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Research Interest: Fracture Mechanics, Advanced Composite Materials, materials, Ballistics

Selected Publications

1. F.Elaldı and Ö.Vardar, “Çentik Geometrisinin Cam Elyaf Takviyeli Polyesterin Kırılma Davranışına Etkisi”, *İkinci Ulusal Kırılma Konferansı Bildirileri*, M. Doruk, Eds., P.117-125, Trabzon, 1-3 Temmuz, 1987
2. F.Elaldı, S.Lee And R.F.Scott, “Manufacture of Composite Panels With J-Shape Stiffeners”, *J.of Materials and Manufacturing Processes*, Vol.10, No. 1, P.27-36, 1995
3. S.Lee, F.Elaldı, H.Villalobos, And R.F.Scott, “Design And Manufacture of Stiffened Composite Panels”, *J.of Science And Engineering of Composite Materials*, Vol. 4, No. 2, 1995
4. S.Lee, F.Elaldı, H.Villalobos, and R.F.Scott, "Experimental and Analytical Study of J-Stiffened Panels Loaded in Axial Compression", *Metal Matrix Composites*, Vol. 6, P.519, 1993
5. M.Akçay And F.Elaldı, “Experimental Investigation of Effects of Explosive Length And Stand Off Distance On Shaped Charges”, *Turkish J.of Engineering And Environmental Sciences*, TUBİTAK, Vol. 21, P.285-287, Ankara, 1997
6. F.Elaldı And M.Akçay, “Design and Testing of Recoil Mechanism Used For Self Propelled Howitzers”, *ARI The Bulletin of The Technical University of Istanbul*, Vol. 49, P.d301-316, 1996
7. F.Elaldı, “A Design Analysis For J-Stiffened Composite Panels ”, *Journal of The Institute of Science And Technology*, Gazi University, Vol. 9, No.3, P.393, Ankara, 1996

8. F.Elaldı and M. Akçay, “Proje Yönetiminde Bir Model-Ömür Devir Modeli”, *Türk Silahlı Kuvvetleri Dergisi*, Sayı.2, Nisan 1995,
9. F.Elaldı, S.Lee and R.F. Scott, “Processing and Environmental Effects on Mechanical Properties of Composite Repairs”, LTR-ST-1826, *Laboratory Technical Report of National Research Council Canada of Institute for Aerospace Research*, Ottawa, Canada, May 1991,
10. F.Elaldı, S.Lee and R.F. Scott, “Design, Fabrication and Compression Testing of Stiffened Composite Panels for Aircraft Structures”, LTR-ST-1872, *Laboratory Technical Report of National Research Council Canada of Institute for Aerospace Research*, Ottawa, Canada, April 1992,
11. S. Aleçakır and F. Elaldı, “Damage Tolerance of Stiffened Composite Panels with Cutouts”, *NATO/RTO (AVT) Technical Report*, Ankara, Turkey, 2003
12. F.Elaldı, S.Lee And R.F.Scott, “A Review Of Design And Manufacturing Methodologies For Stiffened Composite Panels Used In Aircraft”, *Airframe Materials*, R.T.Holt And S.Lee, Eds., *Proceedings Of A Symposium Held During The 30th. Annual CIM Conference Of Metallurgists*, P.103, Ottawa, Canada, 1991
13. S.Lee, F.Elaldı, H.Villalobos, And R.F.Scott, “Experimental And Analytical Study Of J-Stiffened Composite Panels Loaded In Axial Compression”, *Composite Properties And Applications*, A.Miravete, Eds., *Proceedings Of The Ninth Int. Conf. On Composite Materials, ICCM-9*, Madrid, Spain, 12-16 July 1993.
14. F.Elaldı, S.Lee And R.F.Scott, “Scarf Joint Technique With Cocured And Precured Patches For Composite Repair”, *Composite Repair Of Military Aircraft Structures*, AGARD-CP-550, *Proceedings Of The 79th. Meeting Of The AGARD Structures and Materials Panel*, Seville, Spain, 3-5 October, 1994, published in 1995, ISBN-92-836-0010-X/AD-A293056
15. F.Elaldı, S.Lee And R.F.Scott, “ Manufacture of Composite Panels With J-Stiffeners”, CANCOM’93, *Second Canadian International Composites Conference and Exhibition*, Ottawa, Ontario, Canada, September 1993
16. F.Elaldı, “Fabrication And Testing Of Filament Winded Composite Bore Evacuator Chambers For Self Propelled Howitzer Cannons”, presented for presentation at *ESDA Third Biennial European Joint Conference/ASME on Engineering Systems Design And Analysis*, July 1-4, 1996, Montpellier, France
17. F.Elaldı And S.Lee, “Structural Efficiency of Different Assembly Methods For Stiffened Composite Panels: Cocuring And Secondary Bonding”, Bolted/Bonded Joints in Polymeric Composites, CP-590, *AGARD/SMP*

Specialists' Meeting, 2-6 September, Florence, Italy, 1996, published in 1997, ISBN-92-836-1046-6

18. F. Elaldı, "Artillery Automation", presented at *AFCEA Symposium on Digital Battlefield*, TAFF&AFCEA, Ankara, Turkey, 29-30 September 1999
19. F.Elaldı, "Navigation Sensor Systems Use in Artillery Systems to Improve the Accuracy", *NATO SET Panel Symposium on Emerging Military Capabilities Enabled by Advances in Navigation Sensors*, İstanbul, Turkey, 14-16 October 2002, RTO Meeting Proceedings MP-093, SET-050, published in 2003
20. F.Elaldı, "Yönetmelik Değişiklikleri ve Savunma Sanayii", *Uluslararası Yönetim ve Askerlik Sempozyumu*, Kara Harp Okulu, Ankara, Türkiye, 26-27 Mayıs 2005
21. F.Elaldı, "An Overview for Structural Health Monitoring of Composites in Aerospace Applications", *2nd International Conference on Recent Advances in Space Technologies/RAST2005*, Space in the Service of Society, Istanbul, Turkey, 9-11 June 2005
22. F.Elaldı, "Zırh Malzemelerindeki Gelişmeler", *Savunma Sanayiindeki Teknolojik Gelişmeler Sempozyumu*, Kara Harp Okulu, Cilt 2, P.773-784, Ankara, 5-6 Haziran 1997
23. U. Durak, K. Dayanç, F. Elaldı ve Ö. Anlağan, "Topçu Roketlerinin Atış Kontrol Sistemleri için Yeni Nesil Balistik Çözücü", *Birinci Ulusal Savunma Uygulamaları Modelleme ve Simülasyon Konferansı/USMOS 2005*, ODTÜ Kongre Merkezi, Ankara, 2-3 Haziran 2005
24. F.Elaldı And S.Aleçakır, "Damage Tolerance of Stiffened Composite Panels With Cutouts", *J. of Reinforced Plastics and Composites*, Vol.25, No.13, P.1341, 2006
25. F.Elaldı, "The Effects of a Cutout and Stacking Sequences on the Buckling Behavior of Composite Panels", *Advances in Composite materials and Structures, Key Engineering Materials*, Vol. 334–335, Part-1, P.520-524, 2007
26. F.Elaldı, "Design, Fabrication and Finite Element Analysis of Hat-Stiffened Panel Under Uni-Axial Compression", *The Third International Conference on Structural Engineering, Mechanics and Computation*, Cape Town, S. Africa, Proceeding of the Recent Developments in Structural Engineering, Mechanics and Computation, P.349, 10–12 September 2007
27. F.Elaldı, "Buckling, Post-Buckling and Failure Analysis of Hat Stiffened Composite Panel", *8th International Fracture Conference*, Istanbul, Turkey, P. 338–345, 7–9 November 2007.

28. F.Elaldi, "Post-buckling Design Analysis of J and Hat Stiffened Composite Panels", *6th Asia-Australasian Conference on Composite Materials*, Kumamoto, Japan, Proceeding of Progress of Composites, P.307–310, September 2008
29. F.Elaldi and L. Colak, "Buckling and Post-Buckling Behavior of Compression Loaded Composite Panels with Hat Stiffeners", *J. of Reinforced Plastics and Composites*, Vol.28, No.20, Pages: 2501-2509, 2009
30. Prof. Dr. Faruk Elaldı, Prof. Dr. Berna Dengiz, Prof. Dr. Birol Kılık, Y. Doç. Dr. Levent Çolak, "Sektörler Arası Tümlenik, Sürdürülebilir Enerji Politikalarının Geliştirilmesinde Yeni Bir Yol Haritası Ve Örnek Model" Türkiye 11. Enerji Kongresi, İzmir, 21-23 Ekim 2009
31. F.Elaldi, "Post-buckling Strength and Structural Efficiency of Open and Closed-section Stiffened Composite panels", *15th International Conference on Composite Structures, ICCS15*, Porto, Portugal, June 2009
32. F.Elaldi, "Structural Efficiency and Post-Buckling Strength of J and Hat Stiffened Composite Panels", *J. of Reinforced Plastics and Composites*, Vol.29, No.10, Pages: 1590-1594, 2010
33. N.E. İpek and F.Elaldı, "The effects of welding groove angle and geometry on mechanical properties of armor steel", *63rd Annual Assembly & International Conference of the International Institute of Welding*, Istanbul, Turkey, 11-17July 2010
34. F. Cogun, F. Alkan and F.Elaldi, "Design, Manufacture and Implementation of Sheet Metal Hydroforming System, *6th International Conference and Exhibition on Design and Production of Machines and Dies/Molds*, Ankara, Turkey, 23-26 June 2011
35. F.Elaldi and P. Elaldi, "A study on Curing Process and Environmental Effects for Rapid Composite repair", *J. of Reinforced Plastics and Composites*, Vol. 30, No. 9, Pages: 749-755, DOI: 10.1177/0731684411403021, May 2011
36. F. Elaldi and P. Elaldi, "Processing and Environmental Effects on Composite Repairs", *Materials and Manufacturing Processes*, Vol. 27, No 3, Pages: 255-259, 2012 DOI: 10.1080/10426914.2011.577873
37. F. Elaldi, "Processing And Environmental Effects On Mechanical Properties Of Composite Repairs", *The Nineteenth Annual International Conference on Composites/Nano Engineering (ICCE-19)*, Shanghai, China, July 24-30 2011

38. Y. Tansel □ç, F.Elaldi, F. Pakdil, N.E. □pek, “Design of Experiment and Goal Programming Application for GMAW Process”, *Welding Journal*, Vol. 91, Pages: 106-112, April 2012
39. F. Elaldi, “Structural Performance Efficiency Of Different Assembly Methods For Stiffened Composite Panels”, *J. Fac. Eng. Arch. Gazi Univ.* Vol 27, No 1, 41-48, 2012

BOOK

1. Weapon Systems and Ballistics Ankara, 1990.
2. Handbook of Composite Fabrication, G. Akovalı, Editor, “Chapter 7, Machining and Joining Processes”, Chapter Author, RAPRA Technology Ltd., ISBN 1-85957-263-4, Shawbury, UK, 2001

GIVEN COURSES:

MS and PhD

- *Alloys:*
- *Mechanical Behavior of Materials:*
- *Fracture Mechanics:*
- *Mechanics of Composite materials*

BS

- *Strength*
- *Manufacturing Technologies*
- *Mechanical metallurgy*
- *Manufacturing Engineering*
- *Weapon Systems and Ballistics*
- *Materials Science*