



Europass Curriculum Vitae

Personal information



First name(s) / Surname(s) **Prof. Dr. Serhat Cakir**
Address Dept. of Physics, Middle East Technical University, Üniversiteler Mah.Dumlupınar Blv., 06800 Ankara (Turkey)
Telephone(s) +90 312 2105063 Mobile | +90 533 4172419
Fax(es) +90 312 2105099
E-mail(s) cakir@metu.edu.tr
Nationality Turkish
Date of birth 07 June 1953
Gender Male

Work experience

Dates 2022->
Occupation or position held Faculty Member (Prof. Dr.)
Main activities and responsibilities Research and education
Name and address of employer Baskent University, Dept. of Technology and Knowledge Management
Baglica Kampusu, Fatih Sultan Mah. Eskisehir Yolu, 18. km 06790 Ankara (Turkey)
Type of business or sector Research and Education
Dates 10 November 1983 -2022
Occupation or position held Faculty Member (Prof. Dr.)
Main activities and responsibilities Research and education
Name and address of employer Middle East Technical University (METU)
Dept. of Physics, ODTÜ Üniversiteler Mah.Dumlupınar Blv. No:1, Çankaya, 06800 Ankara (Turkey)
Type of business or sector Research and Education
Dates 08 September 2004 - 08 September 2011
Occupation or position held Director, Department of Science, Technology and Innovation Policy
Main activities and responsibilities Developing of National Science, Technology and Innovation Policies
Name and address of employer The Scientific and Technological Research Council of Turkey (TÜBİTAK)
Atatürk Bul. No:221, Kavaklıdere, 06100 Ankara (Turkey)
Type of business or sector Government Agency
Dates 07 September 2000 - 07 September 2004
Occupation or position held Advisor to the President
Main activities and responsibilities Science, Technology and Innovation Policy Advisor
Name and address of employer The Scientific and Technological Research Council of Turkey (TÜBİTAK)
Atatürk Bul. No:221, Kavaklıdere, 06100 Ankara (Turkey)
Type of business or sector Government Agency
Dates 03 October 1993 - 03 August 1995
Occupation or position held Director of Department of Informatics
Main activities and responsibilities Maintenance of ICT Technologies and National ST Databases in TUBİTAK and First National
INTERNET Service Provider
Name and address of employer The Scientific and Technological Research Council of Turkey (TÜBİTAK)
Atatürk Bul. No:221, Kavaklıdere, 06100 Ankara (Turkey)
Type of business or sector Government Agency
Dates 01/09/1992 - 02/10/1993

Main activities and responsibilities Science Technology Policy Advisor
 Name and address of employer The Scientific and Technological Research Council of Turkey (TÜBİTAK)
 Atatürk Bul. No:221, Kavaklıdere, 06100 Ankara (Turkey)
 Type of business or sector Government Agency

Education and training

Dates 08 September 1975 - 10 June 1980
 Title of qualification awarded B.S.
 Principal subjects / occupational skills covered Physics
 Name and type of organisation providing education and training Middle East Technical University (Higher Education)
 Üniversiteler Mah.Dumlupınar Blv.No:1 06800 Çankaya, 06800 Ankara (Turkey)
 Level in national or international classification ISCED 4

Dates 04 September 1980 - 09 October 1986
 Title of qualification awarded Ph.D.
 Principal subjects / occupational skills covered Physics
 Name and type of organisation providing education and training Max Planck Ins. München, Germany-Middle East Technical University (Research Institution and Higher Education)
 Üniversiteler Mah.Dumlupınar Blv.No:1, Çankaya, 06800 Ankara (Turkey)
 Level in national or international classification ISCED 6

Personal skills and competences

Mother tongue(s) **Turkish**

Other language(s)

Self-assessment
 European level (*)

English

German

Understanding				Speaking				Writing	
Listening		Reading		Spoken interaction		Spoken production			
C1	Proficient user	C1	Proficient user	C1	Proficient user	C1	Proficient user	C1	Proficient user
C2	Proficient user	C1	Proficient user	C1	Proficient user	C1	Proficient user	B2	Independent user

(*) [Common European Framework of Reference \(CEF\) level](#)

Social skills and competences Team spirit
 Good ability to adapt to multicultural environments, gained through my work experience abroad

Organisational skills and competences Leadership
 Good experience in project or team management

Computer skills and competences Good command of Microsoft Office

Driving licence(s) B

Additional information

Science Technology and Innovation Policy
Technology Foresight
Regional Innovation Systems

Science, Technology and Innovation Policy Experience

Managerial Experience at the Scientific and Technological Research Council of Turkey (TÜBİTAK)

- **Director-** TÜBİTAK Science, Technology and Innovation Policy Department, 2005— 2012
- **Advisor** to the President of TÜBİTAK, 2000— 2005
- **Director-** TÜBİTAK Department of Informatics, 1993— 1995
- **Advisor** to the President of TÜBİTAK, 1991— 1992

International Science Technology and Innovation (STI) Policies

(as country representative - 2000-2011)

- **OECD CSTP** (Committee for Science and Technology Policy)
- **OECD NESTI** (National Experts on Science and Technology Indicators)
- **OECD GSF** (Global Science Form)
- **OECD TIP** (Technology and Innovation Policy)
- **NATO AGARD** (Advisory Group for Aerospace Research and Development) (1992-1996)

National STI Strategy and Implementation Plans

(as the Director of TÜBİTAK-STI Policy Department)

- National Science Technology and Innovation Strategies 2011-2016
- National Energy Science Technology and Innovation Strategy Plan 2011-2016
- National Food Science Technology and Innovation Strategy Plan 2011-2016
- National Technology Platforms Initiative
- Regional Innovation Platforms Initiative
- National Science Technology and Innovation Human Resources Strategy and Action Plan 2011-2016
- National Science Technology and Innovation Strategy and Implementation Plan 2005-2010
- S&T Strategies Vision 2023 (a project to build a science and technology vision for Turkey)

Main National/International Projects

- **National INTERNET Project (first national connection to the INTERNET) (as the Director of Department of Informatics -TÜBİTAK) 1993-1996**
- **National Researcher Database (ARBİS) (as project manager) 2000-2004**
- National Research Infrastructure Database (TARABİS) (as project manager)2000-2004
- EU FP 6. and 7. Science Technology Innovation Policy projects (ERANET)
- UNIDO International Technology Foresight Training Programs (2003-2006) national organizer

Project Evaluation

(Project evaluator of public R&D supports programs)

- TÜBİTAK-TEYDEB,
- Ministry of Science, Technology and Industry-SANTEZ,
- Ministry of Development- Development Agencies (İZKA, BEBKA,...)

Lecturer at Military Academy (2007- 2018)

Lectures on

1) **R&D and Innovation** (Ph.D.)

Basic concepts on R&D and Innovation, R&D and Innovation Systems, Performance Indicators

2) **R&D Management** (Ph.D.)

Technology Foresight, Technology Assessment, Impact Analysis of R&D and Innovation Investments

3) **Technology Management** (Undergraduate)

Education:

B.S. Department of Physics, Middle East Technical University

Ph.D. Max-Planck Institute for Extraterrestrial Physics, Munich, Germany, Department of Physics, Middle East Technical University

Scholarships

Middle East Technical University- Undergraduate Scholarship

Max-Planck Institute Ph.D. Scholarship

Supervised PhD Thesis

31. Tuğba Gökdoğan Gül
30. Salih Hacıoğlu
29. Taner Soner
28. Hasan Çifçi
27. Şahin Bekir
26. Burak Manavoğlu
25. Oğuzhan Dağ
24. Bekir Şahin
23. Erkan Tiryaki
22. Yaşar Fatih
21. Ayhan Aydoğdu
20. Hakan Şentürk
19. Mustafa Cem Arpacı
18. Oğuz Bozoklu
17. İnanc Cahit Güremen
16. Zeynep Nilüfer Güven Öztürk
15. Nurdan Yüksel
14. Burcu Altuntaş
13. Murat Aslan
12. Hüseyin Duman
11. Selçuk Aydoğdu
10. Fatih Yaşar
9. Mustafa Türkmenoğlu
8. İsmail Satıcı
7. İlker Yoncacı
6. Mukaddes Burhan
5. Erhan Berk
4. Feza Büyüksahin
3. Sema Çıldır (Selman)
2. Halil Berberoğlu
1. Atakan Konukbay

Supervised MS Thesis

27. Levent Berke Çaplı
26. Yusuf Can Baran
25. Başak Bilge
24. Hamit Taş
23. Botan Elveren
22. Ece Alaçakır
21. Berkay Torun
20. Merve Kayan
19. Derya Kaya
18. Ahmet Unal
17. Selçuk Aydoğdu
16. İlkay Erden
15. Pınar Mentec
14. Burak Çamak
13. Başak Seçmen
12. Şerife Yaprak
11. Evren Aydın
10. Aynur Akyürek
9. Feza Büyüksahin
8. Sema Selman

7. Semih Kunter
6. Pinar Demir
5. Aliekber Akdağ
4. S. Eren San
3. Hilal Goktas
2. Vatankhah Saeideh
1. Gity Samadi Hosseinali)

Courses Given

Undergraduate

R&D and Innovation Management
Technology Management
ST Policy
Engineering and Technology Management
Electromagnetic Theory I - II
Computational Physics
Plasma Physics
Magnetohydrodynamics
Modern Physics
Project in Physics
Special Problems in Physics
Advanced Selected Problems in Physics
Optoelectronics I - II
Intro. to Laser Physics
Lasers and Their Applications
General Physics I-II
Basic Physics II

Graduate

Antenna Applications for Defence Industry
R&D Management
Technology Management
R&D and Innovation
Research Methods and Ethics in Technology Management
Electromagnetic Theory-I
Electromagnetic Theory-II
Magnetohydrodynamics
Plasma Physics
Applications of Plasma Physics
R&D and Innovation
Technology Management
Optoelectronics

Projects:

1. Ultrafast 3D Laser Micromachining for Solar Cells (GÜLAM-3D) -Güneş Hücreleri İçin Ultrahızlı 3 Boyutlu Lazer Mikroişleyicisi (Gülam-3d) (TÜBİTAK-113M931 2014- 2017) (METU-Coordinator)
2. Physical Principles of Controlling of Gas Discharge Characteristics with Nonlocal Plasma Distribution, TÜBİTAK RFBR- 2013-2015 (Research Member)
3. Magnetic Mirror Confinement and Neutron Source, With the Collaboration of Budcker Institute of Nuclear Physics (BINP), Novasbirks, Russia (supported by TÜBİTAK, DOPROG/501). (Coordinator)
4. National INTERNET Connection Project
5. Assoc Prof.Dr. S. Çakır (Project Director), Prof.Dr. E. Kruglykov (BINP Coordinaator- Vise President of BINP), Prof.Dr. S. Bilikmen, Prof.Dr. A. Ivanov, Prof.Dr.O. Demokan, Prof.Dr.I. Kotelnikov, Prof.Dr. G.Gündüz, Prof.Dr. I. Lansky, Prof.Dr. V.V. Mirnov, Prof.Dr.Yu. Tsidko

Selected Papers

- 1 Mukaddes Burhan, Serhat Cakir, Impact assessment of Vision 2023 defense technology foresight, VOL. 23 NO. 3 2021, FORESIGHT
- 2 A new model for technology foresight: Foresight periscope model (FPM) Serhat Çakır, 2017
- 3 Nurdan Yuksel,Hasan Cifci,Serhat Cakir – New Foresight Generation and Framework of Foresight, 31 p.224-233 Pressacademia.2017.593
- 4 Haerendel, G., and Eccles, J.V.,Çakır, S., Theory for Modeling the Equatorial Evening Ionosphere and the Origin of the Shear in the Horizontal Plasma Flow, J Geophys. Res. 97, A2, 1209 -1223, 1992
- 5 Çakır S, Haerendel G, Eccles, J.V., Modeling the ionospheric response to artificially produced density enhancements. Journal of Geophysical Research-Biogeosciences, 97(A2), 1193-1207., Doi: 10.1029/91JA02228 (Yayın No: 2455143)
- 6 Çakır, S., Haerendel, G., Numerical Simulation of Colored Bubbles, Proceedings of the 3-5 March 1984 BIME/CB Preliminary Data Review, AFGL, Hascom AFB, MA 01731, 198
- 7 Çakır, S., Haerendel, G., Nümerische Modelle zur Dynamik der Aequatorialen Iososphaere, Deutsche Physikalische Gesellschaft Tagung, 14, 176, 1983
- 8 Haerendel, G., Valenzuela, A., Föppe, H., Çakır, S., und Bauer, O., Ein Experiment zur Auslösung von Aequatorialem Spread-F, Deutsche Physikalische Gesellschaft Tagung, 14, 177, 1983
- 9 Gonca Bilge, Ismail Hakkı Boyacı, Kemal Efe Eseller , Ugur Tamer , Serhat Çakır , Analysis of bakery products by laser-induced

breakdown spectroscopy, Food Chemistry 181 (2015) 186-190

- 10 I.R. Rafatov , S. Çakır, Modelling of a nonequilibrium spherical electric discharge under higher modes of incident microwave, Physics Letters A 338 (2005) 353–365
- 11 G.Haerendel, O.H. Bauer, S. Çakır, Colored Bubbles: An experiment for triggering equatorial spread F,
- 12 A.A. Azooz , S. Cakir , D.A. Bleej, Plasma parameters in 40 MHz Argon discharge, Results in Physics 5 (2015) 85–91
- 13 Mukaddes Burhan and Serhat Cakir, Impact assessment of Vision 2023 defense technology foresight, VOL. 23 NO. 3 2021, FORESIGHT
- 14 Ayhan Aydogdu, Serhat Burmaoglu, Ozcan Saritas and Serhat Cakir, A nanotechnology roadmapping study for the Turkish defense industry, Foresight VOL. 19 NO. 4 2017, pp. 354-375
- 15 Ogelman, H. ; Bohringer, H. ; Buchert, S. ; Cakir, S. ; Labelle, J. ; Treumann, R. A., Could there be terrestrial signatures of the EUV pulse from Supernova1987A ? Astronomy and Astrophysics, Vol. 183, p. L27-L29 (1987)
- 16 Yuri A. Tsidulko, Serhat Cakir, Vladimir V. Mirnov, Axial Shear Instability in a “Tachion” Region, TRANSACTIONS OF FUSION TECHNOLOGY VOL. 35 JAN. 1999
- 17 Sema Çıldır, Serhat Çakır, Asimpthotic solution of the radial wave equation for optical fiber waveguides, 6th International Conference of the Balkan Physics Union, V899, P313, 2007
- 18 Mirnov, V., Bilikmen, S., Çakır S., Ballooning Modes in Open Magnetic Traps, XVI. IAEA Fusion Energy Conference, Montreal Canada, 7-11 October 1997
- 19 S. Çakır, G. Haerendel, J.V. Eccles, Computer Simulations of Medium Wavelength Irregularities in the Equatorial Ionosphere Resulting from Artificially Produced Density Enhancement , J. Geophys. Res., 1990
- 20 Mirnov, V. V., Çakır, S., New Results of on Balloning Modes in Open Traps, Paper 7E.10, to be published in the Bull. Am. Phys. Soc. Of 38th Annual Meeting of the DPP of APS, Denver, 1996
- 21 Serhat Cakir, S. Eren San, Vladimir V. Mirnov, MHD Stability in Axisymmetric Multiple Mirror Geometry, TRANSACTIONS OF FUSION TECHNOLOGY VOL. 35 JAN. 1999

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Serhat Cakir

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