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## Robert Jeffcoat

Adjunct Professor  
Mechanical Engineering and Applied Mechanics (MEAM)

[Email](#)

Research Expertise: Systems engineering | Biomedical instrumentation | Data collection and management | Image analysis

Robert's research interests include systems engineering (rigorous techniques for modeling and designing large-scale, multi-component, multi-domain systems. Robust standards to represent, exchange, and archive system information); biomedical instrumentation (quantitative techniques for measurement of clinical outcomes and precursor phenomena with an emphasis on robust, self-calibrating methods, and on analytical techniques for full exploitation of available information); data collection and management (computer-assisted acquisition of clinical data, emphasizing efficient entry and very low error rates and appropriate use of ergonomic keying and form design, speech recognition and synthesis, bar coding, and handwriting recognition to streamline operations while providing a high level of accuracy, integrity, traceability, and privacy); and image analysis (efficient and accurate techniques for quantitative measurement of oral bone status, lossless and minimum-loss geometric transformations in real time, morphological techniques for lesion isolation and measurement, and automated and semi-automated calibration, alignment, contrast compensation, and measurement techniques).

Education:

PhD Massachusetts Institute of Technology  
MechE Massachusetts Institute of Technology  
SM Massachusetts Institute of Technology  
SB Massachusetts Institute of Technology



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