Futuristic projection technology could be used anywhere

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New projection technology could turn office cubicles into ideal presentation spaces. Credit: ThinkStock

Projections that display clearly on non-ideal surfaces such as room corners, and interact naturally with the presenter could transform not only business meetings, but gaming and simulation.

PhD candidate at the IITB-Monash Research Academy, Shamsuddin N Ladha, has spent the last three years refining projection technology to make it more intelligent and responsive, while remaining cost-effective. He aims to fill a large gap in the market.

"Expensive hardware-based solutions for very complex display surfaces - like buildings - are available. There is also technology to improve one or two aspects of projection in non-ideal environments," Mr Ladha said.

"However, this is an holistic approach to improve projection quality, both visual and interactive, on common surfaces using off-the-shelf components and software."

Mr Ladha said that in addition to displaying without blur or distortion on surfaces like office cubicles, his technology will also incorporate natural interaction capability.

"For example, if a presenter moves and obstructs part of the image, the projector will sense the disruption and adapt to it by moving the display," Mr Ladha said.

In addition, the technology will allow annotation on the display while the presentation is in progress.

Aside from the office where, larger displays could boost productivity, Mr Ladha said the technology could be used in the home to watch TV, in seminars and in life-size gaming and simulation environments.

"I also see applications in virtual or augmented reality environments, because the technology will be able to cope with multi-planar surfaces," Mr Ladha said.

CEO of IITB-Monash Research Academy, Professor Mohan Krishnamoorthy said Mr Ladha's research would have far-reaching applications.

"IITB-Monash Research Academy is excited to be part of training the next generation of rich talent in India," Professor Krishnamoorthy said.

"With research such as Ladha's, the Academy has the potential to be a significant research institution and talent from the Academy should become much sought after around the globe."

Mr Ladha has developed prototype systems for all aspects of his project and will continue to develop the technology.

Provided by Monash University