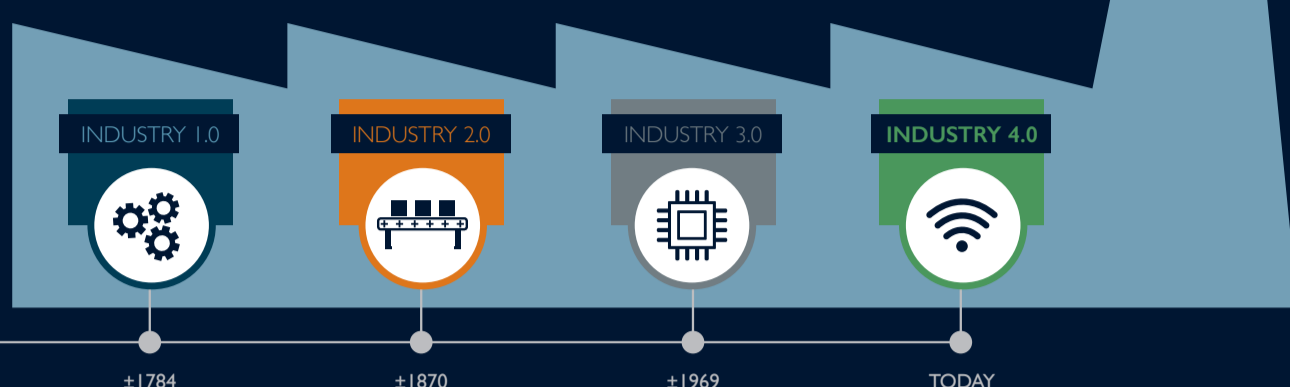


THE FOURTH INDUSTRIAL REVOLUTION

DIGITAL TRANSFORMATION – AN OPPORTUNITY TO REPOSITION.



presented by Dr Gustav Rohde

30 JULY 2019 | 11H00 | BESSIE HEAD SEMINAR ROOM
UJ LIBRARY, DOORNFONTEIN CAMPUS, UNIVERSITY OF JOHANNESBURG

The term “**Fourth Industrial Revolution**” was only coined as late as 2016 by Schwab during the World Economic Forum in Davos. Now – a mere three years later - the scale, speed and impact of new technologies, built around artificial intelligence (AI), machine learning, robotics, the Internet of Things (IoT), big data, autonomous vehicles, additive manufacturing and biotechnology, are changing our industry and the world completely. The previous three industrial revolutions had a significant impact on engineering, but this revolution is larger and faster than before and will significantly disrupt many engineering activities.

The wide spectrum of digital disruptions facing the fraternity can be viewed as either a threat or an opportunity to reposition ourselves.

A threat, because we know that any repeatable activity (and there are many of them in engineering) can and will eventually be machine learnt. This will threaten many jobs we currently do and drastically change our industry.

An opportunity, because this inevitable, digital rich future will change the role of the engineer. By embracing and adapting to this digital future, engineers can apply their skills wider and deeper than ever before. Our future will depend on how well we offer our craft, structure our businesses, integrate diverse skills, connect to society and prepare our young professionals to thrive in the digital age.

It is not enough to merely digitise (making information available in digital format). Neither will it be enough to digitalise (using this digital information to automate operations). We should strive for **digital transformation** – where we holistically change organizational activities, processes, competencies, and models to obtain maximum leverage from the mix of digital technology opportunities and their increasing impact on society. Our deep scientific and mathematical skills place engineers in a unique position to strongly contribute in a digitally rich future.

This lecture is open to the public & will be followed by light refreshments (courtesy of the University of Johannesburg)

[Click here](#) to RSVP by 23 July 2019 or for further queries contact Me Heleen Duffey at office@saae.co.za

Please see map below for directions (Bessie Head Seminar Room, Ground Floor, UJ Library, Doornfontein Campus, University of Johannesburg, Corner Siemert & Beit Streets, Doornfontein, Johannesburg.)




Dr Gustav Rohde (Former COO of Aurecon)

Dr Gustav Rohde is a graduate from Stellenbosch where he graduated in 1984. Gustav is a professional engineer with a Masters degree and PhD from Texas A&M in the USA. He has been a Fellow of the South African Academy of Engineers since 2011.

Over the last 18 years he has served on the Executive of Aurecon, an engineering consultancy with 7000 employees operating in Australasia, Africa, Asia, the Middle East. Gustav has a very keen interest in digital transformation and the impact of the 4th Industrial revolution on engineering and the societies we serve. He currently serves on the advisory boards of the engineering faculty at Stellenbosch and the EBE of the university of Cape Town.

Directions to the UJ Library, Doornfontein Campus, University of Johannesburg:



DOORNFONTEIN CAMPUS
CRN SIEMERT & BEIT STREETS, DOORNFONTEIN
S26.11 32.6 E28.03 28.9

Legend:
 □ MAIN BUILDING
 ■ ADMIN BUILDING/ POINT OF INTEREST
 ● ENTRANCE
 ■ RESIDENCE
 ● PARKING

Google Earth | UNIVERSITY OF JOHANNESBURG

The Bessie Head Seminar Room is situated inside the UJ Library on the Doornfontein Campus of the University of Johannesburg, corner of Siemert & Beit Streets in Doornfontein. Approximate GPS coordinates are S26.11 32.6 E28.03 28.9.

Any entrance can be used but we recommend using Entrance 1 in Siemert Street. After entering at Entrance 1, carry on straight until you see the Main Building Entrance on your left - turn left. Access to the UJ Library is through the Main Building Entrance.