

Prof. Dr. Serkan Dağ

Curriculum Vitae

Education

Degree	Field	University	Year
B.S.	Mechanical Engineering	Middle East Technical University	1995
M.S.	Mechanical Engineering	Middle East Technical University	1997
Ph.D.	Mechanical Engineering	Lehigh University	2002

M.S. Thesis Title and Thesis Supervisor

Title: Crack Problems in a Functionally Graded Layer under Thermal Stresses.
Supervisor: Prof. Dr. O. Selcuk Yahsi

Ph.D. Thesis Title and Thesis Supervisor

Title: Crack and Contact Problems in Graded Materials.
Supervisor: Prof. Dr. Fazil Erdogan

Positions

Title	Institution	Duration
Teaching Assistant	Department of Mechanical Engineering, Middle East Technical University, Ankara, Turkey.	1995-1998
Research Assistant	Department of Mechanical Engineering and Mechanics, Lehigh University, Bethlehem PA, USA.	1998-2002
Instructor Dr.	Department of Mechanical Engineering, Middle East Technical University, Ankara, Turkey.	2002
Assistant Professor	Department of Mechanical Engineering, Middle East Technical University, Ankara, Turkey.	2002-2008
Associate Professor	Department of Mechanical Engineering, Middle East Technical University, Ankara, Turkey.	2008-2013
Professor	Department of Mechanical Engineering, Middle East Technical University, Ankara, Turkey.	2013-present

Awards

METU Young Researcher Success Award, 2009

METU Performance Award, 2009

METU Performance Award, 2006

Supervised Theses

Supervised Ph.D. Theses

Sarikaya, D., "A Surface Crack in an Orthotropic Medium Subjected to Sliding Contact by a Rigid Stamp," Middle East Technical University, Ankara, Turkey, 2014.

Ilhan, K.A., "Mixed-Mode Fracture Analysis of Orthotropic FGM Coatings Under Mechanical and Thermal Loads," Middle East Technical University, Ankara, Turkey, 2007.

Co-Supervised Ph.D. Thesis

Topal S., "Fracture Analyses of Orthotropic Functionally Graded Materials Under Thermal and Hygrothermal Loads Using Computational Methods," Gazi University, Ankara, Turkey, 2013.

Principal Supervisor: Prof. Dr. Mufit Gulgec, Gazi University.

Supervised M.S. Theses

Aghazadeh, R., "Static and Free Vibration Analyses of Small-Scale Functionally Graded Beams Possessing a Variable Length Scale Parameter Using Different Beam Theories," Middle East Technical University, Ankara, Turkey, 2013.

Co-Supervisor: Assoc. Prof. Dr. Ender Cigeroglu, Middle East Technical University.

Saeidi, F., "Hygrothermal Fracture Analysis of Fibrous Composites with Variable Fiber Spacing Using J_k -Integral," Middle East Technical University, Ankara, Turkey, 2013.

Ozcan, R., "Fatigue and Fracture Analysis of Helicopter Fuselage Structures," Middle East Technical University, Ankara, Turkey, 2013.

Akgul, G., "Three Dimensional Fracture Analysis of Orthotropic Materials," Middle East Technical University, Ankara, Turkey, 2012.

Kocer, B., "Vibration Fatigue Analysis of Structures Under Broadband Excitation," Middle East Technical University, Ankara, Turkey, 2010.

Co-Supervisor: Asst. Prof. Dr. Yigit Yazicioglu, Middle East Technical University.

Tekin, C.M., "Mechanical Characterization and Modeling of Porous Polymeric Materials Manufactured by Selective Laser Sintering," Middle East Technical University, Ankara, Turkey, 2009.

Co-Supervisor: Asst. Prof. Dr. Merve Erdal, Middle East Technical University.

Kecelioglu, G., "Stress and Fracture Analysis of Riveted Joints," Middle East Technical University, Ankara, Turkey, 2008.

Arman, E.E., " J_k -Integral Formulation and Implementation for Thermally Loaded Orthotropic Functionally Graded Materials," Middle East Technical University, Ankara, Turkey, 2008.

Hasanoglu, M.S., "*Storage Reliability Analysis of Solid Rocket Propellants*," Middle East Technical University, Ankara, Turkey, 2008.
Co-Supervisor: Dr. Ozge Sen, TUBİTAK-SAGE.

Ontac, S., "*Finite Element Analysis of a Micro Satellite Structure Under Vibration Induced Loads During Launch*," Middle East Technical University, Ankara, Turkey, 2008.
Co-Supervisor: Prof. Dr. Mustafa Gokler, Middle East Technical University.

Ficici, F., "*Three Dimensional Fracture Analysis of Fillet Welds*," Middle East Technical University, Ankara, Turkey, 2007.

Karagoz, T., "*A Finite Elements Based Approach For Fracture Analysis of Welded Joints in Construction Machinery*," Middle East Technical University, Ankara, Turkey, 2007.

Kosker, S., "*Three Dimensional Mixed-Mode Fracture Analysis of Functionally Graded Materials*," Middle East Technical University, Ankara, Turkey, 2007.
Co-Supervisor: Prof. Dr. Bora Yildirim, Hacettepe University.

Demircivi, B., "*Thermal Stress Intensity Factor Evaluation for Inclined Cracks in Functionally Graded Materials using J_k - Integral Method*," Middle East Technical University, Ankara, Turkey, 2006.

Sabuncuoglu, B., "*Fatigue Crack Growth Analysis Models for Functionally Graded Materials*," Middle East Technical University, Ankara, Turkey, 2006.

Sarikaya, D., "*Mixed-Mode Fracture Analysis of Orthotropic Functionally Graded Materials*," Middle East Technical University, Ankara, Turkey, 2005.

Gokay, K., "*Contact Mechanics of Graded Materials with Two-Dimensional Material Property Variations*," Middle East Technical University, Ankara, Turkey, 2005.

Inan, O., "*Three Dimensional Fracture Analysis of FGM Coatings*," Middle East Technical University, Ankara, Turkey, 2004.

Ozatag, A.C., "*Contact Mechanics of a Graded Surface with Elastic Gradation in Lateral Direction*," Middle East Technical University, Ankara, Turkey, 2003.

Co-Supervised M.S. Theses

Yeghanepoor, M., "*Computation of Stress Intensity Factors for Inclined Cracks Located in Isotropic Functionally Graded Materials Possessing Temperature Dependent Properties*," Hacettepe University, Ankara, Turkey, 2012.
Supervisor: Prof. Dr. Bora Yildirim, Hacettepe University.

Arslan, O., " *J_k -Integral Method for Hygrothermal Fracture Analysis of Uniaxial Composites*," Hacettepe University, Ankara, Turkey, 2011.
Supervisor: Prof. Dr. Bora Yildirim, Hacettepe University.

Jande, Y.A.C., "*Manufacturing and Characterization of Uniformly Porous and Graded Porous Polymeric Structures via Selective Laser Sintering*," Middle East Technical University, Ankara, Turkey, 2009.
Supervisor: Asst. Prof. Dr. Merve Erdal, Middle East Technical University.

Ozenc, K., "Finite Element Simulation of Crack Propagation for Steel Fiber Reinforced Concrete," Middle East Technical University, Ankara, Turkey, 2009.
Supervisor: Prof. Dr. I. Ozgur Yaman, Middle East Technical University.

Kutlu, O., "Computational 3D Fracture Analysis in Axisymmetric Media," Middle East Technical University, Ankara, Turkey, 2008.
Supervisor: Prof. Dr. Suat Kadioglu, Middle East Technical University.

Yilmaz, S., "Buckling Driven Delamination of Orthotropic Functionally Graded Materials," Middle East Technical University, Ankara, Turkey, 2006.
Supervisor: Prof. Dr. Suat Kadioglu, Middle East Technical University.

Sandid, M., "Contact Mechanics of an Orthotropic Graded Surface," Tunisia Polytechnic School, La Marsa, Tunisia, 2005.
Supervisor: Prof. Dr. Sami El-Borgi, Tunisia Polytechnic School.

Lajnef, N., "Surface Crack in a Functionally Graded Coating Bonded to a Homogeneous Substrate: Analytical Formulation and Numerical Results," Tunisia Polytechnic School, La Marsa, Tunisia, 2005.
Supervisor: Prof. Dr. Sami El-Borgi, Tunisia Polytechnic School.

Dimitoka, E.G., "Finite Element Investigation of Edge Cracks in Functionally Graded Thermal Barrier Coatings Under Transient Loading," Osmangazi University, Eskisehir, Turkey, 2004.
Supervisor: Prof. Dr. Bora Yildirim, Osmangazi Üniversitesi.

Caliskan, K., "Automated Design Analysis of Anti-Roll Bars," Middle East Technical University, Ankara, Turkey, 2003.
Supervisor: Prof. Dr. Y. Samim Unlusoy, Middle East Technical University.

Funded Research Projects

New Methods for Modeling and Analysis of Micro-Plates, funded by the Scientific and Technological Research Council of Turkey (TUBITAK). Project No: 213M606, 2014-2016. Principal Investigator.

Computational Methods for Hygrothermal Fracture Analysis of Advanced Materials, funded by the Scientific and Technological Research Council of Turkey (TUBITAK). Project No: 109M511, 2010-2012. Principal Investigator.

Analytical and Computational Methods for Contact Mechanics Analysis of Functionally Graded Materials, funded by the Scientific and Technological Research Council of Turkey (TUBITAK). Project No: 107M053, 2007-2009. Investigator.

Production of Graded Porous Polymeric Materials via Selective Laser Sintering Rapid Prototyping Method, funded by the Scientific and Technological Research Council of Turkey (TUBITAK). Project No: 106M437, 2007-2009. Investigator.

Fracture and Contact Mechanics of Orthotropic Functionally Graded Materials, funded by the Scientific and Technological Research Council of Turkey (TUBITAK) and Tunisian Ministry of Research and Technology (MRST). Project No: 103M076, 2004-2008. Principal Investigator.

Citations

Number of received citations: **246** (total excludes self citations of all authors)

Memberships to Professional Organizations

Nuclear Safety Advisory Committee, Turkey Atomic Energy Authority

International Advisory Committee of Functionally Graded Materials (IACFGM)

Turkey Chamber of Mechanical Engineers

Mechanical Design and Production Society

International Journal of Engineering and Applied Sciences Advisory Committee

Journal of Mechanical Design and Production Advisory Committee

Conference Organization

International Scientific Committee Member, 13th International Symposium on Multiscale, Multifunctional and Functionally Graded Materials (MM & FGM 2014), 2014, Sao Paulo, Brazil.

Scientific Committee Member, The Fourth International Conference on Advances in Mechanical Engineering and Mechanics (ICAMEM 2008), 2008, Sousse, Tunisia.

Special Session Organizer, Special Session Title "Fatigue and Fracture of Mechanical Systems," 13th International Conference on Machine Design and Production (UMTIK 2008), 2008, Istanbul, Turkey.

Organizing Committee Member, 13th International Conference on Machine Design and Production (UMTIK 2008), 2008, Istanbul, Turkey.

Scientific Committee Member, The Third International Conference on Advances in Mechanical Engineering and Mechanics (ICAMEM 2006), 2006, Hammamet, Tunisia.

Mini-Symposium Organizer, Mini-Symposium Title: "Thermal Stresses in Functionally Graded Materials," Multiscale and Functionally Graded Materials Conference (M&FGM 2006), 2006, Oahu, Hawaii, USA.

International Scientific Committee Member, Multiscale and Functionally Graded Materials Conference (M&FGM 2006), 2006, Oahu, Hawaii, USA.

Organizing Committee Member, 12th International Conference on Machine Design and Production (UMTIK 2006), 2006, Kusadasi, Turkey.

Special Session Organizer, Special Session Title: "Fatigue and Fracture of Mechanical Systems," 12th International Conference on Machine Design and Production (UMTIK 2006), 2006, Kusadasi, Türkiye.

Memberships in University Committees

Current Memberships

METU Graduate School of Natural and Applied Sciences Administrative Committee

METU Faculty of Engineering Education Committee

METU ME Department Graduate Education Committee

Previous Memberships

METU ME Department Undergraduate Education Committee

METU ME Department Ph.D. Education Committee

METU ME Department Student Exchange Programs Coordinator

Refereeing

Acta Mechanica

Advanced Material Letters

Applied Mathematical Modelling

Archives of Mechanics

Composites Science and Technology

Engineer and Machinery

Engineering Fracture Mechanics

European Journal of Mechanics - A/Solids

Finite Elements in Analysis and Design

International Journal of Design Engineering

International Journal of Engineering

International Journal of Mechanical Sciences

International Journal of Solids and Structures

Journal of Applied Mechanics - Transactions of the ASME

Journal of Composite Materials

Journal of Engineering Mathematics
Journal of Intelligent and Robotic Systems
Journal of King Abdul Aziz University - Engineering Sciences
Journal of Mechanical Design and Production
Journal of Mechanics of Materials and Structures
Journal of the Faculty of Engineering and Architecture of Gazi University
Meccanica
Mechanics of Advanced Materials and Structures
Proceedings of the Royal Society A
Structural Engineering and Mechanics
The Arabian Journal for Science and Engineering
Theoretical and Applied Fracture Mechanics
Turkish Journal of Engineering and Environmental Sciences
Zeitschrift für Angewandte Mathematik und Mechanik

Courses Taught Since 2008

Academic Year	Semester	Course Title	Weekly Hours		Number of Students
			Lectures	Lab	
2008-2009	Fall	Analytical Methods in Engineering I	3	0	32
		Theory of Elasticity	3	0	44
	Spring	Applied Mathematics for Mechanical Engineers	3	0	46
		Engineering Fracture Mechanics	3	0	21
2009-2010	Fall	Statics	3	0	47
		Theory of Elasticity	3	0	50
	Spring	Applied Mathematics for Mechanical Engineers	3	0	64
		Engineering Fracture Mechanics	3	0	19
2010-2011	Fall	Statics	3	0	62
		Analytical Methods in Engineering I	3	0	51
	Spring	Statics	3	0	61
		Engineering Fracture Mechanics	3	0	11
2011-2012	Fall	Analytical Methods in Engineering I	3	0	59
		Theory of Elasticity	3	0	42
	Spring	Analytical Methods in Engineering I	3	0	36
		Engineering Fracture Mechanics	3	0	31
2012-2013	Fall	Statics	3	0	62
		Engineering Fracture Mechanics	3	0	12
	Spring	Dynamics	3	0	60
		Analytical Methods in Engineering I	3	0	16
2013-2014	Fall	Statics	3	0	59
		Analytical Methods in Engineering I	3	0	31
	Spring	Dynamics	3	0	45
		Engineering Fracture Mechanics	3	0	26

PUBLICATIONS

A. International Journal Articles

A1. Jande, Y.A.C., Erdal, M., Dag, S., 2014. Production of graded porous polyamide structures and polyamide-epoxy composites via selective laser sintering. *Journal of Reinforced Plastics and Composites* 33, 1017-1036.

A2. Aghazadeh, R., Cigeroglu, E., Dag, S., 2014. Static and free vibration analyses of small-scale functionally graded beams possessing a variable length scale parameter using different beam theories. *European Journal of Mechanics - A/Solids* 46, 1-11.

A3. Topal, S., Dag, S., 2013. Hygrothermal fracture analysis of orthotropic functionally graded materials using Jk-integral-based methods. *Mathematical Problems in Engineering* 2013, Article ID 315176.

A4. Dag, S., Yildirim, B., Topal, S., 2013. Computational methods for inclined cracks in orthotropic functionally graded materials under thermal stresses. *Journal of Thermal Stresses* 36, 1001-1026.

A5. Dag, S., Guler, M.A., Yildirim, B., Ozatag, A.C., 2013. Frictional Hertzian contact between a laterally graded elastic medium and a rigid circular stamp. *Acta Mechanica* 224, 1773-1789.

A6. Dag, S., Yildirim, B., Arslan, O., Arman, E.E., 2012. Hygrothermal fracture analysis of orthotropic materials using Jk-integral. *Journal of Thermal Stresses* 35, 596-613.

A7. Sabuncuoglu, B., Dag, S., Yildirim, B., 2012. Three dimensional computational analysis of fatigue crack propagation in functionally graded materials. *Computational Materials Science* 52, 246-252.

A8. Dag, S., Apatay, T., Guler, M.A., Gulgeç, M., 2012. A surface crack in a graded coating subjected to sliding frictional contact. *Engineering Fracture Mechanics* 80, 72-91.

A9. Dag, S., Arman, E.E., Yildirim, B., 2010. Computation of thermal fracture parameters for orthotropic functionally graded materials using Jk- integral. *International Journal of Solids and Structures* 47, 3480-3488.

A10. Dag, S., Guler, M.A., Yildirim, B., Ozatag, A.C., 2009. Sliding frictional contact between a rigid punch and a laterally graded elastic medium. *International Journal of Solids and Structures* 46, 4038-4053.

A11. Dag, S., Yildirim, B., 2009. Computation of thermal fracture parameters for inclined cracks in functionally graded materials using Jk-integral. *Journal of Thermal Stresses* 32, 530-556.

A12. Dag, S., Ilhan, K.A., 2008. Mixed-mode fracture analysis of orthotropic functionally graded material coatings using analytical and computational methods. *Journal of Applied Mechanics - Transactions of the ASME* 75, paper no: 051104.

A13. Dag, S., Yildirim, B., Sarikaya, D., 2007. Mixed-mode fracture analysis of orthotropic functionally graded materials under mechanical and thermal loads. *International Journal of Solids and Structures* 44, 7816-7840.

A14. Dag, S., 2007. Mixed-mode fracture analysis of functionally graded materials under thermal stresses: A new approach using J_k - integral. *Journal of Thermal Stresses* 30, 269-296.

A15. El-Borgi, S., Abdelmoula, R., Dag, S., Lajnef, N., 2007. A surface crack in a graded coating bonded to a homogeneous substrate under general loading conditions. *Journal of Mechanics of Materials and Structures* 2, 1331-1353.

A16. Dag, S., 2006. Thermal fracture analysis of orthotropic functionally graded materials using an equivalent domain integral approach. *Engineering Fracture Mechanics* 73, 2802-2828.

A17. Yildirim, B., Dag, S., Erdogan, F., 2005. Three dimensional fracture analysis of FGM coatings under thermomechanical loading. *International Journal of Fracture* 132, 369-395.

A18. Inan, O., Dag, S., Erdogan, F., 2005. Three dimensional fracture analysis of FGM coatings. *Materials Science Forum* 492-493, 373-378.

A19. Dag, S., Yildirim, B., Erdogan, F., 2004. Interface crack problems in graded orthotropic media: Analytical and computational approaches. *International Journal of Fracture* 130, 471-496.

A20. Dag, S., Erdogan, F., 2002. A surface crack in a graded medium under general loading conditions. *Journal of Applied Mechanics - Transactions of the ASME* 69, 580-588.

A21. Dag, S., Erdogan, F., 2002. A surface crack in a graded medium loaded by a sliding rigid stamp. *Engineering Fracture Mechanics* 69, 1729-1751.

A22. Dag, S., Kadioglu, S., Yahsi, O.S., 1999. Circumferential crack problem for an FGM cylinder under thermal stresses. *Journal of Thermal Stresses* 22, 659-687.

A23. Kadioglu, S., Dag, S., Yahsi, S., 1998. Crack problem for a functionally graded layer on an elastic foundation. *International Journal of Fracture* 94, 63-77.

B. National Journal Articles

B1. Apatay, T., Dag, S., Guler, M.A., Gulgeç, M.A., 2010. Subsurface contact stresses in functionally graded coatings loaded by a frictional flat stamp. *Journal of the Faculty of Engineering and Architecture of Gazi University* 25, 611 - 623. (in Turkish)

B2. Dag, S., Fıçıcı, F., Genis, K., 2007. Finite element analysis of fatigue and fracture problems in construction machinery. *Engineer and Machinery* 48, 3 - 5. (in Turkish)

B3. Sabuncuoğlu, B., Dag, S., Yildirim, B., 2005. Fatigue crack growth simulation using the finite element method. *Journal of Machine Design and Production* 7, 87 - 95. (in Turkish)

B4. Yildirim, B., Dag, S., 2003. Modeling of interface cracks using enriched elements and the four point bending test. *Journal of Machine Design and Production* 5, 55 -67. (in Turkish)

C. International Conference Papers

- C1.** Topal, S., Dag, S., 2014. Mixed-mode hygrothermal fracture analysis of orthotropic functionally graded materials using J-integral. Proceedings of the ASME 12th Biennial Conference on Engineering Systems Design and Analysis, Copenhagen, Denmark, paper no ESDA 2014-20011.
- C2.** Kocer, B., Yazicioglu, Y., Dag, S., 2010. On the generation of a loading history with zero mean for structures subjected to multiaxial variable stresses. Proceedings of the 9th International Conference on Multiaxial Fatigue and Fracture, Parma, Italy, pp. 211-218.
- C3.** Erdal, M., Dag, S., Jande, Y., Tekin, C.M., 2010. Manufacturing of functionally graded porous products by selective laser sintering. Proceedings of the 10th International Symposium on Multiscale, Multifunctional and Functionally Graded Materials, Sendai, Japan, pp. 253-258.
- C4.** Kosker, S., Dag, S., Yildirim, B., 2010. Three dimensional modeling of inclined surface cracks in FGM coatings. Proceedings of the 10th International Symposium on Multiscale, Multifunctional and Functionally Graded Materials, Sendai, Japan, pp. 109-114.
- C5.** Guler, M.A., Gulver, Y.F., Dag, S., 2010. Mechanical modeling of thin films bonded to functionally graded materials. Proceedings of the 10th International Symposium on Multiscale, Multifunctional and Functionally Graded Materials, Sendai, Japan, pp. 333-338.
- C6.** Kosker, S., Dag, S., Yildirim, B., 2008. Three dimensional analysis of oblique surface cracks in functionally graded materials. Proceedings of the 13th International Conference on Machine Design and Production, İstanbul, Turkey, vol. 1, pp. 443-451.
- C7.** Ontac, S., Dag, S., Gokler, M.I., 2007. Structural finite element analysis of stiffened and honeycomb panels of the RASAT satellite. IEEE Proceedings of the 3rd International Conference on Recent Advances in Space Technologies, İstanbul, Turkey, pp. 171-175.
- C8.** Dag, S., Yildirim, B., Sabuncuoglu, B., 2006. Elliptical cracks in functionally graded materials under repeated loading. CD Proceedings of the 3rd International Conference on Mechanical Engineering and Mechanics, Hammamet, Tunisia.
- C9.** Yildirim, B., Dag, S., 2006. Modified J-integral for fracture analysis of functionally graded materials under thermal stresses. CD Proceedings of the 3rd International Conference on Mechanical Engineering and Mechanics, Hammamet, Tunisia.
- C10.** El-Borgi, S., Abdelmoula, R., Dag, S., Lajnef, N., 2006. A surface crack in a graded coating bonded to a homogeneous substrate under general loading conditions. CD Proceedings of the 3rd International Conference on Mechanical Engineering and Mechanics, Hammamet, Tunisia.
- C11.** Dag, S., 2006. Contact mechanics of graded materials: Analyses using singular integral equations. Proceedings of the International Conference FGM IX, Oahu Island, Hawaii, USA, pp. 820-825.
- C12.** Dag, S., Yildirim, B., Erdogan, F., 2006. Three dimensional analysis of periodic cracking in FGM coatings under thermal stresses. Proceedings of the International Conference FGM IX, Oahu Island, Hawaii, USA, pp. 676-681.

C13. Dag, S., Sabuncuoglu, B., Yildirim, B., 2006. Fatigue crack growth analysis models for functionally graded materials. Proceedings of the International Conference FGM IX, Oahu Island, Hawaii, USA, pp. 423-428.

C14. Dag, S., Ilhan, K.A., Erdogan, F., 2006. Mixed-mode stress intensity factors for an embedded crack in an orthotropic FGM coating. Proceedings of the International Conference FGM IX, Oahu Island, Hawaii, USA, pp. 16-21.

C15. Guler, M.A., Erdogan, F., Dag, S., 2006. The frictional contact problem of sliding rigid parabolic stamps on graded materials. Proceedings of the International Conference FGM IX, Oahu Island, Hawaii, USA, pp. 784-789.

C16. Guler, M.A., Erdogan, F., Dag, S., 2006. Modeling of thin films and cover plates bonded to graded substrates. Proceedings of the International Conference FGM IX, Oahu Island, Hawaii, USA, pp. 790-795.

C17. Sabuncuoglu, B., Dag, S., Yildirim, B., 2006. A computational procedure for fatigue crack growth simulation in functionally graded materials. Proceedings of the 12th International Conference on Machine Design and Production, Kuşadası, Turkey, pp. 201-215.

C18. Dag, S., Yildirim, B., Sarikaya, D., 2006. Mixed-mode fracture analysis of orthotropic functionally graded materials. CD Proceedings of the 16th European Conference of Fracture, Alexandroupolis, Greece.

C19. Dag, S., Yildirim, B., Erdogan, F., 2005. Three dimensional fracture analysis of FGM coatings using temperature dependent thermomechanical properties. Proceedings of the 6th International Congress on Thermal Stresses, Vienna, Austria, vol. 2, pp. 725-728.

C20. Yildirim, B., Dag, S., Erdogan, F., 2005. Steady-state heat conduction in orthotropic functionally graded materials containing cracks: Analytical and computational techniques. Proceedings of the 6th International Congress on Thermal Stresses, Vienna, Austria, vol. 2, pp. 517-520.

C21. Dag, S., El-Borgi, S., Erdogan, F., 2005. Partial closure analysis of a surface crack in a graded medium loaded by a frictional flat stamp. CD Proceedings of the 11th International Conference on Fracture, Turin, Italy.

C22. Dag, S., Erdogan, F., 2001. Coupled crack/contact problems in functionally graded materials. Proceedings of the 3rd International Fracture Conference, Elazığ, Turkey, pp. 27-34.

C23. Erdogan, F., Dag, S., 2000. Crack and contact problems in functionally graded materials. Proceedings of the 6th International Symposium on Functionally Graded Materials, Estes Park, Colorado, USA, pp. 739-746.

D. National Conference Papers

D1. Guler, M.A., Gulver, Y.F., Dag, S., 2008. Mechanical modeling of thin films bonded to functionally graded materials. Proceedings of the 5th International Powder Metallurgy Conference, Ankara, Turkey, pp. 369 - 378. (in Turkish)

D2. Dag, S., Sabuncuoglu, B., Yildirim, B., 2005. Fatigue crack growth simulation using ANSYS. Proceedings of the Conference on Computer Aided Design and System Modeling, İstanbul, Turkey.

D3. Dag, S., Fıçıcı, F., Genis, K., 2005. Analysis of fatigue and fracture problems in construction machinery using the finite element method. Proceedings of the TMMOB Chamber of Mechanical Engineers 2nd Symposium and Exhibition on Construction Machinery, İstanbul, Turkey, pp. 369 - 375. (in Turkish)

D4. Sabuncuoğlu, B., Dag, S., Yildirim, B., 2004. Fatigue crack propagation in functionally graded materials. Proceedings of the 14th National Mechanics Congress, Hatay, Turkey, pp. 717 - 725. (in Turkish)

D5. Dimitoka, E.G., Yildirim, B., Dag, S., 2004. Finite element analysis of edge cracks in thermal barrier coatings subjected to transient loading. Proceedings of the Symposium on Advanced Technologies and Applications in Aerospace, İstanbul, Turkey, pp. 79 - 87. (in Turkish)

D6. Caliskan, K., Unlusoy, Y.S., Dag, S., 2004. Automated design analysis of automobile anti - roll bars. Proceedings of the Automotive Technologies Congress, Bursa, Turkey, pp. 205 - 212. (in Turkish)

E. International Conference Presentations

E1. Aghazadeh, R., Cigeroglu, E., Dag, S., 2014. Strain gradient elasticity analyses of small-scale functionally graded beams by considering spatial variations in length scale parameters. *1st International Conference on Mechanics of Composites*, Stony Brook University, New York, USA.

E2. Dag, S., Yildirim, B., Arslan, O., 2011. Computational hygrothermal fracture analysis of unidirectional composite laminates using J-integral. *11th US National Congress on Computational Mechanics*, Minneapolis, Minnesota, USA.

E3. Sabuncuoğlu, B., Dag, S., 2010. Three dimensional fatigue crack growth analysis of functionally graded materials. *20th International Workshop on Computational Mechanics of Materials*, Loughborough, United Kingdom.

E4. Apatay, T., Dag, S., Guler, M.A., Gulgeç, M., 2010. Subsurface stresses in an FGM coating loaded by a sliding flat punch. *4th European Conference on Computational Mechanics, Mini-symposium on Fracture and Contact Mechanics for Interface Problems*, Paris, France.

E5. Dag, S., Yildirim, B., 2008. Evaluation of thermal fracture parameters for inclined cracks in functionally graded materials using J_k-integral. *The Mechanics Conference to Celebrate the 100th Anniversary of the Department of Engineering Science and Mechanics*, Blacksburg, Virginia, USA.

E6. Guler, M.A., Dag, S., Yildirim, B., 2007. Contact mechanics of laterally graded materials. *9th US National Congress on Computational Mechanics*, San Francisco, California, USA.

E7. Dag, S., Yildirim, B., 2003. Contact mechanics of a graded surface with elastic gradation in lateral direction. *USA/North African Material Research Society Workshop on Material Science and Engineering*, Monastir, Tunisia.

E8. Erdogan, F., Dag, S., 2002. Surface cracking of graded materials due to sliding contact. *The Japanese Society of Mechanical Engineers 55th General Meeting*, Kitakyushu City, Japan.

E9. Erdogan, F., Dag, S., 2001. Crack initiation and growth in graded materials due to sliding contact. *10th International Conference on Fracture*, Honolulu, Hawaii, USA.

E10. Erdogan, F., Dag, S., Guler, M.A., 2000. Contact and crack problems in functionally graded materials. *20th International Congress of Theoretical and Applied Mechanics*, Chicago, Illinois, USA.

E11. Dag, S., Kadioglu, S., Yahsi, O.S., 1999. Crack problems for a functionally graded layer on an elastic foundation under thermal stresses. *Symposium on Problems in Mechanics and Applied Mathematics in Honor of Professor Fazil Erdogan*, Bethlehem, Pennsylvania, USA.

F. National Conference Presentation

F1. Kutlu, O., Kadioglu, S., Dag, S., 2009. Computational fracture analysis of hollow cylinders. 16th National Mechanics Congress, Kayseri, Turkey.