E. DENIZ TEKIN
CURRICULUM VITAE

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CURRENT STATUS & ADDRESS

Title Assoc. Prof.

Address University of Turkish Aeronautical Association,
Department of Computer Engineering
Ankara, Turkey 06790

EDUCATION

Post-Doc	Bilkent University, UNAM	2011-2012
PhD	METU, Physics	2002-2010
	UC-Davis, Chem. Eng. & Material Sci.	2007-2008
BSc	KSU, Physics	1998-2002

WORKING EXPERIENCES

Researcher	Bilkent University, UNAM	2016-2017
Assist. Prof.	UTAA, Flight Training	2011-2016
Res. Assist.	METU, Physics	2002-2010

FELLOWSHIPS AND GRANTS

TUBITAK[+], 3501 CAREER Grant (Principal Investigator)	2012-2014
TUBITAK[+], COST Grant (Researcher)	2012-2014
Exchange PhD Student Fellowship*	2007-2008

(*Supported by University of California-Davis and METU)

([+] The Scientific and Technological Research Council of Turkey)

TEACHING EXPERIENCE

UTAA, Ankara, Turkey

- BIO 101 (Introduction to Molecular Biology) — Fall 2018
- PHY 101 (Mechanics) — Fall 2011-2015, Summer 2018
- PHY 102 (Electricity & Magnetism) — Spring 2012-2016, Fall 2018, Spring 2019
- FLT 300 (Special Topics in Aviation) — Spring 2014-2015
- FLT 123 (Human Factors in Aviation) — Fall 2015

METU, Ankara, Turkey

- PHY 105-Lab (Mechanics Laboratory) — Fall 2003-2010
- PHY 102 (Electricity & Magnetism) — Spring 2004-2010

RESEARCH EXPERIENCE

- *Investigation of Small Bioactive Molecules* using Molecular Mechanics, Semi-empirical methods (AM1 and PM3), Ab-initio (Restricted Hartree Fock), and Density Functional Theory (DFT).

- *Protein Folding Problem* using Molecular Dynamics method.

- *Self-Assembly Mechanism of Peptide Amphiphiles* using Molecular Dynamics method.

- *Structural and Electronic Properties of Alkaline Phosphatase Mimetic Peptides* using Molecular Mechanics, Semi-empirical methods (AM1 and PM3), Ab-initio (Restricted Hartree Fock), and Density Functional Theory (DFT).

Doctoral Student Advised

- Tuba Kilinc, "*Investigation of Protein Folding Problem using Molecular Dynamics Methods",* 2013. (Now Asst. Prof. at Erzincan University, Turkey.)

PROGRAMMING EXPERIENCES

For Quantum Chemical Calculations: HyperChem, GAUSSIAN 03-09 and GAUSSVIEW

For Molecular Dynamics Calculations: GROMACS and Visual Molecular Dynamics (VMD)

Programming Languages: MATLAB, PYTHON

Source: TRUBA (TUBITAK ULAKBIM High Performance and Grid Computing Center)

PUBLICATIONS

(Note that after 2006, my last name was changed to Tekin from Calisir.)

Journal Publications

1. A. Dana, A. B. Tekinay, **E. D. Tekin**, *A Comparison of Peptide Amphiphile Nanofiber Macromolecular Assembly Strategies*, (accepted for publication at ***The European Physical Journal E***).
2. F. B. Dikecoglu, A. E. Topal, A. D. Ozkan, **E. D. Tekin**, A. B. Tekinay, M. O. Guler, A. Dana, Force and Time Dependent Self-assembly, Disruption and Self-healing of Supramolecular Peptide Amphiphile Nanofiber, ***Nanotechnology***, 29, 285701 (2018).
3. A. D. Ozkan, A. B. Tekinay, M. O. Guler, and **E. D. Tekin**, Effects of Temperature, pH and Counterions on the Stability of Peptide Amphiphile Nanofiber Structures, ***RSC Advances***, 6, 104201 (2016).
4. **E. D. Tekin**, Molecular dynamics simulations of self-assembled peptide amphiphile based cylindrical nanofibers, ***RSC Advances***, 5, 66582 (2015).
5. G. Gulcihan, I. C. Yasa, O. Ustahüseyin, **E. D. Tekin**, A. Tekinay, M: Guler, Alkaline Phosphatase-Mimicking Peptide Nanofibers for Osteogenic Differentiation, ***Biomacromolecules***, 16, 2198 (2015).
6. **E. D. Tekin**, Odd–even effect in the potential energy of the self-assembled peptide amphiphiles, ***Chemical Physics Letters***, 614, 204 (2014).
7. G. Cinar, H. Ceylan, M. Urel, T. S. Erkal, **E. D. Tekin**, A. B. Tekinay, A. Dana, M. O. Guler, Amyloid Inspired Self-Assembled Peptide Nanofibers, ***Biomacromolecules***, 13, 3377 (2012).
8. A. Maass, **E. D. Tekin**, A. Schuller, A. Palazoglu, D. Reith, R. Faller, Folding and unfolding characteristics of short beta strand peptides under different environmental conditions and starting configurations, ***Biochimica et Biophysica Acta (BBA)-Proteins & Proteomics***, 1804, 2003 (2010).
9. **E. D. Tekin** and S. Erkoc, Structural and electronic features of the ubiquinone and ubiquinol molecules: Molecular dynamics and quantum chemical treatments, ***Molecular Simulation***, 36, 763 (2010).

10. **E. D. C. Tekin**, F. Erkoc, I. Yildiz, S. Erkoc, Quantum chemical calculations of warfarin sodium, warfarin and its metabolites, ***Communations in Compuational Physics***, 4, 161 (2008).
11. N. Chakraborti, R. Jayakanth, S. Das, **E. D. Calisir**, S. Erkoc, Evolutionary and genetic algorithms applied to Li^+-C systems: Calculations using differential evolution and particle swarm algorithm, ***Journal of Phase Equilibria and Diffusion***, 28, 140 (2007).
12. **E. D. Calisir**, O. B. Malcioglu, S. Erkoc, Density functional theory investigation of 1-chloroborepin and propargyl benzene planar molecules, ***International Journal of Pure and Applied Chemistry***, 1, 509 (2006).
13. H. Yildirim, A. Kara, T. S. Rahman, **E. D. Calisir**, S. Erkoc, M. Selvi, F. Erkoc, Theoretical comparative study of the structure, dynamics and electronic properties of two Allyl molecules: Allicin, Methyl Propyl Disulfide (MPD) and Allyl Methyl Sulfide (AMS), ***International Journal of Pure and Applied Chemistry***, 1, 171 (2006).
14. **E. D. Calisir**, S. Erkoc, H. Yildirim, A. Kara, T. S. Rahman, M. Selvi, F. Erkoc, Theoretical comparative study of the structure, dynamics and electronic properties of two Allyl molecules: S-allyl cysteine (SAC) and S-allyl mercaptocysteine (SAMC), ***International Journal of Pure and Applied Chemistry***, 1, 47, (2006).
15. S. Erkoc, H. Tezcan, **E. D. Calisir**, F. Erkoc, Synthesis of bis-formazan molecule and quantum chemical calculations, ***International Journal of Pure and Applied Chemistry***, 1, 37 (2006).
16. **E. D. Calisir** and S. Erkoc, Structural, electronic and QSAR properties of the cyfluthrin molecule:: A theoretical AM1 and PM3 treatment, ***International Journal of Modern Physics C***, 17, 1391(2006).
17. **E. D. Calisir** and S. Erkoc, Structural and electronic properties of dipropyl sulfide:A theoretical investigation, ***International Journal of Modern Physics C***,17,1179(2006).

Journal Papers in Review/Progress

1. M. Calisir, **E. D Tekin**, Investigation of Human Beta-Defensin 1-2-3 in human saliva by Molecular Dynamics, (under review).

PRESENTATIONS AND INVITED LECTURES

1. *Quantum Chemical Calculations*, Faller's Research Group, UC-Davis, CA, USA, 2007.
2. *Force Fields for Water*, Faller's Research Group, UC-Davis, CA, USA, 2008.
3. *Quantum Chemical Calculations for small molecules*, Ankara University, Ankara, TURKEY, 2010.
4. *Theory and Applications of Quantum Chemical Calculations and Molecular Dynamics Calculations*, Gazi University, Ankara, TURKEY, 2010.
5. *Short Review of the Quantum Calculations and Application on Dipropyl Sulfide Molecule*, UNAM, Bilkent University, Ankara, TURKEY, 2011.

PROFESSIONAL TRAINING

Seminars and Workshops

1. **E. Deniz Tekin,** *Stability of Peptide Amphiphile Nanofibers under Different Environmental Conditions, 34th Turkish Physical Society (TFD 34), September 05-09, 2018, Bodrum, Turkey (oral presentation).*
2. **E. Deniz Tekin**, *Self-Assembling Peptide Amphiphiles with Molecular Dynamics Simulations*, From Computational Biophysics to Systems Biology (CBSB16), May 23-25, 2016 Ankara, Turkey (oral presentation).
3. **Goksu Cinar**, **E. Deniz Tekin**, Mustafa O. Guler, *Characterization of self-assembly of peptides & self-assembled peptide nanonetworks*, 248th America Chemical Society National Meeting, August 10-14, 2014, San Francisco, CA, USA (oral and poster presentation).
4. **E. Deniz Tekin**, *Molecular dynamics simulations of self-assembled peptide amphiphiles*, 248th America Chemical Society National Meeting, August 10-14, 2014, San Francisco, CA, USA (poster presentation).

5. Gulcihan Gulseren, I. Ceren Garip, Oya Ustahuseyin, **E. Deniz Tekin**, Ayse B. Tekinay, and Mustafa O. Guler, *Self-Assembled Peptide Nanostructures Mimic Alkaline Phosphatase Activity*, Unam Nanoday 2014, May 26, 2014, Bilkent University, Ankara, Turkey (poster presentation).
6. **E. Deniz Tekin**, *Investigation of self-assembled peptide amphiphiles with molecular dynamics simulations*, 10th Nanoscience and Nanotechnology Congress (NANOTR X), June 17-21, 2014, Yeditepe University, İstanbul, Turkey (poster presentation).
7. Tuba Kilinc, **Emine Deniz Tekin** and Abdulmecit Turut, *Understanding of $A\beta_{16-22}$ and $A\beta_{17-21}$ Peptides Aggregation by Molecular Dynamics Simulations*, 10th Nanoscience and Nanotechnology Congress (NANOTR X), June 17-21, 2014, Yeditepe University, İstanbul, Turkey (poster presentation).
8. Tuba Kilinc, **Emine Deniz Tekin** and Abdulmecit Turut, *Amyloid Peptide Aggregationof $A\beta_{16-22}$ And $A\beta_{17-21}$ Using Molecular Dynamics Simulations*, 9th Nanobilim ve Nanoteknoloji Kongresi (NANOTR IX), 24-28 Haziran, 2013, Atatürk University, Erzurum, Türkiye (poster presentation).
9. Goksu Cinar, Hakan Ceylan, Mustafa Urel, Turan Selman Erkal, **Emine Deniz Tekin**, Ayse Begum Tekinay, Aykutlu Dana, and Mustafa Ozgur Guler, *Amyloid Inspired Self-Assembled Peptide Nanofibers*, 246th American Chemical Society National Meeting, Semptember 8-12, 2013, Indianapolis, IN, USA (oral presentation).
10. Göksu Çinar, Hakan Ceylan, Mustafa Ürel, Turan Selman Erkal, Aykutlu Dana, **Emine Deniz Tekin**, Ayse B. Tekinay, and Mustafa O. Guler, *Mechanical Properties of Self-Assembling Peptide Hydrogels and Their Effects on Cell Behaviors*, 8th Nanoscience and Nanotechnology Congress (NANOTR VIII), June 25-29, 2012, Hacettepe University, Ankara, Turkey (poster).

11. Tuba Kılınç, Abdulmecit Türüt, **Emine Deniz Tekin**, *Molecular Dynamics Simulations of $A\beta_{(16-22)}$ Peptides Aggregation*, 8th Nanoscience and Nanotechnology Congress (NANOTR VIII), June 25-29, 2012, Hacettepe University, Ankara, Turkey (poster).

12. Tuba Kılınç, **Emine Deniz Tekin**, Abdülmecit Türüt, *A Molecular Dynamics Approach to the Aggregation of Amyloid $A\beta_{(17-21)}$ Peptides*, Chemical Pyhsics X, October 10-12, 2012, TOBB University of Economics & Technology, Ankara, Turkey (poster).
13. **E.D. Calisir**, S. Erkoc, *Structural, electronic and QSAR properties of the cyflutrin molecule: A theoretical AM1 and PM3 treatment*, Third Humboldt Conference on Computational Chemistry (CompChem-2006), June 24-28, 2006, Varna, Bulgaria, Book of Abstracts, p. 110, (poster).
14. **E. D. Calisir**, S. Erkoc, H. Yildirim, A. Kara, T. S. Rahman, M. Selvi, F. Erkoc, *Theoretical Comparative Study of the Structure, Dynamics and Electronic Properties of Five Ally Molecules: Allicin, Methyl Propyl Disulfide (MPD), Allyl Methyl Sulfide (AMS), S-allyl cysteine (SAC) and S-allyl mercaptocysteine (SAMC)*, E2006 APS March Meeting, March 13-17, 2006; Baltimore, MD, Abstract: C1.00067 (poster).

PROFESSIONAL AFFILITIONS

American Chemical Society, 2014-Present

Turkish Physical Society, 2016-Present

COMMUNITY SERVICE

Organization

Co-organizer of Festschrift conference for Prof. Dr. Sakir Erkoc

(65. Doğum Günü Şerefine Şakir Erkoç Çalıştayı: "Atomlar, Moleküller ve Hayat")

(METU, Department of Physics, October 7, 2013, Ankara, Turkey.)

Co-organizer of Festschrift conference for Prof. Dr. Sakir Erkoc

(70. Doğum Günü Onuruna Şakir Erkoç Çalıştayı: "Bilime Adanan Bir Ömür")

(METU, Department of Physics, August 3, 2018, Ankara, Turkey.)

ADMINISTRATIVE DUTIES

- UTTA, Head of the Coordination Unit of Common Core Courses
  (April 2018- …..)
- UTTA, Founding Head of the Department of Mechatronics Engineering
  (February 2012-September 2012)
- UTTA, Head of the Section of Mechanical and Aeronautical Department
  (February 2014 to October 2014)
- UTTA, Head of the Coordination Unit of Common Core Courses
  (December 2013-February 2014)
- UTTA, Head of the Curriculum and Examination Committee
  (November 2013- February 2014)
- UTTA, Physics Course Coordinator
  (September 2011-September 2014)
- UTTA, Built the Fresman Physics Labs
  (July 2012)