

# CURRICULUM VITAE

## **A. Personal**



**Name&Surname:** Erol KURT

**Affiliation:** Prof. Dr.

**Place &Date of Birth:** Unye (Turkey) / 19 Dec 1975

**Nationality:** Turkish

**Present Status:** Prof. Dr.

**Marital Status:** Married (w. 2 children)

**Present Working Address:** Gazi University, Faculty of Technology, Department of Electrical&Electronics Engineering, 06500 Teknikokullar, ANKARA, TURKEY

**E-mail:** ekurt52tr@yahoo.com

## **1. Further Education**

- **Ph. D. (Sep 2001 - Jul 2004)**  
**Field:** Computational Fluid Dynamics  
**Institution:** University of Bayreuth, Institute of Physics, Bayreuth/Germany  
**Doctoral Thesis:** Pattern Formation in Rotating Fluid Systems under Magnetic Fields  
**Keywords:** Pattern formation, fluid, cylindrical annulus, Ekman-Couette layer, shear, Lorenz force, Coriolis force, convection, instability, bifurcation  
**Adviser:** Prof. Dr. Werner Pesch
- **M. Sc. (Sep 1998 - Apr. 2001)**  
**Field:** Materials Science  
**Institution:** Gazi University, Institute of Science&Technology Ankara / Turkey  
**M.Sc. Thesis:** Crystallographic and Kinetic Properties of Austenite-Martensite Transformation in Fe-8.64%Mn-5.50%Cu Alloy  
**Keywords:** Martensite, phase transition, alloys, x-ray, electron microscopy, Mössbeuer spectroscopy, entalphi  
**Adviser:** Prof. Dr. İrfan Akgün
- **B. Sc. (Sep. 1994-Apr. 1998)**  
**Field:** Dynamic Systems  
**Institution:** Gazi University, Faculty of Education, Department of Physics Ankara / Turkey  
**Res. Proj. for Undergrad.:** A New Paradigm: Chaos  
**Keywords:** Chaos, turbulence, bifurcation, self-organization, chaotic electrical circuits  
**Adviser:** Prof. Dr. Rahmi Yagbasan

## 2. Job Experiences

- **Prof. Dr. (June 2013 - ... )** at Gazi University, Dep. Elec.&Electr. Engineering, Technology Faculty, Ankara/ Turkey
- **Assoc. Prof. Dr. (Sep 2011 - 2013)** at Gazi University, Technology Faculty, Ankara/ Turkey
- **Assoc. Prof. Dr. (Oct 2009 - 2011)** at Gazi University, Faculty of Technical Education Ankara/ Turkey
- **Researcher (Nov 2006 – Oct 2009)** at Turkish Atomic Energy Authority, SANAEM, R&D Dep. Fusion Div. Ankara/ Turkey
- **Res.&Teach. Assist. (Sep 2001 - Sep 2004)** at Institute of Physics, University of Bayreuth, Bayreuth/ Germany
- **Res.&Teach. Assist. (Jan 1999 - Mar 2001)** at Gazi University, Faculty of Arts & Sciences, Department of Physics Ankara/ Turkey

## 3. University Courses Taught

- **As a teaching assistant** in *Solid State, Quantum Physics , Electronic Lab, Quantum Physics Lab* and *Optical Physics Lab*. in (Jan 1999-Jul 2001) at Gazi University, Faculty of Arts & Sciences, Department of Physics.
- **As a teaching assistant** in *Hydrodynamics* and *Electrodynamics* in (Mar 2002-Sep 2004) at the Institute of Physics, University of Bayreuth, Germany.
- **As an Assoc. Prof. Dr** in Electromagnetic Field Theory I, Electromagnetic Field Theory II, Introduction to Electrical Engineering, Informatics I, C++ Programming, Logical Circuits, Nonlinear Electromagnetic Circuits, Fortran Programming.
- **As an Prof. Dr** in Electromagnetic Field Theory I, Electromagnetic Field Theory II, Introduction to Electrical Engineering, Fortran Programming, C++ Programming, Chaos in Electrical Systems

### Relevant Skills

- **Language:** TOEFL(Computer Based):240 (2004), ÜDS(national English test): 92/100
- **Computational Skills:** Numerical Methods: Finite element Method, Newton Integration Method, Galerkin Method, 3th - 4th Order Runge-Kutta Integration Method, Bisection Methods, Shooting Method, Adams-Bashfort Time Integration, FFT, Data Clustering, Electric and magnetic machine design w. Maxwell and Superfish package programme, MathLab, Comsol
- **Operating Systems:** LINUX, UNIX, DOS
- **Computer Languages:** Fortran 77, Fortran 90, Q-Basic, W-Basic, UNIX Shell Scripting, C++

- **Programs:** Microsoft Office Suite, Maple, Mathematica, X-Farbe Contour, SPSS, MathCad, xmgr, Adobe Photoshop, Image Pro-Plus, MathLab, Pspice.
- **Typesetting:** LATEX, HTML, PostScript & PDF tools
- **Experimental Skills:** CR39 detector diagnostics, Lattice type and parameter evaluation from *x-ray* diffraction and *electron microscopy* pattern. Determination of the magnetic and kinetic properties of alloys by using *Mössbauer spectroscopy* and *Differential Thermal Analysis* (DTA), Langmuir Probe measurement, plasma diagnostics, IR-visible plasma spectrometry, Atmospheric plasma studies, Generator characteristics testing
- **Languages:** Turkish(*native*), English(*fluent*), German(*elementary*)

### **G. Grants**

- A 4-year grant from European Graduate College at University of Bayreuth for doctoral study.
- A research Grant from the joint Turkish-German institutions (TUBITAK-DFG) for 50 days in Bayreuth University-Physics Institute, (Germany).
- A research grant for 1 week in Almeria Solar Research Center (Spain).
- A teaching grant for 2 weeks to Turkish-Krgysistan Manas University (Krgysistan)

### **H. Publications**

- **Publications<sup>\*</sup> in Journals (SCI, SCOPUS and EI indexed):**
  1. Yahia Bouzelata, Erol Kurt, Rachid Chenni, Necmi Altın, “Design and simulation of a unified power quality conditioner fed by solar energy, *Int. J. Hydrogen Energy*, in press, 2015.
  2. Y. Bouzelata, **E. Kurt**, N. Altın, R. Chenni, “Design and simulation of a solar supplied multifunctional active power filter and a comparative study on the current-detection algorithms”, *Renewable & Sustainable Energy Reviews*, 43, 1114-1126, (2015).
  3. B. Dursun, **E. Kurt**, “Electromagnetic Design and Simulation of a New Fusion Device”, *J. Electronics and Electrical Engineering*, 20(8)(34-38), 2014.
  4. Y. Uzun, S. Demirbas, **E. Kurt**, “Implementation of a New Contactless Piezoelectric Wind Energy Harvester to a Wireless Weather Station”, *J. Electronics and Electrical Engineering*, *accepted*, 20(10), 35-39, 2014.

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\* Publications have taken lots of references from different authors and scientists. They can be seen in SCI.

5. **E. Kurt**, H. Gör, M. Demirtaş, "Theoretical and experimental analyses of a single phase permanent magnet generator (PMG) with multiple cores having axial and radial directed fluxes", *Energy Conversion & Management*, 77(163-172), (2014).
6. H. Kurt, **E. Kurt**, "The Observations of the IR Sensitivity Enhancement, Negative Differential Resistance and Hysteresis in a Microelectronic Gas Discharge Device with GaP", *J. Electronics and Electrical Engineering*, 20(1), 55-58, (2014).
7. **E. Kurt**, B. Ciylan, O.O. Taskan, H. Kurt, "Bifurcation analysis of a resistor-double inductor and double diode circuit and a comparison with a resistor-inductor-diode circuit in phase space and parametrical responses", *Scientia Iranica, Trans. D: Computer Sci.&Engineer. Electr. Engineer.*, 21(3), 935-944, (2014).
8. Y. Uzun, **E. Kurt**, Performance exploration of an energy harvester near the varying magnetic field of an operating induction motor", *Energy Conversion&Management*, 72, 156-162, (2013).
9. Y. Uzun, **E. Kurt**, "The effect of periodic magnetic force on a piezoelectric energy harvester", *Sensors & Actuators: A*, 192, 58-68, (2013).
10. **E. Kurt**, S. Arslan, "The effects of cathode structure and dielectric type in an inertial electrostatic confinement (IEC) device", *Energy Conversion&Management*, 63(55-62), (2012).
11. **E. Kurt**, S. Arslan and M. E. Güven , Effects of Grid Structures and Dielectric Materials of the Holder in an Inertial Electrostatic Confinement (IEC) Fusion Device, *J. Fusion Energy*, 30(5),404, (2011).
12. **E. Kurt**, "A stationary multi-component cathode modeling and ion trajectories for an inertial electrostatic confinement fusion device", *Int. J. Energy Research*,, 35(2), 89-95, (2011).
13. M. Cantürk, **E. Kurt**, and I. Askerzade, "Alternative numerical modeling of a superconducting charge qubit as an eigenvalue problem", *COMPEL: The International Journal for Computation and Mathematics in Electrical and Electronic Engineering*, 30(2)(775), (2011).
14. **E. Kurt**, M. Cantürk, "Bifurcations and hyperchaos from a dc driven non-identical Josephson junction system", *Int. J. Bifurcation and Chaos*, 20(11), pp.3725-3740, (2010).
15. Y. Akgün, A. S. Bölükdemir, **E. Kurt**, T. Öncü, and A. Alaçakir, "Preliminary plasma focus studies at ODAK-3K device using track detectors", *Plasma Dev. Operations*, 17(4), pp. 293-300, (2009).
16. **E. Kurt**, H. Kurt and U. Bayhan, "Ionization effects and linear stability in a coaxial plasma device", *Cent. Eur. J. Phys.*, 7(1), 123-129, 2009.

17. **E. Kurt**, M. Canturk, "Chaotic dynamics of resistively coupled DC-driven distinct Josephson junctions and the effects of circuit parameters", *Physica D: Nonlinear Phenomena*, 238(22), 2229-2237, 2009.
18. M. Cantürk, **E.Kurt**, "Eigenvalue solutions from a Josephson junction circuit as a model of a charge qubit", *Fizika*, 15(2), 177-179, 2009.
19. H. Yucel Kurt, **E. Kurt**, B.G. Salamov, "Development and characterization of semiconductor gas discharge microstructure", *Fizika*, 15(2), 22-24, 2009.
20. **E. Kurt**, Dönen bir halkasal boşlukta bulunan manyetik akışkanın konum-zamansal kaotik yapıları", in *Turkish, TÜBAV J. Science*, 1(2), pp73-81, 2008.
21. **E. Kurt**, FH. Busse and W.Pesch, "Pattern Formation in the Rotating Cylindrical Annulus with an Azimuthal Magnetic Field at low Prandtl numbers", *J. Vibration and Control*, 13, 1321-1330, 2007.
22. M Canturk, **E Kurt**, "Phase-dependent characteristics of a superconducting junction by using Schrödinger wave function", *Physica Scripta*, 76, 634-640, 2007.
23. **E. Kurt**, "Nonlinear Responses of a Magnetoelastic Beam in a Step-Pulsed Magnetic Field", *Nonlinear Dyn.*, 45(1-2), 171-182, 2006.
24. **E. Kurt**, M. Boyukata and Z.B. Guvenc, "Lyapunov exponent as an indicator of phase transition in melting Pd13 clusters", *Physica Scripta*, 74, 353-361, 2006.
25. H. Yucel Kurt, **E. Kurt** and B. Salamov, "Identification of the dynamics of plasma-induced damage in a CuInSe2 thin Film by fractal processing", *Crystal Res. & Techn.*, 41(7), 698-707, 2006.
26. **E. Kurt**, "Nonlinearities from a non-autonomous chaotic circuit with a non-autonomous model of Chua's diode", *Physica Scripta*, 74, 22-27, 2006.
27. **E. Kurt**, FH. Busse and W.Pesch, "Hydromagnetic convection in a rotating annulus with an azimuthal magnetic Field", *Theor. & Comp. Fluid Dyn.*, 18(2-4), 2004.
28. H. Yucel Kurt, **E. Kurt** and B. Salamov, "Fractal processing for an analysis of the quality and resistivity of large semiconductor plates", *Crystal Res. & Techn.*, 39(9), 2004.
29. **E. Kurt**, R. Kasap, and S. Acar, "Effects of Periodic Magnetic Field to the Dynamics of Vibrating Beam", *Math. & Comp. Appl. J.*, 4(2), 2004.
30. B.G. Salamov, H. Yucel Kurt , and **E. Kurt**, "An analysis of the spatial homogeneity of a photodetector surface in an infrared image converter using the fractal dimension", *Imag. Sci. J.*, 51(4): 187-197, 2003.

31. H. Yucel Kurt, **E. Kurt**, and B.G. Salamov, "An analysis of the image homogeneity in an ionization type infrared image converter using the fractal dimension", *Imag. Sci. J.* 49 (4): 205-212, 2001.
32. **E. Kurt**, M.K. Ozturk, and R. Kasap, "Investigating the most appropriate parameters of the nonlinear resistor circuit from time series", *Gazi Uni. J. Inst. Sci. & Techn.*, 14 (4), 2001.
33. **E. Kurt**, M. Karabacak, and Z.B. Guvenc, "Chaotic Properties of Pd<sub>7</sub> Cluster", *Balkan Phys. Lett.*, 9(2), 2001.
34. **E. Kurt**, S. Acar, and R. Kasap, "A comparison of chaotic circuits from a statistical approach", *Math. & Comp. App. J.*, 2(2), 2000.
35. R.Kasap, and **E. Kurt**, "Investigation of chaos in the RL-Diode circuit by using the BDS test", *J. Appl. Math. & Decision Sci.*, 2(2), 1998.

- **Dissertations:**

1. **E. Kurt**, *Pattern Formation in Rotating Fluid Systems under Magnetic Fields*, Doctoral dissertation in University of Bayreuth, be available in Opus-Dokumentenserver, Universitätsbibliothek Bayreuth, **URL:** <http://opus.ub.unibayreuth.de/volltexte/2004/112/>.
2. **E. Kurt**, *Crystallographic and Kinetic Properties of Austenite-Martensite Transformation in Fe-8.64%Mn-5.50%Cu Alloy*, M.Sc Thesis in Gazi University, Ankara (Turkey), 2001.
3. **E. Kurt**, *A New Paradigm: Chaos*, Undergraduate Thesis, Ankara, 1998.

- **Lecturer in Schools & Conferences and Workshops:**

1. **E. Kurt**, Finite Element Analysis (FEA) of the Permanent Magnet (PM) Generators with the Multiple Stators, 13. *WSEAS Int. Conf. Electric Power Systems, High Voltages, Electric Machines (POWER '13)*, August 27-29, 2013, Crete, Greece.
2. **E. Kurt**, Analyses and Measurements of the Permanent Magnet (PM) Wind Energy Generators, 2. *European Workshop on Renewable Energy Systems*, 20-29 Sep. 2013, Antalya, Turkey, 2013.
3. **E. Kurt**, Modeling of magnetohydrodynamic systems and an overview to the instabilities, II. *Ph.D. School on Mathematical Modeling of Complex Systems*, 16-28 July, 2012, Pescara, Italy.
4. **E. Kurt**, Introduction to Magnetohydrodynamics, *ISMFA Int. School on Magnetohydrodynamics and Fusion Applications*, Turunç, Marmaris, Turkey.
5. **E. Kurt**, Developments in fusion energy researches, *European Workshop on Renewable Energy Systems*, 17-28 Sep. 2012, Alanya, Antalya, Turkey.

6. **E. Kurt**, Nonlinear aspects in a new piezoelectric energy harvester under a changeable magnetic flux, *European Workshop on Renewable Energy Systems*, 17-28 Sep. 2012, Alanya, Antalya, Turkey.

7. **E. Kurt**, Electrical and optical features of atmospheric pressure plasma jet (APPJ) machine, 22-27 June 2014, TOBB Economy & Tech. Uni., Ankara, Turkey

- **International Conferences:**

1. **INVITED TALK: E. Kurt**, “Chaotic Electrical Circuits and Their Engineering Applications”, Int. Conf. Engineering & MIS, 24-26 Sep. 2015, Istanbul , Turkey.
2. K. Celik, **E. Kurt**, “A new image encryption algorithm based on Lorenz System”, Int. Conf. Engineering & MIS, 24-26 Sep. 2015, Istanbul , Turkey.
3. **E. Kurt**, C. Bingol, “Sweep Up / Down Phenomenon between the Chaotic and Regular Regions in a New R2L2D Circuit”, Int. Conf. Engineering & MIS, 24-26 Sep. 2015, Istanbul, Turkey.
4. **E. Kurt**, B. Dursun, “Simulation Studies On The Ion Trajectories And Energy Spectra For A New Inertial Electrostatic Confinement Fusion Device”, 1<sup>st</sup> IAEA Technical Meeting on Fusion Data Processing Validation and Analysis, 1-3 June 2015, Nice, France.
5. **E. Kurt**, H. Gor, Electromagnetic Design of a new Axial Flux, Generator, 6th IEEE Conf. Electronics, Computer and Artificial Intelligence (ECAI-2014), 23-25 Oct. 2014, Bucharest, Romania.
6. **INVITED TALK: E. Kurt**, Y. Uzun, Effects of Nonlinearities in a Magneto-Piezoelectric System, 6th IEEE Conf. Electronics, Computer and Artificial Intelligence (ECAI-2014), 23-25 Oct. 2014, Bucharest, Romania.
7. **E. Kurt**, H. Gor, “Exploration of Losses in a New Axial Flux Permanent Magnet Generator (AFPMG)”, 3th Int. Conf. Information Processing and Electrical Engineering, 24-25 Nov. 2015, Tebessa, Algeria.
8. **INVITED TALK: E. Kurt**, A micro-power resource: Piezoelectric Harvesters, 3th Int. Conf. Information Processing and Electrical Engineering, 24-25 Nov. 2015, Tebessa, Algeria.
9. **E. Kurt**, S. Aslan, H. Gör, M. Demirtaş, “Electromagnetic Analyses of two Axial-Field Permanent Magnet Generators (PMGs)”, 4th. Int. Conf. Power Engineering, Energy and Electrical Drives, 13-17 May 2013, Istanbul, Turkey.
10. Y. Uzun, **E. Kurt**, “Exploration of the energy harvesting for a weather station”, 2. *European Workshop on Renewable Energy Systems*, 20-29 Sep. 2013, Antalya, Turkey, 2013.

11. H. Gor, **E. Kurt**, "Comparison of cogging torques in two different axial flux permanent magnet generators", 2. *European Workshop on Renewable Energy Systems*, 20-29 Sep. 2013, Antalya, Turkey, 2013.
12. **E. Kurt**, B. Dursun, "A new IEC fusion device design", 2. *European Workshop on Renewable Energy Systems*, 20-29 Sep. 2013, Antalya, Turkey, 2013.
13. **E. Kurt**, S. Arslan, "The finite element analysis of an inertial electrostatic confinement (IEC) unit", IAEA Fusion Energy Conference, San Diego, USA, 8-13 Oct. 2012.
14. E. Tanrıverdi, **E. Kurt**, H. Kurt, "Preliminary simulation studies on the discharge phenomena in microelectronic gas discharge device (MGDD)", 2. *European Workshop on Renewable Energy Systems*, 20-29 Sep. 2013, Antalya, Turkey, 2013.
15. **E. Kurt**, Y. Uzun, "Design and bifurcation analysis of a piezoelectric energy harvester under a changeable magnetic field", 2. Int. Conf. Nuclear and Renewable Energy Resources, Gölbaşı, Ankara, (2010).
16. **E. Kurt**, "Particle trajectories in an inertial electrostatic confinement fusion device", Nucl.&Renew. Energy Res. Conf. w. Int. Particip., Ankara, Turkey, 28-29 Sep 2009.
17. A. S. Bölükdemir, Y. Akgün, E. Kurt, T. Öncü, A. Alaçakır, "D-D fusion studies at Odak-3k plasma focus device", Nucl.&Renew. Energy Res. Conf. W. Int. Particip., Ankara, Turkey, 28-29 Sep 2009.
18. Y. Akgun, A.S. Bolukdemir, T. Oncu, A. Alacakir, **E. Kurt**, E. Recepoglu, A. Yuzubenli, I. Turk Cakir, H. Karadeniz, S. Zararsiz, "Preliminary Fusion Studies with ODAK-3K Plasma Focus Device", 5. Eurasian Conf. Nucl. Sci. Appl., Ankara, Turkey, 14-17 Oct 2008
19. M. Canturk and **E. Kurt**, "A Resistively Coupled DC-Driven Circuit Modeling of Josephson Junctions for Chaotic Signal Generation", Int. Workshop on New Trends in Sci. Tech., Ankara, Turkey, 3-4 Nov 2008.
20. **E. Kurt**, W. Pesch, and F.H. Busse, "Pattern Formation in the Rotating Cylindrical Annulus with an Azimuthal Magnetic Field at Low Prandtl Numbers", *Mathematical Methods in Engineering*, Cankaya University, Ankara, (Turkey), 27-29 April 2006.
21. A. Alaçakır, T. Öncü, **E. Kurt**, Y. Akgün, A.S. Bölükdemir, A. Elmalı, H. Karadeniz, E. Recepoglu, İ. T. Çakır, Ö. Yeşiltaş, S. Zararsiz, "Plasma focus system design, construction and experiments", ICENES (13. Inter. Conf. Emerging Nuclear Energy Sys.), İstanbul, 3-8 Jun 2007.
22. **E. Kurt**, F.H. Busse, and W. Pesch, "Convecting Instabilities in the Rotating Cylindrical Annulus with Azimuthal Magnetic Field", 12. International Statistical Physics Congress, İstanbul, (Turkey), 2005.



23. **E. Kurt**, F.H. Busse, and W. Pesch, "Centrifugally Driven Convection with an Azimuthal Magnetic Field", *Non-Equilibrium Phenomena and Phase Transitions in Complex Systems*, Bayreuth, (Germany), Sep.28-Oct.2, 2004.
24. **E. Kurt**, F.H. Busse, and W. Pesch, "Hydromagnetic convection in the rotating cylindrical annulus with azimuthal magnetic Field", 13th International Couette-Taylor Workshop (Nonlinear dynamics in Fluids), Barcelona, (Spain), 2003.
25. B.G. Salamov, M.M. Bülbül, H. Yucel, **E. Kurt**, "Surface behaviour of plasma etched photodetector in a planar gas discharge image converter", 7th International Conference on Nanometer-Scale Science and Technology, ECOSS-21, Malmö, Sweden, 24-28 Jun 2002.
26. **E. Kurt**, and F.H. Busse, "The magnetic Ekman-Couette layer", 5th Magnetohydrodynamics Day, Dresden, (Germany), 2002.
27. **E. Kurt**, M. Karabacak, and Z.B. Guvenc, "Chaotic properties of Pd7 cluster", BPU-4, (IV. International Balkan Physics Congree), V. Turnovo, (Bulgaria), 2000.
28. **E. Kurt**, S. Acar, and R. Kasap, "A nonlinearity analysis of the nonlinear resistor circuit using a statistical test", 3. International Statistical Physics Congress, Istanbul, (Turkey), 1999.
29. **E. Kurt** , "Periodic and aperiodic dynamics from a resistively coupled nonidentical superconducting junction under dc excitations", *Recent Advances in Circuits, Systems and Signals*, 1(29), 2010, Malta.
30. S. Arslan, H. Fidanboy, Ş. Demirbaş, M.E. Güven, **E. Kurt**, "Investigation of Current Harmonics Using FEM on Different Rotor Types of PMSMs", *ICAT- 23. Int. Sym. Information, Communication and Automation Tech.*, 27-29 Oct. 2011, Sarajevo, Bosnia&Herzegovina.
31. **E. Kurt**, S. Arslan, 2011. "The Effects of Cathode Structure and Dielectric Type in an Inertial Electrostatic Confinement (IEC) Device" , *10. Int. Conf. Sustainable Energy Technologies*, Kumburgaz, İstanbul.
32. **E. Kurt**, S. Arslan, M. Demirtaş, Güven, M.E., "Design and analysis of an axial-field permanent magnet generator with multiple stators and rotors" , 2011, *IEEE 3. Int. Conf. on Power Engineering*, 11-13 May 2011, Malaga, İspanya.
33. Y. Uzun, **E. Kurt**, "Implementation and Modeling of a Piezoelastic Pendulum under a Harmonic Magnetic Excitation", *WSEAS 11. Int. Conf. Applications of Electrical Engineering (AEE '12)*, 7-9 March 2012, Athens, Greece.
34. S. Söyler, **E. Kurt**, O. Dağ, "Optimization of the Magnetic Anomaly Signals from a New Land-Mine Detection Device", *WSEAS 11. Int. Conf. Applications of Electrical Engineering (AEE '12)*, 7-9 March 2012, Athens, Greece.

35. Y. Uzun, M. Demirtaş, **E. Kurt**, "Exploration of the energy harvesting for a weather station", European Workshop on Renewable Energy Systems, Alanya, Antalya, Turkey, 17-28 Sep. 2012.
36. H. Gor, M. Demirtaş, **E. Kurt**, "A new permanent magnet wind energy generator design with axial and radial directed fluxes", European Workshop on Renewable Energy Systems, Alanya, Antalya, Turkey, 17-28 Sep. 2012.
37. B. Dursun, **E. Kurt**, "Electromagnetic Design and Simulation of a New Fusion Device", 18. Int. Conf. Electronics, Palanga, Lithuania, 16-18 June 2014.
38. Y. Uzun, S. Demirbas, **E. Kurt**, "Implementation of a New Contactless Piezoelectric Wind Energy Harvester to a Wireless Weather Station", 18. Int. Conf. Electronics, Palanga, Lithuania, 16-18 June 2014.

• **National Conferences:**

1. I. Akgun, **E. Kurt**, H.Y. Ocak, G. Ugur, and E. Ucgun, "Crystallographic and Structural Properties of the Austenite-Martensite Phase Transformations in Fe-8.62%Mn-5.52%Cu Alloy", 21th Physics Congress of Turkish Physical Society, Isparta, (Turkey), 11-14 Sep 2002.
2. H. Yucel Kurt, **E. Kurt**, B. Salamov, "A non-destructive quality test method for the semiconductor plates using fractal dimension analysis", 8th Condensed Matter Physics, Ankara, (Turkey), 2001.
3. **E. Kurt**, M. Boyukata, Z.B. Guvenc, and R. Kasap, "Chaotic dynamics of Pd<sub>13</sub> cluster", III. Atomic and Molecular Physics Congress, Erzurum, (Turkey), 2000.
4. **E. Kurt**, W. Pesch, and F.H. Busse, "Instabilities of convection patterns in a rotating cylindrical annulus under a magnetic Field", Turkish Math. Soc. Ankara Branch- Ankara Mathematical Days PDE Meetings 6, Ankara, (Turkey), 2006.
5. **E. Kurt**, R. Kasap, M. Canturk, "Josephson eklem sisteminden elde edilen zaman serilerinin istatistiksel olarak incelenmesi", *in Turkish*, 18. Statistical Research Symp., Ankara, 7-8 May 2009.
6. **E. Kurt**, M. Cantürk, "Dc beslemeli bağlı Josephson eklemleri içeren süperiletken cihazın simülasyonu ve dinamik özellikleri", *in Turkish*, 15. Condensed Matter Physics Congress, Bilkent University, 7 Nov 2008.
7. **E. Kurt**, "Manyetik Ekman-Couette Tabakası Kararsızlıkları ve Desenler", 18. İstanbul İstatistik Fizik Günleri Sabancı Ün. , İstanbul, 2011.
8. E. Kurt, O. Taşkan, 2012. "Periodic and Complex Responses from two Basic Electrical Circuits", 19. İstatiksel Fizik Günleri, Sabancı Üniversitesi, İstanbul

- **Missions in Organized Scientific Events:**

1. **Technical Chairman** to *NuRER- 4. Int. Conf. Nuclear & Renewable Energy Resources*, 26-29 Oct 2014, Antalya, Turkey
2. **Co-chairman** to *NuRER- Nuclear & Renewable Energy Resources Conference w. Int. Cont.*, 28-29 Sep 2009, Ankara, Turkey
3. **Co-chairman** to *NuRER- Int. Conf. Nuclear & Renewable Energy Resources*, 4-7 July 2010, Ankara, Turkey
4. **Co-chairman** to *NuRER- Int. Conf. Nuclear & Renewable Energy Resources*, 20-23 May 2012, Ankara, Turkey
5. **Scientific Secretary** to SET 2011- Sustainable Energy Technologies, 4-7 Sep. 2011, Istanbul, Turkey
6. **Chairman** to *ISMFA- International School on Magnetohydrodynamics & Fusion Applications*, 9-16 Sep 2011, Muğla, Turkey.
7. **Chairman** to *EWRES 2012- European Workshop on Renewable Energy Systems*, 17-28 Sep 2012, Alanya.
8. **Chairman** to *EWRES 2013- II. European Workshop on Renewable Energy Systems*, 20-29 Sep 2013, Antalya.
9. **Head of the Organizing Committee**, International Workshop on Numerical Fusion Experiments, 2010, Ankara, Turkey ( w. Prof. Lee ve Prof. Saw)
10. **Head of the Organizing Committee**, International Workshop on Numerical Fusion Experiments, 2009, Ankara, Turkey ( w. Prof. Lee ve Prof. Saw)
11. **Editorial Board Member**, 18. Int. Conf. Electronics, Palanga, Lithuania, 16-18 June 2014.
12. **Editorial Board Member**, 19. Int. Conf. Electronics, Palanga, Lithuania, 16-18 June 2014.
13. **Editorial Board Member**, 3. Int. Conf. Information Processing and electrical Engineering, Tebessa, Algeria, 16-18 June 2014.
14. **Member of Scientific Committee of many International events.**

- **Scientific Popular Journal Papers & Books (in Turkish):**

1. **E. Kurt**, "A travel into chaos", Populer Bilim, Apr. 1997, Isik Publ. Ltd., Ankara.
2. **E. Kurt**, "From determinism to indeterminism", Populer Bilim, Dec. 1997, Isik Publ. Ltd., Ankara.
3. **E. Kurt**, "Quantum theory and its basic concepts", Populer Bilim, Nov. 1997, Isik Publ. Ltd., Ankara.
4. **E. Kurt**, "Secrets of blackholes", Populer Bilim, Sep. 1997, Isik Publ. Ltd., Ankara.

5. **E. Kurt**, "Kuhn and Paradigm-related Science", Populer Bilim, Feb. 1998, Isik Publ. Ltd., Ankara.
6. **E. Kurt**, R. Kasap, "The science of complexity: Chaos", (in Turkish), Nobel Yayınları, Ankara, 2011. (*book*)
7. Translation Editor of "Physics for Science and Engineering" Schauma's Physics Series, 2015, Ankara, Turkey.

### **I. Dissertation Supervisorship:**

- Y. Akgün, "Mather Tip Plazma Odak (Plasma Focus) Cihazında Optimizasyon ve Plazma Yoğunluk Ölçüm Çalışmaları (Optimisation of the Mather type plasma focus device and studies on plasma density measurements)", *Ankara University Institute of Natural Sciences*, PhD Thesis (Second Advisor), 2009.
- Y. Uzun, "Periyodik manyetik alanlar etkisinde doğrusal-olmayan titreşimlerden elektrik enerjisi üretimi" (Electricity generation via nonlinear vibrations under the effects of periodic magnetic fields), *Gazi Univ. Institute of Natural Sciences*, PhD Thesis, 2012.
- B. Dursun, "Design of an inertial electrostatic confinement fusion device and determination of ion behavior", *Gazi Univ. Institute of Natural Sciences*, MSc Thesis, 2014.
- H. Gör, "New generator design and implementation", *Gazi Univ. Institute of Natural Sciences*, PhD Thesis, 2014.
- C. Bingöl, "A new chaotic circuit design and implementation", *Gazi Univ. Institute of Natural Sciences*, MSc Thesis (*continues*)

### **J. Projects**

- Researcher between 2006-2009 at Turkish Atomic Energy Authority Sarayköy Nuclear Research and Training Center, A new Atmospheric Plasma Device Construction and Measurements Project,  
Project Head: Tolga Öncü  
  
Project No:
- Researcher between 2001- 2004 at Bayreuth University (Germany), European Graduate College Project, Hydromagnetic Instabilities in Rotating Fluid Systems.  
Project Head: Prof. Dr. Friedrich H. Busse  
  
Project No: GRK 698/1-3
- Researcher between 2000-2002 at Gazi University, Faculty of Arts & Sciences, Scientific Research Project, Crystallographic and kinetic properties of the Austenite-Martensite phase transformation in Fe-based alloys.  
Project Head: Prof. Dr. İrfan AKGÜN  
  
Project No: FEF. No: 2000/06-05

- Researcher between 2006-2009 at Turkish Atomic Energy Authority Sarayköy Nuclear Research and Training Center, Plasma focus device construction for neutron lithography Project,  
Project Head Dr. İ. Türk Çakır  
Project No: No: III –B.06.TAEK.2.
- Coordinator between 2012-2014 for EU Project – The European Workshop on Renewable Energy systems at Gazi University

Project No's 2012-1-TR1-ERA10-36810 and 2013-1-TR1-ERA10-48722

- Coordinator between 2014-2016 for TUBITAK (Turkish Scientific & Research Technology Foundation) Project – Modeling of a contactless magnetic piezoelectric energy harvester with multiple natural frequencies and its implementation to wind energy

Project No's 114E017

#### **K. Journal or Proceedings Editorship and Editorial Board Membership**

- Chief-Editor for peer reviewed scientific journal: Int. J. Informatics & Technologies, 2014-.....).
- Editor for peer reviewed scientific TUBAV Journal of Science (in Turkish) (2012-2013).
- Editorial Board member for *Science Journal of Circuits, Systems and Signal Processing*, (2013-...)
- Field Editor for Politeknik Journal, (2013-...)
- Guest Editorship for *Int. J. Electr. Energy Res.*
- Guest Editorship for *Energy Conversion & Management*.
- Editor for the Conference Proceedings of NuRER 2014
- Editor for the Conference Proceedings of NuRER 2012
- Editor for the Conference Proceedings of NuRER 2010
- Editor for the Conference Proceedings of NuRER 2009
- Editor for the Workshop Proceedings of EWRES 2012.
- Editor for the Workshop Proceedings of EWRES 2013.
- Editor for the Conference SET 2011 (Int. Conf. Sustainable Energy Technologies)

#### **L. Membership to Scientific Organisations**

- Member of *Turkish Science Research Foundation (TÜBAY)* and Member of the Administrative Board.
- Member of *The Institute of Electrical and Electronics Engineers - IEEE* since 2011.