

## **Prof. BARIŞ SABUNCUOĞLU**

### **Personal Information**

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### **International Researcher IDs**

ORCID: 0000-0001-5156-746X

Publons / Web Of Science ResearcherID: M-5781-2018

Yoksis Researcher ID: 230969

### **Education Information**

Doctorate, Loughborough University, Mechanical And Manufacturing Engineering, United Kingdom 2009 - 2012

Postgraduate, Middle East Technical University, Faculty Of Engineering, Makine Mühendisliği Bölümü, Turkey 2003 - 2006

Undergraduate, Middle East Technical University, Faculty Of Engineering, Makine Mühendisliği Bölümü, Turkey 1995 - 2000

### **Foreign Languages**

English, C2 Mastery

### **Dissertations**

Doctorate, Development of Parametric Finite Element Modelling Methods for Nonwoven Materials Including Rate Dependent Material Behaviour, Loughborough University, Engineering, Mechanical And Manufacturing Engineering, 2012

Postgraduate, Fatigue crack growth analysis models for functionally graded materials, Middle East Technical University, Faculty Of Engineering, Makine Mühendisliği Bölümü, 2006

### **Research Areas**

Mechanical Engineering, Mechanical, Solid Mechanics, Fracture Mechanics, Finite Element Methods, Metallurgical and Materials Engineering, Material science and engineering, Composites, Engineering and Technology

### **Academic Titles / Tasks**

Associate Professor, Hacettepe University, Mühendislik Fakültesi, Makina Mühendisliği Bölümü, 2018 - Continues

Assistant Professor, Hacettepe University, Mühendislik Fakültesi, Makina Mühendisliği Bölümü, 2017 - 2018

Assistant Professor, University Of Turkish Aeronautical Association, Faculty Of Engineering, Department Of Mechatronics

Engineering, 2015 - 2017

Research Assistant, Katholieke Universiteit Leuven, Mühendislik Fakültesi, Malzeme Bilimi, 2012 - 2014

Research Assistant, Loughborough University, Engineering, Mechanical And Manufacturing Engineering, 2010 - 2011

## Academic and Administrative Experience

Head of Department, Hacettepe University, Mühendislik Fakültesi, Makina Mühendisliği Bölümü, 2019 - Continues

Deputy Head of Department, University Of Turkish Aeronautical Association, Mühendislik, Mekatronik Mühendisliği, 2017 - 2017

Head of Department, University Of Turkish Aeronautical Association, Mühendislik Fakültesi, Mekatronik Mühendisliği Bölümü, 2015 - 2017

## Courses

Composite Materials Engineering, Postgraduate, 2021 - 2022, 2020 - 2021, 2019 - 2020

Mechanics of Materials, Undergraduate, 2021 - 2022, 2020 - 2021, 2019 - 2020, 2018 - 2019, 2017 - 2018

Numerical Methods, Undergraduate, 2021 - 2022, 2020 - 2021, 2019 - 2020, 2018 - 2019, 2017 - 2018

Computer Programming, Undergraduate, 2019 - 2020, 2018 - 2019

Special Problems in Automotive Engineering, Postgraduate, 2017 - 2018

ENGINEERING MECHANICS, Undergraduate, 2016 - 2017

DYNAMICS, Undergraduate, 2016 - 2017

STATICS, Undergraduate, 2016 - 2017

## Advising Theses

Sabuncuoğlu B., Parlaktaş V., Multibody simulation of coupled aerodynamics and structural model of a helicopter main rotor, Postgraduate, G.SERTSOY(Student), 2023

Sabuncuoğlu B., Investigation of micro-scale stress distributions and concentrations in hybrid fiber-reinforced composites, Postgraduate, E.TURAN(Student), 2023

Sabuncuoğlu B., Sensitivity analysis of material parameters on the micro-scale stress distribution in fiber reinforced composites, Postgraduate, B.BEKTAŞ(Student), 2023

Sabuncuoğlu B., Tekin H., Investigation of ballistic performance of ceramic armors with tests and analysis which contains multilayer ceramic tiles, Postgraduate, M.CURA(Student), 2023

Sabuncuoğlu B., Yıldırım B., INVESTIGATION OF STRESS DISTRIBUTIONS BETWEEN A FRICTIONAL RIGID CYLINDER AND LAMINATED GLASS FIBER COMPOSITES, Doctorate, K.BABACAN(Student), 2021

Sabuncuoğlu B., Modeling of the mechanical behavior of composites showing nonlinear material behavior using the embedded element method, Postgraduate, A.ŞİK(Student), 2020

Sabuncuoğlu B., Experimental and numerical vibration analysis of the gun control unit column with isolator, Postgraduate, T.DOĞRAR(Student), 2020

Sabuncuoğlu B., WEIGHT OPTIMIZATION OF AN AIRCRAFT WING COMPOSITE RIB USING FINITE ELEMENT METHOD, Postgraduate, C.KANDEMİR(Student), 2020

Sabuncuoğlu B., İşleme burulma yayının katılığına ait parametrelerin sayısal ve deneysel yöntemlerle belirlenmesi, Postgraduate, O.DEMİRTAŞ(Student), 2019

Sabuncuoğlu B., Kadioğlu F. S., Stress redistribution around fiber breaks in unidirectional steel fiber composites under longitudinal tensile loading, Postgraduate, Ç.MUTLU(Student), 2019

Sabuncuoğlu B., Tanabi H., TEKİN H., Investigation of stress distribution in glass fiber reinforced composite materials with microvascular channels under transverse loading and bending, Postgraduate, A.GENCER(Student), 2019

Sabuncuoğlu B., Kadioğlu F. S., Nonlinear behaviour and stress concentrations in natural fiber composites under

transverse loading, Postgraduate, O.ÇAKMAKÇI(Student), 2019  
SABUNCUOĞLU B., Meso-scale finite element modeling of microvascular channels in composites, Postgraduate, A.ALI(Student), 2017

## **Jury Memberships**

Post Graduate, DEVELOPMENT OF AN ARTIFICIAL NEURAL NETWORK BASED, Tez savunma jürisi, ODTÜ,2017, September, 2017

Post Graduate, Structural and Mechanical Characterization of Hybrid Composite Materials, Yüksek lisans tez jürisi, Türk Hava Kurumu Üniversitesi, 2017, May, 2017

Post Graduate, Post Graduate, Orta Doğu Teknik Üniversitesi, January, 2017

Post Graduate, OPTIMIZATION OF COMPLIANT PARTS OF A HYBRID TRAILING EDGE, Yüksek lisans tez jürisi, January, 2017

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

- I. **Experimental and numerical study on the ballistic performance of laminated ceramics**  
Cura M., Tanabi H., SABUNCUOĞLU B.  
INTERNATIONAL JOURNAL OF IMPACT ENGINEERING, vol.193, 2024 (SCI-Expanded)
- II. **Dynamic stress concentrations around a single fiber break in unidirectional composites: a 3D finite element analysis**  
MUTLU Ç., SABUNCUOĞLU B., KADIOĞLU F. S., SWOLFS Y.  
Journal of Reinforced Plastics and Composites, vol.42, no.19-20, pp.1075-1087, 2023 (SCI-Expanded)
- III. **Development of a Numerical Model for the Modal Analysis of a Gun Control Unit Column with Isolator**  
Dograr T., SABUNCUOĞLU B.  
JOURNAL OF VIBRATION ENGINEERING & TECHNOLOGIES, vol.11, no.7, pp.2955-2968, 2023 (SCI-Expanded)
- IV. **Impact behavior of sandwich composites for aviation applications: A review**  
Karsandik Y., SABUNCUOĞLU B., YILDIRIM B., SILBERSCHMIDT V. V.  
Composite Structures, vol.314, 2023 (SCI-Expanded)
- V. **Experimental and analytical investigation of the tensile behavior of 3D-printed composites based on micro-CT analysis**  
Şik A., Tanabi H., Çubukçu H. E., Sabuncuoğlu B.  
Journal of Thermoplastic Composite Materials, 2023 (SCI-Expanded)
- VI. **Stress analysis of vascularized glass fiber composites exposed to bending loading**  
Tanabi H., Atasoy A. G., Demiral M., Sabuncuoğlu B.  
ADVANCED COMPOSITE MATERIALS, vol.31, no.2, pp.208-220, 2022 (SCI-Expanded)
- VII. **Investigation of stress distributions between a frictional rigid cylinder and laminated glass fiber composites**  
Yilmaz K. B., Sabuncuoğlu B., Yildirim B.  
ACTA MECHANICA, vol.232, no.11, pp.4379-4403, 2021 (SCI-Expanded)
- VIII. **Development of a procedure to model the mechanical behavior of composites with embedded element method by considering the matrix non-linearity**  
ŞIK A., GÜRSES E., SABUNCUOĞLU B.  
COMPOSITE STRUCTURES, vol.259, 2021 (SCI-Expanded)
- IX. **Development of an artificial neural network using parametric correlation technique for the determination of machined torsional spring stiffness**  
SABUNCUOĞLU B., Demirtas O.  
JOURNAL OF THE FACULTY OF ENGINEERING AND ARCHITECTURE OF GAZI UNIVERSITY, vol.36, no.1, pp.105-118,

2021 (SCI-Expanded)

- X. **Mesh stiffness of micro-spur gears by finite element formulations based on modified couple stress theory**  
Pehlivanoglu Y., Aydogan M. O., SABUNCUOĞLU B.  
MICROSYSTEM TECHNOLOGIES-MICRO-AND NANOSYSTEMS-INFORMATION STORAGE AND PROCESSING SYSTEMS, vol.26, no.12, pp.3829-3838, 2020 (SCI-Expanded)
- XI. **Experimental and numerical investigation of transverse shear behavior of glass-fibre composites with embedded vascular channel**  
Demiral M., Tanabi H., SABUNCUOĞLU B.  
COMPOSITE STRUCTURES, vol.252, 2020 (SCI-Expanded)
- XII. **A brief review on the mechanical behavior of nonwoven fabrics**  
YILMAZ K. B., SABUNCUOĞLU B., YILDIRIM B., Silberschmidt V. V.  
JOURNAL OF ENGINEERED FIBERS AND FABRICS, vol.15, 2020 (SCI-Expanded)
- XIII. **Fiber/matrix interface stress analysis of flax-fiber composites under transverse loading considering material nonlinearity**  
SABUNCUOĞLU B., Cakmakci O., KADIOĞLU F. S.  
JOURNAL OF REINFORCED PLASTICS AND COMPOSITES, vol.39, pp.345-360, 2020 (SCI-Expanded)
- XIV. **Stress redistribution around fiber breaks in unidirectional steel fiber composites considering the nonlinear material behavior**  
SABUNCUOĞLU B., MUTLU Ç., KADIOĞLU F. S., Swolfs Y.  
COMPOSITE STRUCTURES, vol.239, 2020 (SCI-Expanded)
- XV. **Micro-scale numerical study of fiber/matrix debonding in steel fiber composites**  
SABUNCUOĞLU B., Lomov S.  
JOURNAL OF ENGINEERED FIBERS AND FABRICS, vol.15, 2020 (SCI-Expanded)
- XVI. **Micro-CT analysis of deviations in fiber orientation and composite stiffness near the microvascular channels embedded in glass-fiber reinforced composites**  
SABUNCUOĞLU B., Tanabi H., Soete J., Lomov S.  
COMPOSITE STRUCTURES, vol.237, 2020 (SCI-Expanded)
- XVII. **Deformation and damage of random fibrous networks**  
Sozumert E., Farukh F., SABUNCUOĞLU B., Demirci E., Acar M., Pourdeyhimi B., Silberschmidt V. V.  
INTERNATIONAL JOURNAL OF SOLIDS AND STRUCTURES, vol.184, pp.233-247, 2020 (SCI-Expanded)
- XVIII. **Investigation of stress distributions in the resin rich region and failure behavior in glass fiber composites with microvascular channels under tensile loading**  
Al-Shawk A., Tanabi H., Sabuncuoglu B.  
COMPOSITE STRUCTURES, vol.192, pp.101-114, 2018 (SCI-Expanded)
- XIX. **Analysis of stress concentrations in transversely loaded steel-fiber composites with nano-reinforced interphases**  
Sabuncuoglu B., GORBATIKH L., Lomov S. V.  
INTERNATIONAL JOURNAL OF SOLIDS AND STRUCTURES, vol.130, pp.248-257, 2018 (SCI-Expanded)
- XX. **Evaluation of Fatigue Behavior of Lead-Free Solder Joints in Four-Point Bending Test by Finite-Element Modeling**  
Sabuncuoglu B., VANHEE F., WILLEMS G., VANDEVELDE B., VANDEPITTE D.  
IEEE TRANSACTIONS ON COMPONENTS PACKAGING AND MANUFACTURING TECHNOLOGY, vol.7, no.12, pp.1957-1964, 2017 (SCI-Expanded)
- XXI. **Full-field strain measurements at the micro-scale in fiber-reinforced composites using digital image correlation**  
Mehdikhani M., Aravand M., Sabuncuoglu B., Callens M. G., Lomov S. V., Gorbatikh L.  
COMPOSITE STRUCTURES, vol.140, pp.192-201, 2016 (SCI-Expanded)
- XXII. **Micro-scale finite element analysis of stress concentrations in steel fiber composites under transverse loading**  
Sabuncuoglu B., Orlova S., Gorbatikh L., Lomov S. V., Verpoest I.

- JOURNAL OF COMPOSITE MATERIALS, vol.49, no.9, pp.1057-1069, 2015 (SCI-Expanded)
- XXIII. **Mechanical analysis of bi-component-fibre nonwovens: Finite-element strategy**  
Farukh F., Demirci E., Sabuncuoglu B., Acar M., Pourdeyhimi B., Silberschmidt V. V.  
COMPOSITES PART B-ENGINEERING, vol.68, pp.327-335, 2015 (SCI-Expanded)
- XXIV. **Mechanical behaviour of nonwovens: Analysis of effect of manufacturing parameters with parametric computational model**  
Farukh F., Demirci E., Sabuncuoglu B., Acar M., Pourdeyhimi B., Silberschmidt V. V.  
COMPUTATIONAL MATERIALS SCIENCE, vol.94, pp.8-16, 2014 (SCI-Expanded)
- XXV. **On the high stress concentrations in steel fiber composites under transverse loading**  
Sabuncuoglu B.  
JOURNAL OF REINFORCED PLASTICS AND COMPOSITES, vol.33, no.21, pp.1941-1953, 2014 (SCI-Expanded)
- XXVI. **Numerical analysis of progressive damage in nonwoven fibrous networks under tension**  
Farukh F., Demirci E., Sabuncuoglu B., Acar M., Pourdeyhimi B., Silberschmidt V. V.  
INTERNATIONAL JOURNAL OF SOLIDS AND STRUCTURES, vol.51, no.9, pp.1670-1685, 2014 (SCI-Expanded)
- XXVII. **Finite element modelling of fibrous networks: Analysis of strain distribution in fibres under tensile load**  
Sabuncuoglu B., Acar M., Silberschmidt V. V.  
COMPUTATIONAL MATERIALS SCIENCE, vol.79, pp.143-158, 2013 (SCI-Expanded)
- XXVIII. **Parametric code for generation of finite-element model of nonwovens accounting for orientation distribution of fibres**  
Sabuncuoglu B., Acar M., Silberschmidt V. V.  
INTERNATIONAL JOURNAL FOR NUMERICAL METHODS IN ENGINEERING, vol.94, no.5, pp.441-453, 2013 (SCI-Expanded)
- XXIX. **Characterisation and numerical modelling of complex deformation behaviour in thermally bonded nonwovens**  
Farukh F., Demirci E., Sabuncuoglu B., Acar M., Pourdeyhimi B., Silberschmidt V. V.  
COMPUTATIONAL MATERIALS SCIENCE, vol.71, pp.165-171, 2013 (SCI-Expanded)
- XXX. **Analysis of rate-dependent tensile properties of polypropylene fibres used in thermally bonded nonwovens**  
Sabuncuoglu B., Demirci E., Acar M., Silberschmidt V. V.  
JOURNAL OF THE TEXTILE INSTITUTE, vol.107, no.9, pp.965-971, 2013 (SCI-Expanded)
- XXXI. **Numerical modelling of damage initiation in low-density thermally bonded nonwovens**  
Farukh F., Demirci E., Sabuncuoglu B., Acar M., Pourdeyhimi B., Silberschmidt V. V.  
COMPUTATIONAL MATERIALS SCIENCE, vol.64, pp.112-115, 2012 (SCI-Expanded)
- XXXII. **Finite element modelling of thermally bonded nonwovens: Effect of manufacturing parameters on tensile stiffness**  
Sabuncuoglu B., Acar M., Silberschmidt V. V.  
COMPUTATIONAL MATERIALS SCIENCE, vol.64, pp.192-197, 2012 (SCI-Expanded)
- XXXIII. **A parametric finite element analysis method for low-density thermally bonded nonwovens**  
Sabuncuoglu B., Acar M., Silberschmidt V. V.  
COMPUTATIONAL MATERIALS SCIENCE, vol.52, no.1, pp.164-170, 2012 (SCI-Expanded)
- XXXIV. **Three dimensional computational analysis of fatigue crack propagation in functionally graded materials**  
Sabuncuoglu B., DAĞ S., YILDIRIM B.  
COMPUTATIONAL MATERIALS SCIENCE, vol.52, no.1, pp.246-252, 2012 (SCI-Expanded)
- XXXV. **Analysis of Creep Behavior of Polypropylene Fibers**  
SABUNCUOĞLU B., Svetlana O.  
Applied Mechanics and Materials, vol.70, pp.410-415, 2011 (SCI-Expanded)

## Articles Published in Other Journals

- I. **Sonlu elemanlar yöntemi ile yorulma çatlak ilerlemesi simülasyonu**  
SABUNCUOĞLU B., DAĞ S., YILDIRIM B.  
Makina Tasarım ve İmalat, vol.7, pp.87-95, 2005 (Peer-Reviewed Journal)

## Refereed Congress / Symposium Publications in Proceedings

- I. **DETERMINATION OF FIBER ORIENTATIONS AND STIFFNESS PROPERTIES VIA MICRO-CT SCAN IMAGES: APPLICATION TO COMPOSITE MATERIALS WITH MICROVASCULAR CHANNELS**  
SABUNCUOĞLU B., TEKİN H., Soete J., Lomov S.  
UMTIK 2022, Turkey, 31 August 2022
- II. **Development of a modeling strategy to improve the embedded element method in composites modeling in case of matrix nonlinearity**  
ŞIK A., GÜRSES E., SABUNCUOĞLU B.  
Fibremod Conference, Leuven, Belgium, 9 - 12 December 2019
- III. **Micro-CT measurement of fiber disturbance and composite stiffness: Application to in glass-fiber reinforced composites with embedded microvascular channels**  
TEKİN H., SABUNCUOĞLU B., Soete J., Lomov S.  
Euromech Colloquium 602, Lyon, France, 13 - 15 March 2019
- IV. **Fiber/Matrix Interface Debonding in Steel-Fiber Composites**  
SABUNCUOĞLU B., Tabatabaei S., Lomov S.  
Workshop on "Plasticity, Damage and Fracture of Engineering Materials, Turkey, 25 October 2018
- V. **The effect of manufacturing parameters on the stress concentrations in composites with micro-vascular channels under transverse loading**  
Al Shawk A., TEKİN H., SABUNCUOĞLU B.  
4th International Conference on Mechanics of Composites, Spain, 09 July 2018
- VI. **Analysis of Fiber/Matrix Interface Debonding in Steel Fiber Composites under Transverse Loading**  
SABUNCUOĞLU B., Tabatabaei S., Lomov S. V.  
18th European Conference on Composite Materials (ECCM 18), 24 - 27 June 2018
- VII. **Stress Concentrations in Composites with Microvascular Channels**  
AL SHAWK A., TANABI H., SABUNCUOĞLU B.  
Procedia Structural Integrity, 25 - 26 September 2017
- VIII. **Notches in fibrous materials: micro-mechanisms of deformation and damage**  
Sozumert E., Farukh F., Sabuncuoglu B., Demirci E., Acar M., Pourdeyhimi B., Silberschmidt V. V.  
27th International Conference on Mathematical and Computer Simulations in Mechanics of Solids and Structures - Fundamentals of Static and Dynamic Fracture (MCM), Saint Peter, Guernsey And Alderney, 25 - 27 September 2017, vol.6, pp.168-173
- IX. **Digital image correlation and finite element analysis applied to fiber reinforced composites at the micro scale**  
Mehdikhani M., Aravand M. A., SABUNCUOĞLU B., Callens M. G., Lomov S., Gorbatiikh L.  
20th International Conference on Composite Materials, Kopenhag, Denmark, 19 - 24 July 2015
- X. **The Effect of Nano-reinforced fiber matrix interface on stress in steel fiber composites**  
SABUNCUOĞLU B., SÖKMEN Ö.  
ECCM16 - 16TH EUROPEAN CONFERENCE ON COMPOSITE MATERIALS, Sevilla, Spain, 22 - 26 June 2014
- XI. **Mechanical Behaviour of Nonwovens Analysis of Effects of Manufacturing Parameters with Parametric Computational Model**  
SABUNCUOĞLU B., Acar M., Silberschmidt V.  
23rd International Workshop on Computational Mechanics of Materials, Singapore, Singapore, 2 - 04 October 2013

- XII. **Analysis of Stress Distributions in Steel Fibre Reinforced Composites in Micro Scale Including Large Deformations**  
 SABUNCUOĞLU B., Sökmen Ö.  
 IV ECCOMAS Thematic Conference on the Mechanical Response of Composites, Azorlar, Portugal, 25 - 27 September 2013
- XIII. **Micro mechanical Analysis of Stresses in Steel Fibre Reinforced Composites**  
 SABUNCUOĞLU B., Sökmen Ö.  
 TEXCOMP-11 CONFERENCE, Leuven, Belgium, 16 September 2013 - 20 June 2014
- XIV. **Micro scale computational analysis of the effect of matrix properties on the stress distribution of steel fiber composites**  
 SABUNCUOĞLU B., Sökmen Ö.  
 24th Annual International SICOMP Conference on Manufacturing and Design of Composites, 30 - 31 May 2013
- XV. **Characterisation and Numerical Modelling of Deformation and Damage In Thermally Bonded Nonwovens**  
 SABUNCUOĞLU B., Acar M., Silberschmidt V.  
 22nd International Workshop on Computational Mechanics of Materials, Baltimore, United States Of America, 24 - 26 September 2012
- XVI. **Finite element modeling of solder joint fatigue in four-point bending test**  
 Sabuncuoglu B., Vanhee F., Willems G., Vandeveldel B., Vandepitte D., De Wolf I.  
 2012 13th International Thermal, Mechanical and Multi-Physics Simulation and Experiments in Microelectronics and Microsystems, EuroSimE 2012, Cascais, Portugal, 16 - 18 April 2012
- XVII. **Analysis of Creep Behavior of Polypropylene Fibers Edinburg**  
 SABUNCUOĞLU B., Acar M., Silberschmidt V.  
 International Conference on Advances in Experimental Mechanics: Integrating Simulation and Experimentation (ISEV2011), Edinburgh, United Kingdom, 7 - 09 September 2011
- XVIII. **Finite Element Modelling of Thermally Bonded Nonwoven Materials A Parametric Model with Orientation Based Distribution of Fibres**  
 SABUNCUOĞLU B., Acar M., Silberschmidt V.  
 21st International Workshop on Computational Mechanics of Materials, Limerick, Ireland, 21 - 24 August 2011
- XIX. **Analysis of Creep Behavior of Polypropylene Fibers**  
 Sabuncuoglu B., Acar M., Silberschmidt V. V.  
 8th International Conference on Advances in Experimental Mechanics: Integrating Simulation and Experimentation for Validation, Edinburgh, Saint Helena, 7 - 09 September 2011, vol.70, pp.410-415
- XX. **Finite Element Analysis of Thermally Bonded Nonwovens Under Large Deformation A Discontinuous Model with a Large Number of Fibres**  
 SABUNCUOĞLU B., Acar M., Silberschmidt V.  
 20th International Workshop on Computational Mechanics of Materials, Loughborough, United Kingdom, 8 - 10 September 2010
- XXI. **Three Dimensional Fatigue Crack Growth Analysis of Functionally Graded Materials**  
 SABUNCUOĞLU B., Sökmen Ö.  
 20th International Workshop on Computational Mechanics of Materials, Loughborough, United Kingdom, 8 - 10 September 2010
- XXII. **Fatigue crack growth analysis models for functionally graded materials**  
 DAĞ S., Sabuncuoglu B., YILDIRIM B.  
 9th International Conference on Multiscale and Functionally Graded Materials, Hawaii, United States Of America, 15 - 18 October 2006, vol.973, pp.423-424
- XXIII. **Elliptical cracks in functionally graded materials under repeated loading**  
 SABUNCUOĞLU B., Sökmen Ö.  
 The Third International Conference on Advances in Mechanical Engineering and Mechanics, Hammamet, Tunisia, 17 - 19 December 2006
- XXIV. **Fatigue crack growth analysis models for functionally graded materials**

SABUNCUOĞLU B., Sökmen Ö.

Multiscale & Functionally Graded Materials Conference 2006, Hawaii, United States Of America, 15 - 18 October 2006

XXV. **A computational procedure for fatigue crack growth simulation in functionally graded composites**

SABUNCUOĞLU B., Sökmen Ö.

12th International Conference on Machine Design and Production, Kuşadası, Turkey, 5 - 08 September 2006

XXVI. **Patlayıcı depolama koşulları yapısal analizleri ve isil çevrim altında ömrünün belirlenmesi**

SABUNCUOĞLU B., Sökmen Ö.

MSC Kullanıcı Kongresi 2006, İstanbul, Turkey, 21 - 23 June 2006

XXVII. **Fatigue Crack Growth Simulation Using ANSYS**

SABUNCUOĞLU B., Sökmen Ö.

Bilgisayar Destekli Mühendislik ve Sistem Modellemesi, İstanbul, Turkey, 25 November 2005

XXVIII. **Fonksiyonel derecelendirilmiş malzemelede için yorulma çatlağı ilerlemesi**

SABUNCUOĞLU B., Sökmen Ö.

14. Ulusal Mekanik Kongresi, Antakya, Turkey, 21 - 23 September 2005

## Supported Projects

SABUNCUOĞLU B., TUBITAK Project, Tek yönlü çelik fiberli kompozit malzemelerde transvers hasar davranışının sonlu eleman yöntemi ile mikro seviyede incelenmesi, 2015 - Continues

SABUNCUOĞLU B., YILDIRIM B., ŞIK A., Project Supported by Higher Education Institutions, Video Ekstensometre ve Dijital Görüntü İşleme Yöntemi ile Kompozit Malzeme Mekanik Davranışının İncelenmesi, 2022 - 2024

SABUNCUOĞLU B., ŞIK A., YILDIRIM B., Turan E., Project Supported by Higher Education Institutions, Hibrit Kompozit Malzemelerde Mikro Ölçekte gerilme ve gerilme yığılmalarının incelenmesi, 2022 - 2023

SABUNCUOĞLU B., TANABI H., ŞIK A., Project Supported by Higher Education Institutions, Üç boyutlu baskı yöntemiyle üretilen kırılmış cam elyaf kompozitlerin MicroCT analizi ile iç yapısının incelenerek mekanik davranışının belirlenmesi, 2020 - 2022

SABUNCUOĞLU B., TUBITAK Project, Gömülü Eleman Yöntemi İle Doğrusal Olmayan Malzeme Davranışı Gösteren Kompozit Malzemelerin Mekanik Davranışının Modellenmesi, 2018 - 2020

SABUNCUOĞLU B., Project Supported by Higher Education Institutions, Doğal elyafli kompozitlerde enine yüklemeye gerilme yığılmalarının incelenmesi, 2018 - 2019

SABUNCUOĞLU B., TUBITAK Project, Tek yönlü çelik fiberli kompozit malzemelerde transvers hasar davranışının sonlu eleman yöntemi ile mikro seviyede incelenmesi, 2015 - 2018

## Contractual Researches

Sabuncuoğlu B., TUBITAK, TUBITAK 2232 Yurda Dönüş Araştırma Burs Programı, 2015 - 2023

Sabuncuoğlu B., KU Leuven, Multi-level modelling of nano-engineered fibre reinforced composites, 2012 - 2014

## Metrics

Publication: 64

Citation (WoS): 232

Citation (Scopus): 512

H-Index (WoS): 9

H-Index (Scopus): 12



## **Non Academic Experience**

KU Leuven

Loughborough University

TUBITAK, SAGE, Yapısal Mekanik

TUBITAK-SAGE

Company, Roketsan A.Ş., Üretim Mühendisliği

ROKETSAN