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IIT-M and GE tie up for precursor technology

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Chennai: Indian Institute of Technology - Madras (IIT-Madras) and General Electric (GE) partnered on Friday, whereby proprietary tech developed by the institute's researchers will be applied in real-world situations in GE's gas turbine component test facility.

The agreement relates to "precursor technology," which denotes early-warning or early signal systems warning of engine malfunctions in gas turbines due to thermo-acoustics interactions between heat and sound. The partnership is in line with GE's aim to use digital tech to realize vision of smart gas turbines. The financial details of the industry-academia partnership remain undisclosed.

The agreement was signed by Professor Ravindra Gettu, Dean (Industrial Consultancy and Sponsored Research), IIT-M, and Akhilesh Mishra, Executive – Engineering, GE Power. "With its early-warning feature, the technology can help GE save substantial money and time in testing their components," R I Sujith, chair professor, dept of aerospace engineering, IIT-M, told TOI.

The professor and a team of students from the institute worked on the specific research and hold the patent for it. "Precursor technologies in thermo acoustics have the potential to leapfrog existing analytics in this area. Adapting these in lab environment will enable us to have significant benefits in terms of improving risk assessment and decision making, and considerable cost savings," GE Power's Mishra said.

The research team says the tech is suited for applications in a variety of sectors including gas turbines, aerospace engines, liquid fuel rockets, among others.

Earlier in 2016, GE and IIT-Madras collaborated for an Industrial Internet Centre of Excellence at the institute for research related to aluminium smelting plants.