

UNIVERSITY OF MACAU
FACULTY OF SCIENCE AND TECHNOLOGY
DEPARTMENT of
CIVIL AND ENVIRONMENTAL ENGINEERING

**" Recent Trends and Challenges in Energy
Storage Systems "**

by

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Venue: E11 – 1009

Abstract

In the recent years, Energy storage systems such as battery packs/fuel cells used in Electric vehicles (EVs) has been extensively promoted in developing economies where the environmental burden due to extensive production exists. In this context, this talk will firstly introduce the four main research problems undertaken. The development of evolutionary algorithms with applications in fuel cells is illustrated. Secondly, the experimental methodology of using mechanical parameter such as the stack stress to estimate the state of health of battery shall be discussed. The methodology for solving the design optimization problem of battery pack enclosure shall be discussed.

Biography



Dr. Akhil Garg is currently working as an Associate Professor in Department of Mechatronics Engineering at Shantou University. He received his PhD degree in Mechanical and Aerospace Engineering from Nanyang Technological University (NTU), Singapore in 2015. His main research interests include Design for Energy Storage Systems, Applications of AI in Sustainable manufacturing, Robust Optimization, Evolutionary algorithms. He has worked jointly with Aerospace Industry Rolls-Royce Singapore for 2 years on Design optimization of finishing process. He has published over 25 SCI Journals in field of sustainable manufacturing, cleaner energy systems and artificial intelligence.

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