

IIT researchers develop breast cancer detection technique

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A team of researchers at the Indian Institute of Technology (IIT) Ropar, has developed an active infrared thermography (IRT) technique for detection of early breast cancer. It is a fast, painless, non-contact and non-invasive imaging method. It is complementary to mammography, ultrasound, and magnetic resonance imaging methods for early diagnosis of breast cancer.

The technique makes use of infrared emission emanating from the breast. The emanating radiations from the surface of breast under test or examination are detected with an infrared camera to map the thermal gradients over it, in order to reveal hidden tumors inside it.

This new screening tool, IRT, is also helpful in diagnosing various diseases like diabetes, thyroid, skin cancer and others besides breast cancer at early stage. The team is working towards the development of a portable low-cost IRT screening system, which would provide an early detection of breast cancer irrespective of patient's age, size and type of breast and stage.