UNIVERSITY of HOUSTON ENGINEERING

Department of Biomedical Engineering



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Date Friday, October 03, 2025

Time 12:00 to 1:00 PM

Location SEC 203

Title: Startup in education: creating and growing a Biomedical Engineering department

Abstract: Biomedical Engineering is increasingly transcending the border from popular media and comics to real life. The speaker talks about his journey in biomedical engineering from being a student to being an 'educational entrepreneur' in creating a new department of biomedical engineering at a Carnegie Tier-1 university. Research opportunities in biomedical engineering and avenues for collaboration with other institutions.

Bio: Dr. Vijay Vaidyanathan is the Founding Chair of the Department of Biomedical Engineering at the University of North Texas, a Carnegie R1 institution. He created the curriculum for BS, MS and Ph.D. degrees in 2014, 2016 and 2021 respectively. The Ph.D. degree is the first of its kind in a Texas public institution, with a startup track. In 11 years, the department has grown to 382 students with 58 % women, 46% under-represented minorities and 503 graduates. In the same period, the number of faculty and staff grew from 1 to 17, with 45% women, more than \$11 M in research funding and 6 faculty startups in the last two years. The department was fully accredited by ABET in its first visit in 2019. Dr. Vaidyanathan was the Associate Dean for Academic Affairs in the College of Engineering before founding the biomedical engineering department. Dr. Vaidyanathan has Bachelor's degrees in Physics and Electronics Engineering from University of Mumbai, India, and MS and Ph.D. degrees in Biomedical Engineering from Texas A&M University in College Station. He has five years of industry experience and more than 28 years' experience in academia. His research interests include biomedical instrumentation – remote monitoring of vital signs, robotics for improving quality of life for senior citizens; and non-invasive, optical detection of superficial oral cancers in canine models.