

## Assoc. Prof. OZAN KEYSAN

### Personal Information

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### International Researcher IDs

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Publons / Web Of Science ResearcherID: AAZ-9096-2020

ScopusID: 36349871300

Yoksis Researcher ID: 214736

### Education Information

Doctorate, University of Edinburgh, Institute For Energy Systems, United Kingdom 2009 - 2014

Postgraduate, Middle East Technical University, Faculty of Engineering, Elektrik-Elektronik Mühendisliği Bölümü, Turkey  
2005 - 2008

Undergraduate, Middle East Technical University, Faculty of Engineering, Elektrik-Elektronik Mühendisliği Bölümü,  
Turkey 2000 - 2005

### Dissertations

Doctorate, Superconducting Generators for Large Offshore Wind Turbines, University Of Edinburgh, Institute For Energy Systems, 2013

Postgraduate, A non-invasive speed and position sensor for induction machines using external search coils, Middle East Technical University, Faculty of Engineering, Elektrik-Elektronik Mühendisliği Bölümü, 2008

### Research Areas

Renewable energy, Power Electronics, Electrical Machine Theory and Design, Electric Motor Drivers, Power Converters

### Academic Titles / Tasks

Associate Professor, Middle East Technical University, Faculty of Engineering, Department of Electrical and Electronics Engineering, 2020 - Continues

Assistant Professor, Middle East Technical University, Faculty of Engineering, Department of Electrical and Electronics Engineering, 2014 - 2018

Research Assistant, Middle East Technical University, Faculty of Engineering, Department of Electrical and Electronics Engineering, 2005 - 2009

### Academic and Administrative Experience

Uygulama ve Araştırma Merkezi Yönetim Kurulu Üyesi, Middle East Technical University, Graduate School of Natural and

Applied Sciences, 2016 - Continues

Dean, Middle East Technical University, Faculty of Engineering, 2015 - Continues

Deputy Head of Department, Middle East Technical University, Faculty of Engineering, 2018 - 2019

## Courses

STATIC POWER CONVERSION I, Undergraduate, 2018 - 2019

DESIGN OF ELECTRICAL MACHINES, Postgraduate, 2017 - 2018

STATIC POWER CONVERSION II, Undergraduate, 2017 - 2018

ELECTROMECHANICAL ENERGY CONVERSION I, Undergraduate, 2018 - 2019

## Advising Theses

KEYSAN O., Analytical modelling and multi-objective optimization of axial-flux permanent magnet machine with various PCB stators and development of a gan switched integrated motor drive PCB motor, Postgraduate, F.TOKGÖZ(Student), 2022

KEYSAN O., Concurrent operation of wireless power transfer based contactless slip ring and motor drive system with a single converter, Postgraduate, E.AYAZ(Student), 2022

KEYSAN O., Fault tolerant control of a dual-three-phase electrical machine with predictive current control and reduced computation burden, Postgraduate, H.SARAÇ(Student), 2022

KEYSAN O., Investigation of parallel-connected GaN E-HEMT VSI-based servo drives, Doctorate, H.YÜRÜK(Student), 2022

KEYSAN O., Optimum bidding strategy for wind and solar power plants in day-ahead electricity market, Doctorate, M.ÖZCAN(Student), 2021

KEYSAN O., Analysis and fault tolerant control of a five-phase axial flux permanent magnet synchronous machine, Postgraduate, G.HANDE(Student), 2021

KEYSAN O., Transient modeling techniques for the analysis of electromagnetic launchers, Postgraduate, N.TOSUN(Student), 2021

KEYSAN O., 1kW contactless slip ring design using series-series resonant converter topology, Postgraduate, H.POLAT(Student), 2021

KEYSAN O., Model predictive torque control of an induction motor enhanced with an inter-turn short circuit fault detection feature, Doctorate, İ.ŞAHİN(Student), 2021

Keysan O., Axial flux permanent magnet machine with novel flat winding made of conductor sheet, Postgraduate, G.ÇAKAL(Student), 2020

Keysan O., Characterization of GaN transistors and development of bi-directional DC/DC converter with half-bridge having short circuit protection for parallel switches, Postgraduate, F.KARAKAYA(Student), 2020

KEYSAN O., High power density variable speed traction motor, Postgraduate, S.Koushan(Student), 2020

KEYSAN O., Hybrid excited synchronous generator design and comparison of direct drive wind turbines, Postgraduate, A.AKGEMCİ(Student), 2019

Keysan O., Proton irradiation and gamma-ray irradiation testing studies on the commercial grade ganfets to investigate their characteristics under the space radiation environment, Postgraduate, L.BOYACI(Student), 2019

Keysan O., Grid impedance estimation based adaptive controller design for back-to-back wind turbine power converters for stable operation in distorted and weak grid, Postgraduate, H.TEMİZ(Student), 2019

Keysan O., Limited-jerk sinusoidal trajectory design for field oriented control of permanent magnet synchronous motors with H-infinity optimal controller, Postgraduate, M.KAAN(Student), 2019

KEYSAN O., Investigation of inertial support limits in wind turbines and the effects on the power system stability, Postgraduate, E.DUYMAZ(Student), 2019

Keysan O., Condition monitoring and fault diagnosis of electrical motor drive systems, Postgraduate, A.DEMİREL(Student), 2019

- KEYSAN O., Limited-jerk sinusoidal trajectory design for field oriented control of permanent magnet synchronous motors with H-infinity optimal controller, Postgraduate, M.Kaan(Student), 2019
- KEYSAN O., Reducing the cost of electric transmission and distribution systems with wind generation by means of energy storage and demand side management, Postgraduate, M.BİLDİRİCİ(Student), 2018
- KEYSAN O., Design of a modular, axial-flux direct drive permanent magnet generator for wind turbines, Postgraduate, A.BAŞKAYA(Student), 2018
- KEYSAN O., Electromagnetic simulation and optimization of an electromagnetic launcher, Postgraduate, D.CEYLAN(Student), 2018
- KEYSAN O., Improvement of the electric field distribution in the medium voltage gas insulated inductive voltage transformers, Postgraduate, M.VAR(Student), 2017
- KEYSAN O., Design and implementation of an unregulated DC-DC transformer module using LLC resonant converter, Postgraduate, Ö.SAHİN(Student), 2016

### **Published journal articles indexed by SCI, SSCI, and AHCI**

- I. **Non-invasive real-time diagnosis of PMSM faults implemented in motor control software for mission critical applications**  
Demirel A., KEYSAN O., El-Dalahmeh M., Al-Greer M.  
Measurement: Journal of the International Measurement Confederation, vol.232, 2024 (SCI-Expanded)
- II. **Ripple Minimization in Asymmetric Interleaved DC-DC Converters Using Neural Networks**  
Alemdar O. S., Oner M. U., ALTUN O., KEYSAN O.  
IEEE Transactions on Power Electronics, vol.39, no.3, pp.3411-3421, 2024 (SCI-Expanded)
- III. **Optimal sizing of battery energy storage system for a large-scale offshore wind power plant considering grid code constraints: A Turkish case study**  
Mokhtare M. H., KEYSAN O.  
IET Renewable Power Generation, 2024 (SCI-Expanded)
- IV. **Neural Networks Detect Inter-Turn Short Circuit Faults Using Inverter Switching Statistics for a Closed-Loop Controlled Motor Drive**  
Oner M. U., Sahin I., KEYSAN O.  
IEEE Transactions on Energy Conversion, vol.38, no.4, pp.2387-2395, 2023 (SCI-Expanded)
- V. **Variable Carrier Phase Shift Method for Integrated Contactless Field Excitation System of Electrically Excited Synchronous Motors**  
AYAZ E., ALTUN O., KEYSAN O.  
IEEE Transactions on Power Electronics, vol.38, no.10, pp.13243-13253, 2023 (SCI-Expanded)
- VI. **Carrier Phase Shift Method of SPWM for Concurrent Wired and Wireless Power Transfer Systems**  
AYAZ E., ALTUN O., KEYSAN O.  
IEEE Transactions on Industrial Electronics, vol.70, no.9, pp.8645-8654, 2023 (SCI-Expanded)
- VII. **Autonomous fault detection and diagnosis for permanent magnet synchronous motors using combined variational mode decomposition, the Hilbert-Huang transform, and a convolutional neural network**  
El-Dalahmeh M., Al-Greer M., Bashir I., El-Dalahmeh M., Demirel A., KEYSAN O.  
Computers and Electrical Engineering, vol.110, 2023 (SCI-Expanded)
- VIII. **Mechanical and Thermal Design of an Optimized PCB Motor for an Integrated Motor Drive System with GaNfETs**  
TOKGÖZ F., Gulsuna O., KARAKAYA F., ÇAKAL G., KEYSAN O.  
IEEE Transactions on Energy Conversion, vol.38, no.1, pp.653-661, 2023 (SCI-Expanded)
- IX. **Fault Tolerant Multi-Tx/Multi-Rx Inductive Power Transfer System with a Resonator Coil**  
AYAZ E., ALTUN O., POLAT H., KEYSAN O.  
IEEE Journal of Emerging and Selected Topics in Power Electronics, vol.11, no.1, pp.1272-1284, 2023 (SCI-Expanded)

- X. **A Hierarchical Control of Supercapacitor and Microsources in Islanded DC Microgrids**  
Barati F., Ahmadi B., KEYSAN O.  
IEEE ACCESS, vol.11, pp.7056-7066, 2023 (SCI-Expanded)
- XI. **Muzzle Voltage Experiments of the EMFY-3 Launcher**  
Tosun N., Karagoz M., Yurdakonar F., Gulletutan G., Yildirim B., KEYSAN O.  
IEEE TRANSACTIONS ON PLASMA SCIENCE, vol.50, no.10, pp.3434-3442, 2022 (SCI-Expanded)
- XII. **Balancing of Common DC-Bus Parallel Connected Modular Inductive Power Transfer Systems**  
POLAT H., AYAZ E., ALTUN O., KEYSAN O.  
IEEE Journal of Emerging and Selected Topics in Power Electronics, vol.10, pp.1587-1596, 2022 (SCI-Expanded)
- XIII. **Sensitivity Analysis for the Inductance Gradient of EMFY-3 Electromagnetic Launcher**  
Tosun N., Civil A., Oruc A. Y., Yildirim B., Ozceylan B. M., Bolat B., Yurdakul E. B., Tan E., Yurdakonar F., Akdemir H., et al.  
IEEE TRANSACTIONS ON PLASMA SCIENCE, vol.50, no.2, pp.381-386, 2022 (SCI-Expanded)
- XIV. **Parallel connected GaN E-HEMT VSI-based servo drives for PMSMs**  
Yuruk H., Keysan O.  
IET ELECTRIC POWER APPLICATIONS, vol.16, pp.86-99, 2022 (SCI-Expanded)
- XV. **Centralized Microgrid Control System in Compliance with IEEE 2030.7 Standard Based on an Advanced Field Unit**  
Pouraltafi-kheljan S., Ugur M., Bozulu E., Caliskan B. C., KEYSAN O., GÖL M.  
ENERGIES, vol.14, no.21, 2021 (SCI-Expanded)
- XVI. **Layout-Based Ultrafast Short-Circuit Protection Technique for Parallel-Connected GaN HEMTs**  
Karakaya F., Alemdar O. S., KEYSAN O.  
IEEE JOURNAL OF EMERGING AND SELECTED TOPICS IN POWER ELECTRONICS, vol.9, no.5, pp.6385-6395, 2021 (SCI-Expanded)
- XVII. **Comparison of the Effects of Nonlinearities for Si MOSFET and GaN E-HEMT Based VSIs**  
Yuruk H., KEYSAN O., Ulutas B.  
IEEE TRANSACTIONS ON INDUSTRIAL ELECTRONICS, vol.68, no.7, pp.5606-5615, 2021 (SCI-Expanded)
- XVIII. **Model Predictive Controller Utilized as an Observer for Inter-Turn Short Circuit Detection in Induction Motors**  
Sahin I., KEYSAN O.  
IEEE TRANSACTIONS ON ENERGY CONVERSION, vol.36, no.2, pp.1449-1458, 2021 (SCI-Expanded)
- XIX. **Feasibility of quasi-square-wave zero-voltage-switching bi-directional dc/dc converters with gan hemts**  
KARAKAYA F., Gülsuna Ö., KEYSAN O.  
Energies, vol.14, no.10, 2021 (SCI-Expanded)
- XX. **A Comparison of Velocity Skin Effect Modeling With 2-D Transient and 3-D Quasi-Transient Finite Element Methods**  
Tosun N., Ceylan D., POLAT H., KEYSAN O.  
IEEE TRANSACTIONS ON PLASMA SCIENCE, vol.49, no.4, pp.1500-1507, 2021 (SCI-Expanded)
- XXI. **Flat winding made of aluminum or copper sheet for axial flux machines**  
ÇAKAL G., KEYSAN O.  
IET ELECTRIC POWER APPLICATIONS, vol.15, no.4, pp.429-440, 2021 (SCI-Expanded)
- XXII. **Axial flux generator with novel flat wire for direct-drive wind turbines**  
Çakal G., Keysan O.  
IET RENEWABLE POWER GENERATION, vol.15, no.1, pp.139-152, 2021 (SCI-Expanded)
- XXIII. **Comparison of PCB winding topologies for axial-flux permanent magnet synchronous machines**  
TOKGÖZ F., ÇAKAL G., KEYSAN O.  
IET ELECTRIC POWER APPLICATIONS, vol.14, no.13, pp.2577-2586, 2020 (SCI-Expanded)
- XXIV. **Adaptive controller based on grid impedance estimation for stable operation of grid-connected inverters under weak grid conditions**  
Temiz H., KEYSAN O., Demirok E.

- IET POWER ELECTRONICS, vol.13, no.13, pp.2692-2705, 2020 (SCI-Expanded)
- XXV. **A Hybrid Simulation Model for Electromagnetic Launchers including the Transient Inductance and Electromotive Force**  
Tosun N., Polat H., Ceylan D., Karagoz M., Yildirim B., Gungen I., KEYSAN O.  
IEEE Transactions on Plasma Science, vol.48, no.9, pp.3220-3228, 2020 (SCI-Expanded)
- XXVI. **Optimization of a Convex Rail Design for Electromagnetic Launchers**  
Polat H., Tosun N., Ceylan D., KEYSAN O.  
IEEE TRANSACTIONS ON PLASMA SCIENCE, vol.48, no.6, pp.2266-2273, 2020 (SCI-Expanded)
- XXVII. **Simulations and Experiments of EMFY-1 Electromagnetic Launcher**  
Ceylan D., Karagoz M., Cevik Y., Yildirim B., Polat H., KEYSAN O.  
IEEE TRANSACTIONS ON PLASMA SCIENCE, vol.47, no.7, pp.3336-3343, 2019 (SCI-Expanded)
- XXVIII. **Improving the Thermal Performance of Rotary and Linear Air-Cored Permanent Magnet Machines for Direct Drive Wind and Wave Energy Applications**  
Mueller M. A., Burchell J., Chong Y. C., KEYSAN O., McDonald A., Galbraith M., Subiabre E. J. P. E.  
IEEE TRANSACTIONS ON ENERGY CONVERSION, vol.34, no.2, pp.773-781, 2019 (SCI-Expanded)
- XXIX. **A Rare-Earth Free Magnetically Geared Generator for Direct-Drive Wind Turbines**  
Zeinali R., KEYSAN O.  
ENERGIES, vol.12, no.3, 2019 (SCI-Expanded)
- XXX. **Multi-objective design optimization of a permanent magnet axial flux eddy current brake**  
Tarvirdilu-Asl R., Yuksel M., KEYSAN O.  
TURKISH JOURNAL OF ELECTRICAL ENGINEERING AND COMPUTER SCIENCES, vol.27, no.2, pp.998-1011, 2019 (SCI-Expanded)
- XXXI. **Armature Shape Optimization of an Electromagnetic Launcher Including Contact Resistance**  
Ceylan D., Gudelek M. U., KEYSAN O.  
IEEE TRANSACTIONS ON PLASMA SCIENCE, vol.46, no.10, pp.3619-3627, 2018 (SCI-Expanded)
- XXXII. **Development of a superconducting claw-pole linear test-rig**  
Radyjowski P., KEYSAN O., Burchell J., Mueller M.  
SUPERCONDUCTOR SCIENCE & TECHNOLOGY, vol.29, no.4, 2016 (SCI-Expanded)
- XXXIII. **A modular and cost-effective superconducting generator design for offshore wind turbines**  
KEYSAN O., Mueller M.  
SUPERCONDUCTOR SCIENCE & TECHNOLOGY, vol.28, no.3, 2015 (SCI-Expanded)
- XXXIV. **A Modular Superconducting Generator for Offshore Wind Turbines**  
KEYSAN O., Olczak D., Mueller M. A.  
JOURNAL OF SUPERCONDUCTIVITY AND NOVEL MAGNETISM, vol.26, no.5, pp.2103-2108, 2013 (SCI-Expanded)
- XXXV. **Real-Time Speed and Position Estimation Using Rotor Slot Harmonics**  
Keysan O., ERTAN H. B.  
IEEE TRANSACTIONS ON INDUSTRIAL INFORMATICS, vol.9, no.2, pp.899-908, 2013 (SCI-Expanded)
- XXXVI. **Application of high-temperature superconducting machines to direct drive renewable energy systems**  
KEYSAN O.  
ELECTRICAL DRIVES FOR DIRECT DRIVE RENEWABLE ENERGY SYSTEMS, no.24, pp.219-252, 2013 (SCI-Expanded)
- XXXVII. **Design and Testing of a Linear Generator for Wave-Energy Applications**  
Hodgins N., KEYSAN O., McDonald A. S., Mueller M. A.  
IEEE TRANSACTIONS ON INDUSTRIAL ELECTRONICS, vol.59, no.5, pp.2094-2103, 2012 (SCI-Expanded)
- XXXVIII. **Designing the C-GEN lightweight direct drive generator for wave and tidal energy**  
KEYSAN O., Mueller M., McDonald A., Hodgins N., Shek J.  
IET RENEWABLE POWER GENERATION, vol.6, no.3, pp.161-170, 2012 (SCI-Expanded)
- XXXIX. **A Transverse Flux High Temperature Superconducting Generator Topology for Large Direct Drive Wind Turbines**  
KEYSAN O., Mueller M. A.

- Physics Procedia, vol.36, pp.759-764, 2012 (SCI-Expanded)
- XL. A Homopolar HTSG Topology for Large Direct-Drive Wind Turbines**  
KEYSAN O., Mueller M. A.  
IEEE TRANSACTIONS ON APPLIED SUPERCONDUCTIVITY, vol.21, no.5, pp.3523-3531, 2011 (SCI-Expanded)

## Articles Published in Other Journals

- I. Optimum bidding strategy for wind and solar power plants in day-ahead electricity market  
Özcan M., KEYSAN O., Satir B.  
Energy Systems, vol.12, no.4, pp.955-987, 2021 (ESCI)
- II. Performance comparison of passive series R and shunt R-C damped LCL filter for grid-connected inverters  
Temiz H., Demirok E., KEYSAN O., Turkay A., Cetinkaya B.  
JOURNAL OF ENGINEERING-JOE, no.18, pp.4698-4702, 2019 (ESCI)
- III. Multi-physics design optimisation of a GaN-based integrated modular motor drive system  
UĞUR M., KEYSAN O.  
JOURNAL OF ENGINEERING-JOE, no.17, pp.3900-3905, 2019 (ESCI)
- IV. Tümleşik Modüler Motor Sürücü Sistemi Tasarımı  
Uğur M., KEYSAN O.  
Fırat Üniversitesi Mühendislik Bilimleri Dergisi, vol.30, pp.75-83, 2018 (Peer-Reviewed Journal)
- V. Future Electrical Generator Technologies for Offshore Wind Turbines  
KEYSAN O.  
Engineering & Technology Reference, 2015 (Peer-Reviewed Journal)
- VI. Integrated design and optimization of a direct drive axial flux permanent magnet generator for a tidal turbine  
Keysan O., McDonald A., Mueller M.  
Renewable Energy and Power Quality Journal, vol.1, no.8, pp.1297-1302, 2010 (Scopus)

## Books & Book Chapters

- I. METU Smart Campus Project (iEAST)  
ERTEKİN BOLELLİ Ş., KEYSAN O., GÖL M., Bayazit H., Yıldız T., Marr A., Ganji M., Teimourzadeh S., Tör O. B., Özkavaf S.  
in: New Technologies, Development and Application II, Isak Karabegović, Editor, Springer, pp.287-297, 2019
- II. Application of high-temperature superconducting machines to direct drive renewable energy systems  
Keysan O.  
in: Electrical Drives for Direct Drive Renewable Energy Systems, Markus Mueller, Henk Polinder, Editor, Woodhead Publishing Limited, London, pp.219-251, 2013

## Refereed Congress / Symposium Publications in Proceedings

- I. Winding Type Alternation of a Refurbished Old Generator  
Tosun N., Güllütutan G., Yakut M. S., Alp Yilmaz D., BAYER Ö., KEYSAN O.  
2023 IEEE Workshop on Electrical Machines Design, Control and Diagnosis, WEMDCD 2023, Newcastle upon Tyne, England, 13 - 14 April 2023
- II. Scaling Laws for Electromagnetic Launchers Considering an Existing Pulse Power Supply  
Güllütutan G., KEYSAN O., Tosun N., Yurdakonar F., Yıldırım B., Çöklü Z., Karagöz M.

- 2023 IEEE Pulsed Power Conference, PPC 2023, Texas, United States Of America, 25 - 29 June 2023
- III. **Active fault detection using time and frequency diagnostic features for electrical machine**  
El-Dalahmeh M., Al-Greer M., Demirel A., KEYSAN O.  
11th International Conference on Power Electronics, Machines and Drives (PEMD 2022), Newcastle, Australia, 21 June 2022
- IV. **Design of an optimized PCB motor with a GaN switched integrated motor drive**  
TOKGÖZ F., Gülsuna Ö., KARAKAYA F., ÇAKAL G., KEYSAN O.  
11th International Conference on Power Electronics, Machines and Drives (PEMD 2022), Newcastle, Australia, 21 June 2022
- V. **Generalized Model of Modular Two Element Compensated IPT Systems with Common DC-Bus**  
AYAZ E., ALTUN O., POLAT H., KEYSAN O.  
Wireless Power Week (WPW), Bordeaux, France, 5 - 08 July 2022, pp.260-265
- VI. **A Modular Inductive Power Transfer System for Synchronous Machine Field Excitation**  
ALTUN O., AYAZ E., POLAT H., KEYSAN O.  
Wireless Power Week (WPW), Bordeaux, France, 5 - 08 July 2022, pp.476-481
- VII. **Electromagnetic Launcher Speed Control with a Multilevel Fast Triggering Time Algorithm (MFTTA)**  
Tosun N., Polat H., KEYSAN O.  
2021 IEEE Pulsed Power Conference, PPC 2021, Colorado, United States Of America, 12 - 16 December 2021, vol.2021-December
- VIII. **Muzzle Voltage Characteristics of Railguns**  
Tosun N., Gulletutan G., KEYSAN O., Yurdakonar F., Karagoz M.  
2021 IEEE Pulsed Power Conference, PPC 2021, Colorado, United States Of America, 12 - 16 December 2021, vol.2021-December
- IX. **Design and Analysis of a 2.5 MW Hybrid Excited Synchronous Wind Turbine Generator With Two Separate Rotors**  
akgemci a., KEYSAN O.  
2020 International Conference on Electrical Machines (ICEM), Gothenburg, Sweden, 23 - 26 August 2020
- X. **A simulink model for the induction machine with an inter-turn short circuit fault**  
ŞAHİN İ., BAYAZIT G. H., KEYSAN O.  
2020 International Conference on Electrical Machines, ICEM 2020, Virtual, Gothenburg, Sweden, 23 - 26 August 2020, pp.1273-1279
- XI. **Design and implementation of an optimized printed circuit board axial-flux permanent magnet machine**  
TOKGÖZ F., ÇAKAL G., KEYSAN O.  
2020 International Conference on Electrical Machines, ICEM 2020, Virtual, Gothenburg, Sweden, 23 - 26 August 2020, pp.111-116
- XII. **Fault Tolerance Capabilities of Three, Four and Six-Phase Configurations of a 24 Slot Modular PMSM**  
Bayazit G. H., Uğur M., KEYSAN O.  
IEEE International Conference on Power Electronics and Drive Systems (PEDS), Toulouse, France, 9 - 12 July 2019
- XIII. **METU Smart Campus Project (iEAST)**  
ERTEKİN BOLELLİ Ş., KEYSAN O., GÖL M., beyazit h., YILDIZ T., Marr A., Ganji M., Teimourzadeh S., Tör O. B., Özkavaf S.  
International Conference on New Technologies, Development and Application, Sarajevo, Bosnia And Herzegovina, 27 - 29 June 2019, vol.76, pp.287-297
- XIV. **Fault Tolerance Capabilities of Three, Four and Six-Phase Configurations of a 24 Slot Modular PMSM**  
BAYAZIT G. H., Ugur M., KEYSAN O.  
13th IEEE International Conference on Power Electronics and Drive Systems, PEDS 2019, Toulouse, France, 9 - 12 July 2019
- XV. **Utilization and Optimization of Superconducting Coil Parameters in Electromagnetic Launcher Systems**

- Polat H., Ceylan D., KEYSAN O.  
2019 IEEE Pulsed Power and Plasma Science, PPPS 2019, Florida, United States Of America, 23 - 29 June 2019
- XVI. **Applications of Superconductivity in the Energy Area**  
KEYSAN O.  
ETAMSS 2018, 22 - 24 February 2018
- XVII. **A simplified discrete-time implementation of FCS-MPC applied to an IM drive**  
ŞAHİN İ., KEYSAN O.  
21st European Conference on Power Electronics and Applications (EPE ECCE Europe), Genoa, Italy, 3 - 05 September 2019
- XVIII. **Design of Double Sided Linear Motor with Easy to Manufacture Hairpin Plate Winding**  
ÇAKAL G., KEYSAN O.  
12th International Symposium on Linear Drives for Industry Applications (LDIA), Neuchatel, Switzerland, 1 - 03 July 2019
- XIX. **High Bandwidth Current Control via Nonlinear Compensation and GaN-based VSI**  
Yuruk H., KEYSAN O., Ulutas B.  
IEEE 13th International Conference on Compatibility, Power Electronics and Power Engineering (IEEE IES CPE-POWERENG), Sonderborg, Denmark, 23 - 25 April 2019
- XX. **PCB Layout Based Short-Circuit Protection Scheme for GaN HEMTs**  
Alemdar O. S., KARAKAYA F., KEYSAN O.  
11th Annual IEEE Energy Conversion Congress and Exposition (ECCE), Maryland, United States Of America, 29 September - 03 October 2019, pp.2212-2218
- XXI. **A Comparative Study of Capacitive and Inductive Pulsed Power Supply Topologies for Electromagnetic Launcher Applications**  
Ceylan D., Pourkeivannour S., KEYSAN O.  
International Aegean Conference on Electrical Machines and Power Electronics (ACEMP) / International Conference on Optimization of Electrical and Electronic Equipment (OPTIM), İstanbul, Turkey, 27 - 29 August 2019, pp.297-303
- XXII. **Investigation of Turn-on and Turn-off Characteristics of Enhancement-Mode GaN Power Transistors**  
KARAKAYA F., DİLBEROĞLU M. U., KEYSAN O.  
20th European Conference on Power Electronics and Applications, EPE 2018 ECCE Europe, Riga, Latvia, 17 - 21 September 2018
- XXIII. **Evaluation of Photovoltaic Systems For Reactive Power Compensation In Low Voltage Power Systems**  
Üğur M., Duymaz E., Göl M., Keysan O.  
ISGT Europe 2018, Sarajevo, Bosnia And Herzegovina, 21 - 25 October 2018
- XXIV. **Design of a GaN Based Integrated Modular Motor Drive**  
Üğur M., KEYSAN O.  
2018 XIII International Conference on Electrical Machines (ICEM), 3 - 06 September 2018
- XXV. **Design of a Power Plant Emulator for the Dynamic Frequency Stability Studies**  
Duymaz E., Pourkeivannour S., Ceylan D., ŞAHİN İ., KEYSAN O.  
2018 XIII International Conference on Electrical Machines (ICEM), 3 - 06 September 2018
- XXVI. **Minimization of EMF Harmonics and Cogging Torque for a Medium Speed RFPM Wind Turbine Generator**  
Akgemci A., Zeinali R., KEYSAN O.  
7th International Conference on Renewable Energy Research and Applications (ICRERA), Paris, France, 14 - 17 October 2018, pp.342-347
- XXVII. **Performance Comparison of Passive Series R and Shunt R-C Damped LCL Filter for Grid-Connected Inverters**  
temiz h., demirok e., KEYSAN O., Türkay A., Çetinkaya B.  
IET Renewable Power Generation Conference, 26 - 27 September 2018
- XXVIII. **Investigation of Turn-on and Turn-off Characteristics**

- Karakaya F., Ugur M., KEYSAN O.  
20th European Conference on Power Electronics and Applications (EPE ECCE Europe), Riga, Latvia, 17 - 21 September 2018
- XXIX. **Design and Optimization of Reduced Torque Ripple Rotary Voice Coil Motor**  
Çakal G., Zeinali R., KEYSAN O.  
2018 XIII International Conference on Electrical Machines (ICEM), Alexandroupoli, Greece, 3 - 06 September 2018, pp.663
- XXX. **Comparison of Inverter Topologies Suited for Integrated Modular Motor Drive Applications**  
Ugur M., Sarac H., KEYSAN O.  
18th IEEE International Power Electronics and Motion Control Conference (IEEE PEMC), Budapest, Hungary, 26 - 30 August 2018, pp.524-530
- XXXI. **Limited-Jerk Sinusoidal Trajectory Design for FOC of PMSM with H-infinity Optimal Controller**  
Mutlu M. K., KEYSAN O., Ulutas B.  
18th IEEE International Power Electronics and Motion Control Conference (IEEE PEMC), Budapest, Hungary, 26 - 30 August 2018, pp.704-710
- XXXII. **A New Model Predictive Torque Control Strategy with Reduced Set of Prediction Vectors**  
ŞAHİN İ., KEYSAN O.  
12th IEEE International Conference on Compatibility, Power Electronics and Power Engineering (CPE-POWERENG), Doha, Qatar, 10 - 12 April 2018
- XXXIII. **MODULAR AXIAL-FLUX DIRECT DRIVE PERMANENT MAGNETGENERATOR FOR WIND TURBINE APPLICATIONS**  
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