Asst. Prof. TANER GÖKTAŞ

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Yoksis Researcher ID: 23599

Biography

Taner Goktas (S'14-M'16) received his B.S and M.S degrees in electrical engineering from Firat University, Elazig, Turkey, in 2006 and 2010, respectively, and the Ph.D. degree in electrical engineering from the Inonu University, Malatya, Turkey, in 2015. He was a visiting scholar in the Power Electronic and Drives Lab, University of Texas at Dallas from 2014 to 2015. Since 2016, he has been with Inonu University as Assistant Professor. His research interests include electric machines drives, condition monitoring, fault diagnosis and diagnostic techniques in electric machines.

Education Information

Doctorate, Inonu University, Fen Bilimleri Enstitüsü, Elektrik-Elektronik Mühendisliği, Turkey 2010 - 2016
Postgraduate, Firat University, Institute Of Scıence, Elekrik Makinaları, Turkey 2006 - 2010
Undergraduate, Firat University, Faculty Of Engıneerıng, Elektrik-Elektronik Mühendisliği, Turkey 2002 - 2006

Foreign Languages

English, B2 Upper Intermediate

Dissertations

Doctorate, Yük salınımı durumunda asenkron motorda rotor çubuk arızasının gerçek zamanlı tespiti, Inonu University, Mühendislik Fakültesi, Elektrik-Elektronik Mühendisliği Bölümü, 2015
Postgraduate, Programlanabilir sayısal işaret denetleyici (DSC) tabanlı alternatif akım motor sürücü düzeneğinin geliştirilmesi, Firat University, Mühendislik Fakültesi, Elektrik-Elektronik Mühendisliği Bölümü, 2010

Research Areas

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

Academic Titles / Tasks

Assistant Professor, Inonu University, Mühendislik Faültesi, Elektrik Elektronik Mühendisliği, 2018 - Continues
Assistant Professor, Inonu University, Mühendislik Faültesi, Elektrik Elektronik Mühendisliği, 2016 - 2018
Lecturer, Hitit University, Osmancık Ömer Derindere Myo, Elektronik Teknolojisi, 2010 - 2016

Courses

Power Electronics, Undergraduate, 2017 - 2018
Electrical Machines Laboratory I, Undergraduate, 2017 - 2018
Alternatif Akım Sürücülerin Analizi, Doctorate, 2017 - 2018
Numerical Methods in Electrical Enginering and Applications, Undergraduate, 2017 - 2018
Elektrik Elektronik Tasarım I, Undergraduate, 2017 - 2018
Mühendislik Ekonomisi, Undergraduate, 2016 - 2017
Dijital Sistemler, Undergraduate, 2016 - 2017
Elektrik Devre Lab I, Undergraduate, 2016 - 2017
Electronics Laboratory II, Undergraduate, 2016 - 2017
Mikroişlemciler, Undergraduate, 2016 - 2017
Elektrik Makinelerinin Tasarımı, Postgraduate, 2016 - 2017
Teknoloji ve İnovasyon Yönetimi, Undergraduate, 2016 - 2017

Published journal articles indexed by SCI, SSCI, and AHCI

I. **Interturn Short-Circuit Faults in Permanent Magnet Synchronous Machines: An Extended Review and Comprehensive Analysis**
ZAFARANİ M., BOSTANCI E., QI Y., GÖKTAŞ T., AKIN B.
IEEE JOURNAL OF EMERGING AND SELECTED TOPICS IN POWER ELECTRONICS, vol.6, no.4, pp.2173-2191, 2018 (SCI-Expanded)

II. **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)

III. **Comprehensive Analysis of Magnet Defect Fault Monitoring Through Leakage Flux**
GÖKTAŞ T., Zafarani M., Lee K. W., Akin B., Sculley T.
IEEE TRANSACTIONS ON MAGNETICS, vol.53, no.4, 2017 (SCI-Expanded)

IV. **An Investigation of Motor Topology Impacts on Magnet Defect Fault Signatures**
Zafarani M., Goktas T., Akin B., Fedigan S. E.
IEEE TRANSACTIONS ON INDUSTRIAL ELECTRONICS, vol.64, no.1, pp.32-42, 2017 (SCI-Expanded)

V. **Modeling and Dynamic Behavior Analysis of Magnet Defect Signatures in Permanent Magnet Synchronous Motors**
Zafarani M., Goktas T., Akin B., Fedigan S. E.
IEEE TRANSACTIONS ON INDUSTRY APPLICATIONS, vol.52, no.5, pp.3753-3762, 2016 (SCI-Expanded)

VI. **Discernment of Broken Magnet and Static Eccentricity Faults in Permanent Magnet Synchronous Motors**
Goktas T., Zafarani M., Akin B.
IEEE TRANSACTIONS ON ENERGY CONVERSION, vol.31, no.2, pp.585-594, 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)

Articles Published in Other Journals

I. **Dişlisiz Asansör Uygulamaları için Yüzey Montajlı Senkron Motorun Optimal Tasarımı**
OKŞAR M., YETİŞ H., GÖKTAŞ T., KAYGUSUZ A., MEŞE E.
Fırat Üniversitesi Mühendislik Bilimleri Dergisi, vol.32, no.2, pp.335-344, 2020 (Peer-Reviewed Journal)

Refereed Congress / Symposium Publications in Proceedings

I. **Monitoring of Leakage Flux for Rotor Fault Detection under non-adjacent broken rotor bars in Induction Motors**
YÜKLÜ N., Goktas T., Ekinci İ., Arkan M., Mamiş M. S.
The 3rd International Conference on Applied Automation and Industrial Diagnostics (ICAAID), Elazığ, Turkey, 25 - 27 September 2019, pp.1-5

II. **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., MAMİŞ M. S.
3rd International Conference on Applied Automation and Industrial Diagnostics (ICAAID), Elazığ, Turkey, 25 - 27 September 2019

III. **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

IV. **Broken Rotor Bar Fault Monitoring based on Fluxgate Sensor Measurement of Leakage Flux**
GÖKTAŞ T., ARKAN M., MAMİŞ M. S., Akin B.
IEEE International Electric Machines and Drives Conference (IEMDC), Florida, United States Of America, 20 - 24 May 2017

V. **Separation of Induction Motor Rotor Faults and Low Frequency Load Oscillations Through the Radial Leakage Flux**
GÖKTAŞ T., ARKAN M., MAMİŞ 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

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. **Analysis of Magnet Defect Faults in Permanent Magnet Synchronous Motors through Fluxgate Sensors**
Goktas T., Lee K. W., Zafarani M., Akin B.
31st Annual IEEE Applied Power Electronics Specialists Conference and Exposition (APEC), California, United States Of America, 20 - 24 March 2016, pp.2875-2880

VIII. **A Comprehensive Assessment of PM Motor Topology Impact on Magnet Defect Fault Signatures**
Zafarani M., Goktas T., Akin B.
31st Annual IEEE Applied Power Electronics Conference and Exposition (APEC), California, United States Of America, 20 - 24 March 2016, pp.1096-1101

IX. **A simplified mathematical approach to model and analyze magnet defects fault signatures in permanent magnet synchronous motors**
Mohsen Z., GÖKTAŞ T., Bilal A.
2015 IEEE Industry Applications Society Annual Meeting, Addison, TX, USA, United States Of America, 18 - 22

October 2015, pp.1-6

X. **Separation of Broken Magnet and Static Eccentricity Failures in PMSM**
Goktas T., Zafarani M., Akin B.
IEEE International Electric Machines and Drives Conference, Idaho, United States Of America, 10 - 13 May 2015, pp.1459-1465

XI. **A Simplified Numerical Approach to Analyze Magnet Defects in Permanent Magnet Synchronous Motors**
Zafarani M., Goktas T., Akin B.
IEEE Energy Conversion Congress and Exposition (ECCE), Montreal, Canada, 18 - 24 September 2015, pp.6117-6121

XII. **A Comprehensive Analysis of Magnet Defect Faults in Permanent Magnet Synchronous Motors**
Zafarani M., Goktas T., Akin B.
30th Annual IEEE Applied Power Electronics Conference and Exposition (APEC), Charlottetown, Canada, 15 - 19 March 2015, pp.2779-2783

XIII. **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

XIV. **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

XV. **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

XVI. **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

XVII. **Yüksek Güçlü Birim Güç Faktörlü Yükseltici Tip Konvertörün Kayma Mod Kontrolü**
GÖKTAŞ T., MURAT İ. E.
Elektrik-Elektronik, Bilgisayar Sempozyumu, Elazığ, Turkey, 5 - 07 October 2011

XVIII. **DSC Tabanlı Uzay Vektör Darbe Modülasyon Tekniğini Kullanan Kompakt Asenkron Motor Sürücüsünün Geliştirilmesi**
GÖKTAŞ T., Murat İ. E., SÜNTER S.
Elektrik-Elektronik, Bilgisayar Sempozyumu, Elazığ, Turkey, 5 - 07 October 2011

Supported Projects

GÖKTAŞ T., TUBITAK Project, Asenkron Motorlarda Kaçak Akı Ile Arızanın Türü, Büyüklüğü Ve Arıza Noktasının Tespiti; Kablosuz Anlık Durum Izleme Sisteminin Geliştirilmesi, 2018 - Continues

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 Ayrıştırılması, 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

GÖKTAŞ T., ÖRÜM M., SİMFUKWE C., SINKALA S., Project Supported by Higher Education Institutions, Üç Faz Tam Dalga Kontrollü Doğrultucunun Analizi, Tasarımı ve Gerçekleştirilmesi, 2018 - 2018

GÖKTAŞ T., HAN S., NAAL H., YAVUZ O., Project Supported by Higher Education Institutions, Anahtarlamalı DC DC Cuk

Çeviricinin Tasarımı ve Uygulanması, 2018 - 2018

Metrics

Publication: 26
Citation (WoS): 104
Citation (Scopus): 144
H-Index (WoS): 7
H-Index (Scopus): 8

Scholarships

Elektrik Makinelerinde Arıza Tespiti, TUBITAK, 2014 - Continues

Non Academic Experience

Business Establishment Private, Öz Fırat Medikal Lti. Şti.