

# **CURRICULUM VITAE**

Name	: GAMAL MOHAMED ASHAWESH
Title	: Professor
Place and Date of Birth	: Misurata, 01/01/1964
Martial Status	: Married
Nationality	: Libyan
Postal address for	: University of Tripoli, Libya,
Communication	: Phone: 0925024852 and 0918528962
E-mail	gashawesh@aerodept.edu.ly and g.ashawesh@uot.edu.ly
Passport Number	: RH2ZPJ4G
Place & Date of Issue	: Misrata, 15/11/2015

Area of Specialization : Design of flight vehicles, Structural analysis of flight vehicles, Structural Dynamics, Mechanical Vibration, Aeroelasticity, Flight vehicle stressing, Strength of materials, Analysis of Composite materials, and its application.

# **Education Qualifications:**

Degree	Subject/Specialization	Division	Year	University/College
B.Sc.	Aeronautical Engineering.	1 <sup>st</sup> (80%)	1987	Engineering College Tajoura, Libya
M.Sc.	Aerospace Vehicle Design		1993	Cranfield University, Bedford, England
Ph.D.	Flutter Behavior of Composite Aircraft wings		1999	Cranfield University, Bedford, England

# **Academic Positions:**

- 1. Head of the registration and examination office, Engineering College, Tajoura, (1988-1990)
- 2. Head of the Aeronautical Engineering Department, Engineering College, Tajoura, (1999 to

2006),

3. Chairman Academic affairs, Engineering College, Tajoura, (form 2006 to 2011).

# **Areas of Current Researches:**

1. Effect of Structural material coupling on the dynamic characteristics of aircraft composite wings.

- 2. Effect of wash-in and washout deformations on divergence and flutter speed of aircraft composite wings.
- 3. Study of Root Flexibility and other composite material parameters on the dynamic and aeroelastic characteristics of aircraft wings.

# **Areas of Research Interest**

- 1. Analysis of Composite materials in aerospace applications.
- 2. Structural dynamics and Mechanical vibrations.
- 3. Structural design, analysis and stressing of flight vehicles.
- 4. Aeroelastic Tailoring of a composite aerospace structure.
- 5. Aeroelastic optimizations in aerospace structures.

#### Subjects Taught for Undergraduate Courses (B.Sc.):

1.	Mechanical Vibration	Engineering C	College, Tajoura & Tripoli University.
2.	Aeroelasticity	Engineering C	College, Tajoura & Tripoli University.
3.	Strength of materials I	Engineering C	College, Tajoura
4.	Strength of Materials II	Engineering C	College, Tajoura
5.	Stress Analysis I	Engineering C	College, Tajoura & Tripoli University
6.	Stress Analysis II	Engineering C	College, Tajoura & Tripoli University
7.	Aircraft Design	Engineering C	College, Tajoura and Misurata
8.	Fracture Mechanics	Tripoli Univer	rsity
9.	Engineering Mechanics-I (Stat	ic's)	Engineering College, Tajoura
10.	Engineering Mechanics-II (Dyn	namics)	Engineering College, Tajoura
11.	Aircraft Structure		Engineering College, Tajoura
12.	Aircraft Component Design		University of Tripoli
13.	Aircraft Conceptual Design		University of Tripoli
14.	Intro. Composite Materials		University of Tripoli
15.	Structural Modelling and Simu	lation	University of Tripoli

#### Subjects Taught for Graduate Courses (M.Sc.):

1.	Aeroelasticity	Tripoli University, Tripoli
2.	Composite Materials	University of Tripoli

# Special Lecture delivered at Engineering Academy Tajoura.

**1.** 1999-2000 Theoretical and Experimental Free Vibration analysis of aircraft wings.

# M.SC. Projects as Second Supervisor at Cranfield University, in the College of <u>Aeronautics:</u>

- 1. Flutter analysis of Military aircraft wing for variation in tip store parameters.(1996).
- 2. Flutter analysis of a delta wing for variation in attachment and actuator stiffnesses.(1997)
- **3.** Aeroelastic Tailoring of a Composite Wing Box. (1998)

# M.SC. Projects as Main Supervisor:

- 1. Free vibration analysis of a real metal wing box structure, (2005).
- 2. Dynamic analysis of a composite wing box-initial aeroelastic investigation, (2008).
- 3. Aeroelastic investigation of composite wing structures (2019).

# <u>I pointed as an external and internal examiners to many M.SC. projects in both</u> <u>Aeronautical and Mechanical Engineering fields.</u>

# **List of Publications**

- "A comparative Study of Experimental and Finite Element analysis for Composite Aircraft Structures" Proceeding of the 2<sup>nd</sup> European Conference on Computational Mechanics, Cracow, Poland, June 26-29, 2001.
- "Some Aspects of an Experimental Investigation on Composite Aerobatic Aircraft Structure" Proceeding of 9<sup>th</sup> International Conference on Aerospace Science and Aviation Technology, Cairo, Egypt, May 8-10, 2001.
- "Experimental and Finite Element analysis for Composite Aircraft Structures" Proceeding of 9<sup>th</sup> International Conference on Aerospace Science and Aviation Technology, Cairo, Egypt, May 8-10, 2001.

- "Effect of Wash-in and Wash-out on the Flutter Characteristics of Composite Aircraft Wings" Proceeding of 10<sup>th</sup> International Conference on Aerospace Science and Aviation Technology, Cairo, Egypt, May 13-15, 2003
- "Aeroelastic Analysis of a Real Metal Wing box using Finite Element Method"
  1<sup>st</sup> CEACM Conference on Computational Mechanics, 15<sup>th</sup> International Conference on Computer Methods in Mechanics, CMM-2003, Gliwice/Wisla, Poland, June 3-6, 2003.
- "Free Vibration Analysis of a Composite Wing box- Initial Aeroelastic Investigations", 4<sup>th</sup> International Engineering science conference, Mansoura University, Sharem Alsheke, Egypt, April 20-22, 2004.
- Effect of Root Flexibility on the Aeroelastic Analysis of a Composite Wing box." ICTAM04, World Congress, Warsaw, Poland, 15-21 August 2004.
- Aeroelastic Analysis of a Real Metal Wing Box with varying Root Stiffness. Aerotech2005, University Putra Malaysia, February. 21, 2005.
- Static analysis of a real box girder crane bridge using analytical and finite element methods. 16<sup>th</sup> International Conference on Computer Methods in Mechanics, CMM-2005, Czestochowa, Poland, June 21-24, 2005.
- Effect of fuel on the dynamic charectreistics of a metal wing box of an aerobatic aircraft-initial aeroelastic investigation, 3<sup>rd</sup> Ankara International Aerospace Conference (AIAC), Turky, Agust 2005.
- Numerical investigation of tip stall growth in axial flow fans, International Conference on Aeronautical Sciences and Transportation, ICASAT2007, Tripoli, 23-25 April 2007.
- Aeroelastic analysis of a real composite wing box using finite element method, 17<sup>th</sup> International Conference on Computer Methods in Mechanics, CMM-2007, Lodz-Spala, Poland, June 19-22, 2007.
- "Dynamic analysis of the metal and composite aerobatic wing box- initial aeroelastic investigations", 6<sup>th</sup> International Engineering science conference,, Mansoura University, Sharem Alsheke, Egypt, April 20-22, 2008.
- "Dynamic analysis both metal and composite wing structures", 2nd International Conference on Composites: Characterization, Fabrication and Application, (CCFA-2), Kish Island-Iran, December 27-30 2010.

- 15. "Noise Measurements Data Analysis and Control of Aircraft Jet Engine", 2<sup>nd</sup> International Conference on Mechanical, Automotive and Aerospace Engineering (ICMAAE-2013), Kuala Lumpur, July 2-4 2013.
- "Noise Measurements Data Analysis and Control of MI-2 Helicopter Aircraft", 11th International Conference on Vibration Problems (ICOVP2013), Lisbon, Portugal, September 9-12-2013.
- "Aeroelastic Behaviour of a Metal Wing Structure with Varying Fuel Locations", 7<sup>th</sup> Ankara International Aerospace Conference (AIAC-2013-011), Ankara, Turkey, September 11-13-2013.
- "Design and Fabrication of Hand Launched UAV", 7<sup>th</sup> Ankara International Aerospace Conference (AIAC-2013-012), Ankara, Turkey, September 11-13-2013.
- "Measurement study of aircraft jet engine noise effects and control" Journal of engineering research, Vol. 20, Sept. 2014, Faculty of Engineering, University of Tripoli, Libya.
- "Computer software for stress analysis of an aircraft wing structure". CONST ENG '14, Structures, Materials and Construction Engineering Conference, Istanbul, Turkey, Nov. 20-22-2014.
- "Educational program for stress analysis of an aircraft wing box structure" Journal of engineering research, Vol. 23, March 2017, Faculty of Engineering, University of Tripoli, Libya.
- 22. Stress analysis of aircraft fuselage structures" Journal of engineering research, Vol.25, March 2018, Faculty of Engineering, University of Tripoli, Libya.

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