

**DR. BOURCHAK, Mostefa***Assistant Professor, Aeronautical Engineering Dept., King Abdulaziz University***Education**

<i>Degree</i>	<i>Field of Study</i>	<i>Institution</i>	<i>Year</i>
PhD	Aerospace Engineering	University of Bristol, UK	2007
BEng (Hons)	Aerospace Engineering	Kingston University London, UK	2000

**Academic Experience**

<i>From</i>	<i>To</i>	<i>Institution</i>	<i>Rank</i>	<i>Full or Part Time</i>
2008	Date	King Abdulaziz Univ.	Assist. Prof.	Full Time
2006	2008	University of Bristol	Research Assist.	Full Time
2002	2006	University of Bristol	Teaching Supervisor	Part Time

**Non Academic Industrial Experience (including Consultations)**

<i>From</i>	<i>To</i>	<i>Company/Entity</i>	<i>Title</i>	<i>Position Description</i>	<i>Full or Part Time</i>
2007	2008	Helitune Ltd, UK	Rotorcraft Dynamics Engineer	Rotor track and balance	Full Time
2001	2002	Sonda Aviation Enterprises, UK	Aircraft Simulation Engineer	Flight Simulator software development	Full Time
2010	Date	Saudi Pipes Systems	Consultant	Composite pipes development	Part Time
2012	Date	Amiantit Group	Consultant	Composite pipes development	Part Time

**Funded Research Projects and Patents from the Past Five Years**

- Design and build of a solar-powered long endurance UAV, Funded by King Abdulaziz University (Grant No.431/009). 2013-2015
- Strengthening CFRP Composites Using Carbon Nanotubes for Aerospace Application and Monitoring Damage Onset Strength Using Acoustic Emission Technique. Funded by King Abdulaziz University (Grant No. 202/135/1431). 2010-2012
- Fatigue damage accumulation under variable and random loading based on energy damage model. Funded by King Abdulaziz University (Distinct Research Study). 2013-2014
- Fatigue behavior of nano-hybridized composites. Funded by King Abdulaziz University (Distinct Research Study). 2013-2014
- Development of an innovative Acoustic Emission damage location technique and damage mechanism classification for composite materials. Funded by KACST (Grant No. ADV432-03). 2014-2016

**Certifications and Professional Registrations**

UK chartered engineer, Instron Blue Hill software certified

**Current Membership in Professional Societies and Organizations**

<i>Society/organization</i>	<i>Rank</i>	<i>Member Since</i>
1. Royal Aeronautical Society	ARAEs	2003
2. Institute of Materials, Minerals and Mining	Post Grad	2004
3. Chartered Management Institute	Student	2007
4. The Japan Society for Aeronautical and Space Sciences	Regular member	2012
5. Saudi Society for Aerospace Sciences	member	2012

**Honors and Awards**

1. Classed first amongst classmates in BEng graduation year (2000)
2. Awarded Scholarship from Algerian Air Force to do CPL pilot license
3. Awarded UK EPSRC fund to complete PhD

### **Institutional and Professional Services** (*administration, committees, units, etc.*)

1. Member of department Labs committee, AE Dept., KAU, 2009-Date
2. Member of department Research and Graduate Studies, AE Dept., KAU, 2012-Date
3. President of University of Bristol Student Islamic Society 2002-2003
4. Reviewer for: International Journal of Fatigue, IME Part G: Journal of Aerospace Engineering, Physical Review & Research International journal, KAU Journal of Engineering,
5. Freelance writer for Arab Aviation magazine
6. Provides Engineering Consultancy services

### **Principal Publications/Presentations from the Past 5 Years**

1. M. Bouchak, W. Harasani, "Assesment of liquid resin infusion impregnation quality using Scanning Electron Microscopy", *ADV COMPOS LETT*, 2014
2. Belaadi, A. Bezazi, M. Bouchak and F. Scarpa, "Novel extraction techniques, chemical and mechanical characterization of Agave Americana L. natural fibers". *Comp. Part B*, 2014
3. M. Bouchak, W. Harasani, "Analytical and experimental investigation of cross ply and angle ply GFRP composite laminates tensile properties", *Science and Engineering of Composite Materials*, 2014.
4. M. Bouchak and Y. Dobah, "Design and analysis of a morphing composite airfoil using unbalanced layup and unconventional ply angles". *T. Jpn. Soc. Aeronaut. Space Sci, Vol.57, No.2, March 2014.*
5. Y. Dobah, M. Bouchak, A. Bezazi, A. Belaadi, "Static and fatigue strength characterization of sisal fiber reinforced polyester composite material", Proceedings of *ICCST/9*, April 2013, Sorrento, Italy.
6. M. Bouchak, "Predicament in repairing aircraft primary composite structures". *T. Jpn. Soc. Aeronaut. Space Sci, Vol.56, No.5, Sept 2013.*
7. M. Bouchak, A. Khan and K. A. Juhany, "Effect of preheating and post-curing time on the mechanical properties of epoxy resin". *ADV COMPOS LETT*, 22(5), 95-99, 2013.
8. M. Bouchak, A. Khan, S.A. Badr, and W. Harasani, "Acoustic Emission characterization of matrix damage initiation in woven CFRP composites". *Mat. Sciences and Applications*, 4 (9), 509-515, 2013.
9. M. Bouchak, H. Badwani, "Finite element analysis of a helicopter pressurized composite reserve fuel tank". *Journal of Materials, Processes and Environment*, 1 (2), 128-135, 2013.
10. Belaadi, A. Bezazi, M. Bouchak and F. Scarpa, "Tensile static and fatigue behaviour of sisal fibers". *Materials & Design Vol.46, P.76-83, April 2013.*
11. M. Bouchak and Y. Dobah, "Effect of finite element mesh and load location on stress and deflection of a light aircraft metal wing structure". *T. Jpn. Soc. Aeronaut. Space Sci, Vol.56, No.2, Feb 2013*

### **Recent Professional Development Activities** (*Workshops, training, etc.*)

1. Scanning Probe Microscopy Seminar. Various instructors, Movenpick Hotel, Jeddah, KSA, Dec. 2012
2. SIMULIA-abaqus regional seminar. Various instructors, Radisson Blu Hotel, Jeddah, KSA Sept.2012
3. NASTRAN/PATRAN workshop. Abdelkader Kherrat (Bombardier Aerospace), University of Guelma, Algeria, Nov. 2011
4. CADWIND and Filament winding machine 1 week training. EHA, Germany, 2010.
5. Blackboard LMS. Deanship of E-learning and Distance Education. King Abdulaziz University, 2014.
6. Innovative Thinking and Problems Solving, Professional Development Course, KAU Centre for Teaching and Learning Development, 2013-2014
7. "Endnote," Professional Development Course, KAU Centre for Teaching and Learning Development, 2013-2014
8. "Recent Changes in EAC of ABET Accreditation Requirements," ASU Workshop, Faculty of Engineering, King Abdulaziz University, Jeddah, Saudi Arabia, Jan. 2014