

Report on the 1st Workshop of Technology Forum for Future Asia (TeFFA)

Date : July 1, 2013

Venue : Seminar Room at Shinjuku Office, Digital Process Ltd.

Program :

5:00-15:05	Opening remarks by MC	Hiroshi Kato
15:05-15:20	Biotechnology “Oxygen sensor”	Ichiro Okura
15:20-15:35	Disaster Defense “Experience from Fukushima Accident”	Kazumi Kitayama
15:35-15:50	Environment “EV”	Hirokazu Hirano
15:50-16:05	Energy “Magnetic Energy Recovery Switch (MERS)”	Ryuichi Shimada
16:05-16:20	Energy “Photovoltaic power generation”	Kosuke Kurokawa
16:20-16:35	Assistance for revitalization of local Communities “Public Fund”	Seiichi Naoto
16:35-16:55	Introduction of attending organizations (THK, DIPRO, Seisa Univ.)	
16:55-17:20	Discussion “Project creation”	Kyoji Kunitomo
17:30-18:30	Get-together	

1. Optical Oxygen Sensor by Ichiro Okura

Professor Okura has developed an optical oxygen sensor, which comprises of a specific polymer attached with metal-porphyrin compounds as oxygen sensing moieties.

The sensor will be useful for visualization of oxygen pressure or air pressure, monitoring of oxygen distribution in the cell, etc.



2. “Experience from Fukushima Accident by Kazumi Kitayama

Canceled.

3. Indo-Japan Collaborative EV Research by Hiroshi Kato in place of Hirokazu Hirano

Mr. Kato presented in place of Professor Hiramno because of his sudden illness.

Indo-Japan EV Research Association has recently founded, aiming at exchanging

information and knowledge among experts in the Electric Vehicle (EV) technologies at universities, industries, governments, NPOs, etc. in India and Japan to promote project creation in the field of development of EV.



4. Combination of Flywheel power generation and HVDC by Ryuichi Shimada

Professor Shimada proposed new power transmission systems. One is HVDC-Oneway with which power generated by PVs and windmills can be transmitted through HVDC lines to the power consuming areas. Electricity goes in the one direction, and transmission/access facilities can be simplified in this system.

The other proposal is a flywheel power generation system in the railway power feed lines. Flywheels can store power in the mechanical way and release it when the train passes the site. A train needs a large amount of electricity only when it passes the site.

Those power transmission systems will have a lot of advantages in the Delhi-Mumbai-Industrial Corridor (DMIC) scheme, which is planned by governments of Japan and India.



5. What PV can contribute to the joint work between Japan and India

by Kosuke Kurokawa

Thar Desert located at the north-west part of India has plenty of sun energy, which has a potential to produce 18PWh/y of electricity with 13TW PV facility. This area has a great solar energy abundance following Sahara Desert (373TW), Gobi Desert (53TW) and Great Sandy Desert (20TW).



An important concept for the mankind today and tomorrow is “Ecological Footprint”. If we propel this concept forward, 77% of the total world energy could be supplied by renewable sources in 2050.

6. Application for funds by Seiichi Naito

TeFFA needs funding for its activities. There are several public funds applicable for TeFFA, such as those provided by Japan International Cooperation Agency (JICA), Japan Science and Technology Agency (JST).



7. Attending organizations

Two corporations of THK Co., Ltd. and Digital Process Ltd., and Seisa University participated in this workshop. Representatives of these organizations briefly presented their structures and activities.



8. Discussion on “Project creation” moderated by Kyoji Kunitomo

TeFFA provides academia, industries and governments with a collaboration platform for solving problems of societies and industries in Asia by creating and operating international projects, which could contribute to utilization and expansion of advanced technologies of Japan. Its activities include “Creation of collaborative researches”, “Promotion of academia-industry cooperation”, “Linkage with university-based ventures” and “Fund acquisition for those activities including public ones”.

TeFFA intends to extend projects in India and China and accelerate its Solutions

Research of which outputs could be put into practice in the society and/or industry.

Participants have discussed on the strategy and methodology of TeFFA's activities, that is, how to promote the projects and which direction would be appropriate to achieve TeFFA's targets.



Participants



Party after the workshop