MSU advances dual doctoral engineering program with high-ranking institute in India

The dual PhD program between Michigan State University and Indian Institute of Technology-Madras (IIT-M) is helping reverse an international trend of Indian students going abroad to pursue their higher education.

The *Times of India* reports that IIT-M is emerging as a favorite destination for foreign nationals to conduct engineering research in India. In a story published July 25, MSU was named among the 17 institutions offering both a dual doctoral program and a global perspective on research.

Mary Anne Walker, director of global engineering at MSU, said the joint program provides the benefits of learning in a global environment and greater marketability after graduation.

“It is the promise of innovative research that makes this program so exciting,” Walker explained. “It moves problem-solving in novel directions, attracting unique industry support and diverse sponsored-research funding to drive technological advancements.”

Walker told the *Times of India* that initially students were attracted to electrical engineering, chemical engineering, and materials science.

“However, we are now seeing interest growing across all engineering disciplines.”
R. Nagarajan, dean of international and alumni relations at IIT-Madras, said part of the new demand for Indian research is its rise in social relevance and interdisciplinary nature.

“The innovation-to-incubation ecosystem is still weak in many Indian institutions, as compared to foreign counterparts,” Nagarajan said.

“Research is not a subject or skill, but a habit which should be inculcated early in life. Faculty … should help students work on it accordingly to fill the gap between the research and incubated ideas in India,” he added.

See July 25 story in the Times of India.

IIT-Madras visit in May
Nagarajan was among those who spoke at a Joint Research Forum at MSU in May. It was MSU's second event in this joint program.

Nagarajan, MSU Executive Vice President Satish Udpa, Engineering Dean Leo Kempel, and Engineering Professors Lalita Udpa and Shanker Balasumbramaniam hosted visiting scholars and participated in research presentations and meetings in MSU's IQ/Biomedical Engineering facility.

Around 40 collaborating faculty members participated in workshops that strengthened the research alignments between faculty members at MSU and IIT-Madras. Activities also included graduate student engagement, tours of MSU's National Superconducting Laboratory Facility for Rare Isotope Beam Research, and visits to research laboratories in nine buildings across campus.

Walker said Michigan State students interested in studying in India were joined by IIT-M graduate students already enrolled at MSU.

“Uniquely trained, internationally-oriented faculty members bring a wealth of knowledge to the higher education experience in engineering,” she continued. “Imagine the rich environment in which these students are being trained.

“These students are interested in mobility in both directions and the opportunity to advance in the global marketplace. One student told me that she was challenged with a problem in her research studies, but upon arrival at the partner institution, the new lens from which to view the problem helped change her perspective. She quickly resolved the issue by looking at the problem from an inverse angle.
“This is the benefit of collective discovery,” Walker added. “This dynamic interdisciplinary learning environment provides high satisfaction to the students who engage.”

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