## **Technical Talk**

28th Nov 2016

## LASER WELDING DEVELOPMENTS

- Past, Present & Future





Synopsis of the talk

The talk will briefly cover the history of laser technology development:

1960 – the first development of laser

1961 – first laser through the glass, now known as Fibre Laser

1964 – growth of CO2 Laser.

1985 – pioneer development in laser cutting.

and provide a fundamental understanding on

- ➤ what is laser
- what can it do,
- the different types of lasers
- what are the available types of lasers for your manufacturing.

The talk will also cover the following topics:

- > Process chain sheet metal fabrication
- ➤ Advantages of laser welding
- ➤ Laser suitable design
- > Fixtures for laser welding
- Solutions for laser welding

Profile of Speakers



**Dr-Ing Nikolaus Wagner** is a qualified International Welding Engineer (IWE) and obtained his Ph.D at the Welding and Joining Institute, RWTH Aachen University, Germany. He specialises in laser welding techniques and applications for sheet metal fabrication and is currently the Head of Sales, Laser Welding (Sheet Metal Fabrication) based in TRUMPF's headquarters at Ditzingen, Germany



Mr. Francis Lee is the General Manager for TRUMPF Malaysia Sdn. Bhd. and is also a frequent lecturer at numerous industry events and universities. For nearly 15 years, Francis has been involved in technological transfer of laser and sheet metal developments in the ASEAN region.

In his first job as a field service engineer in 2002, Francis acquired strong fundamental understanding of machinery and in 2011 he further enhanced his skillset from machinery to commerce and business operations.

His last posting to Germany from 2009-11 has further expanded his practical knowledge and understanding on how the German machinery and engineering industries achieve consistent growth over the years. It has also enhanced his knowledge on manufacture consulting. Francis is now an expert technologist in advising and coaching on advanced manufacturing particularly in the field of laser application.