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IITM E-Newsletter - July

1 message

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Dear All,

Please find below the IITM E-Newsletter for the Month July.

Thanks and Regards,
Team - Media Cell



Hon'ble Minister Sh. Piyush Goyal inaugurates Green Technology innovations by IIT Madras

Minister of State with Independent Charge for Power, Coal, New and Renewable Energy (MNRE) and Mines, Govt. of India, Sh. Piyush Goyal, visited the IIT Madras campus and Research Park on 15 July 2016. He formally inaugurated the innovative solar-DC products INVERTERLESS and appliances, developed by IITM and its incubated renewable energy companies, and the Green Building cooling system along with the Insulated Thermal Storage tank at the Research Park, as well as laid the foundation stone for the Centre for Battery Engineering and Electric Vehicles.

Prof. Bhaskar Ramamurthi, Director, IIT Madras welcomed the Minister and presented the vision for IITM Research Park. Prof. Ashok Jhunjhunwala, Co-chairman and Faculty-in-Charge of IIT Madras Incubation Cell, accompanied the Minister on his tour of Research

Park and showed him an exhibit of the Green Office and Green Home - the power of a single 125W solar panel and how it powers a whole home with DC appliances.

Inaugurating of the Green Technology innovations at IIT Madras, Sh.Goyal said, "Today's showcase of innovative green technology research at IIT Madras highlights a new kind of partnership made possible by IIT Madras between Public-Private-Professor-People (PPPP). These technologies can make uninterrupted power accessible and affordable for the poor and aligns with the Government's commitment to make power available to every home in India. These technologies are a significant leap towards India achieving energy security goals."



53rd Convocation held at IIT Madras



IIT Madras celebrated its 53rd Convocation on 22nd July 2016 on Campus. Dr. Jayant Baliga, Distinguished University Professor, North Carolina State University, Raleigh NC, USA, was the Chief Guest for the function and was felicitated with the Degree of Doctor of Science (HonorisCausa), on the occasion. Dr. Pawan Goenka, Chairman, Board of Governors, IIT Madras and Executive Director, Mahindra & Mahindra, presided over the function.

The Chief Guest presented prizes to the students. Prof. Bhaskar Ramamurthi, Director, IIT Madras awarded degrees to the graduating students. Degrees for two new courses were awarded for the first time at this year's Convocation, M.S. and Ph.D. (Dual Degree) and Postgraduate Diploma in Visionary Leadership in Manufacturing (PGDVLM). A total of 2191 degrees were awarded this year.

AlumNite 2016 in all its glory!

IIT Madras celebrated its second AlumNite, a variant of the traditional alumni day, on 23rd July 2016.

Dr. Jayant Baliga, Distinguished University Professor and Director, Power Semiconductor Research Center, North Carolina State University, was conferred Distinguished Alumnus Award 2016 on the occasion.

The other recipient of the Alumnus awards were Dr. S. Christopher, Secretary, Department of Defence R&D and Director General, DRDO and Dr. Aravind Srinivasan, Professor, Department of Computer Science and Institute for Advanced Computer Studies, University of Maryland.

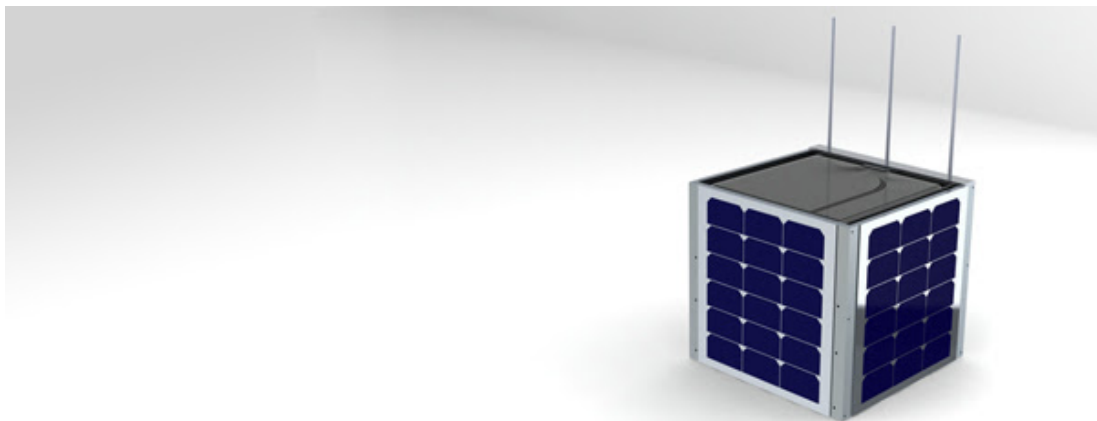
A recently established alumni chair, named after Mr. V. Balaraman, former Managing Director of Ponds, was established in April and was officially launched during the event.

IIT-Madras topper bags Visvesvaraya memorial prize en route to Stanford for higher studies

Joseph Samuel, who got B.Tech. in Electrical Engineering and became a topper in IIT-Madras, won the Bharat Ratna M Visvesvaraya memorial prize. He is interested in researching on wireless communication. He said this during the 53rd convocation ceremony of IIT Madras held on 22 July 2016.

He got 9.96 CGPA and said he would pursue Ph D in wireless communication from Stanford University. "In Stanford University I am directly getting into integrated program MS- PhD," he said, adding that he had done two projects in IIT related to wireless communication. "I did a project on full duplex. Normally all communication systems such as cell phones, WiFi device transmit and receive two different frequencies," he said. Citing example, he said that the signal which goes from the 2G phone to the power is one frequency bandwidth and again from the tower to the phone is another frequency bandwidth. That is wastage of bandwidth; so I am trying to do both in a single frequency bandwidth. I did another project on satellite," Samuel said. He has also received Siemens Prize.

IIT-M grads cheer loud for IITMSAT



The 53rd convocation at IIT-Madras was, understandably, marked by cheers but, the loudest and the most earnest were reserved for Director, Prof. Bhaskar Ramamurthi's announcement that IITMSAT was all set for launch (by ISRO) in October this year.

The student-led satellite initiative was started in 2011 and it will be up for final tests, the Director said while reading out the Director's Report.

IIT Madras is powering India through the Sun!



IIT-Madras students recently installed 1.5 kW solar panels with energy efficient DC (direct current) technology in Government Girls Higher Secondary School at Ashok Nagar here in Chennai.

Prof. Srikanth Vedantam, Head, Department of Engineering Design, IIT Madras inaugurated the plant which covers 12 classrooms in the block. Students who were part of an NGO, Engineers Without Borders (EWB), set up the plant.

"The lights and fans in the block were replaced with specially designed DC lights and fans which consume only half of the power compared to AC (alternating current) appliances", said K.Venkatesh, a fourth-year student in Metallurgical and Materials Engineering Department of the Institute.

"The LED fluorescent lights consume 18 watts at full brightness, unlike conventional fluorescent lights that consume 36 watts. The DC fan consumes only 30 watts at maximum speed whereas the conventional fans consume 80 watts at full power," he said.

With the DC based equipment (solar panels, battery and lights, fans) in place, conversion

losses are avoided. As a result, solar panels providing 1.5 kW power is sufficient to power lights and fans in the block, which would have otherwise required solar panels to generate six to eight kW power if conventional AC-based technologies had been used.

#IITMadras Alumni come up with innovative solutions to everyday problems!

A four-month-old IIT-Madras incubated start-up, Detect Technologies (DeTect), is already taking giant leaps at both domestic and international arena. Its product, the Guided Ultrasonic Monitoring of Pipe Systems (Gumps) is being viewed as world's first high temperature monitoring system based on sensors that will tolerate heat up to 350 degree Celsius and detect leakages in pipelines besides actually telling the rate of corrosion.

Another innovation is the facility to dispose off sanitary pads. Rail Vikas Nigam Limited (RVNL), an organization of Indian Railways that does engineering work, has installed an electronic sanitary napkin vending machine and a destroyer at the station.

Developed by an IIT-Madras alumnus, the sanitary napkin incinerator can burn soiled pads in to ashes within few minutes. The waste can either be used as a manure for plants or can be flushed out.

Setup along with information boards, the idea was also to break the taboo and raise awareness on menstrual health. The machines have been installed along with token and coin vending machines as part of CSR activity of RVNL.



Awards & Recognitions

Ramesh P Hun, Research Scholar (AE14S031), Department of Aerospace Engineering won the Best Paper Award for his research work on 'Design of Kalman Filter for Smooth State Estimation of Airship Dynamics' in the National Conference on 'Large Scale Multi-disciplinary Systems of National Significance (LAMSYS)' held at Sriharikota during June 24 and 25, 2016. He is guided by Prof. Nandan Kumar Sinha.

K. Lakshmikumar, Research Scholar (CH14D403), Department of Chemical Engineering won the Best Poster Award for his poster entitled 'Structure and Dynamics of Aqueous Solutions containing Poly (Acrylic Acid) PAA and Non-ionic Surfactant Penta-Ethylene Glycol n-Octyl Ether (C8E5)' at the International Conference on Frontiers at the Chemistry-Allied Sciences Interface (FCASI-2016) held at Jaipur during April 25-26, 2016. He is guided by Prof. UpendraNatarajan.

Abhishek Gupta, Research Scholar (CH13D016), Department of Chemical Engineering won the Best Oral Presentation Award for his poster entitled 'Counterion Specific Collapse of Fully Ionized PAA in Water-Ethanol Mixture in Presence of Li⁺ and Cs⁺ Metal Cations - A Molecular Dynamics Simulation Study' at the International Conference on Frontiers at the Chemistry-Allied Sciences Interface (FCASI-2016) held at Jaipur during April 25-26, 2016. He is guided by Prof. UpendraNatarajan.

HareeshaDasary, Research Scholar (CY12D014), Department of Chemistry won the Best Poster Award for her research work entitled 'Octadecanuclear Gear Wheels by Self-Assembly of Self-Assembled Double Saddle Type Coordination Entities' at the 11th International Symposium on Macrocyclic and Supramolecular Chemistry (ISMSC-2016). She is guided by Prof. Dillip Kumar Chand.

The TTS Consortium headed by IIT Madras, TDIL and DeitY has developed a Text-to-Speech (TTS) tool in six regional languages (Hindi, Marathi, Malayalam, Tamil, Telugu and Bengali) that is functional on SMS, WhatsApp, email and web browser. The TTS has been successfully integrated within the Regional Operating System 'Indus OS' and has been launched with two Micromax models - Unite 4 and Unite 4pro. More brands are expected to launch the Indus OS soon. Prof. Hema A. Murthy and her team from IIT Madras have played a pivotal role in it.

Publications

A research monograph entitled 'Infinite Matrices and their Recent Applications' by Prof. K. C. Sivakumar, Department of Mathematics et. al. has been published by Springer.

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A book entitled 'Meaning and Language' authored by Dr. SatyaSundarSethy, Department of Humanities and Social Sciences has been published by DK Printworld, New Delhi.

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In the news

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