

THE REUEL SHINNAR LECTURE SERIES PRESENTS

DR. AMOS AVIDAN

MONDAY, NOVEMBER 18, 2019 | 2PM-3PM
STEINMAN HALL | ROOM T-161
RECEPTION AT 3PM IN EXHIBIT HALL

Dr. Amos Avidan is a retired Bechtel Executive. He was Bechtel's Corporate Manager of Engineering and Technology, and his previous assignments at Bechtel included General Manager of Planning, Business Development and Technology for Bechtel Oil, Gas & Chemicals, Project Director of the Equatorial Guinea LNG project, and General Manager of Operations, LNG. Amos joined Bechtel in 2000, and was elected a Principal Vice President and a Bechtel Fellow in 2001, and a Senior Vice President in 2007. Prior to joining Bechtel, Amos was with Mobil Oil in a variety of assignments, including Manager of Catalytic Cracking, Manager of Upstream Surface Engineering, and VP of LNG technology. Amos has received a PhD degree in Chemical Engineering from City College, the City University of New York in 1980. He has authored and co-authored more than 70 books and technical publications and 31 US patents. Amos has served as a director of the American Institute of Chemical Engineers (AIChE), and he is a Fellow of the AIChE. In 2009, Amos was elected to the USA National Academy of Engineering.

CHEMICAL ENGINEERING CHALLENGES IN DELIVERING ENERGY TO 11 BILLION PEOPLE IN THE 21ST CENTURY

World population is projected to reach 11 billion people in a "middle of the road" scenario by the end of the 21st Century. What is even more challenging is that more of these people will aspire to live a developed world standard of living, today enjoyed by a little over a billion people. If 11 billion people consumed as much energy as 1 billion do today, you can appreciate the challenge of providing sustainable and cost-effective energy, while being mindful of the challenges of global warming, biodiversity, geopolitics, security, etc.

In this talk, I will address global energy trends today, make projection for the future under various scenarios, and most importantly address the critical role chemical engineers will continue to play in developing and supplying reliable energy supplies to the growing world population who rightly want a better life.

My mentor, Professor Reuel Shinnar was a thought leader in energy in the second half of the 20th Century and early in the 21st. He addressed many of these issues, including optimal use of fossil fuels, coal conversion, solar energy, and energy storage. Reuel was a steadfast Champion in applying basic ChE principles to energy systems. He was a leader in educating generations of ChE's, public officials and others. I will discuss how many of his ideas are still relevant today.

The City College
of New York

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