

## DEPARTMENT OF MECHANICAL ENGINEERING IIT BOMBAY

The Department is pleased to Announce the talk to be delivered in the Department Auditorium as below :

**Title : "Opportunities and risks of H2E mobility from the perspective of global raw material resources"**

**Speaker : Prof. Pavel Hora, INSPIRE AG - Institute of Virtual Manufacturing, ETH Zurich**

**Date : 18<sup>th</sup> November 2022**

**Time : 1500 hrs.**

**Venue : Department of Mechanical Engg. Auditorium**

### **Abstract**

#### **Opportunities and risks of H2E mobility from the perspective of global raw material resources**

Prof. em. Dr. Pavel Hora

The consequences of the still increasing CO<sub>2</sub> emissions are becoming more and more obvious in terms of global warming. In European countries, the share of transport in total emissions is around 20%, which is significant. Electrification of transport is considered as a solution to reduce those emissions. There are many different technical solutions, ranging from plug-in hybrids to pure battery vehicles (BEV) and fuel cell vehicles (FCEV). Despite many years of development in the field of fuel cell drives, the EU automotive industry is predominantly focusing on the BEV concept. The reason is the significantly better energy efficiency compared to the other solution concepts. However, this also raises the question of material availability. These aspects will be discussed in depth in the presentation.

### Evolution of car technologies

