

IIT-I develops technology for converting manufacturing industries into social machines

Vibhor Pandhare, associated with the project wins prestigious Innovative Students Project Award-2016

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INDORE

A team of faculty members and students of Indian Institute of Technology, Indore has developed a technology product which can convert existing manufacturing industries into a social network of machines.

Vibhor Pandhare, a dual degree student of IIT-Indore, who is part of the team, has fetched coveted Innovative Students Project Award-2016 for Master's Category for his thesis titled, 'A Social Network for Machines - Realizing Industry 4.0'.

Vibhor said that within this social network, every machine is intelligent in the sense that it can take its own production decisions and 'tweet' them to other machines by forming groups analogous to human social network.

"Connectedness is the ultimate power today, because it brings a flood of information to us at just few clicks. And that is what is making

'things' intelligent. In fact, 15 out of the 19 most important inventions of the 21st century use connected technologies at its core.



Vibhor Pandhare

And manufacturing has the greatest scope to benefit from this. The day isn't far when we would be able to manufacture our products sitting at home and not just order them," he said.

IIT-Indore media in-charge Nirmala Menon said that Smart Manufacturing Research Group being led by Dr Bhupesh Kumar Lad, of which Vibhor is a part, has

been working since past three years on developing their product, Industry Smartware, to enable Indian SMEs adopt Smart Manufacturing technologies.

Other students who have worked with Lad include Kartikeya Upasani, Namit Agrawal, Miroojin Bakshi and Vikas Sankhla.

"India's competitors have already begun adopting smart technologies given their high level of automation. But, India comes with its unique challenges and our goal is to develop technology solutions to overcome such challenges and help Indian manufacturing industries become a world leader in the next generation manufacturing," said Dr Lad, assistant professor in mechanical engineering department.

The project has already

been presented at many national platforms, such as India International Science Festival at IIT-Delhi, Smart Manufacturing Summit by CII at New Delhi, etc.

Last week, it also won the National Technical Institutes Competition-2016 organised by Manufacturing Today Magazine, Aditya Birla Group and ITP Publishing Group and will be featured in the next issue of the magazine. This project has also won the Newton-Bhabha Grant in collaboration with University of Cambridge, as well as with a handful of Indian industries.

"It's wonderful to see the students of IIT-Indore rubbing shoulders with students from established IITs and universities at such reputed platforms," said IIT-Indore director Prof Pradeep Mathur.

VIBHOR TO RECEIVE AWARD IN DECEMBER

Innovative Students Project Award is conferred by the prestigious Indian National Academy of Engineering (INAE). This year, more than 50 nominations were made all over India with multi-level evaluation including a presentation at INAE. Vibhor would receive the award in a ceremony to be held during the Academy's annual convention at Space Applications Centre (SAC), Ahmedabad in December. Vibhor is currently leading the Systems Engineering group at National Centre for Aerospace Innovation and Research (NCAIR), IIT-Bombay

and plans to pursue a PhD further in this area. INAE, established in 1987, is a 'peer' body of some of the most distinguished engineers in India and abroad with the aim to promote advancement of and excellence in the practice of engineering and technology and its application to problems of national importance. The Academy instituted the Innovative Student Projects Award in 1998 and is giving it away every year, to identify innovative and creative research projects undertaken by students and scholars in the engineering institutions.