

## Prof. HULUSİ BÜLENT ERTAN

### Personal Information

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### International Researcher IDs

ScopusID: 55924718000

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### Advising Theses

- ERTAN H. B., Development of High-torque density electric machines, Doctorate, M.SALIK(Student), 2022
- ERTAN H. B., Estimation of stator resistance of induction motor using innovation based adaptive extended kalman filter, Postgraduate, M.ZEKİ(Student), 2021
- ERTAN H. B., Tyre slip control methods for electric vehicles, Postgraduate, N.JAVED(Student), 2021
- ERTAN H. B., Predicting thermal behavior of Li-ion batteries in electric cars and thermal management, Doctorate, B.JOSE(Student), 2021
- ERTAN H. B., Sizing of a series hybrid electric vehicle, Postgraduate, F.Remzican(Student), 2019
- ERTAN H. B., Design of a control moment gyroscope with outer rotor BLDC motor, Postgraduate, B.İnce(Student), 2019
- ERTAN H. B., Investigation of the effects of switching technique and gan device on the performance of bidirectional buck-boost DC/DC converter, Postgraduate, İ.Koçak(Student), 2019
- ERTAN H. B., A Hardware in the loop simulator development for wind energy conversion systems, Postgraduate, S.Pourkeivannour(Student), 2019
- ERTAN H. B., Implementation of sensorless vector control drive with current position estimation, Postgraduate, T.Filci(Student), 2016
- ERTAN H. B., Design and optimization of high torque density generator for direct drive wind turbine applications, Postgraduate, R.Zeinali(Student), 2016
- ERTAN H. B., Design and optimziation of high torque density generator for direct drive wind turbine applications, Postgraduate, R.ZEINALI(Student), 2016
- ERTAN H. B., Prediction of rotor position from rotor slot harmonics existing in motor stator current, Postgraduate, T.FİLCİ(Student), 2016
- ERTAN H. B., Design and implementation of variable frequency sine wave output buck-boost inverter, Postgraduate, Y.ŞENER(Student), 2016
- ERTAN H. B., Optimum pole combination to maxmize torque density in switched reluctance motors for electric vehicle applications, Postgraduate, R.TARVIRDILU(Student), 2016
- ERTAN H. B., The effect of DC link filter design and compensation on dynamic performance of vector controlled drive, Postgraduate, M.KAYHAN(Student), 2015
- ERTAN H. B., Design of an outer-rotor brushless DC motor for control moment gyroscope applications /, Postgraduate, N.ÇAĞAN(Student), 2015
- ERTAN H. B., Development of a hardware-in-the-loop wind energy conversion system emulator /, Postgraduate, G.CENGİZ(Student), 2015
- ERTAN H. B., The Effect of DC link filter design and compensation on dynamic performance of vector controlled drive /, Postgraduate, M.Kayhan(Student), 2015
- ERTAN H. B., A software for analysis of permanent magnet AC motors, Postgraduate, D.BULGAN(Student), 2014
- ERTAN H. B., Design software development for induction motors, Postgraduate, M.İZGÜDEN(Student), 2011
- ERTAN H. B., Measurement of brushless DC motor characteristics and parameters and brushless DC motor design,

Postgraduate, İ.ŞAHİN(Student), 2010

ERTAN H. B., A non-invasive speed and position sensor for induction machines using external search coils, Postgraduate, O.Keysan(Student), 2009

ERTAN H. B., Comparison of axial flux and radial flux brushless dc motor topologies for control moment gyroscope wheel applications, Postgraduate, K.YILMAZ(Student), 2009

ERTAN H. B., A novel algorithm for prediction off-line stator leakage inductance and on-line stator resistance of induction motors, Postgraduate, V.SEZGİN(Student), 2009

ERTAN H. B., A normalized set of force and permeance data for doubly-salient magnetic geometries, Postgraduate, İ.MAHARİQ(Student), 2009

ERTAN H. B., Development of an electrical machines analysis and optimum design software package, Postgraduate, Y.GÖYNÜK(Student), 2008

ERTAN H. B., A switch mode power supply for producing half wave sine output, Postgraduate, İ.Kaya(Student), 2008

LEBLEBİCİOĞLU M. K., ERTAN H. B., A control algorithm to minimize torque ripple and acoustic noise of switched reluctance motors, Doctorate, E.BİZKEVELCİ(Student), 2008

ERTAN H. B., A single transistor unity power factor rectifier, Postgraduate, M.Tunç(Student), 2007

ERTAN H. B., Parameter and speed estimation on induction motors from manufactures data and measurements /, Postgraduate, Ç.Hakkı(Student), 2005

ERTAN H. B., A software for analysis and design optimization of switched reluctance motor, Postgraduate, L.Burak(Student), 2004

ERTAN H. B., Calculation of core losses of a six-phase induction motor with third harmonic current injection, Postgraduate, A.Büyükbaş(Student), 2004

ERTAN H. B., Implementation of a vector controlled induction motor drive, Postgraduate, A.Acar(Student), 2004

ERTAN H. B., A novel approach for synthesising sinus waveforms at power level, Postgraduate, S.Paki(Student), 2004

ERTAN H. B., Four quadrant computer based motor test system development, Postgraduate, T.İnan(Student), 2003

ERTAN H. B., A Control system for solar-electric energy conversion system, Postgraduate, A.YILMAZ(Student), 2002

ERTAN H. B., A Unity power factor resonant inverter with single transistor for induction cooking, Postgraduate, B.ÇOLAK(Student), 2002

ERTAN H. B., Performance calculation of single phase permanent magnet synchronous motors for design optimization, Postgraduate, B.DAĞ(Student), 2002

ERTAN H. B., A Software for dynamic simulation of switched reluctance motor, Postgraduate, M.ÖZGÜR(Student), 2001

ERTAN H. B., A Study on evaluation of direct torque and field orientation control of induction machines, Postgraduate, H.KAVAKLI(Student), 2000

ERTAN H. B., Fuzzy control of resonant inverter circuit for x-ray power supply, Postgraduate, T.ÇAMLİKAYA(Student), 1999

ERTAN H. B., Implementation of vector control for induction motor drives, Postgraduate, H.CAN(Student), 1999

ERTAN H. B., Determination of equivalent circuit parameters of three phase induction machines with finite elements, Postgraduate, A.ÇEKİÇ(Student), 1998

ERTAN H. B., Computation of core losses in three phase smooth rotor induction motors using finite element method, Postgraduate, M.İRGAİP(Student), 1998

ERTAN H. B., Design optimization of three-phase induction motors, Postgraduate, S.HAMARAT(Student), 1997

ERTAN H. B., An investigation on phase angle vector control for three phase induction motors., Doctorate, A.Erbil(Student), 1996

ERTAN H. B., A Microprocessor based fuzzy controller for an induction heating system, Postgraduate, H.KARABUDAK(Student), 1995

ERTAN H. B., Zero voltage switching pulse frequency modulated inverter, Postgraduate, S.MUTLU(Student), 1994

ERTAN H. B., A Compact Pfm controller converter with wide speed range for 3 phase induction motors, Postgraduate, N.BALKAN(Student), 1994

ERTAN H. B., Asynchronous harmonic torque effects on the torque speed curve of the squirrel cage induction motor, Postgraduate, M.AYAN(Student), 1994

ERTAN H. B., A Software for predicting quasi stationary characteristics of sr motors, Postgraduate, F.İNİKAN(Student), 1993

- ERTAN H. B., Computer aided design of single phase capacitor-type induction motors., Postgraduate, M.AFTAHİ(Student), 1993
- ERTAN H. B., Inverter design for maximum power transfer in induction heating, Postgraduate, M.ATAVİ(Student), 1991
- ERTAN H. B., Optimum design of single phase capacitor start motors, Postgraduate, İ.GÜLER(Student), 1990
- ERTAN H. B., Design and spice simulation of a thyristorized medium frequency current fed inverter, Postgraduate, Y.DEMİRTÜRK(Student), 1989
- ERTAN H. B., A Mid-point inverter for induction machine speed control, Postgraduate, A.DİNÇER(Student), 1987
- ERTAN H. B., New algorithms and techniques for microprocessor-controlled PWM induction drives, Doctorate, O.KÜKRER(Student), 1987
- ERTAN H. B., Optimum design of switching reluctance motors., Doctorate, M.Tohumcu(Student), 1985

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

- I. **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)
- II. **High-frequency loss calculation in a smooth rotor induction motor using FEM**  
Ertan H. B., Leblebicioglu K., Avenoglu B., Pirgaip M.  
IEEE TRANSACTIONS ON ENERGY CONVERSION, vol.22, no.3, pp.566-575, 2007 (SCI-Expanded)
- III. **Archery performance level and repeatability of event-related EMG**  
Soylu A. R., Ertan H., Korkusuz F.  
HUMAN MOVEMENT SCIENCE, vol.25, no.6, pp.767-774, 2006 (SCI-Expanded)
- IV. **Steady-state modeling of a phase-shift PWM parallel resonant converter**  
Iskender I., Uctug Y., Ertan H. B.  
COMPEL-THE INTERNATIONAL JOURNAL FOR COMPUTATION AND MATHEMATICS IN ELECTRICAL AND ELECTRONIC ENGINEERING, vol.25, no.4, pp.883-899, 2006 (SCI-Expanded)
- V. **DSP microcontroller-based fuzzy control of a DC/DC parallel resonant converter using phase-shift PWM technique**  
Iskender I., Uctug Y., Ertan H. B.  
COMPEL-THE INTERNATIONAL JOURNAL FOR COMPUTATION AND MATHEMATICS IN ELECTRICAL AND ELECTRONIC ENGINEERING, vol.25, no.4, pp.827-840, 2006 (SCI-Expanded)
- VI. **Calculation of parameters of single-phase PM motor for design optimization**  
Ertan H., Dag M., Capolino G.  
IEEE TRANSACTIONS ON ENERGY CONVERSION, vol.20, no.3, pp.538-548, 2005 (SCI-Expanded)
- VII. **Reliability and validity testing of an archery chronometer**  
Ertan H., Kentel B., Tumer S., Korkusuz F.  
JOURNAL OF SPORTS SCIENCE AND MEDICINE, vol.4, no.2, pp.95-104, 2005 (SCI-Expanded)
- VIII. **Powder metal development for electrical motor applications**  
Bayramli E., Gulgelioglu O., Ertan H.  
JOURNAL OF MATERIALS PROCESSING TECHNOLOGY, vol.161, pp.83-88, 2005 (SCI-Expanded)
- IX. **Quantification the relationship between FITA scores and EMG skill indexes in archery**  
Ertan H., Soylu A., Korkusuz F.  
JOURNAL OF ELECTROMYOGRAPHY AND KINESIOLOGY, vol.15, no.2, pp.222-227, 2005 (SCI-Expanded)
- X. **Comparison of PWM and PFM induction drives ID in, egarding audible noise and vibration for household applications**  
Ertan H., Simsir N.  
IEEE TRANSACTIONS ON INDUSTRY APPLICATIONS, vol.40, no.6, pp.1621-1628, 2004 (SCI-Expanded)
- XI. **Factors affecting the shoulder proprioceptive sense among male volleyball players**  
Kablan N., Ertan H., Unver F., Kirazci S., Korkusuz F.  
ISOKINETICS AND EXERCISE SCIENCE, vol.12, no.3, pp.193-198, 2004 (SCI-Expanded)

- XII. **Activation patterns in forearm muscles during archery shooting**  
Ertan H., Kentel B., Tumer S., Korkusuz F.  
HUMAN MOVEMENT SCIENCE, vol.22, no.1, pp.37-45, 2003 (SCI-Expanded)
- XIII. **Optimum geometry for torque ripple minimization of switched reluctance motors**  
Sahin F., Ertan H., Leblebicioglu K.  
IEEE TRANSACTIONS ON ENERGY CONVERSION, vol.15, no.1, pp.30-39, 2000 (SCI-Expanded)
- XIV. **Prediction of torque and inductance displacement characteristics of asymmetrically slotted variable-reluctance motors using a simplified model for numerical field solution**  
Ertan H.  
IEEE TRANSACTIONS ON MAGNETICS, vol.35, no.5, pp.4247-4258, 1999 (SCI-Expanded)
- XV. **VARIOUS INDUCTION GENERATOR SCHEMES FOR WIND ELECTRICITY-GENERATION**  
ERMIS M., ERTAN H., DEMIREKLER M., SARIBATIR B., UCTUG Y., SEZER M., CADIRCI I.  
ELECTRIC POWER SYSTEMS RESEARCH, vol.23, no.1, pp.71-83, 1992 (SCI-Expanded)

### Articles Published in Other Journals

- I. **Analytical Modelling, Simulation and Comparative Study of Multi-Junction Solar Cells Efficiency**  
Hadjdida A., Bourahla M., ERTAN H. B., Bekhti M.  
INTERNATIONAL JOURNAL OF RENEWABLE ENERGY RESEARCH, vol.8, no.4, pp.1824-1832, 2018 (ESCI)

### Books & Book Chapters

- I. **Transformers Analysis Design and Measurement**  
ERTAN H. B.  
CRC press, 2012

### Refereed Congress / Symposium Publications in Proceedings

- I. **Investigation of the Effects of Switching Technique on the Performance of Four Switch Buck-Boost Bidirectional DC/DC Converters**  
Kocak I., ERTAN H. B.  
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.395-401
- II. **Integration of Offshore Wind Farm Plants to the Power Grid using an HVDC line Transmission**  
Berkani A., Pourkeivannour S., Negadi K., Boumediene B., Allaoui T., Ertan H. B.  
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.486-492
- III. **FEM-Based Design Modifications and Efficiency Improvements of a Brushed Permanent Magnet DC Motor**  
Tarvirdilu-Asl R., Zeinali R., ERTAN H. B.  
International Conference on Optimization of Electrical and Electronic Equipment (OPTIM) / Intl Aegean Conference on Electrical Machines and Power Electronics (ACEMP), Brasov, Romania, 25 - 27 May 2017, pp.401-407
- IV. **Magnetically Geared Direct Drive Wind Generator Thermal Analysis**  
Zeinali R., ERTAN H. B., Yamali C., Tarvirdilu-Asl R.  
International Conference on Optimization of Electrical and Electronic Equipment (OPTIM) / Intl Aegean Conference on Electrical Machines and Power Electronics (ACEMP), Brasov, Romania, 25 - 27 May 2017, pp.462-469

- V. **Development of Model for DC Link Filter Design**  
ERTAN H. B., Kayhan M.  
IEEE Transportation Electrification Conference and Expo (ITEC), Michigan, United States Of America, 27 - 29 June 2016
- VI. **PM brushed DC motor optimization**  
Rasul T., Reza Z., ERTAN H. B., Yavuz T.  
ISEF, Valencia, Spain, 10 - 12 September 2015
- VII. **Evaluation of a 6 pole axial flux PM motor for Control Moment Gyroscope Application**  
Zeinali R., ERTAN H. B.  
Int Aegean Conference on Electrical Machines and Power Electronics (ACEMP) / Int Conference on Optimization of Electrical and Electronic Equipment (OPTIM) / Int Symposium on Advanced Electromechanical Motion Systems (ELECTROMOTION), Side, Turkey, 2 - 04 September 2015
- VIII. **Three phase Inverter Speed Control of AC Drives Motor using DSPic microcontroller**  
Dida A. H., Bourahla M., ERTAN H. B., Benganem M., Benzina M. E.  
Int Aegean Conference on Electrical Machines and Power Electronics (ACEMP) / Int Conference on Optimization of Electrical and Electronic Equipment (OPTIM) / Int Symposium on Advanced Electromechanical Motion Systems (ELECTROMOTION), Side, Turkey, 2 - 04 September 2015, pp.93-101
- IX. **Sinus Output 3-Phase Inverter Topology for Improved Drive Efficiency**  
ERTAN H. B., Sener Y.  
16th International Power Electronics and Motion Control Conference and Exposition (PEMC), Antalya, Turkey, 21 - 24 September 2014, pp.1350-1357
- X. **Design, Development and Implementation of Sensorless Digital Control of an Electric Motorization**  
Dida A. H., Bourahla M., ERTAN H. B., Benganem M.  
16th International Power Electronics and Motion Control Conference and Exposition (PEMC), Antalya, Turkey, 21 - 24 September 2014, pp.482-489
- XI. **Comparison of Outer Rotor Radial Flux and Axial Flux PM Motors for CMG Application**  
ERTAN H. B., Cagan N.  
International Conference on Electrical Machines (ICEM), Berlin, Germany, 2 - 05 September 2014, pp.1031-1036
- XII. **Implementation issues of real time position estimation for induction motors using rotor slot harmonics**  
ERTAN H. B., Keysan O.  
2013 4th International Conference on Power Engineering, Energy and Electrical Drives, POWERENG 2013, İstanbul, Turkey, 13 - 17 May 2013, pp.1826-1832
- XIII. **Evaluation of Inductance Measurement Methods for PM Machines**  
ERTAN H. B., ŞAHİN İ.  
20th International Conference on Electrical Machines (ICEM), Marseille, France, 2 - 05 September 2012, pp.1672-1678
- XIV. **Comparison of Efficiency of Two dc-to-ac Converters for Grid Connected Solar Applications**  
ERTAN H. B., Dogru E., Yilmaz A.  
13th International Conference on Optimization of Electrical and Electronic Equipment, Brasov, Romania, 24 - 26 May 2012, pp.879-886
- XV. **A Proposal for Improving Efficiency of Inverter Driven Electrical Motors**  
ERTAN H. B., Dogru E.  
General Meeting of the IEEE-Power-and-Energy-Society (PES), Michigan, United States Of America, 24 - 28 July 2011
- XVI. **Higher Order Rotor Slot Harmonics for Rotor Speed & Position Estimation**  
Keysan O., ERTAN H. B.  
12th International Conference on Optimization of Electrical and Electronic Equipment, Brasov, Romania, 20 - 21 May 2010, pp.416-417
- XVII. **Determination of rotor slot number of an induction motor using an external search coil**  
KEYSAN O., ERTAN H. B.

16th International Symposium on Electrical Apparatus and Technologies, SIELA 2009, Burgas, Bulgaria, 4 - 06 June 2009, vol.2, pp.141-148

**XVIII. Performance Calculation of SR Motors for Optimum Design and a Washing Machine Application**

ERTAN H. B., Yalciner L. B.

International Conference on Electrical Machines, Vilamoura, Portugal, 6 - 09 September 2008, pp.2081-2082

**XIX. Identification of parameters of an induction motor from field solution**

Ertan H., Leblebicioglu K., Avenoglu B., Ercan B.

6th International Conference on Electrical Machines and Systems, Beijing, China, 9 - 11 November 2003

**XX. A new technique for shortening the EMI filter development stage**

Colak B., Ertan H.

IEEE International Symposium on Electromagnetic Compatibility (EMC), İstanbul, Turkey, 11 - 16 May 2003, pp.603-608

**XXI. An induction motor design tool combining analytical and field solution techniques**

Ertan H., Bizkevelci E., Avenoglu B.

International Symposium on Electromagnetic Fields in Electrical Engineering, Krakow, Poland, 01 January 2001, vol.22, pp.184-189

**XXII. A software for simulation and controller development for high frequency high voltage power supplies**

Ertan H., Camlikaya T., Demirel O.

3rd International Power Electronics and Motion Control Conference (IPEMC 2000), Beijing, China, 15 - 18 August 2000, pp.665-670

**XXIII. A FIELD ORIENTATION SCHEME FOR VOLTAGE FED INDUCTION MOTOR, WITH CLOSED LOOP PHASE ANGLE CONTROL**

NALCACI A., ERTAN H.

5th International Conference on Power Electronics and Variable-Speed Drives (PEVD94), London, Canada, 26 - 28 October 1994, pp.72-77

## Supported Projects

ERTAN H. B., Project Supported by Higher Education Institutions, FEN BİLİMLERİ ENSTİTÜSÜ/LİSANSÜSTÜ TEZ PROJESİ, 2014 - 2015

## Metrics

Publication: 40

Citation (WoS): 399

Citation (Scopus): 418

H-Index (WoS): 10

H-Index (Scopus): 10

## Non Academic Experience

Atılım Üniversitesi

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