

CV of Dr Koh Yong Khiang

CONTACT INFORMATION

Dr Koh Yong Khiang

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EDUCATION BACKGROUND

Dr Koh Yong Khiang received his BEng (Hons.) degree in Mechanical Engineering and MSc in Industrial Engineering from the National University of Singapore in 1981 and 1984 respectively. Upon graduation, he worked as a Product Engineer responsible for product failure analysis, design improvement and application of MCAE software in structural stress and dynamics analyses. In October 1988, he continued to pursue his postgraduate study & research at the Institute of Sound and Vibration Research, University of Southampton in UK under the Foreign & Commonwealth Office Scholarship. He graduated with a PhD degree, specializing in Structural Vibration and Control in February 1993.

RELEVANT SKILLS AND EXPERIENCE

Dr Koh Yong Khiang joined Singapore Technologies Kinetics Ltd in March 1994 as a Principal Engineer taking part in the indigenous infantry fighting vehicle design and development programme. He set up a team of engineers responsible for instrumentation & vehicle trial measurement; noise, vibration and shock analysis & control; structural and human factor engineering analyses. He also held several management positions responsible for CAD & Product Data Management; Integrated Logistics Supports, Vehicle Electronics System and Unmanned Ground Vehicle (UGV) development.

He was appointed as VP/Chief Engineer & Head of Test & Reliability at ST Kinetics Corporate Department from January 2010 to December 2015 to entail the review and enhancement of work processes pertaining to Product Reliability good practices. He is currently holding the appointment as VP/Chief Engineer, Engineering Analysis to provide technical supports, advices to engineers on structural design & dynamic analysis; noise, vibration and shock reduction measures; EQT & ESS test & evaluation; reliability and system safety related subjects.

Dr Koh specialises in structural dynamics and vibration control of mechanical systems. He has good understanding of tracked vehicle noise and vibration excitation sources, modeling and simulation techniques using finite element methods. He applies instrumentation and measurement techniques to resolve issues pertaining to tracked vehicle noise, vibration and shock reduction measures and structural fatigue problems. He also practises Design Failure Modes and Effects Analysis (D-FMEA) as a design risk mitigation tool.

Two specific examples in recent years were his participation and leadership in the analysis and design of shock mitigation measures for an all terrain tracked vehicle which passed the stringent crew survivability requirements and were proven in the operating theatre; and the conduct of on-site vibration test on the 3rd rail system to characterize the claw dislodge

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phenomenon reported in December 2011 SMRT train incidents.

Many of Dr Koh's earlier work were presented in local defence technology seminars. Some of these presentations were listed at the end of this CV.

Dr Koh co-owns a patent titled: A Vibration Reducing Assembly, P-No: 99870, granted on 30th June 2005. The product features a two-stage suspended vibration isolated trooper floorboard which reduces physical fatigue of the troopers and prolongs their combat effectiveness.

Academic-wise, Dr Koh was appointed as an Adjunct Senior Fellow in Temasek Defence Systems Institute (TDSI) from 2000 to 2007 to lecture the Vehicle Dynamics and Human Factors Engineering modules of the Graduate Diploma programme. He was also appointed as an Adjunct Associate Professor in the Department of Mechanical Engineering, NUS from 1st March to 30th June 2012 to lecture the Vibration and Shock Control module of the part-time MSc in Mechanical Engineering programme. He was re-appointed as the Adjunct Associate Professorship with NUS for the same part-time MSc course held from 3rd March to 30th June 2014.

Dr Koh also served as an Industrial Advisory Committee Member for Institute of High Performance Computing (IHPC) from November 2003 to October 2005.

LIST OF PRESENTATIONS

1. Koh YK, *Noise & Vibration of Tracked Vehicles*, 6th Land Platform Technology Seminar, DMO, 8th November 1996.
2. Koh YK, *Durability Analysis of Automotive Structures*, DTG Materials and Mechanics Seminar, DSO, 10th October 1997.
3. Koh YK, *Vibration Studies of Tracked Vehicles*, 9th Land Platform Technology Seminar, 28th January 2000.
4. Koh YK, *Validation of ATV Tracked Vehicle Model and Its Performance on Random Road*, IC – SEC 2004, International Conference on Scientific & Engineering Computation, 30th June – 2nd July 2004.
5. Koh YK, *Noise and Vibration - Total Solutions for Military Applications*, Guest Speaker for Defence Summit, NI Days 2006.
6. Koh YK, *Modelling & Simulation for the Vibration & Acoustics Signature Study of Armoured Fighting Vehicles (AFV)*, Defence Research & Development Seminar, NTU, 23rd May 2006.
7. Koh YK, *Development of Autonomous Vehicles – Unmanned Ground Vehicles*, Keynote Speaker, 2nd International Conference on Intelligent Robotics and Applications, 16th – 18th Dec 2009.