

## Talha Boz

Sabancı Universitesi Orhanlı Tuzla  
Istanbul, Turkey 34956  
talhaboz@sabanciuniv.edu  
<http://myweb.sabanciuniv.edu/talhaboz/>

### Education

**PhD. in Mechatronics Engineering**, Sabancı University, Istanbul, Turkey  
current, GPA 3.85 in overall

**Thesis:** A Nonlinear Data Driven Approach To The Modeling Of MIMO Dynamical Systems Using Polynomial And Neural Architectures

**MSc. in Mechatronics Engineering**, Sabancı University, Istanbul, Turkey  
September 2012, GPA 3.66 in overall

**Thesis:** Structural Health Monitoring of Composite Materials with FBG Sensors: Damage Detection and Remaining Useful Life Prediction

**BSc. in Mechatronics Engineering**, Sabancı University, Istanbul, Turkey  
July 2010, GPA 3.54 in overall

**Graduation Project:** Design and Fabrication of a Drug Delivery System

### Journal Articles

Casey J Keulen, Erdem Akay, Fatih F Melemez, Esat S Kocaman, Ataman Deniz, Cagatay Yilmaz, **Talha Boz**, Mehmet Yildiz, Halit S Turkmen and Afzal Suleman "Prediction of fatigue response of composite structures by monitoring the strain energy release rate with embedded fiber Bragg gratings" *Journal of Intelligent Material Systems and Structures*, December 9, 2014 doi:10.1177/1045389X14560358.

Melemez, F. F., **Boz, T.**, Chelliah, P., Bektas, G., Yildiz, M., Ozturk, C. and Menciloglu, Y. Z. (2013). "Study of Local and Transient Buckling in Glass Fiber Reinforced Composite Using Fiber Bragg Grating" *Key Engineering Materials*, Vol. 543, pp. 346-351.

Yildiz, Mehmet and Ozdemir, Nazli Gulsine and Bektas, Gokhan and Keulen, Casey J. and **Boz, Talha** and Sengun, Ege Fikri and Ozturk, Cem and Menciloglu, Yusuf Z. and Suleman, Afzal, (2012) "An experimental study on the process monitoring of resin transfer molded composite structures using fiber optic sensors", *Journal of Manufacturing Science and Engineering - Transactions of ASME*, Vol.134, No.4.

### Proceedings in International Conferences

**T. Boz**, M. Unel, V. Aran, M. Yilmaz, C. Gurel, C. Bayburtlu and K. Koprubasi, *Diesel Engine NOx Emission Modeling with Airpath Input Channels*, 41st Annual Conference of the IEEE Industrial Electronics Society (IECON 2015), Yokohama, November 9-12, 2015.

Chelliah, Pandian and Deniz, A. and Keulen, C. and Bektas, Gokhan and **Boz, Talha** and Melemez, Fazli Fatih and Ozturk, Cem and Suleman, A. and Yildiz, Mehmet, *Simulation studies of spectral subtraction based temperature compensation of FBG sensor for structural health monitoring based on principal component analysis*, 9th International Workshop on Structural Health Monitoring (IWSHM 2013), Stanford, CA: Stanford University, September 2013, 478-478.

**Boz, Talha** and Chelliah, Pandian and Bektas, Gokhan and Melemez, Fazli Fatih and Yildiz, Mehmet and Ozturk, Cem, "Damage detection in composite plates using

fiber bragg gratings”, 15th European Conference on Composite Materials (ECCM15), Venice, Italy: European Society for Composite Materials 2012.

Bektas, G., **Boz T.**, Keulen C.J., Yildiz, M., Ozturk, C., Menciloglu, Y.Z., Suleman, A. *Fiber Bragg Grating and Etched Optic Sensors for Flow and Cure Monitoring of Resin Transfer Molded Composite Structures* 18th International Conference on Composite Materials, Jeju, Korea, 21st-26th August, 2011.

Melemez, F.F., **Boz, T.**, Chelliah, P., Yildiz, M., Menciloglu, Y., Ozturk, C. *Fatigue monitoring of glass fiber reinforced composites using fiber Bragg grating sensors* 14th International Conference On Advances In Materials and Processing Technologies, Istanbul, Turkey, 13th-16th July, 2011.

**Proceedings in  
National  
Conferences**

**T. Boz**, M. Unel, V. Aran, M. Yilmaz, C. Gurel, C. Bayburtlu and K. Koprubasi, *Sistem Tanilama Yontemleri ile Dizel Motor NOx Emisyonu Modellenmesi*, TOK'15: Otomatik Kontrol Ulusal Toplantisi, Denizli, 10-12 Eylul, 2015.

**Research  
Experience**

**Researcher**, Sabanci University, Istanbul, Turkey Fall 2014 - Fall 2015  
• Worked on "Transient Calibration of Diesel Engines using System Identification Techniques"

**Researcher**, Sabanci University, Istanbul, Turkey Summer 2010 - Spring 2012  
• Worked on "Structural Health Monitoring and Sensing Transversal Stress with Polarization Maintaining Fiber Bragg Grating (FBG) Sensors"

**Researcher**, University of Wollongong, Wollongong, NSW, Australia Summer 2009  
• Worked on "The Conceptual Design and Testing of a Bio-inspired Locomotion System based on Conducting Polymer Actuators"

**Teaching  
Assistance  
Experience**

*MATH 203 - Introduction to Probability*

*ME 452 - Autonomous Mobile Robotics*

*ME 301 - Mechanical Systems I*

*ENS 204 - Mechanics*

*MATH 306 - Statistical Modelling*

*ENS 206 - Systems Modelling & Control*

*MATH 102 - Calculus II*

*MATH 101 - Calculus I*

**Achievements**

SU Faculty Scholarship for Doctorate  
SU Scholarship for Masters  
SU Honor Scholarship for Undergraduate  
TUBITAK Scholarship for Graduate Students  
Dean's List of High Honor in Undergraduate (*6 semesters*)  
Valedictorian in Asfa Ahmet Mithat High School

<b>Extracurricular Activities</b>	<b>Asfa Schools Alumni Union</b>	
	<ul style="list-style-type: none"> <li>• President</li> <li>• Member of Advisory Board</li> </ul>	2009-2011 2011 - 2014
	<b>Sabancı University Robotics/ASME Club</b>	
	<ul style="list-style-type: none"> <li>• Responsible of Organization and Membership</li> <li>• Member of Administrative Board</li> </ul>	2008-2009 2009-2010
	<b>SU Diving Club</b>	
	<ul style="list-style-type: none"> <li>• Obtained 2* CMAS Diving Certificate</li> </ul>	
	<b>SU Sailing Club</b>	
	<ul style="list-style-type: none"> <li>• Obtained 1* Sailing Certificate</li> </ul>	
<b>Computer Skills</b>	<u>Software:</u> MATLAB-Simulink, Solidworks, COMSOL Multiphysics, NI LabVIEW, Microsoft Visual Studio Programs, Microchip MPLAB, Siemens Simatic Manager, PSpice 9.1	
<b>Languages</b>	Turkish(native), English(advance), Arabic(elementary)	