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Open Innovation in the Oil and Gas Drilling Industry

ABSTRACT:

"Creativity is about creating new ideas. Inventions is about implementing those ideas, Innovation is about turning inventions into a commercial product. Innovation is then a business activity which strongly relies in technology to address a customer need."

Offshore Oil and Gas Drilling is a very involved activity requiring the use of a variety of technologies to perform it keeping high levels of operational integrity and performance. However the state of technology supporting this industry has reached high levels of complexity which when combined with Man-in-the-Middle controls poses major operational challenges hindering innovation. The use of a combination of isolated systems and subsystems bundled together into a set of disparate and disconnected units exacerbates the problem. This presentation presents an overview of the Offshore Oil & Gas Industry and lays down a transformative vision to bring offshore drilling technology to the 21st century.

BIOGRAPHY:

Dr. Gutierrez is the Director of Technology and Innovation at Transocean focused on the delivery of sustainable innovation tailored for the Oil and Gas industry. His efforts are framed in the execution of business and technology development activities that enable the introduction of new products designed to augment operational integrity in deepwater offshore drilling operations. In addition, Dr. Gutierrez is Adjunct Professor of Subsea Engineering in the Cullen School of Engineering at the University of Houston providing guidance on relevant research topics aligned to the business needs of the industry. Dr. Gutierrez has more than 20 years of experience managing innovation and technology strategy for entrepreneurial and Fortune 100 companies in multiple areas covering Medical, Residential, Commercial and Industrial applications. He received the B.S. degree in electronic engineering from Universidad Simón Bolivar in Caracas, Venezuela, M.S. and Ph.D. in electrical engineering from the University of Milwaukee - Wisconsin. Currently Dr. Gutierrez technology and innovation focus is centered on advanced drilling and well control technologies, as well as advanced man-assisted resilient and distributed control systems. Dr. Gutierrez is also author of multiple books, scientific papers, and patents.