**TEMPLATE FOR SUBMITTING PERSONAL INFORMATION FOR THE DEPARTMENTAL WEBSITE**

## 1. HOME PAGE

**Dr. Graham S. King**
EngD, MSc, BEng (Hons), DIS, CEng, MIMechE

Lecturer in:
MENG2009 Industrial Instrumentation
MENG2015 Control Systems Technology
MENG6301 Computer Applications in Manufacturing
MENG6303 Computer Control Systems

Coordinator: Mechanical & Manufacturing Enterprise Research Centre (MMERC)

### Contact Information

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Brief description or summary of your professional life (1 Page max.)

Graham King has 16 years of experience in the automotive industry, and is currently a member of the Department of Mechanical and Manufacturing Engineering at the University of the West Indies. Alongside teaching, he is the Coordinator of the Mechanical & Manufacturing Enterprise Research Centre, and in this capacity builds and oversees collaborative projects with industrial, governmental and academic partners.

Dr. King has spent most of his career 'straddling the gap' between industry and academia. His doctoral studies focused on innovatively applying cutting-edge knowledge to improve processes and competitiveness in the automotive industry. His methods helped to ensure the success of modern Jaguar and Land Rover vehicles. Later, Dr. King spent three years working with The University of Warwick on a $110m project to improve the competitiveness of the automotive industry in the Midlands region of the UK, which involved developing and implementing innovative methods for both OEMs and the supply chain. On arriving in Trinidad eight years ago, he had the opportunity to work in automotive aftersales, allowing his career to span the entire motor industry from concept design to service and repair.

Dr. King maintains a keen interest in all things innovation and automotive. He has served as a panellist on the Trinidad & Tobago "idea 2 innovation" competition, and is a member of the Ministry of Planning & Sustainable Development Technical Steering Committee on Innovation. He was chair of a Trinidad & Tobago Bureau of Standards Committee revising Vehicle Emissions standards, and served on the "Motor Vehicle Exhaust Emissions Standards Implementation Committee" in the Ministry of Transport.

Since taking up a lectureship at The UWI, Dr. King has worked on and supervised research projects in a range of fields, but mainly focused on automotive applications. He was able to support the work of the Emissions Standards Committees through research into local vehicle emissions, and extended that work to consider the possibilities for alternative fuel vehicles. He is also interested in renewable energy, participating in the EDULINK/ACP funded CAP4Inno project with partners from Alicante University (Spain), Chalmers University (Sweden), UTEC (Jamaica) and INTEC (DR). Dr. King is contributing to developing the national/regional innovation ecosystem, recently by spearheading a Foresighting programme for the Energy Services Sector.

As Global Director of Global Leadership Interlink, a professional network of values-based leaders with Chapters in 27 countries around the world, Dr. King oversees the mentoring and development future leaders. In this capacity he speaks regularly at

conferences, seminars and training workshops around the world. He is also a member of the Executive Team of Congress WBN, a global, faith-based, not-for-profit with operations in 85 countries around the world and probably one of the most innovative entities to emerge from Trinidad & Tobago.

Now permanently residing in Trinidad & Tobago, Dr. King graduated from Loughborough University with a First-Class Honours degree in Automotive Engineering and from The University of Warwick with Masters degree in Engineering Management and an Engineering Doctorate. He is a Chartered Engineer Mechanical Engineer.

## 2. CURRICULUM VITAE

### DEGREES EARNED:

| Qualification | Institution | Date |
|---|---|---|
| Certificate in University Teaching & Learning (CUTL) | UWI | 2012 |
| Chartered Engineer (CEng) | Royal Academy of Engineers | 2004 |
| Engineering Doctorate | The University of Warwick | 2003 |
| MSc Engineering Business Management | The University of Warwick | 1999 |
| Diploma in Industrial Studies | Loughborough University | 1997 |
| BEng Automotive Engineering | Loughborough University | 1997 |

### INSTITUTIONAL MEMBERSHIP:

List the membership of institutions e.g.

- Institution of Mechanical Engineers Member

### UNIVERSITY TEACHING EXPERIENCE:

- Lecturer, UWI (2009-Present);

INDUSTRIAL **EXPERIENCE:**

**List industries you have worked if any.**

| Post | Where Held | Dates |
|---|---|---|
| Corporate Service Manager | ANSA Automotive | Nov 2006 – Oct 2009 |
| Project Engineer | Jaguar Land Rover | Jun 2001 – Mar 2004 |
| Research Engineer | Rover Group | Oct 1997 – May 2001 |
| Sponsored Student | Ford Motor Company | Jun 1994 – Sept 1997 |

## 3. RESEARCH INTERESTS/ACTIVITIES

List your major research activities/interests/research grants etc.

- Innovation through University-Industry Collaboration
- Energy Services Sector Foresighting Programme
- Renewable Energy: Methanol-Biofuel Diesel Substitution (MB-DS)
- Vehicle Emissions
- Technical and economic feasibility of CNG as a transport fuel in Trinidad & Tobago
- Technical and economic feasibility of Electric Vehicles in Trinidad & Tobago
- Computer Applications in Manufacturing in Trinidad & Tobago

## 4. COURSES TAUGHT

Dr. King is a lecturer in the following courses:

- MENG2009 Industrial Instrumentation
- MENG2015 Control Systems Technology
- MENG6301 Computer Applications in Manufacturing
- MENG6303 Computer Control Systems
- MENG2014 Communication & Ethics
- MENG6502 Financial Management

## 5. PROJECTS SUPERVISED

List all projects you have supervised especially at the postgraduate level

Mohammed, K., “Developing an implementation plan for a Computerized Maintenance Management System (CMMS) package for the purpose of fleet management at the Trinidad and Tobago Police Service (TTPS)” (Ongoing)

Lemessy, K., “Mechanisation and Automation of MIC’s Plastic Factory” (Ongoing)

Goordeen, N., “The technical and economic feasibility of the use of electric and plug-in hybrid vehicles in Trinidad and Tobago” (Ongoing)

Modeste, T., “Value chain analysis: an approach to improvement in a manufacturing process of household cleaning products (LRI Ltd.) using lean principles” (June 2014)

Anderson, R., “Explore the economic and technical feasibility in using alternative energy solutions at Fiscal Services Limited (Jamaica)” (June 2014)

Lochan, H., “To evaluate the technical and economic feasibility of utilizing natural gas to power vehicles in Trinidad and Tobago”, submitted March 2014

Harris, J., “To improve the standard of water delivered by the Water and Sewage Authority by enhancing the quality of water in the Caroni North distribution system”, submitted May 2013

Cameron, C., “Investigating a framework for collaboration between the University of the West Indies and local industry”, submitted April 2013

Keens-Dumas, K., “A feasibility study of algae and waste reduction at Beetham wastewater treatment plant using ultrasound radiation”, submitted July 2012

Mungroo, R., “An analysis of current inspection and maintenance practices at IPSL and proposal for the implementation of best practices”, submitted June 2011

Li, Y., “Simulation of automotive assembly operations to help reduce complexity:, submitted September 2005

Faoymi, L., “Mapping of the ordering and scheduling systems of a premium automotive manufacturer”, August 2005

## 6. PUBLICATIONS

Provide a list of your publications stating them in the categories of :

A. Thesis/Projects,

**King, G. S**. 2003. Systems modelling and simulation in the powertrain development process for automotive powertrains. *Engineering Doctorate Thesis,* The University of Warwick

## B. Journal Publications

Cameron, C. and **King, G. S**. An Assessment of The UWI's Faculty of Engineering Capability and Willingness to Engage in Industrial Collaboration for Innovation, *West Indies Journal of Engineering*, 37, (**2**) {Impact Factor: Unknown; Journal Ranking B}

**King, G.S.** and Cameron, C.R. 2013, An Enhanced Model for University-Industry Collaboration for Innovation in Trinidad and Tobago, *West Indian Journal of Engineering*, 36, (1), 86-94 {Impact Factor: Unknown; Journal Ranking B}

**King, G. S**., Jones, R. P. and Simner, D. 2003. A good practice model for implementation of computer-aided engineering analysis in product development. *Journal of Engineering Design*, 14(2) 315–331 {Impact Factor: 1.066; Cited by 13; Journal Ranking A}

**King, G. S**., Jones, R. P. and Bailey, A. D. 2003, Application of systems modelling and simulation in the discrete ratio automatic transmission calibration process for an automobile. *Proceedings of the 2003 ASME International Mechanical Engineering Congress & Exposition*, *Dynamic Systems and Control,* IMECE2003-41119, 935-944 {Cited by 2}

## C. C. Conference and other Publications

Murray, R. J., **King, G. S**., 2014, "Breaking the Caribbean Power Generation Diesel Fuel Dependency", CARILEC Industry Journal, 13, 8-13

**King, G. S**., Cameron, C. R., Pun, K. F., Lewis, W. G., 2012, "University-industry collaboration to engender innovation in the English-speaking Caribbean", presented at *The XXIII ISPIM Conference – Action for Innovation: Innovating from Experience,* Barcelona, Spain, 17-20 June 2012

Lewis, W. G., **King, G. S**., "Manufacturing Technologies and the Steel Pan", presented at *SteelFest2012: The Inaugural Trinidad and Tobago International Conference on the Steelpan,* Port of Spain, Trinidad and Tobago, 6 – 9 May 2012

**King, G.S**. and Jones, R.P., 2007, "Modelling and Identification of an Electro-Hydraulic Push-Belt CVT System", Proceedings of 5th IFAC Symposium on Advances in Automotive Control, Aptos, California, August, 2007, 119-125

**King, G. S.,** Jones, R. P. and Bailey, A. D., 2004, "Calibration of Automatic Transmission Control Systems", Proceedings of 1st Symposium on Advances in Automotive Control, Salerno, April 2004, 97-102

## 7. CONSULTANCIES/TRAINING COURSES

- Member of **Idea to Innovation (i2i) Competition Judging Panel** in the Ministry of Planning & Sustainable Development, June-August 2014
- Representing UWI on the Ministry of Planning and Sustainable Development "Innovation Technical Steering Committee", Feb 2014-Current
- Representing UWI in consultations with The Ministry of Planning and Sustainable Development on the 11th EU Multi-Annual Indicative Programme, which will focus on innovation, May-December 2013
- Member of **Idea to Innovation (i2i) Competition Judging Panel** in the Ministry of Planning & Sustainable Development, July-September 2013
- Member of **Motor Vehicle Exhaust Emission Standards Implementation Committee** in the Ministry of Works and Transport, 2011-2013
- Chair of **TTBS Motor Vehicle Exhaust Emissions – Specification Revision Committee,** (TTS 558:2001) 2012-2013
- Member of **Council for Competitiveness and Innovation** Sub-Committee on Promoting Innovation, 2012-2013
- Director and Leader of Campus Division, **Global Leadership Interlink**, a sector of Congress-WBN, 2004-present
- Member of **Global Congress Leadership Team** of Congress-WBN, 2004-present
- **Executive Attaché**, Office of the President, Congress-WBN, 2006-present