



# Chartered Engineers Pacific

(Formerly Western Canada Group of Chartered Engineers)

<http://www.charteredengineerspacific.ca>

## NOTICE OF EVENING PRESENTATION Wednesday, 17<sup>th</sup> April 2019, 7 to 9 pm

**Venue:** Conference Rooms, Accent Inns, Burnaby  
3777 Henning Drive, Burnaby V5C 6N5 Tel: 604-473-5000

### Topic:

## The History of Jaguar Cars and the Development of the V8 Engine for the 21st Century

Speaker: **Malcolm Clough**

PhD, CEng, MIMechE, PEng

Speaker will discuss the development of Jaguar Cars into a world recognized brand. Sir William Lyons, the founder of Jaguar Cars, was responsible for the creation of beautiful styled vehicles with world class ride and handling, as well as high powered and refined engines. Malcolm will highlight the unique features of the Jaguar vehicles, the evolution of the sedan and sports cars, and the changes made to the vehicles during the transitions of the 1990's and 2000's when Jaguar became a much larger entity and a major competitor in the luxury car sector.



Malcolm will also focus on his first-hand experience in the development of the V8 engine that was designed from scratch by a dedicated team based at Jaguar Cars in Coventry,



England. Included will be the specific technical features of the 4.0L V8 gasoline engine, including the development of a brand-new cooling concept and other modern key design features of the engine that are still in production today.





## Speaker's BIOGRAPHY

Malcolm Clough PhD, CEng, MIMechE, PEng has worked in mechanical design, development and R&D over the last few decades. After learning the basics as an apprentice, he joined Jaguar Cars where he soon became a Technical Specialist and developed a novel engine cooling system and the development of a water pump that was the most efficient in the automotive sector. He then moved on to be Principal Engineer of engine design. Malcolm moved to Canada in 2001 and join Magna International where he was invited to manage the Engine Cooling Technologies Centre of Excellence, and led the development team for a new electric water pump, created new validation methods, and integrated numerous components into single assemblies. His team won worldwide acclaim and purchase orders valued over C\$200 million.

Malcolm left the auto industry and joined the Atomic Energy of Canada Ltd (now called Canadian Nuclear Laboratories), where he directed teams to solve radioactive material handling issues and difficult waste management remediation projects.

Most recently Malcolm formed a limited consultancy business (MJC Mech Eng Consultancy) where he is currently assisting a Canadian client with technical advice and helping them to win new business worldwide.

In the last two years Malcolm lectured to undergraduate students at UBC (Kelowna) and helped judge final year student-projects.

Malcolm holds **seven registered patents** in mechanical engineering technology ranging from engine cooling systems, electric pumps, leak detection systems and holding of radioactive objects. He was **awarded eight times** for industry achievements, participation and publications, ranging from outstanding achievement during training (1983) in the UK, to a best conference paper 1993 in Ohio, USA and two Canadian Nuclear Laboratories Innovation Awards in 2012 and 2013 and a "Voyageur Award" for peer recognized work in 2014 on radioactive emissions reductions.

### **No Registration Required:**

**50 seats are available, first-come-first seated.** This event is provided **free of charge**, includes a coffee/snacks table and welcomes all interested **members and guests**.

***Excellent opportunity to network among multi-discipline engineers and others!***