

The research activities of this laboratory are directed toward the study of the basic principles of ultrasound and the application of these principles to both clinical and industrial problems. In particular, the laboratory is equipped to support the research and instrument development necessary to detect, locate, and characterize flaws and failure mechanisms, present or developing, in materials, components, and equipment.

Current activities focus on development of acoustic emission detection systems for use in monitoring and characterizing the feeding of insects in stored products. Other areas of interest include interpretation of acoustic emissions from artificial joints in humans and the development of ultrasonic imaging equipment and signal processing techniques for the nondestructive evaluation of materials and process monitoring during the machining of materials.

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