

## Curriculum Vita

### Personal Details

**Name:** Kamal Ataalla Saleh Al-Banawi

**Date of Birth:** ٠٩/٠٦/١٩٧١

**Place of Birth:** Al-Karak / Jordan

**Marital Status:** Married

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### Qualifications

Certificate	Special Field	General Field	Institute	Place	Date Awarded
PhD	Global Differential Geometry	Pure Mathematics	The University of Leeds	Leeds / United Kingdom	٢٠٠٤
MPhil	Applied Differential Geometry	Applied Mathematics	The University of Huddersfield	Huddersfield/ United Kingdom	٢٠٠١
***BSc	-----	Mathematics (٩٥,٤٦%)	The University of Jordan	Amman/ Jordan	١٩٩٥
High School	-----	Science (٩٤,٧٠%)	Prince Al-Hassan School	Al-karak/ Jordan	١٩٨٩

\*\*\* The registrar general of the University of Jordan testifies that this average (٩٥,٤٦%) is the highest obtained at the university since the date of its establishment.

**Title of Master thesis:**

*Generating a three dimensional animation of a noisy disc brake using laser holographic interferometry.*

**Title of PhD thesis:**

*Generating frames and normal holonomy of transnormal submanifolds in Euclidean spaces. .*

**Academic and Professional Background**

July 2009-Now : Associate Professor/ Department of Mathematics and Statistics, Mu'tah University.

September 2006-August 2007 : Head of Department of Mathematics and Statistics/ Faculty of Science, Mu'tah University, Al-Karak, Jordan, P.O.Box 7.

September 2000-August 2006 : Dean Assistant/ Faculty of Science, Mu'tah University.

July 2004-July 2006 : Assistant Professor/ Department of Mathematics and Statistics, Mu'tah University.

September 2001- June 2004 : Mathematics Tutor/ Department of Pure Mathematics, Leeds University, Leeds, UK (LS2 9JT).

September 2001- June 2004 : Exams' Coordinator / Exam Office, Leeds University.

August 1990- August 1999 : Mathematics Teacher/ Ministry of Education, Jordan.

**Taught Courses**

**(a). School of Mathematics, Leeds University ( September 2001- June 2004).**

- (1). Mathematics Foundations.
- (2). Calculus
- (3). Linear Algebra.
- (4). Differential Equations and Modeling.
- (5). Group Theory.
- (6). Real Analysis.

**(b). Department of Mathematics , Mu'tah University ( July 2004- Now).**

- (1). Calculus<sup>1</sup> (101), Calculus<sup>2</sup> (102), Calculus<sup>3</sup> (201), Calculus<sup>4</sup> (200) (Vector Analysis).
- (2). Decimal numbers system (106), Principles of Mathematics (112).
- (3). Differential Equations<sup>1</sup> (203), Differential Equations<sup>2</sup> (301).
- (4). Linear Algebra<sup>1</sup> (242), Linear Algebra<sup>2</sup> (342).
- (5). Abstract Algebra<sup>1</sup> (241).
- (6). Euclidean and NonEuclidean Geometry (262).
- (7). General Topology (361).
- (8). Differential Geometry (362) (My special field).
- (9). Algebraic Topology (063) (Master course).

## **Membership**

- (1). A member of the American automotive engineering research group (till 2002).
- (2). A member of Huddersfield automotive engineering research group (till 2001).
- (3). A member of the YDGG (Yorkshire Differential Geometry Group).
- (4). A member of the LMS (London Mathematical Society) (till 2000).
- (5). A member of the editorial board of the IJMA (International Journal of Mathematics and Analysis)/ School of Mathematical Sciences, Faculty of Science and Technology, Universiti Kebangsaan Malaysia, Bangi 43600, Selangor Darul Ehsan, Malaysia.

## **Special Attended Courses**

- (1). The Teaching Assistant Preparation Program. The University of Huddersfield, October-December 1999.
- (2). Riemannian Geometry. The University of Leeds, September-December 2001.
- (3). Algebraic Varieties. The University of Leeds, September-December 2001.

## **Areas of Research**

- (1). The Torsion in Vibration Surfaces.
- (2). The Hough Transform.
- (3). Image Processing Techniques.
- (4). Classical Differential Geometry : Curves and Surfaces.
- (5). Curves and Surfaces in Fitting and Design.
- (6). Differential Geometry of Submanifolds .

## **Conferences and Workshops**

- (1). Huddersfield Colloquium of Computing and Mathematics. The University of Huddersfield, July 2000.
- (2). The 20th International Conference on Noise Vibration Engineering (ISMA20). Katholieke Universiteit, Leuven, Belgium, September 2000 (A paper submitted in common with Dr Chris Talbot).
- (3). The 14th SAE Brake Colloquium and Engineering Display. San Diego, USA, October 2000 (A paper submitted in common with Dr Chris Talbot).
- (4). The Yorkshire Differential Geometry Group workshops:
  - The YDGG workshop at the University of Leeds / March 2001.
  - The YDGG workshop at the University of Hull / May 2001.
  - The YDGG workshop at the University of York / September 2001.
  - The YDGG workshop at the University of Hull / November 2001.
  - The YDGG workshop at the University of Leeds / January 2002.
  - The YDGG workshop at the University of York / April 2002.
  - The YDGG workshop at the University of Hull / June 2002.
  - The YDGG workshop at the University of Leeds / September 2002.

The YDGG workshop at the University of York / January 2003.  
 The YDGG workshop at the University of Hull / May 2003.  
 The YDGG workshop at the University of York / November 2003.  
 The YDGG workshop at the University of Hull / March 2004.  
 The YDGG workshop at the University of York / June 2004.  
 (e). The LMS/EPSRC Short Instructional Course: Differential Geometry, Homogeneous Spaces and Integrable Systems. The University of Durham, September 2002.  
 (f). The 8th BMC (British Mathematical Colloquium).  
 The University of Birmingham, April 2003.  
 (g). The International Conference on Differential Geometry ( The 6th birthday of Prof. Bang-Yen Chen). Katholieke Universiteit, Leuven, Belgium, June 2003 ( A paper submitted in common with Dr Sheila Carter).

### **Papers and Articles**

- (1). Kamal Al-Banawi and Chris Talbot, Three Dimensional Animations of a Real Disc Brake Generating Noise. *Proceedings of the 12th International Conference on Noise Vibration Engineering (ISMA12)*, Katholieke Universiteit, Leuven, Belgium, September 2000.
- (2). Kamal Al-Banawi and Chris Talbot, Generating 3-Dimensional Animations of Vehicle Brake Noise. *Proceedings of the 14th SAE Brake Colloquium and Engineering Display*, San Diego, USA, October 2000.
- (3) Kamal Al-Banawi, Transnormal Compact Surfaces in  $R^3$ . Department of Mathematics, Leeds University, February 2002.
- (4) Kamal Al-Banawi and Sheila Carter, Generating Frames of Transnormal Curves, *Soochow Journal of Mathematics*, Volume 30(3), 261-268 (2004).
- (5) Kamal Al-Banawi and Sheila Carter, Transnormal Partial Tubes, *Contributions to Algebra and Geometry*, Volume 16(2), 205-210 (2005).
- (6) Kamal Al-Banawi, A Tale of Two Normals . Department of Mathematics, Mutah University, May 2005.
- (7) Kamal Al-Banawi, Curves of Constant Width in  $R^3$  (sent).
- (8) Kamal Al-Banawi , Geometry of Ovals in  $R^3$  in Terms of the Support Function, *Journal of applied Sciences*, Volume 8(2), 383-386 (2008).
- (9) Kamal Al-Banawi , Focal Points of  $\xi$ -Transnormal Tori in  $R^3$ , *Georgian Mathematical Journal*, Volume 16(2), 211-218 (2009).
- (10) Kamal Al-Banawi, On Closed Convex Surfaces of Revolution in  $R^3$ , *Mu'tah Lil-Buhuth Wad\_Dirasat*, Volume 24(1), 63-72 (2009).
- (11) Kamal Al-Banawi, Some Applications of Morse Inequalities (sent).
- (12) Order of Transnormal Manifolds in Euclidean Spaces(sent).

### **Under Preparation**

- (١). Curves of constant width in coin design.
- (٢). A new type of convex surfaces.
- (٣). Hypersurfaces of constant width.
- (٤). The use of Hough transform in shape detection.
- (٥). A general algorithm for edge detection operators.
- (٦). The normal bundle of special embeddings of the projective plane in higher spaces.

### **Master Supervision**

- (١). Amani Oudeh Al-Sohaymat, Morse Theory and its Applications, ٢٠٠٦.
- (٢). Warda Khalaf Al-Awasa, Transnormal Manifolds in Euclidean Spaces, ٢٠٠٩.

### **Languages**

<b>Language</b>	<b>Reading</b>	<b>Writing</b>	<b>Speaking</b>
Arabic	Native	Native	Native
English	Excellent	Excellent	Excellent

### **Computer Skills**

- (١). The skill of driving the computer :The International Computer Driving License (ICDL).
- (٢). The skill of programming using Matlab.
- (٣). The skill of mathematical typing using Latex.
- (٤). The skill of using different types of software for graphing.

### **Scholarships**

- (١). The Royal Scholarship, supported by the Jordanian military (BSc).
- (٢). Mu'tah University Scholarship for Higher Education (MSc and PhD).