

The 43rd
TOKYO
MOTOR SHOW
2013

SMART MOBILITY CITY 2013 NEWSLETTER

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SMART MOBILITY CITY 2013

The 43rd Tokyo Motor Show 2013 Organizer-Themed Project

Vehicles and Energies: Vehicles Connecting to Our Towns and Homes



In 18th century England, the main sources of energy for the newly invented automobile were coal (steam engine), electricity, and gas. This was followed in the 19th century by the discovery of large oil fields and the invention of gasoline and diesel engines. By the early 20th century, we see the advent of automobiles as we know it today, using petroleum fuel such as gasoline and internal-combustion engines. Thereafter, automobiles have become a part of our lives, greatly enriching the economy and our lifestyles.

However, following the oil shock and other events, the world came to realize that oil is a limited resource, and that CO2 emission was greatly affecting global warming. Furthermore, after the Great East Japan Earthquake, we also realized that being dependent on one source of energy made for a very fragile social infrastructure.

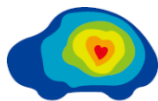
In recent years, efforts are being made to deal with issues on energy conservation and the environment, as well as to the answer the need for diversified energy resources. Such endeavors include creating a distributed energy system with local production and consumption of energy, and implementing an energy management system for our towns and our homes (HEMS, BEMS). Efforts are also being made to promote the use of various renewable energies such as wind and solar power, as well as to diversify our energy sources including electricity, hydrogen, and natural gas.

As for automobiles, the development of energy-saving technologies has made eco-cars a common vehicle in the general market. What's more, eco-cars of the future are being introduced one after the other, such as electric cars and plug-in hybrid cars that run on electricity, and fuel-cell vehicles that use hydrogen as its energy source. These new vehicles will drastically reduce energy consumption and realize the further diversification of our energy sources.

These vehicles of the future will be connected to the new energy systems of our towns and our homes. This will bring about great changes to our lifestyles and the structures of our towns. Electricity generated through renewable energy will be stored by the vehicle, which can then be used to either power the vehicle itself or used as a source of electricity in the house, thus bringing about an eco-friendly lifestyle that is also convenient. And when there is a disaster or a blackout, these vehicles will support both our living needs and the social infrastructure by serving as a power source for our towns and our homes, giving us a sense of reassurance against such times of uncertainties.

We are about to see great changes being made to vehicles and energies, which have hitherto been a part of our lives as a matter of course. Visit SMART MOBILITY CITY 2013 themed to "KURUMA NETWORKING: Vehicles connecting people's lives and society" and see how vehicles will be connected through energy to our towns and our homes, and how our lives in the future will be changed by it.





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COLUMN

Vehicles and the Slow Life of Our Future



Hitoshi Kikuchi / Pietro

Born in Tokyo in 1946.

A graduate of Keio University, Kikuchi started working at a major advertisement agency.

He went independent in 1997, and has been active as an essayist and artist.

As a writer he is known as Hitoshi Kikuchi, and paints by the name of Pietro.

His writings and illustrations appear regularly in a variety of magazines. He has also published many books, including *Tetsu wa Umai!*

Solo exhibitions have been held at galleries such as the Galerie Nichido in Karuizawa and Tokyo Kaikan Gallery.

He was also the first person to introduce Dutch ovens to Japan, and is known as "Tetsunabe Ojisan" [Mr. Dutch oven]. He serves as the President of the Japan Dutch Oven Society (www.jdos.com).

At my local gym, the typical greeting during the hot summer months for the past few years has been: "It's another hot day today". This has become the norm followed by "At least it's nice and cool inside" before we proceed with our own workout routine.

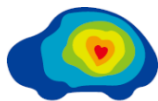
Across the room from where I'm spinning, I can see a fellow member break out in sweat running on the treadmill. Afterwards I jump into the sauna and come out revived and refreshed from my exercise program. Then I go downstairs to the underground parking structure where I left my rented hybrid car. I start the car and go on my way but there are no loud sounds that emanate from this car like my own cars that I have driven over twenty years. As I approach the congestion at the end of the downhill curve and apply the brakes, the monitor indicated CHG, or regenerative braking recharging the batteries. Instantly it felt like I had been enlightened by thoughts I have been gestating within for some time.

At the gym, the air-conditioner is set to lower the temperature for us to work out and sweat. When you stop to think about it, this is rather contradictory. What if we could reapply the energy that is generated from those of us who exercise? Wouldn't it be great to channel the power from the treadmills and exercise bikes, and use this to help create a comfortable environment at the gym? What if we could do the same with vehicles? In addition to regenerating energy from the engines and tires, we could extract it from the vehicle's air resistance, vibration, the driver's body heat and from other sources to help power the operation of the vehicle.

By the time I returned home from the drive, the car was fully charged. In a smart house that does not require much power the extra electric power can be sold back. Meanwhile, vehicles generate energy just by running. Although this seems all too smart, future vehicles are all headed this way.

(Hitoshi Kikuchi)





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Programs at the Venue Vehicles and Energies

Conference International Symposium

“Future societies, future mobilities”

What will our lives be like when automobiles become connected to society, the towns, and to the people? How will the cars of the future change our society, cities, and lifestyles? In this conference, we will discuss the future of society and the future of mobility and search for specific approaches to be taken from not only the technological standpoint, but also from a variety of perspectives including social and cultural aspects.

The following programs are scheduled: keynote address by Joi Ito, Director of MIT Media Lab; talks with architects and urban planners; and a panel discussion facilitated by Zenta Nishida, Editor in Chief of Brutus, with those who are at the forefront of developing the vehicles of the future and belonging to research institutes, marketing (product planning) departments, engineering departments, design departments, and other departments of auto makers.

Location: International Conference Room, Conference Tower 7F

Date: 10:30 – 16:30 on November 28 (Thu.), 2013

Test Ride

Charging infrastructure and EV/PHV test drives

Period: November 27 (Wed.) – December 1 (Sun.), 2013

Location: Rooftop Exhibition Area

Core exhibit

(1) SMC TOURS

SMC TOURS will be offered at the core exhibit area as a program for visitors to experience what life would be like ten years after the advent of technologies and services that are just about to be offered, as well as those that are currently undergoing demonstration experiments, and what the future of our dreams would be like. In this tour, visitors will enter a mini theater shaped like a vehicle, and go on a journey of discovery to see the diverse possibilities of smart mobility, where they will find the lifestyles and vehicles of tomorrow.

② Exhibition

Exhibitor booths will display the diversification in vehicle power systems, and will also show how this will lead to a new world where our vehicles, our towns, and our homes are all interconnected.

For inquiries, please contact:

Tokyo Motor Show SMART MOBILITY CITY 2013 Public Relations Department

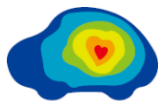
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Details on SMART MOBILITY CITY 2013 will be provided in future newsletters.

Please e-mail smc2013-pr@motor-show.jp if you would like to receive the latest information.





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List of Programs

Core exhibit SMC TOURS

At the core exhibit area of the organizer, located at the center of the exhibition area, SMC TOURS will be offered as a program for visitors to experience what life would be like ten years after the advent of technologies and services that are just about to be offered, as well as those that are currently undergoing demonstration experiments, and what the future of our dreams would be like. In this tour, visitors will enter a mini theater shaped like a vehicle, and go on a journey of discovery to see the diverse possibilities of smart mobility, where they will find the lifestyles and vehicles of tomorrow. And on the wall will be a gigantic map displaying the overall picture of smart mobility, providing an in-depth and straightforward presentation on next generation vehicles and the social system surrounding them.

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- I. Connecting for safety
- II. Connecting for convenience
- III. Connecting for fun
- IV. Connecting for reassurances
- V. Connecting for smart lifestyles
- VI. Connecting for freedom

Location: West Hall 4

Period: November 23 (Sat.) – December 1 (Sun.), 2013

Test Ride

SMC Test Rides: Experience Smart Driving

- (1) Personal mobility experiences
Location: Core Exhibit Area, West Hall 4
Period: November 23 (Sat.) – December 1 (Sun.), 2013
- (2) Micro mobility experiences
Location: Core Exhibit Area and Track Yard, West Hall 4
Period: November 22 (Fri.) – December 1 (Sun.), 2013
- (3) Electric two-wheeler test rides
Location: Track Yard West Hall 4
Period: November 22 (Fri.) – December 1 (Sun.), 2013
- (4) Advanced driver assistance systems
Location: Rooftop Exhibition Area
Period: November 22 (Fri.) – November 26 (Tue.), 2013
- (5) Autonomous vehicle demonstrations
Location: Rooftop Exhibition Area
Period: November 25 (Mon.) – November 26 (Tue.), 2013
- (6) Charging infrastructure and EV/PHV test drives
(Sponsored by Next Generation Vehicle Promotion Center)
Location: Rooftop Exhibition Area
Period: November 27 (Wed.) – December 1 (Sun.), 2013

Conference International Symposium

Auto makers, IT companies, and internationally renowned experts will present lectures and sessions regarding development trends for advanced technology such as automated driving, as well as the society of tomorrow and potential for future mobility.

“Connected vehicles for enhancing safety and reassurance – Possibilities of advanced driver assistance systems”

Location: Conference Rooms 605-608, Conference Tower 6F

Date: 10:30 – 16:30 on November 25 (Mon.), 2013

“Future societies, future mobilities”

Location: International Conference Room, Conference Tower 7F

Date: 11:00 – 16:30 on November 28 (Thu.), 2013

(Special Cooperation by Toyota Motor Corp.)

“Future Life Brought about by Next Generation Mobility”

(Sponsored by Ministry of Land, Infrastructure, Transport and Tourism / The Yomiuri Shimbun

Location: Conference Rooms 605-608, Conference Tower 6F

Date: 10:30 – 16:30 on November 24 (Sun.), 2013

Advanced Technology Seminar

Agency for Natural Resources and Energy

“Fuel Cell Seminar in Tokyo”

Location: Conference Rooms #605-606, Conference Tower 6F

Date: November. 28 (Thu)

Kids Workshop

1. Nissan Motor Co., Ltd
“Nissan Wakuwaku School”
Location: CONFERENCE TOWER 1F 102
Date : November 23(Sat) 24(Sun)
2. ecomio Corp.
ecomio Car Design Park “Designing Cars with Clay”
Location: SMART MOBILITY CITY 2013 Kids Area
Date November 23(Sat),24(Sun).30(Sat),December 1(Sun)
3. Panasonic Corp.
“Let's make a Hybrid car!” a workshop held by Panasonic kids school
Location: Panasonic Center Tokyo
SMART MOBILITY CITY 2013
Date: November 23(Sat) 24(Sun)
4. Mabuchi Motor Co., Ltd.
“Let's make a wooden car that runs with Mabuchi motor!”
Location: West Exhibition Hall 1F Atrium
Date: November 24(Sun), 30(Sat), December 1(Sun)

