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PRESS RELEASE FOR DAY 3 DFSW

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June 14, 2014

3nethra eye testing centre. Photo by Manoj Mahala.

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DESIGN FOR SUSTAINABLE WELL-BEING & EMPOWERMENT

14th June 2014, J N Tata Auditorium, Indian Institute of Science, Bangalore

A tiny insect living in the lush green rainforests of Malaysia has inspired a Global Positioning System (GPS) which can direct older folk home. Plant and animal cells have the ability to suck in only pure water from their surroundings - can one draw inspiration from plant and animal cells to build a water purifier? The answer is yes, only if you have the insight and humility to learn from nature.

In a keynote on the final day of the Indo - Dutch Conference on "Design for Sustainable Well-being and Empowerment" at Indian Institute of Science, Prof Ille Gebeshuber explained how her recent research in nanotechnology is inspired by the flora and fauna flourishing in the rainforests of Malaysia.

Encouraging interdisciplinary research by taking people from different fields like art, physics, biology and engineering with her into the forest, Prof Gebeshuber has been a pioneer in the field of "biomimetics" - mimicking nature's designs, which have been shaped by millions of years of evolution.

Rishikesha Krishnan, the Director of IIM-Indore, gave a talk about India's innovation success stories - from the Jaipur foot to Aravind Eye Hospital to Tata Nano. He also compared relative failure of Tata Nano with the success of Tata Ace, and suggested that the company involved end-

users during the design process while designing the Ace, while that critical component was missed during the design of the Nano.
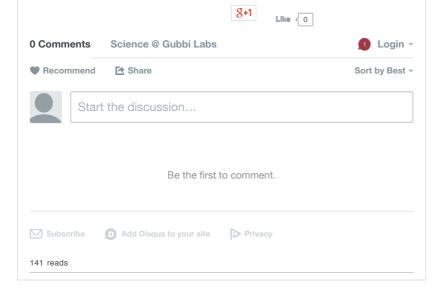
Sutapa Das from Jadavpur University spoke about the effect of light on the human body - blue light wakes up the brain and yellow light makes the body relax. Using this principle, she plans to design IT offices to help improve health of workers.

The conference had announced a student design competition for high school and undergraduate students. More than 60 students applied and the conference selected 16 to be made into demonstrable prototypes. Five of these were judged to be a cut above the rest: using carbon di oxide in solar cookers to make them heat more efficiently (New Horizon College of Engineering, Bangalore), a machine to granulate plastic generated at home (Vivekananda College of Engineering and Technology, Puttur), a solar powered dryer (Srinivas Institute of Technology, Mangalore), a method to incorporate heat resistant geopolymers into compressed bricks (Jain College of Engineering, Belgaum) and an equipment to generate power from freely falling raindrops (Vishwanathrao Deshpande Rural Institute of Technology, Haliyal).

Prabhu Kandachar, Emeritus Professor, Delft University of Technology, the Netherlands, concluded the Conference with some introspective remarks. Prof Chandrashekharan, Chairman, Center for Infrastructure, Sustainable Transportation and Urban Planning, Indian Institute of Science, was the Chief Guest.

The organisers have made it a point to make it as eco-friendly as possible - all conference material is recyclable and biodegradable. Conference convener Prof Monto Mani, during the closing ceremony, mentioned that "less than one kg of plastic waste was generated during the conference". Conference bags were recycled from what was available with the Institute professors' and the money saved was used to fund the student design competition.

3nethra, a low cost, portable and non-invasive eye pre-screening device developed by Forus Health was on display after the closing ceremony of the Conference. The instrument can detect five major eye ailments, and provides an automated "Normal" or "Need to See a Doctor" suggestion.

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