

CV of Prof.Dr.AYDOGAN OZDEMIR

1. MAILING ADDRESS

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2. BIODATA

- Born on January 1957,
- Married and has got 2 children.

3. EDUCATIONAL BACKGROUND

- BSc, Istanbul Technical University (ITU), 1975-1980
- MSc, Istanbul Technical University, 1980-1982
- PhD, Istanbul Technical University, 1985-1990

4. ACADEMIC BACKGROUND

- Research, Teaching and Industrial Associate: ITU High Voltage Laboratory, 1980-1990
- Assistant Professor : ITU, Department of Electrical Engineering, 1991-1994
- Associate Professor : ITU, Department of Electrical Engineering, 1994-2003
- Professor : ITU, Department of Electrical Engineering, 2003-..
- Visiting Professor : Texas A&M University, 2000-2002

5. ADMINISTRATIVE JOBS

- Assistant Department Head : ITU, Department of Electrical Engineering, 1991-1999
- Head of Power System Group: ITU, Department of Electrical Engineering, 2007-2013
- Member of Electrical-Electronics Faculty Senate, 2006-1013
- Member of Istanbul Technical University Senate, 2011-1014

6. MEMBERSHIPS IN PROFESSIONAL ORGANIZATIONS

- EMO, Turkish Electrical Engineering Society
- IEEE Power Engineering Society

7. PROFESSIONAL COMMITTEE MEMBERSHIPS

- Permanent Organizing Committee member of ELECO Organizations-
- Chair of Organizing Committee of “Third National Electrical-Electronics and Computer Engineering – November 2006”
- Member of MISEM (Contemporary Education Committee of Turkish National Chamber of Electrical Engineers)
- Chair of 12th International Conference on Probabilistic Methods Applied to Power Systems, PMAPS 2012
- Member of PMAPS International Society, 2010-2014
- Member of ISAP (Intelligent System Applications in Power Systems) Scientific Committee, 2012-

- Member of POWERTECH Scientific Committee, 2015-
- Member of ICHVE (International Conference on High Voltage Engineering) Scientific Committee, 2017-
- Chair of 57th International Universities Power Engineering Conference (UPEC 2022), UPEC 2022

8. AREAS OF INTEREST

- High Voltage Engineering
- Reliability and Risk Analysis
- Intelligent Methods for Power System Simulation, Analysis and Control
- Smart grid and Microgrid
- Renewable energy and electric vehicles
- Building Automation Systems

9. SUPERVISED AND ONGOING GRADUATE THESIS

PHD : 9 , MSC : 28

Please refer <https://tez.yok.gov.tr/UlusalTezMerkezi/tezSorguSonucYeni.jsp> for details

10. RECENT PROJECTS AND TECHNICAL CONSULTANCIES

- Reliability of appliance electronic cards, TÜBİTAK 2013
- Smart Electrical Energy Management and Buildings Energy Efficiency Technologies, TÜBİTAK 2014
- Design, Prototype Manufacturing and the Tests of 72 kV Cast Resin Transformer: The highest Voltage Rating in the World, Project Type: TÜBİTAK-TEYDEB, Project No: 3150850, Position: Consultant, 2015
- Gamified Management of Distributed Energy Resources, GaMDER, Project Type: International - ERIGrid- European Research Infrastructure supporting Smart Grid Systems Technology Development, Validation and Roll Out (Horizon 2020 - 654113), Project No: 654113, Position: Project manager, 2017
- Distribution Network Oriented Demand Response, DiNODR, Project Type: International - ERIGrid- European Research Infrastructure supporting Smart Grid Systems Technology Development, Validation and Roll Out (Horizon 2020 - 654113), Project No: 654113, Position: Researcher, 2017
- Grid Responsive Society Through Building Automation Systems, GRESBAS, Project Type: TÜBİTAK-ERA NET Smart Grid Plus-International, Project No: 115E816, Position: Project manager, 2019
- Corona Discharge Characterization and Electromagnetic Effects of HVDC Transmission Lines, Project Type: TÜBİTAK-International, Project No: 215E262, Position: Project manager, 2020
- Determination of optimum filler composition to extend the lifetime of polymeric insulators and lifetime estimation, Project Type: TÜBİTAK 1001, Project No: 217E276, Position: Researcher, 2020
- Advanced Evolutionary Computation for Smart Grid and Smart Community, Project Type: TÜBİTAK 1001, Project No: 113E773, Position: Project manager, 2021
- Implementing digitalization to improve energy efficiency and renewable energy deployment in Turkish distribution networks, Project Type: TÜBİTAK International Collaboration with BC, Position: Researcher, Ongoing.

- Probabilistic assessment for a comprehensive design of Forthcoming Turkish Distribution Network Integrating Electric Vehicles, Energy Storage Systems, and Renewable Generation, TUBİTAK 2221 - Fellowships for Visiting Scientists and Scientists on Sabbatical Leave Program Project, Project Manager, December 2023.
- Member of Turkish National Power Transmission Company Technical Consultancy Board. 2018-ongoing

11. RECENT PUBLICATIONS (2017 and later)

2017

1. **Guner, S.; Ozdemir, A., Stochastic Energy Storage Capacity Model of EV Parking Lots, IET Generation, Transmission & Distribution, Volume: 11, Issue: 7, Pages: 1754 – 1761, 2017**
2. **Zehir, M.A.; Batman, A.; Sonmez, M.A.; Font, A.; Tsiamitros, D.; Stimoniaris, D.; Kollatou, T.; Bagriyanik, M.; Ozdemir, A.; Dialynas, E., Impacts of microgrids with renewables on secondary distribution networks, Applied Energy, Volume 201, 2017, Pages 308-319**
3. Zehir MA, Batman A., Sonmez M.A., Font A., Tsiamitros D., Stimoniaris D., Zacharaki V., Orth C., Bagriyanik M., Ozdemir A., Dialynas E., “Mitigation of Negative Impacts of Distributed Generation on LV Distribution Networks through Microgrid Management Systems”, PowerTech 2017, 18-22 June, 2017, Manchester-UK
4. Zehir, M.A.; Wevers, M.H.; Batman, A.; Bagriyanik, M., Hurink, J.L.; Kucuk, U.; Soares, F.J.; Ozdemir, A., “A Novel Incentive-based Retail Demand Response Program for Collaborative Participation of Small Customers”, PowerTech 2017, 18-22 June, 2017, Manchester-UK
5. Ilhan, S., Font, A., Yıldız, I., Koseoglu, A.K., Ozdemir, A., “Surface Discharge Characteristics of Epoxy Resin Insulation Under Non-Uniform Electric Field Distribution”, 20th International Symposium on High Voltage Engineering-ISH 2017, Buenos Aires, Argentina, 28 August-01 September 2017.
6. Font, A., Ersoy, M.S., Ilhan, S., Ozdemir, A., Cortes, F.E., “AC/DC Corona Characteristics of the Conductors in an Indoor Corona Cage”, 20th International Symposium on High Voltage Engineering-ISH 2017, Buenos Aires, Argentina, 28 August-01 September 2017.
7. Ozdemir, A.; “Building/Home Energy Management and Automation Systems and Technologies”, British Council Researcher Links Workshop: Smart Grid Transformation of Existing Electricity Networks in the UK and Turkey: What are the Challenges and How They Change from Smart Cities to Smart Villages, 5-7 September, 2017, Istanbul.
8. Majidi, M.; Ozdemir, A.; Ceylan, O.; “Optimal DG Allocation and Sizing in Radial Distribution Networks by Cuckoo Search Algorithm”, The 19th International Conference on Intelligent System Applications to Power Systems, ISAP 2017, San Antonio-USA, 17-20 September, 2017
9. Koksal, A.; Ozdemir, A.; Ata, O.; “RCAM Based Maintenance Plan of the Power Transformers Using k-Means Clustering Algorithm, The 19th International Conference

on Intelligent System Applications to Power Systems, ISAP 2017, San Antonio-USA, 17-20 September, 2017

10. Guner, S.; Ozdemir, A.; “Seasonal Impacts on the Storage Capacity of EV Parking Lots”, IEEE PES Innovative Smart Grid Technologies Europe, ISGT 2017, 26-29 September, 2017, Torino-ITALY
11. Zehir, M. A.; Erpaytoncu, S.; Yilmaz, E.; Balci, D.; Batman, A.; Bagriyanik, M.; Kucuk, U.; Soares, F. J.; A. Ozdemir, A.; “Analysis of Consumer Expectations, Preferences and Concerns on Deployment of Demand Response in Turkey”, 10th International Conference on Electrical and Electronics Engineering ELECO 2017, November 30-December 2, 2017, Bursa/TURKEY.
12. Barbosa, A.; Iria, J.; Cassola, F.; Coelho, A., Portela, J.; Kucuk, U.; Madureira, A.G.; Zehir, M.A.; Ozdemir, A.; Soares, F.J., “GReSBAS project: A gamified approach to promote more energy efficient behaviours in buildings”, 10th International Conference on Electrical and Electronics Engineering ELECO 2017, November 30-December 2, 2017, Bursa/TURKEY.
13. Orth, C.; Tsiamitros, D.; Zacharaki, V.; Kokkonis, G.; Stimoniaris, D.; Deligkiozi, I.; Leonardos, D.; Lehtonen, M.; Liesmaki, J.; Pettersen, S.; Pedersen, C.; Hamacher, T.; Blume, A.; Panagiotou, P.; Kastner, W.; Granzer, W.; Praus, F.; Ozdemir, A.; Gaglia, A.; Stephanedes, Y.; Dialynas, E.; “Digital Audio Broadcasting (DAB)-based demand-side management for Buildings, Virtual Power Plants and Prosumers”, 10th International Conference on Electrical and Electronics Engineering ELECO 2017, November 30-December 2, 2017, Bursa/TURKEY.
14. Tsiakalos, A.; Orth, C.; Tsiamitros, D.; Stimoniaris, D.; Ozdemir, A.; Roumeliotis, M.; Nucci, C.A.; “Development and demonstration of a system that enables PV sun-tracking installations to supply ancillary services to the grid”, 10th International Conference on Electrical and Electronics Engineering ELECO 2017, November 30-December 2, 2017, Bursa/TURKEY.
15. Martinez, C.T., Cortes, F.E.; Ilhan, S.; Ozdemir, A.; “Computation of Corona Radio Interference Levels in HVDC Transmission Lines”, 10th International Conference on Electrical and Electronics Engineering ELECO 2017, November 30-December 2, 2017, Bursa/TURKEY.
16. Font, A.; Ilhan, S.; Ismailoglu, H.; Cortes, F.E.; Ozdemir, A.; “Design and Technical Analysis of 500-600 kV HVDC Transmission System for Turkey”, 10th International Conference on Electrical and Electronics Engineering ELECO 2017, November 30-December 2, 2017, Bursa/TURKEY.

2018

17. Zehir, M.A., Barbosa, A., Sandroni, C., Lazzari, R., Pellegrino, L., Verga, M., Bagriyanik, M., Kucuk, U., Soares, F. J., Ozdemir, A., Identification and Comparison of Power and Energy Management Capabilities of Distributed Energy Resources, 6th International Istanbul Smart Grid and Cities Congress and Fair (ICSG), 25-27 April, 2018, Istanbul-Turkey, DOI: 10.1109/SGCF.2018.8408955 **Best Paper Award**
18. Zacharaki, V., Zehir, M.A., Thavlov, A., Heussen, K., Batman, A., Tsiamitros, D., Stimoniaris, D., Ozdemir, A., Dialynas, E., Bagriyanik, M., Demand Response with Residential and Commercial Loads for Phase Balancing in Secondary Distribution

Networks, 6th International Istanbul Smart Grid and Cities Congress and Fair (ICSG), 25-27 April, 2018, Istanbul-Turkey, DOI: 10.1109/SGCF.2018.8408956

19. Koksall, A., Ozdemir, A., An Extended Parametric Analysis of Transformer Maintenance Plan Using Markov State Diagram, 15th International Conference on Probabilistic Methods Applied to Power Systems PMAPS 2018, June 24-28, 2018, Boise-USD
20. Koksall, A., Ozdemir, A., Mitra, J., System-Level RCAM Assessment of Power Transformers Using Fuzzy Multi-Attribute Scoring, 15th International Conference on Probabilistic Methods Applied to Power Systems PMAPS 2018, June 24-28, 2018, Boise-USD.
21. Guner, S., Ozdemir, Impact of EV Parking Lot on Distribution System Reliability, 15th International Conference on Probabilistic Methods Applied to Power Systems PMAPS 2018, June 24-28, 2018, Boise-USD
22. Zehir, M. A., Barbosa, A., Sandroni, C., Pellegrino, L., Lazzari, R., Verga, M., Bagriyanik, M., Kucuk, U., Soares, F.J., Ozdemir, A., Management of Inverter-based Distributed Energy Resources for Providing Voltage Regulation Support in Islanded Operation of Low Voltage Networks, The 53th International Universities Power Engineering Conference, UPEC 2018, Glasgow/SCOTLAND, 4-7 September 2018.
23. Tejada-Martinez, C., Espino-Cortes, F.P., Ilhan, S., Ozdemir, A., “Optimization of Corona Radio Interference Levels in HVDC Transmission Lines”, 2018 International Conference on High Voltage Engineering and Application, ICHVE 2018, Athens, GREECE, September 10 – 13, 2018
24. Ilhan, S., Font, A., C., Espino-Cortes, Ozdemir, A., “Determination of Corona Inception Voltages of Rod-Plane Electrode Systems”, 2018 International Conference on High Voltage Engineering and Application, ICHVE 2018, Athens, GREECE, September 10 – 13, 2018
25. Ozdemir, A., Gamification Approaches to Increase End Users’ Flexibility, The 11th Mediterranean Conference on Power Generation, Transmission, Distribution and Energy Conversion, Special Session on Distributed Energy Resources and the Use of Flexibility in Future Power Systems, MEDPOWER2018, Dubrovnik, Croatia, 12-15 November 2018
26. Zehir, M. A., Barbosa, A., Sandroni, C., Pellegrino, L., Lazzari, L., Verga, M., Bagriyanik, M., Kucuk, U., Soares, F. J., Ozdemir, A., “Aggregated Active and Reactive Power and Energy Management of Distributed Energy Resources and Performance Evaluation”, The 11th Mediterranean Conference on Power Generation, Transmission, Distribution and Energy Conversion, MEDPOWER2018, Dubrovnik, Croatia, 12-15 November 2018
27. Aydin, Z., Portela, J.C., Kucuk, U., Zehir, M.A., Gul, H., Bagriyanik, M., Soares, F.J., Ozdemir, A., “Building Automation Systems and Smart Meter Integrated Residential Customer Platform”, The 11th Mediterranean Conference on Power Generation, Transmission, Distribution and Energy Conversion, MEDPOWER2018, Dubrovnik, Croatia, 12-15 November 2018

2019

28. **Zehir, M.A., Ortac, K.B., Gul, H., Batman, A., Aydin, Z., Portela, J.C., Soares, F. J., Bagriyanik, M., Kucuk, U., Ozdemir, A., Development and Field Demonstration of a**

Gamified Residential Demand Management Platform Compatible with Smart Meters and Building Automation Systems, *Energies* 12(5):913, March 2019

29. Ilhan, S., Tuzun, D., Ozdemir, A., “Electrical Performance of HTV Silicone Rubber under Different Fillers and Filler Loadings”, 2019 Electrical Insulation Conference, 16-19 June, 2019, Calgary-Canada.
30. Cortés, R.V., Cortes, F.E., Miranda, R.L., Ozdemir, A., Ilhan, S., “Computation Of the Corona Onset Voltage For DC at Two Different Altitudes”, 2019 Electrical Insulation Conference, 16-19 June, 2019, Calgary-Canada
31. Guner, S; Ozdemir, A., “Impacts of Feeder Failure Statistics on EV-Supported Distribution System Reliability Improvement”, PowerTech 2019, 23-26 June, 2019, Milano-ITALY.
32. Gharaaghaji, S.S; Fadil, H.; Ilhan, S.; Ozdemir, A., Ismailoglu, H., Cortes, F.E., “Corona Inception and Breakdown Voltages of Rod–Plane Electrode for Severe Ambient Conditions”, PowerTech 2019, 23-26 June, 2019, Milano-ITALY.
33. Martinez, C.T., Cortes, F.E., Ozdemir, A., Ilhan, S., “Minimization of Radio Interference Levels in a Hybrid Transmission Line”, PowerTech 2019, 23-26 June, 2019, Milano-ITALY.
34. Ilhan, S., Tuzun, D., Ozdemir, A., “The Loss of Hydrophobicity of HTV Silicone Rubber in a Dynamic Drop Test”, 21th International Symposium on High Voltage Engineering-ISH 2019, Budapest, Hungary, 25-30 August 2019
35. Ahmadi, B., Ceylan, O., Ozdemir, A., “Grey wolf optimizer for allocation and sizing of distributed renewable generation”, 54rd International Universities Power Engineering Conference, September 3-6 2019, Bucharest, Romania
36. Ahmadi, B., Ceylan, O., Ozdemir, A., “Cuckoo search algorithm for optimal siting and sizing of multiple distributed generators in distribution grids”, Modern Electric Power Systems MEPS’19, Wroclaw-POLAND, September 9-12, 2019.
37. Koksall, A., Ozdemir, A., Mitra, J., “A reliability-transient stability analysis of power systems for protection system conditions”, Modern Electric Power Systems MEPS’19, Wroclaw-POLAND, September 9-12, 2019.
38. Uckol, H.I., Ilhan, S., Ozdemir, A., “AC and DC field distributions in glass, RTV-coated glass and composite insulators”, 11th International Conference on Electrical and Electronics Engineering ELECO 2019, November 28-30, 2019, Bursa/TURKEY, **Best Student paper Award**
39. Dashti, N., Zehir, M.A., Gul, H.,, Ozdemir, A., “Detailed Evaluation of Long-term Gamified Residential Demand Management System Field Implementation”, 20th International Conference on Intelligent Systems Applications to Power Systems – ISAP 2019, December 10-14, 2019, Delhi/INDIA.
40. Ahmadi, B., Ceylan, O., Ozdemir, A., “Optimal allocation of multi-type distributed generators for minimization of power losses in distribution systems”, 20th International Conference on Intelligent Systems Applications to Power Systems – ISAP 2019, December 10-14, 2019, Delhi/INDIA
41. **Martinez, C.T., Cortes, F.E., Ilhan, S., Ozdemir, A., “Optimization of Radio Interference Levels for 500 and 600 kV Bipolar HVDC Transmission Lines”, *Energies* Vol.12, Issue 16, March 2019**

42. Font, A., Solak, Y.T., Ilhan, S., Ismailoglu, H., Cortes, F.E., Ozdemir, A., “DC corona characteristics derived from corona cage tests and simulations”, *IEEE Transactions on Dielectrics and Electrical Insulation* Vol. 26, Issue 6, December 2019, pp. 1867-1875

2020

43. Guner, S., Ozdemir, A., “Reliability improvement of distribution system considering EV parking lots”, *Electric Power Systems Research*, Vol. 185, 106353 August 2020, DOI: 10.1016/j.epsr.2020.106353
44. Iria, J., Fonseca, N., Cassola, F., Barbosa, A., Soares, F., , Coelho , A., Ozdemir, A., “A gamification platform to foster energy efficiency in office buildings”, *Energy & Buildings*, Volume 222, 1 September 2020, DOI: 10.1016/j.enbuild.2020.110101
45. Ahmadi, B., Ceylan, O., Ozdemir, A., “Impacts of Load and Generation Volatilities on the Voltage Profiles Improved by Distributed Energy Resources”, 55th International Universities Power Engineering Conference, September 1-4 2020, Torino, ITALY DOI: 10.1109/UPEC49904.2020.9209811
46. Ahmadi, B., Ceylan, O., Ozdemir, A., “Voltage Profile Improving And Peak Shaving Using Multi-type Distributed Generators And Battery Energy Storage Systems In Distribution Networks”, 55th International Universities Power Engineering Conference, September 1-4 2020, Torino, ITALY DOI: 10.1109/UPEC49904.2020.9209880
47. Uckol, H.I., Ilhan, S., Ozdemir, A., “Partial Discharge Pattern Classification based on Deep Learning for Defect Identification in MV Cable Terminations”, 2020 International Conference on High Voltage Engineering and Application, ICHVE 2020, September 6-10, 2020, Beijing-CHINA, DOI: 10.1109/ICHVE49031.2020.9279399
48. Ilhan, S., Erden, I., Ozdemir, A., “Simulations and Experimental Studies towards Thermal Performance Improvement of 36 kV Bushings”, *Electric Power Systems Research*, Volume 187, October 2020, DOI: 10.1016/j.epsr.2020.106426
49. Salazar-Hernández, JC, Linares y Miranda, Y., Cortes, F.E., Ozdemir, A., Far-Field Prediction for Radio-Interference Produced by Fundamental Frequency of a DC Corona Discharge at a Rod-Plane Configuration, *IEEE Electromagnetic Compatibility Magazine*, Volume: 9, Issue: 3, Pages: 37-43, 2020. DOI: 10.1109/MEMC.2020.9241549

2021

50. Tsiakalos, An., Tsiमितros, D., Tsiakalos, Ap., Stimoniaris, D., Ozdemir, A., Roumeliotis, M., Asimopoulos, N., “Development of an innovative grid ancillary service for PV installations: Methodology, communication issues and experimental results”, *Sustainable Energy Technologies and Assessments* Volume 44, April 2021 DOI: 10.1016/j.seta.2021.101081
51. Ilhan, S., Tuzun, D., Ozdemir, A., Comparative Properties of HTV Silicone Rubber for Composite Insulators—ATH and Silica Fillers, *IEEE Transactions on Dielectrics and Electrical Insulation* 28(2):414-422 April 2021, DOI: 10.1109/TDEI.2020.009183

52. **Uckol, H.I., Ilhan, S., Ozdemir, A., Workmanship defect classification in medium voltage cable terminations with convolutional neural network, Electric Power Systems Research, Volume 194, May 2021, 107105, DOI: 10.1016/j.epsr.2021.107105**
53. Younesi, S., Ahmadi, B., Ceylan, O., Ozdemir, A., "Allocation of Distributed Generators Using Parallel Grey Wolf Optimization", The 9th International Conference on Modern Power Systems, MPS 2021, June 16-17, 2021, Cluj-Napoca, Romania, DOI: 10.1109/MPS52805.2021.9492702
54. Polat, K., Ozdemir, A., Delkhooni, M., "Reliability Analysis in Low Voltage Distribution Network with Peer to Peer Energy Trading," PowerTech 2021, June 28-July 2, 2021, Madrid-SPAIN, DOI:10.1109/PowerTech46648.2021.9495069
55. Guner, S., Ozdemir, A., "Impacts of Driver Willingness on the Storage Capacity of EV Parking Lots," PowerTech 2021, June 28-July 2, 2021, Madrid-SPAIN, DOI: 10.1109/PowerTech46648.2021.9494948
56. Ahmadi, B., Younesi, S., Ceylan, O., Ozdemir, A., "The Arithmetic Optimization Algorithm for Optimal Energy Resource Planning", 56th International Universities Power Engineering Conference, August 31 – September 3, 2021, Middlesbrough-UK.
57. Ahmadi, B., Younesi, S., Ceylan, O., Ozdemir, A., "Multi-objective Distributed Energy Resource Integration in Radial Distribution Networks", 56th International Universities Power Engineering Conference, August 31 – September 3, 2021, Middlesbrough-UK.
58. **Ahmadi, B., Ceylan, O., Ozdemir, A., "A multi-objective optimization evaluation framework for integration of distributed energy resources," Journal of Energy Storage, Volume 41, September 2021, 103005 DOI: 10.1016/j.est.2021.103005**
59. Younesi, S., Ahmadi, B., Ceylan, O., Ozdemir, A., "Energy Loss Minimization with Parallel Implementation of Marine Predators Algorithm", 13th International Conference on Electrical and Electronics Engineering ELECO 2021, November 25-27, 2021, Bursa/TURKEY. DOI: 10.23919/ELECO54474.2021.9677829
60. **Ahmadi, B., Ceylan, O., Ozdemir, A., "Distributed energy resource allocation using multi-objective grasshopper optimization algorithm," Electric Power Systems Research, Volume 201, Article Number107564, December 2021, DOI10.1016/j.epsr.2021.107564**

2022

61. **Ahmadi, B., Younesi, S., Ceylan, O., Ozdemir, A., "Ahmadi, B., Ceylan, O., Ozdemir, A., "An advanced Grey Wolf Optimization Algorithm and its application to planning problem in smart grids," Soft Computing 26(2):1-20, April 2022, DOI: 10.1007/s00500-022-06767-9**
62. **Ahmadi, B., Ceylan, O., Ozdemir, A., Fotuhi-Firuzabad, M., "A multi-objective framework for distributed energy resources planning and storage management," Applied Energy, 314(1):118887, May 2022, DOI: 10.1016/j.apenergy.2022.118887**
63. Koksal, A., Ozdemir, A., "Composite system reliability assessment to reduce the curtailment risk using the storage systems," IEEE International Energy Conference-ENERGYCON 2022, May 9-12, 2022, Riga-Latvia., DOI: 10.1109/ENERGYCON53164.2022.9830234

64. Koksal, A., Ozdemir, A., “Assessment of storage system benefits on the reliability and the cost of composite electric power systems,” IEEE International Energy Conference-ENERGYCON 2022, May 9-12, 2022, Riga-Latvia. DOI: 10.1109/ENERGYCON53164.2022.9830161
65. Polat, K., Ozdemir, A., Delkhooni, M., “Load Point Reliability Analysis in LV Distribution Networks with P2P Energy Trading,” 17th International Conference on Probabilistic Methods Applied to Power Systems PMAPS 2022, June 12-15, 2022, Manchester-UK, DOI: 10.1109/PMAPS53380.2022.9810642
66. Ahmadi, B., Ceylan, O., Ozdemir, A., “Enhancing photovoltaic hosting capacity in distribution networks by optimal allocation and operation of static var compensators”, 57th International Universities Power Engineering Conference, August 30 – September 2, 2022, Istanbul-TURKEY. DOI: 10.1109/UPEC55022.2022.9917934
67. Ebadi, R., Senyuz, H., Aboshady, F., Ceylan, O., Pisica, I., Ozdemir, A., “Voltage Control of Unbalanced Distribution Systems with Penetration of Renewable Sources: A Gradient-Based Optimization Approach”, 57th International Universities Power Engineering Conference, August 30 – September 2, 2022, Istanbul-TURKEY. DOI: 10.1109/UPEC55022.2022.9917747
68. Aboshady, F.M., Pisica, I., Ceylan, O., Taylor, G.A., Zobaa, A., Ozdemir, A., “Sequential Volt/Var Controller for PV Smart Inverters in Distribution Systems”, 57th International Universities Power Engineering Conference, August 30 – September 2, 2022, Istanbul-TURKEY. DOI: 10.1109/UPEC55022.2022.9917665
69. Dursun, I., Akinc, H., Guner, S., Ozdemir, A., “The Impacts of The Temperature-Humidity Fluctuations in Substations and Practical Experimental Applications”, 57th International Universities Power Engineering Conference, August 30 – September 2, 2022, Istanbul-TURKEY. DOI: 10.1109/UPEC55022.2022.9917773
70. Mohseni, M., Sedaghatkerdar, A., Mohseni, M., Heydarian-Forushani, E., Guner, S., Ozdemir, A., “Bidding Strategy of a Microgrid in Joint Energy and Reserve Markets: An IGDT-Based Approach”, 57th International Universities Power Engineering Conference, August 30 – September 2, 2022, Istanbul-TURKEY. DOI: 10.1109/UPEC55022.2022.9917702
71. Ahmadi, B., Ceylan, O., Ozdemir, A., An Optimization Framework for Distributed Energy Resource Planning and Energy Management Strategy of Storage Devices and Electric Vehicles, The 2nd International Conference on Energy Transition in the Mediterranean Area, SynergyMED 2022, 17-19 October, 2022, Thessaloniki, Greece. DOI: 10.1109/SyNERGYMED55767.2022.9941377
72. Koksal, A., Sezgin, L., Ozdemir, A., Demand forecasting and generation scheduling for a secure and cost-effective operation of power systems, The 2022 International Conference on Power, Energy and Innovations, ICPEI 2022, 19-21 October, 2022, Pattaya-THAILAND. **Best Paper Award**
73. Font, A., Cortes, F.E., Ozdemir, A., Impacts of Corona Cage Dimension on the Corona Characteristics of HVDC Applications, 13th Mediterranean Conference on Power Generation, Transmission, Distribution and Energy Conversion, MEDPOWER 2022, 7-9 November, 2022, Malta.
74. Fadil, M.H., Ozdemir, A., The Role of Electrical Commissioning Tests on Power Plant Electrical Asset Reliability, 13th Mediterranean Conference on Power Generation,

Transmission, Distribution and Energy Conversion, MEDPOWER 2022, 7-9 November, 2022, Malta.

75. **Younesi, S., Ahmadi, B., Ceylan, O., Ozdemir, A., Optimum Parallel Processing Schemes to Improve the Computation Speed for Renewable Energy Allocation and Sizing Problems, Energies 2022, Volume 15, Issue 24, 9301.**

2023

76. **Ozdemir, A., Ilhan, S., Experimental performance analysis of conventional and non-conventional lightning protection systems – preliminary results, Electric Power Systems Research, Volume 216, March 2023, 109080**
77. **Ahmadi, B., Ceylan, O., Ozdemir, A., Reinforcement of the distribution grids to improve the hosting capacity of distributed generation: Multi-objective framework”, Electric Power Systems Research, Volume 217, 109120, April 2023.**
78. **Aboshady, F., Ceylan, O., Zobaa, F.A., Ozdemir, A., Taylor, G., Pisica, I., Sequentially Coordinated and Cooperative Volt/Var Control of PV Inverters in Distribution Networks, MDPI Electronics, April 2023.**
79. **Aboshady, FM, Pisica, I, Zobaa, A.F., Taylor, G.A., Ceylan, O., Ozdemir, A., Reactive Power Control of PV Inverters in Active Distribution Grids With High PV Penetration, IEEE Access, Volume 11, Page(s): 81477 – 81496, July 2023.**
80. **Bamatraf, M., Ceylan, O., Pisica, I., Ozdemir, A., “SLP Optimization-Based Voltage Profile Improvement in Unbalanced Distribution Networks With SOP devices”, 58th International Universities Power Engineering Conference, August 29 – September 1, 2023, Dublin-IRELAND.**
81. **Bamatraf, M., Ceylan, O., Pisica, I., Ozdemir, A., “SLP Optimization-Based Method to Improve Voltage Profiles in Unbalanced Distribution Networks”, 6th International Conference on Smart Energy Systems and Technologies – SEST 2023, 4-6 September, 2023, Mugla-TURKEY**
82. **Ghobadi, M., Sepasian, M.S., Kenari, M.T., Ozdemir, A., “Application of Networked Microgrids for Distribution System Restoration after Natural Disasters,” IEEE Africon 2023, 20-22 September, 2023, Nairobi-Kenya.**
83. **Bamatraf, M., Ceylan, O., Pisica, I., Ozdemir, A., “Voltage Profile Improvement in Unbalanced Distribution Grids by Sequential Quadratic Programming,” IEEE Africon 2023, 20-22 September, 2023, Nairobi-Kenya.**
84. **Derviskadic, A., Monge, M., Lundberg, P. Behbahani, F.M., Kenari, M.T., Ozdemir, A., “Istanbul: City Centre Infeed with Voltage Source Converter-Based HVDC,” The 4th SEERC Conference, 11-13 October, 2023, Istanbul-Turkey.**
85. **Kenari, M.T., Ozdemir, A., “Probabilistic Models for the Analysis of Electric Vehicle Fast-Charging Station and Photovoltaic Unit Impacts on the Operation of Active Distribution Grids,” The 2023 International Conference on Power, Energy and Innovations, ICPEI 2023, 18-20 October, 2023, Hua Hin-THAILAND. **Best Paper Award****
86. **Polat, K., Ozdemir, A., OZDEMIR. Impacts of Transactive Energy Trading on the Load Point Reliability Indices of LV Distribution System, IEEE ACCESS, Volume 11, Page(s): 132119 - 132130, Nov. 2023.**

87. Aghababaei, S., Kenari, M.T., Sepasian, M.A., Ozdemir, A., Proactive allocation of mobile energy storage systems before a natural disaster to improve distribution system resilience, 14th International Conference on Electrical and Electronics Engineering (ELECO 2023), Nov.30/Dec.2-2023 Bursa-Turkey. DOI: 10.1109/ELECO60389.2023.10416054.
88. Ahmadi, B., Ceylan, O., Ozdemir, A., Optimal Allocation of Distributed Generators and Mobile Battery Energy Storage Systems in Distribution System, The 7th IEEE Conference on Energy Internet and Energy System Integration (EI2 2023), December 15-18, 2023, Hangzhou-China. DOI: 10.1109/EI259745.2023.10512676
89. **Ebadi, R., Aboshady, F., Ceylan, O., Pisica, I., Ozdemir, A., Multi-Criteria Decision Making in Optimal Operation Problem of Unbalanced Distribution Networks Integrated with Photovoltaic Units, IEEE Access PP(99):1-1, March 2024.**
90. Kenari, M.T., Ozdemir, A., Heidari, A., “Probabilistic approach to assess and minimize the voltage violation risk in active distribution networks,” 18th International Conference on Probabilistic Methods Applied to Power Systems PMAPS 2024, June 24-26, 2024, Auckland-New Zealand,
91. Bamatraf, M., Ceylan, O., Pisica, I., Ozdemir, “Voltage Profile Improvement in Unbalanced Distribution Networks for Probabilistic Generation and Consumption,” 18th International Conference on Probabilistic Methods Applied to Power Systems PMAPS 2024, June 24-26, 2024, Auckland-New Zealand,

12. RECENT SEMINARS, INVITED SPEECHES and TUTORIALS (2017 and later)

1. Ozdemir, A.; “Building/Home Energy Management and Automation Systems and Technologies”, British Council Researcher Links Workshop: Smart Grid Transformation of Existing Electricity Networks in the UK and Turkey: What are the Challenges and How They Change from Smart Cities to Smart Villages, 5-7 September, 2017, Istanbul.
2. Ozdemir, A., Corona Discharges in Generator Stator Windings, 2nd Workshop on Generator and Energy Systems, March 8-9, 2018 ISBIR Electric Corp., Balikesir, Turkey (Generator Stator Sargılarında Korona Boşalmaları, 2. Jenerator ve Enerji Sistemleri Çalıştayı , 8-9 Mart 2018 İŞBİR Elektrik-BALIKESİR)
3. Ozdemir, A., Gamification Approaches to Increase End Users’ Flexibility, The 11th Mediterranean Conference on Power Generation, Transmission, Distribution and Energy Conversion, Special Session on Distributed Energy Resources and the Use of Flexibility in Future Power Systems, MEDPOWER2018, Dubrovnik, Croatia, 12-15 November 2018
4. Ozdemir, A., Reliability Evaluation of Active Distribution Systems, Tutorial, POWERTECH 2019, 23-26 June, 2019, Milano-ITALY.
5. Ozdemir, A., Intelligent Method Applications in PD Based Diagnostics, Invited Speech, 2020 IEEE International Conference on High Voltage Engineering and Application, September 6-10, 2020, Beijing-CHINA
6. Ozdemir, A., Partial Discharges and Intelligent Insulation Diagnostics, Invited Speech, Electrical, Electronics and Computer Engineering Symposium ELECO 2020, 26-28 Nov. 2020, Bursa, TURKEY (Kısmi Boşalmalar ve Akıllı Yalıtım Arıza Tanısı, Elektrik-Elektronik Ve Bilgisayar Mühendisliği Sempozyumu ELECO 2020, 26-28 Kasım 2020, Bursa)

7. A.Ozdemir, Distribution System Reliability Improvement through DC traction power linked Electric Vehicles, The 3rd Asian Conference on Railway Engineering and Transportation- ART 2021, Plenary Speech, Nov. 2021, Jeju-Korea.
8. A.Ozdemir, Gamification Approaches to Increase Small-Scale End Users' Flexibility, International Conference on Electrical Facilities and Information Technologies 2022: New Intelligence Technology; Past, Present and Future, Plenary Speech, Turin Polytechnic University in Tashkent, Uzbekistan, August 10- 13, 2022.
9. A.Ozdemir, Distribution System Reliability Improvement through DC traction power linked Electric Vehicles, 11th International Conference on Power Science and Engineering, Plenary Speech, ICPSE 2022, September 22-24, Eskisehir, Turkey
10. A.Ozdemir, Gamification Approaches to Increase Small-Scale End Users' Flexibility, The 12th Conference on Smart Energy Networks-SGC2022, Plenary Speech, Graduate University of Advanced Technology, Kerman City-IRAN, December 22-24, 2022
11. A.Ozdemir, PEV Parking Lots for the Sustainable Energy Supply of Smart Cities, 5th Global Power, Energy and Communication Conference, GPECOM 2023, Plenary Speech, June 14-16, 2023, Cappadocia, TURKEY
12. A.Ozdemir, Electric Vehicle Parking Lots for the Sustainable Energy Supply of Smart Cities, 2nd International Conference on Electrical Facilities and Information Technologies 2023 (ICEF2023), Plenary Speech, August 22-25, 2023, Almaty, Kazakhstan.
13. Active Distribution System Resilience: Assessment, Metrics, Improvement, and Challenges, International Conference on Smart Energy Systems and Technologies- SEST 2023, Plenary Speech, 4-6 September, Mugla-TURKEY.
14. Ozdemir, A., PEV Parking Lots for the Sustainable Energy Supply of Smart Cities, Seminar, Graduate University of Advanced Technology, Kerman City-IRAN, December 4, 2023
15. Ozdemir, A., The resilience of active electric distribution systems, The 13th Conference on Smart Energy Networks-SGC2023 Niroo Research Center (NRI), Tahrán-IRAN, December 5-6, 2023
16. Ozdemir, A., The Resilience of Active Electric Power Distribution Systems_Kadir Has University-Faculty of Engineering and Natural Sciences Seminar_ January 12, 2024
17. Ozdemir, A., Reliability Evaluation of Active Distribution Systems, Tutorial, PMAPS 2024, 24-26 June, 2024, Auckland-New Zeland.
18. Ozdemir, A., Integration of photovoltaic generation and energy storage systems into the traction power system for technical and economic benefits, International Conference on Electrical Facilities and Information Technologies 2024 (ICEF2024), Plenary Speech, Mongolian University of Science and Technology (MUST), August 20-23, 2024, Ulaanbaatar, Mongolia.

13. RECENT AWARDS

- The best paper award in “Innovative Manufacturing Engineering & Energy International Conference, IManEE 2016,” with the paper “Analysis of critical operating conditions for LV distribution networks with microgrids,” September 23-25, 2016 Kallithea Chalkidiki, Greece
- The best paper award in “6th International Istanbul Smart Grid and Cities Congress and Fair ICSG 2018,” with the paper “Identification and Comparison of Power and Energy Management Capabilities of Distributed Energy Resources,” Istanbul, April 2018.
- The best student paper award at “The 11th International Conference on Electrical and Electronics Engineering ELECO 2019,” with the paper “AC and DC field distributions in glass, RTV-coated glass and composite insulators, November 2019
- ITU Academic Performance Award, PEDAP 2021, The best academic performance at the Department of Electrical Engineering.
- The best paper award in “The 2022 International Conference on Power, Energy and Innovations, ICPEI 2022, with the paper “Demand forecasting and generation scheduling for a secure and cost-effective operation of power systems,” Pattaya-THAILAND, 2022
- ITU Academic Performance Award, PEDAP 2022, The best academic performance at the Department of Electrical Engineering
- The best paper award in “The 2023 International Conference on Power, Energy and Innovations, ICPEI 2023, with the paper “Probabilistic Models for the Analysis of Electric Vehicle Fast-Charging Station and Photovoltaic Unit Impacts on the Operation of Active Distribution Grids,” Hua Hin-THAILAND, 2023.

14. TRACK RECORDS (August 28, 2024)

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[Web of Science Researcher ID:](#) A-2223-2016 Total Citations: 763 h-Index: 15

[SCOPUS Author Identifier:](#) 7006505111 Total Citations: 1179 h-Index: 20

[Google Scholar:](#) Total Citations: 1634 h-Index: 22 i10 index: 51

15. COURSES THOUGHT

Undergraduate

Electrotechnics,

Basics of Electrical Engineering

Introduction to Computers

Numerical Analysis

Discrete-Time signals and Systems

Probability Theory

Signals and Systems

Computer Applications in Electric Power Systems

High Voltage Tech..I

High Voltage Tech. II

High Voltage Technique

High Voltage Laboratory

Overvoltages and Insulation Coordination

Electromechanical Energy Conversion

Introduction to Analog Electronics (Texas A&M University)

Fundamentals of Electrical Engineering (Texas A&M University)
Digital Logic Design (Texas A&M University)
Introduction to Electrical Energy Systems

Graduate:

Reliability Applications in Electric Power Systems
Stochastic Processes for Electrical Engineers
Power System Harmonics

16.REFERENCES

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