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10:15 – 12:15 am,
« Salle des thèses », Université Lille1

Global outlook of electric vehicles development and their infrastructure

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This lecture will be presented within the framework of the VTS French chapter of IEEE

Abstract:

The success of commercialization of electric vehicles depends on the satisfactory tackling of four factors: initial cost, convenience of use, energy consumption and exhaust emission. Therefore, we need to pay further efforts towards the following three fundamental enablers or three goodness factors: 1. Availability of good performance products at affordable cost; 2. Availability of good infrastructures that is efficient and friendly to use; and 3. Availability of good business model to leverage the cost of batteries.

In this connection, we need compromise to make this happen, which means, we need the hand shake among key players in the automobile industry and the electric power industry, as well as the alliance with all the stakeholders to be involved. Electric vehicle industry can be a disruptive industry, since the function, production and commercial chain of electric vehicles are not at all the same as conventional vehicles. In terms of function, electric vehicle is not only just a transportation means, but also an electric device with energy storage capability. Thus the integration, or collaboration, of electric vehicles and smart grid, of electric vehicles and information and communication technologies, is quite essential. Such integration and collaboration should aim at gradually achieving the common goal of four zeros: zero emission, zero gasoline, zero traffic accident, and zero traffic jam. In this lecture, the global state of the art of electric vehicles and their infrastructure will be discussed, including the technical features, infrastructure, standardization and commercial road map.

About the Speaker



Prof. C. C. Chan

Honorary Professor, University of Hong Kong;
Fellow, Royal Academy of Engineering U.K.
Academician, Chinese Academy of Engineering;
Founding President, World Electric Vehicle Association;
Founding Director, International Research Centre for Electric Vehicles.

<http://www.eee.hku.hk/people/ccchan.html>; <http://engg.hku.hk/home/people/ccchan/ccchan.htm>

Prof. C. C. Chan holds BSc, MSc, PhD, HonDSc, HonDTech degrees. Honorary Professor and Former Head of the Department of Electrical and Electronic Engineering of the University of Hong Kong; Visiting Professor of MIT, University of Cambridge; Founding President of the World Electric Vehicle Association; Senior Consultant to governments and industries; Fellow of the Royal Academy of Engineering, U.K., Chinese Academy of Engineering, IEEE, IET and HKIE. Recipient of IEE International Lecture Medal; Gold Medal of Hong Kong Institution of Engineers; “Asia’s Best Technology Pioneers” by Asiaweek; “Father of Asian Electric Vehicles” by Magazine Global View; “Pitamaha (Grandfather) of Electric Vehicle Technology” in India; “Environmental Excellence in Transportation Award” by Society of Automotive Engineers (SAE); published 11 books, over 300 technical papers and holds 9 patents.