

## **Prof. SEMRA GÜNDÜÇ**

### **Personal Information**

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### **Education Information**

Doctorate, Ankara University, Fen Bilimleri Enstitüsü, Fizik Mühendisliği (Dr), Turkey 2002 - 2006

Doctorate, Ankara University, Fen Bilimleri Enstitüsü, Fizik Mühendisliği (Dr), Turkey 2002 - 2006

Doctorate, Ankara University, Fen Bilimleri Enstitüsü, Fizik Mühendisliği (Dr), Turkey 2002 - 2006

Postgraduate, Hacettepe University, Fen Bilimleri Enstitüsü, Fizik Mühendisliği (YI) (Tezli), Turkey 1999 - 2001

Undergraduate, Hacettepe University, Mühendislik Fakültesi, Fizik Mühendisliği Bölümü, Turkey 1994 - 1999

### **Dissertations**

Doctorate, Elektron-pozitron ve elektron-foton çarpıştırıcılarında süpersimetri parametre uzayının incelenmesi, Ankara University, Fen Bilimleri Enstitüsü, Fizik Mühendisliği (Dr), 2006

Doctorate, Elektron-pozitron ve elektron-foton çarpıştırıcılarında süpersimetri parametre uzayının incelenmesi, Ankara University, Fen Bilimleri Enstitüsü, Fizik Mühendisliği (Dr), 2006

Doctorate, Hadronik madde kuark-gluon plazma faz geçişlerinde perkolasyon yaklaşımı, Ankara University, Fen Bilimleri Enstitüsü, Fizik Mühendisliği (Dr), 2001

Postgraduate, Hadronik madde kuark-gluon plazma faz geçişlerinde perkolasyon yaklaşımı, Hacettepe University, Fen Bilimleri Enstitüsü, Fizik Mühendisliği (YI) (Tezli), 2001

### **Research Areas**

### **Academic Titles / Tasks**

Associate Professor, Ankara University, Mühendislik Fakültesi, 2017 - Continues

Assistant Professor, Ankara University, Mühendislik Fakültesi, Bilgisayar Mühendisliği Bölümü, 2012 - Continues

Lecturer PhD, Hacettepe University, Hacettepe Meslek Yüksekokulu, 2007 - 2012

Lecturer, Pamukkale University, Rectorate, Department Of Informatics, 2006 - 2007

Research Assistant, Hacettepe University, Mühendislik Fakültesi, Fizik Mühendisliği Bölümü, 1999 - 2006

### **Academic and Administrative Experience**

Hacettepe University, 2012 - 2012

### **Courses**

Computer Programming II, Undergraduate, 2018 - 2019, 2017 - 2018, 2013 - 2014, 2012 - 2013

Complex Network, Undergraduate, 2018 - 2019, 2017 - 2018, 2016 - 2017  
 Karmaşık Ağlar, Postgraduate, 2018 - 2019, 2016 - 2017  
 Computer Programming I, Undergraduate, 2017 - 2018, 2015 - 2016, 2014 - 2015, 2013 - 2014, 2012 - 2013  
 Yapay Zeka, Postgraduate, 2016 - 2017, 2015 - 2016, 2014 - 2015  
 Research Techniques I, Undergraduate, 2016 - 2017, 2015 - 2016  
 Computer Simulation and Modeling, Undergraduate, 2016 - 2017, 2015 - 2016  
 Research Techniques II, Undergraduate, 2016 - 2017  
 Artificial Intelligence, Undergraduate, 2016 - 2017, 2015 - 2016, 2014 - 2015, 2012 - 2013  
 Research Techniques II, Undergraduate, 2015 - 2016  
 Simulation And Modelling, Undergraduate, 2014 - 2015, 2013 - 2014, 2012 - 2013  
 Fizik I, Associate Degree, 2010 - 2011, 2009 - 2010, 2008 - 2009  
 Fizik II, Associate Degree, 2010 - 2011, 2009 - 2010, 2008 - 2009  
 Matematik II, Associate Degree, 2010 - 2011, 2009 - 2010, 2008 - 2009  
 Matematik I, Associate Degree, 2010 - 2011, 2009 - 2010, 2008 - 2009

## Advising Theses

GÜNDÜÇ S., Karmaşık ağlarda fikir dinamikleri, Postgraduate, V.MOEINIFAR(Student), 2021  
 GÜNDÜÇ S., Steganografi ile bilgi güvenliği, Postgraduate, B.GANBAT(Student), 2017  
 GÜNDÜÇ S., Biyometrik sistemlerin bilgi güvenliği, Postgraduate, A.RAKHIMOV(Student), 2017

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

- I. **Diffusion of Innovation in Competitive Markets - A Study on the Global Smartphone Diffusion**  
 Gunduc S.  
 ACTA PHYSICA POLONICA A, vol.135, no.3, pp.485-494, 2019 (SCI-Expanded)
- II. **A Case Study of Diffusion of Innovation under Competition**  
 Gunduc S.  
 ACTA PHYSICA POLONICA A, vol.133, no.6, pp.1465-1469, 2018 (SCI-Expanded)
- III. **The role of persuasion power on the consensus formation**  
 GÜNDÜÇ S., ERYİĞİT R.  
 PHYSICA A-STATISTICAL MECHANICS AND ITS APPLICATIONS, vol.426, pp.16-24, 2015 (SCI-Expanded)
- IV. **The role of fanatics in consensus formation**  
 Gunduc S.  
 INTERNATIONAL JOURNAL OF MODERN PHYSICS C, vol.26, no.3, 2015 (SCI-Expanded)
- V. **Maximal entanglement from quantum random walks**  
 Allés B., Gündüç S., Gündüç Y.  
 Quantum Information Processing, vol.11, no.1, pp.211-227, 2012 (SCI-Expanded)
- VI. **Dynamic critical index of the Swendsen-Wang algorithm by dynamic finite-size scaling**  
 DİLAVER M., Gündüç S., Aydın M., Gündüç Y.  
 Computer Physics Communications, vol.175, no.8, pp.553-558, 2006 (SCI-Expanded)
- VII. **A study of dynamic finite size scaling behavior of the scaling functions - Calculation of dynamic critical index of Wolff algorithm**  
 Gündüç S., DİLAVER M., Aydın M., Gündüç Y.  
 Computer Physics Communications, vol.166, no.1, pp.1-7, 2005 (SCI-Expanded)
- VIII. **A new approach to dynamic finite-size scaling**  
 DİLAVER M., Gündüç S., Aydın M., Gündüç Y.  
 International Journal of Modern Physics C, vol.14, no.7, pp.945-954, 2003 (SCI-Expanded)
- IX. **A geometric approach to the phase transitions**

Demirtürk S., Gündüç Y.

International Journal of Modern Physics C, vol.12, no.9, pp.1361-1373, 2001 (SCI-Expanded)

X. **Finite size scaling by using scaling functions in two-dimensional  $q = 2$  and 7 state Potts models**

Demirtürk S., Seferoğlu N., Aydın M., Gündüç Y.

International Journal of Modern Physics C, vol.12, no.3, pp.403-412, 2001 (SCI-Expanded)

## Articles Published in Other Journals

I. **ESTIMATING CO2 EMISSIONS BY USING ENERGY INTENSITY DATA OF OECD COUNTRIES**

Eryigit R., gunduc s.

Communications Faculty of Sciences University of Ankara Series A2-A3: Physical Sciences and Engineering, vol.61, no.1, pp.68-75, 2019 (Peer-Reviewed Journal)

## Books & Book Chapters

I. **Opinion formation dynamics and persuasion models**

GÜNDÜÇ S., ERYİĞİT R.

in: Network Science: Transdisciplinary Approach to Real-World Complex Systems, Mehmet Aydın, Editor, Kadir Has University, İstanbul, pp.23-36, 2017

## Metrics

Publication: 26

Citation (WoS): 17

Citation (Scopus): 20

H-Index (WoS): 5

H-Index (Scopus): 3