

STUDENT NEWS

HOLI - The festival of colours

Holi is one of the many spring festivals in India and seems to be the happiest and the most vibrant one with a myriad of colours. Indians celebrate this day as it marks the end of winter and start of spring. It's actually a north Indian tradition, but since here at MIT the majority of students is from north India, it's become a customary celebration. To make this day even more enjoyable for students the classes are called off.

HOLI is a day to liven up and enjoy to the fullest - whether it's dancing to loud music or bombarding your friends with coloured powder and water. In the festive mood friendly strangers approached us, wished us a "Happy Holi", put a bit of colour on our cheeks and went their way. All Indian boys wearing t-shirts that day, weren't able to wear those for long the reason being that their friends ripped it off their body while playing, so only a few went home with a t-shirt still on.



All of us enjoyed this day a lot, being so coloured all over our bodies and clothes from head to toe. Even after a few days and several showers the colour still stained our skin and hair. It's hard to imagine what fun it was for us Germans to celebrate the festival of colors amongst our Indian friends. It will definitely remain an unforgettable day and cherished memory for everyone. *MJ*

pmINDIA OFFICE NEWS

Indo-German Colour Conference 2012

The Indo-German Colour Conference was held in Mumbai on 1st, 2nd and 3rd March 2012. The graphic arts community has always responded warmly to the biannual 'Colour Conference' ever since its launch in 2004. This year's conference was unique as there were many workshops, which the participants

found of immense help in their day-to-day work.

On the first day presentations and panel discussions were held on relevant problems in colour management. A few highlights were a presentation on 'Colour Perception and its Aesthetic Translations' by Prof. Ranjan Joshi. He explored the subtle aspects of colour perception, its nuances and subjectivity and techniques borrowed from fine art and physics. Prof. Hübler of the pmTUC, Germany, explored the future role of 'spectral colour technology' and 'automation'.

An interesting session was on the standardisation for high quality colour reproduction by Mr. Kiran Prayagi. Manish Kulkarni of Chromasens, Germany, explained the Chromasens approach for in-line control of colour measurement using high resolution camera systems.

The panel discussion on the first day was chaired by Ramu Ramathan, Editor PrintWeek. Panel consisted of Ranjan Joshi, William Fernandes, Art Director from Magna, and Biwajit Basu, Manager Packaging Development, Abbott India. Discussion concentrated on colour reproduction problems faced by end users and the steps they are taking to improve understanding of reproduction limitations.

During the third session Sushil George, QC Manager, Malayala Manorama gave account of various standards followed in the industry and highlighted their similarities and differences. After the three interesting sessions audience participated in panel and one-to-one discussions.

The next two days saw the audience fully engrossed in workshops, group exercises, and hands on. Participants got some real feel of handling the equipment and learning more about the right origination for print production, colorimetry, colour calibration, colour management, and much more. The conference covered topics such as colour basics, colour appearance, colour measurement of metallic and fluorescent colors and surfaces, etc. – crucial to quality colour print production.

The conference chairman Kiran Prayagi and co-chairman Prof. Hübler thanked the participants, sponsors, and media partners and expressed deep satisfaction on the event. The conference was sponsored by Chromasens, Germany, X-Rite, Switzerland, and Advanced Graphic Systems, India. PrintWeek India and Campaign India were the media partners. *CB, KP*



pmTUC RESEARCH NEWS

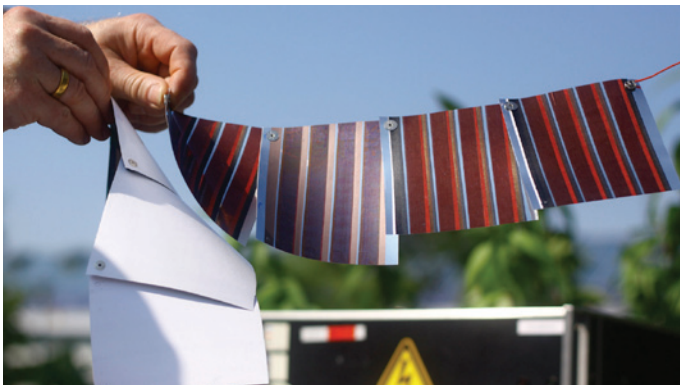
New applications for photovoltaics (PVs)

Until now, PVs have been developed and perceived simply as systems for generating electricity, with the performance of cells being defined purely in terms of power output and efficiency. However, this scenario is changing. There is a huge potential for flexible PV applications. In the future, solar electricity production will become a by-product of multifunctional building components with integrated PV capability. Beside solar power output, the technology will be judged on other criteria, such as design, aesthetics, structural integration and flexibility.

New applications are being perceived with some of them already in place. Organic solar cell developer Heliatek has signed a joint development agreement with Reckli to develop building-integrated photovoltaic (BIPV) products for concrete façades.

Niche opportunities for the flexible lightweight PV markets come from transportation and automotive markets as well. A different approach by the company Power Film is to develop panels for police cars or emergency vehicles which need power to run the multitude of gadgets in them. Presently these gadgets draw power from the vehicles engine. French train company SNCF is installing thin-film module-based systems on train carriages, where PV is being used to power the doors opening and closing, and other operations.

On the same grounds, the pmTUC has come up with flexible solar cells which can be printed on paper (www.pppv.de). These low-cost flexible PVs have a huge potential in both low-tech and high-tech applications. On the one hand they can be an affordable source of electricity in rural sunny areas. On the other hand the cells could be incorporated in industries already using paper, like the packaging industry, to include further functionalities.



Thus, unused space in buildings, automobiles, packages, etc. could be used for energy harvesting. With new applications being thought of each day the aim is not only for better efficiency but for better aesthetics as well. CB

NEWS ON MANIPAL COOPERATION

Head of pmTUC visits Manipal University

In the beginning of March, Prof. Arved C. Hübler travelled to Manipal to fresh up the collaborations between pmTUC and MIT. Outcome and efficiency of the double degree programme were the major focus of discussions between the authorities. Prof. Hübler also met the six double degree students from pmTUC to ensure their well-being. SV, RV



Double degree students in Chemnitz

Since October 2011, nine double degree students of Printing and Media Technology at Manipal University are studying at Chemnitz University. The students have already completed the 3rd semester and just started their 4th semester in which they will write the Master's thesis. In addition to the exchange of knowledge, the programme provides an opportunity to experience a different culture. SV, RV

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