

Prof. MÜSLÜM ARKAN

Personal Information

Office Phone: [+90 422 377 4829](tel:+904223774829)

Fax Phone: [+90 422 341 0046](tel:+904223410046)

Email: muslum.arkan@inonu.edu.tr

Web: <https://avesis.inonu.edu.tr/muslum.arkan>

Address: İnönü Üniversitesi Mühendislik Fakültesi Elektrik-Elektronik Müh. Böl. Malatya

International Researcher IDs

ScholarID: Ye2ySswAAAAJ

ORCID: 0000-0001-5313-2400

Publons / Web Of Science ResearcherID: A-5114-2016

Yoksis Researcher ID: 114924

Education Information

Doctorate, The University of Sussex, School of Engineering, Elektrik, England 1996 - 2000

Undergraduate, Gaziantep University, Faculty Of Engineering, Elektrik-Elektronik Müh, Turkey 1989 - 1994

Dissertations

Doctorate, Stator fault diagnosis in induction motors, The University of Sussex, School Of Engineering, 2000

Research Areas

Electrical and Electronics Engineering, Energy, Power Electronics, Electrical Machine Theory and Design, Electric Motor Drivers, Engineering and Technology

Academic Titles / Tasks

Professor, Inonu University, Mühendislik Fakültesi, Elektrik-Elektronik Mühendisliği, 2016 - Continues

Associate Professor, Inonu University, Mühendislik Fakültesi, Elektrik-Elektronik Müh. Böl., 2009 - 2016

Assistant Professor, Inonu University, Mühendislik Fakültesi, Elektrik-Elektronik Müh. Böl., 2005 - 2009

Academic and Administrative Experience

Inonu University, Mühendislik Fakültesi, Elektrik-Elektronik Mühendisliği Bölümü, 2017 - Continues

Inonu University, Mühendislik Fakültesi, Elektrik-Elektronik Mühendisliği Bölümü, 2005 - Continues

Inonu University, Mühendislik Fakültesi, 2013 - 2016

Inonu University, Mühendislik Fakültesi, Elektrik-Elektronik Mühendisliği Bölümü, 2010 - 2014

Advising Theses

ARKAN M., Sürekli Miknatıslı Senkron Motorun Stator Kısa Devre Arızasının Tespiti ve Arıza Şiddetinin Otomatik Olarak Belirlenmesi, Doctorate, F.Çıra(Student), 2017

ARKAN M., Yük Salınımı Durumunda Asenkron Motorda Rotor Çubuk Arızasının Gerçek Zamanlı Tespiti, Doctorate, T.Göktaş(Student), 2015

Published journal articles indexed by SCI, SSCI, and AHCI

- I. **Design and development of travelling-wave-frequency-based transmission line fault locator using TMS320 DSP**
ARKAN M., AKMAZ D., MAMIŞ M. S., TAĞLUK M. E.
IET SCIENCE MEASUREMENT & TECHNOLOGY, vol.13, no.4, pp.518-522, 2019 (SCI-Expanded)
- II. **Transmission line fault location using traveling wave frequencies and extreme learning machine**
Akmaz D., MAMIŞ M. S., ARKAN M., TAĞLUK M. E.
ELECTRIC POWER SYSTEMS RESEARCH, vol.155, pp.1-7, 2018 (SCI-Expanded)
- III. **Discerning broken rotor bar failure from low-frequency load torque oscillation in DTC induction motor drives**
GÖKTAŞ T., ARKAN M.
TRANSACTIONS OF THE INSTITUTE OF MEASUREMENT AND CONTROL, vol.40, no.1, pp.279-286, 2018 (SCI-Expanded)
- IV. **Fault location determination for transmission lines with different series-compensation levels using transient frequencies**
Akmaz D., MAMIŞ M. S., ARKAN M., TAĞLUK M. E.
TURKISH JOURNAL OF ELECTRICAL ENGINEERING AND COMPUTER SCIENCES, vol.25, no.5, pp.3764-3775, 2017 (SCI-Expanded)
- V. **Lightning surge analysis of Faraday cage using alternative transient program-electromagnetic transients program**
MAMIŞ M. S., KELEŞ C., ARKAN M., Kaya R.
IET GENERATION TRANSMISSION & DISTRIBUTION, vol.10, no.4, pp.1016-1022, 2016 (SCI-Expanded)
- VI. **Detection of Stator Winding Inter-Turn Short Circuit Faults in Permanent Magnet Synchronous Motors and Automatic Classification of Fault Severity via a Pattern Recognition System**
Cira F., ARKAN M., Gumus B.
JOURNAL OF ELECTRICAL ENGINEERING & TECHNOLOGY, vol.11, no.2, pp.416-424, 2016 (SCI-Expanded)
- VII. **Detection of rotor fault in three-phase induction motor in case of low-frequency load oscillation**
Goktas T., ARKAN M., OZGUVEN O. F.
ELECTRICAL ENGINEERING, vol.97, no.4, pp.337-345, 2015 (SCI-Expanded)
- VIII. **Transmission lines fault location using transient signal spectrum**
MAMIŞ M. S., ARKAN M., KELEŞ C.
INTERNATIONAL JOURNAL OF ELECTRICAL POWER & ENERGY SYSTEMS, vol.53, pp.714-718, 2013 (SCI-Expanded)
- IX. **Sensorless speed estimation in induction motor drives by using the space vector angular fluctuation signal**
Arkan M.
IET ELECTRIC POWER APPLICATIONS, vol.2, no.2, pp.113-120, 2008 (SCI-Expanded)
- X. **Modelling and simulation of induction motors with inter-turn faults for diagnostics**
Arkan M., KOSTIC-PEROVIC D., UNSWORTH P. J.
ELECTRIC POWER SYSTEMS RESEARCH, vol.75, no.1, pp.57-66, 2005 (SCI-Expanded)
- XI. **Bearing and misalignment fault detection in induction motors by using the space vector angular fluctuation signal**
Arkan M., CALIS H., TAGLUK M. E.
ELECTRICAL ENGINEERING, vol.87, no.4, pp.197-206, 2005 (SCI-Expanded)

- XII. **Internal ionization process in polymer dielectrics in strong electrical field**
 Alisoy G., Alisoy H., Rustamov S., ARKAN M.
 PHYSICA A-STATISTICAL MECHANICS AND ITS APPLICATIONS, vol.335, pp.59-69, 2004 (SCI-Expanded)
- XIII. **Online stator fault diagnosis in induction motors**
 Arkan M., Perovic D., UNSWORTH P. J.
 IEE PROCEEDINGS-ELECTRIC POWER APPLICATIONS, vol.148, no.6, pp.537-547, 2001 (SCI-Expanded)

Refereed Congress / Symposium Publications in Proceedings

- I. **Monitoring of Leakage Flux for Rotor Fault Detection under non-adjacent broken rotor bars in Induction Motors**
 GÖKTAŞ T., Ekinci I., YÜKLÜ N., ARKAN M., MAMIŞ M. S.
 3rd International Conference on Applied Automation and Industrial Diagnostics (ICAAID), Elazığ, Turkey, 25 - 27 September 2019
- II. **Discriminating of rotor fault and low frequency load torque oscillation using motor square current signature analysis**
 GÖKTAŞ T., ARKAN M.
 23rd International Conference on Electrical Machines, ICEM 2018, Alexandroupoli, Greece, 3 - 06 September 2018, pp.2365-2370
- III. **Series Compensation with Constant Capacitors in Transmission Lines**
 AKMAZ D., MAMIŞ M. S., ARKAN M., TAĞLUK M. E.
 8th, International advanced technology symposium, (Iats2017), Elazığ, Turkey, 19 - 22 October 2017
- IV. **Separation of Induction Motor Rotor Faults and Low Frequency Load Oscillations Through the Radial Leakage Flux**
 GÖKTAŞ T., ARKAN M., MAMIŞ M. S., Akin B.
 9th Annual IEEE Energy Conversion Congress and Exposition (ECCE), Ohio, United States Of America, 1 - 10 October 2017, pp.3165-3170
- V. **Broken Rotor Bar Fault Monitoring based on Fluxgate Sensor Measurement of Leakage Flux**
 GÖKTAŞ T., ARKAN M., MAMIŞ M. S., Akin B.
 IEEE International Electric Machines and Drives Conference (IEMDC), Florida, United States Of America, 20 - 24 May 2017
- VI. **Analysis of Stator Inter-turn Short-circuit Fault Signatures for Inverter-fed Permanent Magnet Synchronous Motors**
 ÇIRA F., ARKAN M., GÜMÜŞ B., GÖKTAŞ T.
 42nd Annual Conference of the IEEE-Industrial-Electronics-Society (IECON), Florence, Italy, 24 - 27 October 2016, pp.1453-1457
- VII. **European EMTP ATP Conference EEUG Meeting Courses 2015**
 AKMAZ D., MAMIŞ M. S., TAĞLUK M. E., ARKAN M.
 Travelling-wave based fault distance estimation for series compensated transmission lines using ATP-EMTP, 14 - 16 September 2015, pp.151-161
- VIII. **Separation Harmonics for Detecting Broken Bar Fault in case of Load Torque Oscillation**
 Goktas T., ARKAN M., Zafarani M., AKIN B.
 IEEE International Electric Machines and Drives Conference, Idaho, United States Of America, 10 - 13 May 2015, pp.1452-1458
- IX. **Detecting Fault Type and Fault Location in Power Transmission Lines by Extreme Learning Machines**
 TAĞLUK M. E., MAMIŞ M. S., ARKAN M., Ertugrul O. F.
 23rd Signal Processing and Communications Applications Conference (SIU), Malatya, Turkey, 16 - 19 May 2015, pp.1090-1093
- X. **Fault Location on Series Compensated Power Transmission Lines Using Transient Spectrum**
 Akmaz D., MAMIŞ M. S., ARKAN M., TAĞLUK M. E.

23rd Signal Processing and Communications Applications Conference (SIU), Malatya, Turkey, 16 - 19 May 2015, pp.951-954

- XI. **A New Approach to Detect Stator Fault in Permanent Magnet Synchronous Motors**
Cira F., ARKAN M., Gumus B.
10th IEEE International Symposium on Diagnostics for Electrical Machines, Power Electronics, and Drives (SDEMPED), Guarda, Portugal, 1 - 04 September 2015, pp.316-321
- XII. **Diagnosis of Broken Rotor Fault in Inverter-Fed IM by Using Analytical Signal Angular Fluctuation**
Goktas T., ARKAN M.
16th International Power Electronics and Motion Control Conference and Exposition (PEMC), Antalya, Turkey, 21 - 24 September 2014, pp.337-342
- XIII. **Yenilenebilir Enerji Kaynakları ile Uyumlu Yüksek Güçlü Yükseltici Tip İki Paralel Kollu Konvertörün Tasarımı Gerçekleştirilmesi ve Kontrolü**
GÖKTAŞ T., ARKAN M., Murat İ. E.
Otomatik Kontrol Ulusal Toplantısı, TOK2013, Malatya, Turkey, 26 - 28 September 2013
- XIV. **A New Method to Separate Broken Rotor Failures and Low Frequency Load Oscillations in Three-Phase Induction Motor**
Goktas T., ARKAN M., Ozguven O. F.
9th IEEE International Symposium on Diagnostics for Electric Machines, Power Electronics and Drives (SDEMPED), Valencia, Spain, 27 - 30 August 2013, pp.122-127
- XV. **ATP Simulation of A Faraday Cage for The Analysis of Lightning Surges**
MAMİŞ M. S., KELEŞ C., ARKAN M., KAYA R.
European EMTP-ATP Conference, EEUG'12, Zwickau, Germany, 17 - 18 September 2012, pp.30-39
- XVI. **ATP Simulation of A Faraday Cage for The Analysis of Lightning Surges**
MAMİŞ M. S., KELEŞ C., ARKAN M., KAYA R.
European EMTP-ATP Conference, EEUG'12, Zwickau, Germany, 17 September 2012, pp.30-39
- XVII. **Investigation of Negative sequence Components for Stator Shorted Turn Detection in Induction Motors**
Bakhri S., Ertugrul N., Soong W. L., ARKAN M.
20th Australasian Universities Power Engineering Conference (AUPEC) - Power Quality for the 21st Century, Christchurch, New Zealand, 5 - 08 December 2010
- XVIII. **Closed rotor slot effect on negative sequence impedance**
Arkan M., KOSTIC-PEROVIC D., UNSWORTH P.
36th Annual Meeting of the Industry-Application-Society (IAS), Illinois, United States Of America, 30 September - 04 October 2000, pp.751-753
- XIX. **Induction motor fault detection by space vector angular fluctuation**
KOSTIC-PEROVIC D., Arkan M., UNSWORTH P. J.
35th IAS Annual Meeting and World Conference on Industrial Applications of Electrical Energy, Rome, Italy, 8 - 12 October 2000, pp.388-394

Supported Projects

GÖKTAŞ T., ARKAN M., Project Supported by Higher Education Institutions, Asenkron Motorlarda Rotor Çubuk Arızası ile Düşük Frekanslı Yük Salınımının Motor Faz Akımının Karesi Metoduyla Ayırıştırılması, 2018 - 2019

MAMİŞ M. S., ÖZÜPAK Y., GÖKTAŞ T., ARKAN M., Project Supported by Higher Education Institutions, Geçici Rejim Altındaki Ölçü Transformatörlerinin Elektromanyetik Alan ve Isıl Analizlerinin Gerçekleştirilmesi, 2017 - 2019

ARKAN M., MAMİŞ M. S., Project Supported by Other Private Institutions, 12 kV, 24 kV ve 36 kV Orta Gerilim Soğuk Büzüşmeli Kablo Eki Tasarımı, Geliştirilmesi ve İmalatı, 2016 - 2017

ARKAN M., Project Supported by Higher Education Institutions, SÜREKLİ MIKNATISLI SENKRON MOTORUN STATOR KISA DEVRE ARIZASININ TESPİTİ VE ARIZA ŞİDDETİNİN OTOMATİK OLARAK BELİRLENMESİ, 2013 - 2017

Metrics

Publication: 33

Citation (WoS): 338

Citation (Scopus): 446

H-Index (WoS): 9

H-Index (Scopus): 10