**Wearable Sensing for Health and Performance**

Omer Inan, Ph.D.

Abstract: Recent advances in digital health technologies are enabling biomedical researchers to reframe health optimization and disease treatment in a patient-specific, personalized manner. This talk will focus on my group’s research in two areas of relevance to digital health: (1) cardiogenic vibration sensing and analytics; and (2) musculoskeletal sensing with joint acoustic emissions and bioimpedance. We have also leveraged miniature contact microphones to measure the sounds emitted by joints, such as the knees, during movement, and have examined how these acoustic characteristics are altered by musculoskeletal injuries and disorders (e.g., arthritis). We envision that these technologies can all contribute to improving patient care with lower cost and better outcomes.

This talk will be applicable to many IEEE technical subjects and disciplines including wearable sensing, machine learning, health and human performance.

 Come to our Presentation by IEEE Distinguished Lecturer Professor Omer Inan, from the Georgia Institute of Technology.



Dr. Inan has been a collegiate athlete and scholar at Stanford, and is a professional high-end audio engineer, a successful entrepreneur, professor, and researcher with hundreds of technical articles, numerous patents and awards, including an Academy Award for Technical Achievement from The Academy of Motion Picture Arts and Sciences (The Oscars).

**This presentation is co-hosted by several of the Technical Societies of the Denver IEEE.**

**Date | Time: Nov 13, 2024, 5:30 pm – 6:30 pm MST (United States) Hybrid Meeting**

**Location: University of Denver Ritchie School of Engineering and Computer Science**

**2155 E Wesley Ave**

**Denver, CO 80208**

**Room Number: ECS 510 (Appetizers and beverages)**

|  |
| --- |
| OR: [**Join WebEx meeting**](https://ieeemeetings.webex.com/ieeemeetings/j.php?MTID=m19c2796fa7419666060f0fd838fa7f8d) |

<https://ieeemeetings.webex.com/ieeemeetings/j.php?MTID=m19c2796fa7419666060f0fd838fa7f8d>