

The Lebanese Academy Of Sciences

Invites you to attend:

A Public Lecture Entitled

*Computational Science and Engineering:
From Analysis to Design and Digital Twins*

Presented By:

Professor Charbel Farhat

Vixion Church Hoff Professor of Aircraft Structures

*Department of Aeronautics and Astronautics, Department of Mechanical Engineering
and Institute for Computational and Mathematical Engineering*

Stanford University

*Sponsored by
the Ahmar
Family Foundation,
USA*

*At the Crowne Plaza Hotel
Hamra Street, Beirut - Lebanon
November 28, 2018*

6:30 pm



Computational Science and Engineering (CSE) is a relatively new discipline that deals with the design, implementation, and application of computational models and simulations to the solution of complex problems in science and engineering. The impact of CSE on time-critical applications such as, computer graphics for movies and video games, and engineering test support has not yet fully materialized. To this end, the Farhat Research Group at Stanford University has pioneered a game-changing, data-driven computational technology that leverages the power of high-performance computing with the ability of low-dimensional computational models to perform in real-time. This technology enables CSE to transcend engineering analysis and be feasible for engineering design. In the near future, it will enable the development of digital twins to optimize the operation and maintenance of engineering systems, field autonomous vehicles, and create a world where physical objects can interact virtually with machines and people. The ASL public lecture will overview the most important milestones of the development of this promising computational technology and illustrate it with applications in aeronautical, automotive, mechanical, and space engineering.

