



Moser Baer Signs a MoU with IIT Kanpur for Developing Advanced Clean Energy Technologies

*The premier institute to engage in focussed R&D activity in developing innovative energy
efficient systems*

New Delhi 12 Oct 2010: Moser Baer, a cutting edge tech-manufacturer, has signed a Memorandum of Understanding with the **Indian Institute of Technology Kanpur** to institute a research & development programme in advanced clean energy technologies. The projects will focus on energy generation using solar photovoltaics and energy efficiency using organic solid state lighting. The research work will be conducted from IIT (Kanpur) and MBI will extend a fund of Rs 25 lakhs annually and work closely towards successful completion of this initiative. This unique industry-academia linkage is slated to come up with futuristic technologies solutions that will redefine both photovoltaic and solid state lighting.

Speaking about the tie-up **Dr. G. Rajeswaran, Group Chief Technology Officer, MBI** said "Moser Baer has been a technology pioneer in India and a global leader in world-class manufacturing of high technology products. Sustained long term commitment, continued support of advanced research and development programs and rapid commercialization of resulting technologies is key to the continual rejuvenation of our businesses and corporate growth. Therefore, it gives us great pleasure to partner with IIT Kanpur, a premier institute of higher learning and a beacon of technology excellence in India. We will direct our joint multi-year programs towards addressing clean energy and energy efficient technologies. Our joint research programs in solar photovoltaic and solid state lighting technologies will be of great relevance to India's future energy needs in grid-connected and off-grid segments."

Prof. Sanjay G Dhande, director IIT Kanpur said, "IIT Kanpur is enthusiastic about its research relationship with a leading and dynamic Indian company such as Moser Baer. So far, faculty and students of IIT Kanpur have developed excellent research partnership with international companies (e.g. Chevron, Intel, Boeing). It is time now that Indian institutions and Indian companies join hands for developing



innovative ideas which are converted into successful economic ventures. IIT Kanpur has established a centre for research on Organic Electronics and Large Area Electronics, an area in which world leadership is still evolving. The centre, which is well supported by the government funding, will also endeavor to bring industry-academia-government, all on the same platform, working towards a common goal to develop inexpensive, clean and green technologies for the country's energy needs. Scientists and technologists drawn from various disciplines at IIT Kanpur will actively support this collaborative work taken up under the MoU with Moser Baer."

Snap shot of the areas of the project:

Organic Photovoltaic Technology

Organic photovoltaic (OPV) technology is an important area of research for harnessing solar energy, especially for low-cost power generation. This is particularly attractive for smaller size, off-grid applications which are extremely important for a country such as India – and are often ignored by mainstream industry around the world. OPV for power generation are attractive because of their potential low costs and ease of large volume manufacturing. Under this collaboration, we would like to synergise the strengths of IIT Kanpur - innovations, analytical expertise and research potential at IIT Kanpur - with the strengths of Moser Baer – excellence and quality in industrial production, speed of execution and building up facilities within India. The work would involve, continued working on organic solar cell sub-module, module design and subsequently production for commercial applications.

White Organic Light Emitting Diode

In our modern society, we use a lot of light and about 20% of our energy goes into lighting applications, ranging from simple signals to general illumination. The most used lamp type is the incandescent light bulb. This old filament technology only radiates about 5% of its energy in the visible range and rest is dissipated as heat. Also it has very poor energy conversion efficiency and has an efficacy of ~ 10-20 lm/W, overall making it a very inefficient device. This is leading to the ban on incandescent bulb by many major nations of the world. Solid state lightings including organic light emitting diode (OLED) are one of the most promising technology – which are not only the most "green light



source" as it does not contain any bad metals as mercury; but also are super-efficient, with reported efficiencies in the range of 50-100 lm/W at lab scale.

About Moser Baer India:

Established in 1983, Moser Baer India (MBI) is a globally, diversified technology group. With its manufacturing expertise and extensive R&D base, the Group has successfully diversified in areas like Blank Optical Media, Solar Photovoltaic, Home Entertainment and IT Peripherals & Consumer Electronics. The company has successfully developed cutting edge technologies to become one of the world's largest manufacturers of Optical Storage Media like CDs and DVDs. MBI is the first to market the Blu-Ray discs in India – the next-generation storage formats. In recent years the company has entered into exciting areas of home entertainment and consumer products and is set to lead the technology curve in tapping renewable energy resources in the high growth photovoltaic space. Over the years, MBI has emerged as one of the most credible brands focused on hi-tech manufacturing and R & D activities. It is continuing to unfold the next generation innovative technologies that will catapult India into a respectable manufacturing hub.

For more details please visit: www.moserbaer.in

About IIT Kanpur:

Indian Institute of Technology Kanpur is engaged in carrying out original research of significance and technology development at the cutting edge since 1960 when the institute was established by the Government of India. It imparts training to students so that they become competent and motivated engineers and scientists. The Institute celebrates freedom of thought, cultivates vision and encourages growth, but also inculcates human values and concern for the environment and the society.

The Institute awards Bachelors, Masters and Doctoral degrees in various branches of technology and science. It has been making special efforts to recruit talented faculty on a world-wide basis and to admit bright students from all over the country by a careful selection process (JEE/GATE/JMET/JAM). The Institute has about 1450 undergraduate and 850 postgraduate students, 300 faculty, and more than 1500 supporting staff. It has one of the finest scientific & technological library with an online information retrieval system over the campus LAN.

For more details, please visit: www.iitk.ac.in

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