

Prof. Jesus Talamantes-Silva

Group Design and Technology Director: Sheffield Forgemasters International Ltd.

Born in Mexico, Jesus attended University in Monterrey at UANL-FIME (North-Eastern Mexico). After gaining MEng (Hons) in Mechanical and Electrical Engineering and a MSc degree in Engineering Materials he was awarded a PhD from the University of Sheffield for his studies on hot metal forming for British Steel (now TATA).

Whilst at the University of Sheffield, he was seconded to Corus Swinden Technology Centre (STC) before joining Sheffield Forgemasters International Ltd. in 2005 as Research and Development Manager. He was promoted to Group Research and Development Director in 2009. In 2012, he was promoted to Managing Director of the Sheffield Forgemasters Research and Development subsidiary: Sheffield Forgemasters RD26 Ltd. In 2016, he was promoted to Group Design and Technology Director and in addition to RD26 Ltd.; he is now also responsible for Sheffield Forgemasters' oil and gas subsidiary: Vulcan SFM Ltd.

Jesus has managed and coordinated large industrial development projects from his time at Sheffield University and British Steel and since joining Sheffield Forgemasters he has secured and managed UK government sponsored industrial projects in excess of £40M.

His current work includes a wide range of projects both within the Forgemasters Group and at the request of external customers. Here, metallurgical and engineering solutions are determined for a wide variety of processes and include applications for defence, oil and gas, power generation, civil nuclear, marine and heavy engineering.

A highlight of his latest work included supporting the utility company Axpo (Switzerland) to get Unit 1 of the Beznau nuclear power plant (KKB) back on grid. Here, indications were found in the belt line following inspection in 2016. He advised the production of a full replica forging, which was manufactured by SFIL, and successfully recreated the manufacturing conditions at Le Creusot, France in the 1950s. He also carried out an extensive root cause analysis (RCA) and computer simulations to help determine the origin and cause of UT indications observed in the Axpo plant supported by his R+D team. The Swiss Federal Nuclear Safety Inspectorate (ENSI) considered the fabrication of the representative Replica as a key element of the Safety Case.

He is visiting Professor of Materials Science and Engineering at the University of Sheffield and sits on the Research Board at the Nuclear Advanced Manufacturing Research Centre (NAMRC). He is also Member of the "Bulk Metal forming Committee" of the Materials Science and Technology Division in The Institute of Materials, Minerals and Mining (IOM3), London, UK and he is member of the Sheffield City Region Science and Innovation Board.