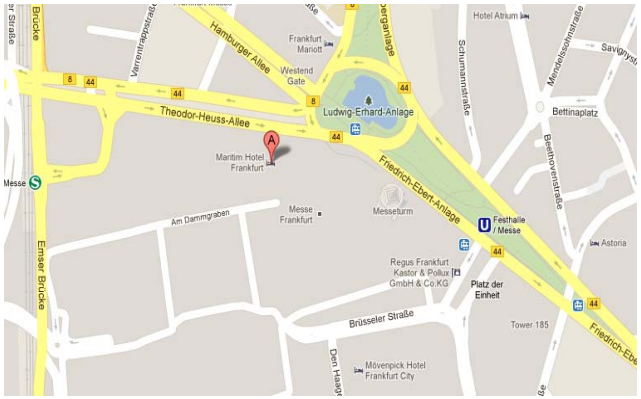
Information on meeting place and Hotel accommodation

The Workshop will be held at:

Maritim Hotel Frankfurt
Theodor-Heuss-Allee 3
60486 Frankfurt - Germany

phone: +49 69 75 78-0
fax: +49 69 75 78-10 00
e-mail: info.fra@maritim.de
www.maritim.de



The Hotel is located centrally at the trade fair, just a few paces from the Festhalle and the Trade Fair Tower. It is easily reached by public transportation.

A block reservation has been made at the Hotel Maritim from 19 to 22 February 2013 at the following prices:

Single room:	197,00 €
Double room:	255,00 €

The prices are incl. taxes and breakfast buffet

Delegates are requested to make the reservation directly with the Hotel by e-mail or fax with the keyword**: ACOS Workshop** using the hotel accommodation form annexed in the programme.. Hotel accommodation can only be guaranteed for reservations made **before 22nd January 2013.**

Information on the Workshop

The Workshop is organized by ACOS (the Advisory Committee on Safety of the IEC) and hosted by the German National Committee of the IEC.

The Workshop will be of interest to:

- International, regional and national regulators
- Standards developers and users of IEC safety standards
- Manufacturers of electrical and electronic equipment
- Test laboratories
- Certification bodies

A Workshop participation fee of 250,00 € will be charged. This fee will include information folder, two lunch breaks and one formal dinner.

Delegates are requested to register through the following link electronically not later than **8 February 2013**:
www.ACOS-workshop-2013.de

ACOS members and **speakers** please register separately with Melanie Feuerriegel (melanie.feuerriegel@vde.com)

For further information on the Workshop contents, please contact:

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ACOS Secretary
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IEC Central Office
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1211 Geneva 20 - Switzerland
cj@iec.ch

For **organizational questions**, please contact :
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IEC ACOS 10th Workshop

Safety aspects in the area of E-mobility

20 and 21 February 2013
Frankfurt, Germany

Presentation of the Workshop

One of the large global challenges during the coming years will be to establish environmental friendly possibilities of mobility for persons and goods. This IEC workshop will deal with "Safety aspects in the area of e-mobility" particularly dealing with aspects related to all kinds of electric motor cars. The workshop was prepared in cooperation with IEC SMB Strategic Group 6 (SG 6) "Electrotechnology for mobility"

Over all the past years the system "car" and the systems "electrical products" and "electrical installations" have been in cooperative coexistence. But now with the upcoming importance" of e-mobility these systems grow together to a new system "e-mobility.

Besides the technical challenges there are also regulatory difficulties for manufacturers of cars and electrotechnical products to overcome. As the specification of technical details cannot be expected by regulation the international standardization bodies IEC and ISO will have to take over a major role in this context by setting up a well coordinated and consistent file of standards. A major step forward has been made by the MoU signed by IEC and ISO in 2010.

If real progress of environmental friendly driving is regarded as a further goal in e-mobility activities the electrical energy must not be produced by CO_2 emitting methods. Using renewable sources of energy production (e.g. wind, photovoltaic, thermal solar power, fuel cells) will provide new challenges for the stability of the grid with a decentralized energy feeding and an intelligent control. These kinds of aspects will become without any doubt a major field of activities in IEC not only in the area of e-mobility. Besides aspects of functionality of smart grids there arise new safety challenges in this area which require many new or modified and redesigned protective measures.

The charging stations (wall boxes) build the interface from the grid to the e-vehicle. The different charging modes require close cooperation between standardizers responsible for the e-vehicles on the one side and those on the side of the grid, especially in respect to consistent and complementary safety requirements. The level of protection for the user must be equivalent on both sides.

The IEC provides a number of so called basic safety and group safety standards which are mandatory for product standardizers within IEC. Such standards deal e.g. with aspects of protection against electric shock, insulation coordination or insulation materials which should be applicable without any difficulties also within electric vehicles. The coordination of these horizontal safety and group safety standards within IEC is provided by the Advisory Committee on Safety (ACOS).

The success of e-vehicles on the market will without any doubt depend on the progress in the development of suitable batteries and their early availability. This depends on the storage capacity and lifetime on the one side as well as on the level of safety on the other side, including fire hazards. Having in mind the quantity of energy comparable to that what we have today in liquid fuel tanks this will be a real challenge for the designers of batteries as well as for the designers of e-vehicles to find right and safe ways to integrate these batteries in the vehicle.

In the light of these safety related challenges in the area of e-mobility the program for the 10th ACOS Workshop will cover the following items:

- a brief overview of the IEC and the role of ACOS;
- the offer of the IEC in the area of basic safety and group safety electrotechnical standards applicable also for e-mobility
- already existing activities related to e-mobility
  - inside (primarily ISO responsibility) and
  - outside the e-vehicle (primarily IEC responsibility)
- the cooperation with ISO in the field of e-mobility
- to underline the possible ways to fulfill the requirements presented on the first day, the workshop will be dealing with specific subjects on the seconds day.
  Practical applications of IEC and/or ISO safety standards for
  - electrical safety aspects inside e-cars
  - functional safety in relation to e-vehicles
  - Safety aspects related to an e-vehicle connected to the grid

The format of the ACOS Workshop will also ensure enough opportunities for discussions during the meeting sessions.

Programme – DAY 1	
09.00 – 09.15	Welcome German NC of IEC
Session 1: International Standardization, IEC ACOS and Conformity Assessment	F. Harless
09.15 - 09.25	Purpose of the workshop F. Harless
09.25 – 09.45	The IEC and Advisory Committee on Safety (ACOS) Ch. Jacquemart
09.45 – 10.15	Possible Service of CAB/IECEE in the area of e-mobility CAB/IECEE representative P. d. Ruvo
10.15 – 10.30	Questions and discussion
10.30 – 10.45	Coffee break
Session 2: Safety related e-mobility standardization activities in IEC	SG6 Chairman Claude Ricaud
10.45 – 11.15	Relevant IEC Basic Safety and Group Safety standards, e.g. protection against electric shock, insulation requirements, functional safety, electromagnetic fields ACOS Chairman elect (Philippe Juhel)
11.15 – 12.00	Work program IEC/TC 69 "Electric road vehicles and electric industrial trucks" Including safety related aspect of d.c. charging systems for e-vehicles Representative of TC 69, Mr van den Bossche
12.00 - 12.30	Safety of batteries (incl. fire hazards) Dr. Goldbeck. VDE Testing and Certification Institute
12.30 – 13.30	Lunch
13.30 – 14.00	Presentation from CEEIA (China) representative: "Safety requirements and inspection methods for e-mobility charging equipment" Mr Lu Yao
14.00 – 15.30	Relevant IEC product standards outside e-vehicles Installation rules incl. smart grid and smart metering (TC 64, TC 57, PC 118) Holger Krings Member of TC57/WG17
15.30 – 16:00	Coffee Break
16.00– 16.10	IEC President's address to the Workshop IEC President Dr. Klaus Wucherer
16.10– 17.10	Present work program and future projects of ISO TC 22 related to electrotechnical aspects in e-cars Representative of ISO TC 22/SC 21 Dr. Wunderlich
17.10 – 17.25	Discussion of session 2 Session 2 Leader
17.25 – 17.40	Arrangements for breakout sessions on 2nd day F. Harless

Programme – DAY 2	
09:00 – 9.10	Welcome F. Harless
9.10 – 9.20	Session 3.1 P. Juhel
9.20 – 9.50	Electrical safety aspects inside e-cars V. Rothe
9.50 -10.20	Discussion (taking place in the lobby)
10.20 – 10.50	Coffee break
10.50 – 11.00	Session 3.2 R. Schultz
11.00 – 12.00	Functional safety in relation with e-vehicles, Presentation of core elements of IEC 61508 and ISO 26262 each 30 minutes R. Bell, N. Becker
12.00 – 13.30	Lunch
13.30 – 13.40	Session 3.3
	Safety aspects related to an e-vehicle connected to the grid including safety related aspects of d.c. charging
13.40 – 14.40	Presentation from IEC/TC 23 C.D: Ziebell
	Presentation from IEC/TC 64 E: Tison
	Presentation from IEC/TC 69 P. van den Bossche
14.40 – 15.10	Coffee Break
15.10 – 15.40	Presentation from ISO/TC 22/SC 21 Dr. Wunderlich
15.40 – 16.10	Discussion (taking place in the lobby)
16.10 – 16.30	Closing remarks
16.30	Refreshments

Presentation of e-cars with possibility for driving experience