

**Doç. Dr. Ferhat KADIOGLU**

**Address:** Cukurambar Mahallesi 1435.  
Sokak Acelya Apt. No: 2/27

06510 Ankara TURKEY

Email : [ferkadioglu@gmail.com](mailto:ferkadioglu@gmail.com)

fkadioglu@ybu.edu.tr

## **PERSONAL DATA**

## **ACADEMIC QUALIFICATIONS**

**2008** Post-Doc., Engineering Science Department, Oxford University, Oxford, UK

**2000** Ph.D., Mechanical Engineering, University of Bristol, Bristol, UK.

**1997** M.S., Mechanical Engineering, University of Bristol, Bristol, UK.

**1994** B.S., Mechanical Engineering, Gaziantep University, Gaziantep, Turkey.

## **INTERESTS**

My interest focuses on applied mechanics based on aerospace materials, polymer matrix composites, sandwich structures, structural adhesives, adhesive joints and hybrid joints. I use both experimental and also numerical techniques. The materials under quasi-static, vibration and impact conditions are investigated.

## **TECHNICAL SKILLS/EXPERIENCES**

- Over five years of experience working on glass fibre reinforced composite pipes. Having close contact with Turkish Aerospace Industry and Car Industry (FIAT)
- Being a referee for industry oriented projects for many years (appointed by the Scientific and Technological Research Council of Turkey)
- Windows Tools: Microsoft Office 2011 Programs, Microsoft Visio, and Adobe Photoshop
- Professional Software: ANSYS, ABAQUS, Corel Draw

## **PUBLICATIONS**

### **A. International Journal Publications:**

A1. Kadioglu, F., Adams, R. D. and Guild, F. J., "The Shear Stress-Strain Behaviour of Low-modulus Structural Adhesives", *Journal of Adhesion*, 73 (2-3), 117-133 (2000).

A2. Kadioglu, F. and Adams, R. D., "Tensile Stress-Strain Behaviour of a Bonding Tape", *Journal of Adhesion Science and Technology*, 16 (2), 179-195 (2002).

A3. Kadioglu, F., Vaughn, L.F., Guild, F. J. and Adams, R.D. , "Use of the Thick Adherend Shear Test for Shear Stress-Strain Measurements of Stiff and Flexible Adhesives", *Journal of Adhesion*, 78 (5), 355-381 (2002).

A4. Kadioglu, F., "Some Considerations on the Adhesively-Bonded Joints under Environmental Conditions", *Journal of Advanced Materials*, 35 (2), 61-65 (2003).

A5. Kadioglu, F, Ozel A. Sadeler, R. and Adams, R. D., "The Strength in the Weakness", *Journal of Advanced Materials*, 35 (3), 47-51 (2003).

A6. Kadioglu, F. and Adams R. D., "The Lap Joint Performance of a Structural Bonding Tape", *Journal of Advanced Materials*, 36 (2), 22-26 (2004).

A7. Ozel, A., Kadioglu, F., Şen, S. and Sadeler, R., "Finite Element Analysis of Adhesive Joints in Four Point Bending Load", *Journal of Adhesion*, 79, 683-697 (2003).

A8. Kadioğlu, F. and Es-Souni, M., "Use of Thin Adherends in Adhesively Bonded Joints under Different Loading Modes", *Science and Technology of Welding and Joining*, 8 (6), 437-442 (2003).

A9. Kadioğlu, F., Es-Souni, M. and Hınıslioglu, S., "The effect of temperature increase on the stress concentrations of adhesive joints", *Journal of Advanced Materials*, 37 (3), 21-25 (2005).

A10. Kadioglu, F., "Measurement of dynamic properties of composites in vibration by means of a non-contact mechanism", *Journal of Reinforced Plastics and Composites*, 28 (12), 1459-1467 (2009).

- A11. Kadioglu, F. and Adams R. D., “Application of vibrating beam method to determine dynamic properties of flexible adhesives”, *Journal of Reinforced Plastics and Composites*, 28 (22), 2717-2727 (2009).
- A12. Kadioglu, F. and Adams R. D., “Non-linear analysis of a ductile adhesive in the single lap joint under tensile loading”, *Journal of Reinforced Plastics and Composites*, 28 (23), 2831-2838 (2009).
- A13. Kadioglu, F. and Adams R. D., “Flexible adhesives for automotive application under impact loading”, *International Journal of Adhesion & Adhesives*, 56 73–78 (2015).
- A14. Kadioglu, F. and Adams, R. D., “Investigation of the glass transition temperature and damping of an acrylic/epoxy bonding tape using the peak damping method”, *Journal of Adhesion*, under publication.
- A15. Kadioglu, F. and Adams R. D., “Investigation of the glass transition temperature and damping of an acrylic/epoxy bonding tape using the peak damping method”, *Journal of Adhesion*, 94(13), 1067-1081.
- A16. El Zaroug, M., Kadioglu, F., Demiral, M. and Saad, D., “Experimental and numerical investigation into strength of bolted, bonded and hybrid single lap joints: Effects of adherend material type and thickness”, *International Journal of Adhesion and Adhesives*, 87, 130-141 (2018).
- A17. Demiral, M. and Kadioglu, F., “Failure behaviour of the adhesive layer and angle ply composite adherends in single lap joints: A numerical study”, *International Journal of Adhesion and Adhesives*, 87, 130-141 (2018).
- A18. Kadioglu, F., Avil, E., Ercan, M. E. and Aydogan, T., “Effects of overlap length on the strength of bolted, bonded and hybrid single lap joints with different adherend materials and thicknesses”, *Journal of Materials Science and Engineering A* 8 (3-4) 76-83 (2018).
- A19. Kadioglu, F., El Zaroug, M. and Demiral, M., “Experimental and numerical investigation into strength of bolted, bonded and hybrid single lap joints: Effects of adherend material type and thickness”, *Journal of Adhesion Science and Technology*,  
<https://doi.org/10.1080/01694243.2019.1623966>
- A20. Kadioglu, F. and Demiral, M., “Failure behaviour of the single lap joints of angle-ply composites under three point bending tests”, *Journal of Adhesion Science and Technology*,  
<https://doi.org/10.1080/01694243.2019.1674101>
- A21. Avil, E., Kadioglu, F. and Kaynak C., "Contribution of carbon nanotubes to vibration damping behavior of epoxy and its carbon fiber composites", *Journal of Reinforced Plastics and Composites*, to be published.

## **B. International Conference Publications:**

- B1. Kadioglu F, Guild, F. J. and Adams R. D. "The use of structural bonding tape as a structural adhesive", Adhesion'99, 177-181, Churchill College, Cambridge, England, 1999.
- B2. Adams, R. D. and Guild, F. J. and Kadioglu, F., "The strength of joints in tensile lap shear using very ductile but structural adhesives", Palais Des Congres De Lyon, France, September 18-21, 2000.
- B3. Ozel, A and Kadioglu, F., "Non-linear analysis of adhesively bonded single lap joint in bending load", The 10th International Conference on Machine Design and Production, 279-289, Kapadokya, Turkey, 2002.
- B4. Kadioglu, F. Adams R.D., "Impact Performance of a Structural Bonding Tape", SAMPE 2008 - Long Beach, CA, USA, May 18 - 22, 2008.
- B5. El zaroug, M.Kadioglu, F. Saad, D. and Demiral, M., "Some parameters on the hybrid joints under tensile loading, Porto, July 6-7, 2017.
- B6. Kadioglu, F., Sekerci, H.U. and Coskun, T., "A Novel method to measure dynamic properties of composite materials", 2018 AIAA/ASCE/AHS/ASC Structures, Structural Dynamics, and Materials Conference, AIAA SciTech Forum, (AIAA 2018- 0226), Florida, USA, 8-12 January, 2018.
- B7. Kadioglu, F., Demiral, M., Avil, E., Ercan, M.E. and Aydogan, T., "Performance of adhesively-bonded Joints of laminated composite materials under different loading modes," 2018 AIAA/ASCE/AHS/ASC Structures, Structural Dynamics, and Materials Conference, AIAA SciTech Forum, (AIAA 2018- 0222), Florida, USA, 8-12 January, 2018.
- B8. Elfarra, M., Kaya, M. and Kadioglu, F., "A Parametric CFD study for the effect of spanwise parabolic chord distribution on the thrust of an untwisted helicopter rotor blade", 2018 AIAA Aerospace Sciences Meeting, AIAA SciTech Forum, (AIAA 2018-1795), Florida, USA, 8-12 January, 2018.
- B9. Kaya, M., Elfarra, M. and Kadioglu, F., "A Parametric CFD study for the effect of taper/twist stacking point location on the torque of NREL VI wind turbine rotor blade", 2018 Wind Energy Symposium, AIAA SciTech Forum, (AIAA 2018-1496), Florida, USA, 8-12 January, 2018.
- B10. Kadioglu, F., Coskun, T. and Elfarra, M., "Investigation of dynamic properties of a polymer matrix composite with different angles of fiber orientations", Global Conference on Polymer and Composite Materials (PCM 2018), Kitakyushu, Japan, 10-13 April, 2018.
- B11. Kadioglu, F., Avil, E., Ercan, M.E. and Aydogan, T., "Effects of different overlap lengths and composite adherend thicknesses on the performance of adhesively-bonded joints under tensile and bending loadings", Global Conference on Polymer and Composite Materials (PCM 2018), Kitakyushu, Japan, 10-13 April, 2018.

B12. Demiral, M., Kadioglu, F. and Elfarra, M., “Experimental and numerical investigation of adhesively bonded single lap joints of laminated composite materials”, Global Conference on Polymer and Composite Materials (PCM 2018), Kitakyushu, Japan, 10-13 April, 2018.

E. National Journal Publications:

E1. Kadioglu, F., Adams R. D. and Guild, F. J., “The adhesive properties of structural bonding tape”, Spring Research Conference, SRCFE’98, 28, Bristol, England, 1998.

E2. Kadioglu F, Guild, F. J. and Adams R. D., “Structural bonding tape tested as a structural adhesive”, Spring Research Conference, SRCFE’99, 36, Bristol, England, 1999.

## **COURSES TAUGHT**

- 1- Statics
- 2- Mechanics of Materials
- 3- Mechanical Vibrations
- 4- Mechanical Engineering Design
- 5- Dynamics
- 6- Aerospace Materials
- 7- Solid Mechanics
- 8- Mechanics of Composite Materials
- 9- Aeroelasticity

## **PROFESSIONAL MEMBERSHIPS**

- The Institute of Materials
- Materials Today

## **REWARDS**

- 1- Scholarship by Higher Education Institutions to conduct PhD in UK, 1996-2000
- 2- Scholarship by TÜBİTAK-JULICH to do research in Germany, 2002-2003
- 3- Scholarship by TÜBİTAK to do research in UK, Oxford University, 2008-2009

## **CAREER SUMMARY**

**May 2016 – present**, Associate Professor, Aerospace Engineering Department, Yıldırım Beyazıt University, Ankara, Turkey

**September 2012 – April 2016**, Head of Mechanical Engineering Department, Associate Professor, Mechanical Engineering Department, University of Turkish Aeronautical Association, Ankara, Turkey

**April 2009 – June 2012**, Chief Expert, Turkish Scientific Technological Research Council, Ankara, Turkey.

**July 2007 – May 2008**, Post-Doc, Engineering Science Department, Oxford, UK.

**March 2004 – September 2007**, Expert, European Union Higher Education Programme, ERASMUS (with official permission of Ataturk University)

**February 2001 – April 2004**, Assistant Professor., Mechanical Engineering Department, Ataturk University, Erzurum, Turkey.

**October 1996 – May 2000**, Researcher, Mechanical Engineering Department, University of Bristol, UK.

**October 1994 – June 1996**, Research Assistant, Mechanical Engineering Department, Ataturk University, Erzurum, Turkey.

## **RESEARCH PROJECTS**

1- Design of Helicopter Rotor Blades for High Speed Helicopters, SSM, Ministry of Defense, 2015-2018

2- Design of Glass Reinforced Plastic Pipes under Pressure, TÜBİTAK Project, TEYDEB, 2010-2011

3- Investigation of Mechanical Properties of Thermoplastic Matrix Composites, 2008-2009.

4- Effects of Environmental Conditions on Performance of Adhesively-Bonded Joints, TÜBİTAK Project, MISAG-JULICH-3 (Germany), 2002-2005

5- Investigation of Dynamic Properties of Composites Materials, State Planning Organisation,  
SPO Project, 2002 K/07, 2002-2005