

IIT Gandhinagar becomes first IIT to launch masters program in cognitive science

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The Indian Institute of Technology, Gandhinagar (IIT-Gn) has become the first IIT to have launched a master's program in cognitive science. Beginning from July 2013, the institute will establish a master's program in Cognitive Science after having successfully undertaken some of the ground-breaking studies in cognitive science since past two years.

The institute received more than 500 applications for 15 positions in the programme.

Cognitive Science is the interdisciplinary study of cognition, brain and behavior, embracing primarily philosophy, psychology, artificial intelligence, neuroscience, linguistics, and anthropology. Talking about the field and the program, Prof Jaison Manjaly of IIT-Gn said the multidisciplinary programme is critically important in areas like education, mental health, social behavior and technology.

"Cognitive Science is an emerging field which would have a decisive role in the development of next generation intelligent systems. IIT-Gn will be one of the pioneering institutes to start this program in India, which very well goes with its commitment to developing innovative programs," said Manjaly.

According to Manjaly, cognitive science not actively pursued as an academic discipline in India and does not make use of its potential to address many problems in education, health care, social behavior and technological development and so on. "The Cognitive Science center at IIT-Gn will take up these challenges and make Cognitive Science more relevant to our society," Manjaly added.

The Cognitive Science group at IIT-Gn is spearheaded by faculty who are pursuing various interdisciplinary research projects, three of which are funded by Department of Science and Technology (DST).

Several research studies have already been undertaken in cognitive science at the institute. For instance, a person with a wider attention focus is more likely to donate to charity than someone with an acute focus, according to a research study by Sumitava Mukherjee, doctoral student in Cognitive Science at the Indian Institute of Technology Gandhinagar (IIT-Gn).

Another study by IIT-Gn doctoral student Krishnesh Mehta found that people involved in creative activities tend to change their perceptions toward

their surroundings. Further, another research student Selvia Kuriakose is trying to interpret the state of mind of children with autism through physiological signals, such as muscle twitching, heartbeat rate and skin, among others.

Among the research underway at the institute: exploring adaptive gaze-sensitive virtual reality based systems; physiology based affective computing; biologically inspired computer vision; consumer behavior and neuromarketing; and privacy behavior.

The institute has also developed state of the art research laboratories for behavioral experiments, including eye tracking, virtual reality, and recording physiological and brain electrical signals.

"IIT-Gn would like to establish itself as one of the centers of excellence in Cognitive Science, which is accepted as one of the four pillars of knowledge of the twenty first century along with nanotechnology, biotechnology and information technology," Manjaly said further.