Biogas Potential, Sustainable development and biodiversity Series*, Springer International Publishing, Switzerland. *In press*.
2. **AKYÜREK ZUHAL, GÜNGÖR AFSIN** (2022) Environment and Energy in the Tropics, Chp 4: Net-Zero Energy and Low Carbon Footprint in Residential Buildings in Tropical Regions, Springer International Publishing, Switzerland. *In press*.
3. **AKYÜREK ZUHAL, SEMİH COŞKUN** (2022) Current Research in Engineering - June 2022, Chp (Waste to Energy Generation Potential of Municipal Solid Waste: Case for TR-61 Region of Turkey). Gece Publishing, *In press*.
4. **AKYÜREK ZUHAL, GÜNGÖR AFSIN** (2020) Scientific Studies on the Edge of Global Warming- Carbon Footprint Sustainable Environment and Future, Chp 13(Green Energy Production from Animal Waste Gasification in Turkey) (2020), Nobel Publishing, Editor: Afsin Güngör, ISBN: 978-625-7677-23-3.
5. **AKYÜREK ZUHAL, TURGUT SEVNUR** (2019) Research and Reviews in Engineering- Summer 2019, Chp: Biomass Potential for a Sustainable Environment and Energy Production in Turkey. Gece Publishing, Editor: Atilla Atik, ISBN: 978-605-7852-97-7.
6. **AKYÜREK ZUHAL, ULLAH ATTA, SULAIMAN SHAHARIN ANWAR, GÜNGÖR AFSIN** (2019), *New Horizons in Techno-Science*, Chp: The Prediction of Ash Related Issues during Agro- Waste Combustion in Fluidized Beds. Akademisyen Publishing, ISBN:978-605-258-763-8.
7. **AKYÜREK ZUHAL, SULAIMAN SHAHARIN ANWAR, ZAMAN MUHAMMAD, GÜNGÖR AFSIN** (2019), *Energy and Environmental Studies for the Near Future*, Chp: Reduction of Greenhouse Gas Emission Through Biogas Production from Olive Residue in Turkey, Akademisyen Publishing, ISBN:978-605-258-762-1.

8. **AKYÜREK ZUHAL** (2018), Current Academic Studies in Engineering Sciences, Chp: Valorization of Agricultural and Industrial Wastes through Pyrolysis: Thermal Behaviour and Kinetic Analysis, IVPE, ISBN: 978-9940-540-51-7.
9. **AKYÜREK (GÖGEBAKAN) ZUHAL** (2010), Volume 4 (Solid Fuels) of Handbook of Combustion, Chp: Co-firing Biomass with Coal in Fluidized Bed Combustion Systems” pp. 559-586, Editors: Lackner M., Winter F., Agarwal A.K., Wiley-VCH, ISBN- 978-3-527-32449-1.

PUBLICATIONS IN INTERNATIONAL CONFERENCE PROCEEDINGS

1. **AKYÜREK ZUHAL** (2022). Green Energy Potential of Biogas Produced from Dairy Cattle Manure in Turkey. 5th International Health Science and Life Congress.
2. **AKYÜREK ZUHAL, GÜNGÖR AFŞİN** (2022). Carbon Abatement from Forest Residues in the Mediterranean Region of Turkey. 5th International Health Science and Life Congress.
3. **AKYÜREK ZUHAL, GÜNGÖR AFŞİN** (2021). Assessment of Heavy Metals in Biochar Derived from MSW. 4. International Conference on Technology and Science.
4. **AKYÜREK ZUHAL, GÜNGÖR AFŞİN** (2021). Energy Production from Gasification of Olive Residues. 4. International Conference on Technology and Science.
5. **AKYÜREK ZUHAL, GÜNGÖR AFŞİN** (2021). Emission Estimates from Sugarcane Bagasse Combustion. 4. International Conference on Technology and Science, Turkey.
6. **AKYÜREK ZUHAL, GÜNGÖR AFŞİN** (2021). Carbon Capturing via Pyrolysis of Agro-waste in Antalya. 4. International Conference on Technology and Science, Turkey.
7. **RANI MALIKA, AKYÜREK ZUHAL, GÜNGÖR AFSIN** (2020). Environmental Evaluation of Rice Husk Combustion. 3rd International Conference on Technology and Science.
8. **RANI MALIKA, AKYÜREK ZUHAL, GÜNGÖR AFSIN** (2020). Energy Recovery from Poultry Waste Gasification. 3rd International Conference on Technology and Science.
9. **AKYÜREK ZUHAL, GÜNGÖR AFSIN** (2020). Biogas Production from Tea Waste in Turkey. 3rd International Conference on Technology and Science.
10. **AKYÜREK ZUHAL, GÜNGÖR AFSIN** (2020). Carbon Abatement through Pyrolysis of Olive Residues in Turkey. 3rd International Conference on Technology and Science.
11. **AKYÜREK ZUHAL, GÜNGÖR AFSIN** (2019). The Prediction of Ash-Related Issues during Agro-Waste Combustion in Fluidized Beds. 2nd International Conference on Technology and Science.

12. **AKYÜREK ZUHAL, GÜNGÖR AFSIN** (2019). Sustainable Use of Woody Biomass for Energy in Mediterranean Region of Turkey. 2nd International Conference on Technology and Science.
13. **AKYÜREK ZUHAL, GÜNGÖR AFSIN** (2019). Emission Assessment of Agro-Waste Combustion in 1 MWth FBC. 2nd International Conference on Technology and Science.
14. **AKYÜREK ZUHAL, GÜNGÖR AFSIN** (2019). Reduction in Greenhouse Gas Emissions through Biogas Production from Olive Residues in Turkey. 2nd International Conference on Technology and Science.
15. **AKYÜREK ZUHAL, NAZ MUHAMMAD YASIN, GÜNGÖR AFSIN, AFSHARI FARZAD** (2019). Hydrogen Production from Gasification of Corn Stalk. 2nd International Conference on Technology and Science.
16. **AKYÜREK ZUHAL, GÜNGÖR AFSIN** (2019). Assessment of Energy Potential Via Gasification of Cotton Stalk in Turkey. 2nd International Turkish World Engineering and Science Congress, 410-415.
17. **AKYÜREK ZUHAL** (2019). Investigation of Pyrolysis Kinetics of Agro-Waste. 2nd International Turkish World Engineering and Science Congress, 1, 404-409.
18. **AKYÜREK ZUHAL, GÜNGÖR AFSIN, HUMMA ZELLE** (2019). Protection of Environmental Health via Gasification of Woody Residues in Antalya, Turkey. 2nd International Health Science and Life Congress, 2, 1420-1425.
19. **AKYÜREK ZUHAL, GÜNGÖR AFSIN** (2019). Solar Energy Applications for Energy Management in Healthcare Sector. 2nd International Health Science and Life Congress, 2, 632-639.
20. **AKYÜREK ZUHAL, GÜNGÖR AFSIN, HUMMA ZELLE** (2019). Energy Savings Via Co-generation Applications in Hospitals. 2nd International Health Science and Life Congress, 3, 370-373.
21. **AKYÜREK ZUHAL, TURGUT SEVNUR, GÜNGÖR AFSIN** (2019). Evaluation of Carbon Dioxide Emission Reduction Potential of Biomass in Burdur, Turkey. 2nd International Health Science and Life Congress, 2, 668-673.
22. **AKYÜREK ZUHAL, AKYÜZ ALI ÖZHAN, GÜNGÖR AFSIN** (2018). Potential of hydrogen production from pepper waste gasification. International Conference on Technology and Science
23. **AKYÜREK ZUHAL, GÜNGÖR AFSIN, AKYÜZ ALI ÖZHAN** (2018). Energy potential from gasification of agricultural residues in Burdur, Turkey. International Conference on Technology and Science.
24. **AKYÜREK ZUHAL** (2018). Valorization of Livestock Waste through Biogas Production in Central Anatolia Region of Turkey. International Eurasian Conference on Science, Engineering and Technology.

25. **AKYÜREK ZUHAL** (2018). Valorization of Agricultural and Industrial Wastes Through Pyrolysis: Thermal Behaviour and Kinetic Analysis. 5 th International Symposium on Multidisciplinary Studies, 434.
26. **AKYÜREK ZUHAL** (2018). Thermogravimetric Investigation and Pyrolysis Kinetics of Animal Waste. 5th International Multidisciplinary Studies Congress.
27. **AKYÜREK ZUHAL** (2018). Assessment of Biogas Potential from Animal Manure in Mediterranean Region of Turkey. 6th European Conference on Renewable Energy Systems.
28. **SELÇUK NEVIN, AKYÜREK ZUHAL** (2009). Co-firing Biomass with Coal in Fluidized Bed Combustion Systems. 4th European Combustion Meeting (Invited Lecture)
29. **AKYÜREK ZUHAL, GÖGEBAKAN YUSUF, SELÇUK NEVIN** (2007). Co firing of Olive Residue with Lignite in Bubbling FBC. 5th Mediterranean Combustion Symposium.
30. **SELÇUK NEVIN, GÖGEBAKAN YUSUF, AKYÜREK ZUHAL** (2005). Partitioning of Trace Elements during Fluidized Bed Combustion of High Ash Content Lignite. 18th International Conference on Fluidized Bed Combustion.
31. **AKYÜREK ZUHAL, YÜCEL HAYRETTIN, ÇULFAZ ALI** (2003). Synthesis and Characterization of ZSM, 3rd Chemical Engineering Conference for Collaborative Research in Eastern Mediterranean

RESEARCH PROJECTS

- **Increasing the Sectoral Competitiveness of Burdur Province: Differentiated and Integrated in Agriculture and Livestock, Sample Barn-Farm Model and Type Animal Shelter and Clean Energy Production for Development Region Application**, Turkish Ministry of Development (2019- Date) (Researcher)
- **Determination of Biosorbent Performance of Biochar and Magnetic Biochar Derived from Animal Manure in Arsenic Remediation from Wastewater**, Burdur Mehmet Akif Ersoy University, Research Project (2019-2020). (Project Manager)
- **Co-firing of Biomass with Coal in Bubbling Fluidized Bed Combustors**, TÜBİTAK, MAG-104M200 (2005-2007). (Researcher)
- **Co-firing of Biomass with Coal in Bubbling Fluidized Bed Combustors**, Middle East Technical University Research Project, METU-BAP 2006 07 02 00 01 (2005-2007). (PhD Research Project, Researcher)
- **Synthesis and Characterization of ZSM-35**, Middle East Technical University Research Project, METU-BAP 2003 07 02 00 56. (2002-2003) (MSc Research Project).

MINISTERIAL THIRD-PARTY FUNDED PROJECTS

- ***1st Turkish National Energy Efficiency Action Plan (NEEAP)*** Ministry of Energy and Natural Resources (MENR), 2016.
- **“Improving Energy Efficiency in Industry in Turkey”**
Project by Ministry of Energy and Natural Resources (MENR) with complementary responsibilities of UNDP, UNIDO, KOSGEB, TTGV and TSE 2011-2017.
- **“Promoting Energy Efficiency in Buildings in Turkey”**
Project by Ministry of Energy and Natural Resources (MENR) with complementary responsibilities of UNDP, MEB, MoEU, TOKİ, GEF, 2011-2015.
- **“Market Transformations of Energy Efficient Appliances in Turkey”**
Project by Ministry of Energy and Natural Resources (MENR) with complementary responsibilities of Ministry of Science Industry and Technology (MSIT), 2011-2015.
- **“Development of Monitoring and Evaluation of Energy Efficiency in Turkey”**
Project by Ministry of Energy and Natural Resources (MENR) 2011-2013.