**Title**: *Predicting “About-to-Eat” Moments for Just-in-Time Eating Intervention.*

**Problem Statement:** Irregular eating habits and disproportionate or inadequate dietary behaviours may increase the likelihood of severe health issues such as obesity. Many wearable technologies (e.g., Fitbit ) have already been proven successful at physical activity estimation, tracking of eating events is popular by manual reporting. Authors present

**A wearable sensing framework** that predicts “About-to-Eat” moments and the “Time until the Next Eating Event” by using an array of sensors those are currently not available in a single device.

1. Microsoft Band - continuously captured users’ physical movement
2. An Affectiva Q sensor - measures electro dermal activity,
3. A wearable microphone - continuously monitors chewing and swallowing sounds and detects current eating events.
4. Android smartphone application - continuous and passive capture of GPS location and for recording self-reports before and after every eating event.

Using all these physical and physiological variables, we extracted **window-level features**, selected relevant feature subsets and trained machine learning models that predict the “Time until the Next Eating Event” and detect “About-to-Eat” moments.

**Challenges:** What we really need is to be able to detect moments when we are “about to eat” so that we can trigger healthy eating interventions just prior to the actual eating events.

**Title**: *Detecting Periods of Eating During Free-Living by Tracking Wrist Motion.*

**Problem Statement:** The purpose of this paper is to describe a new method that uses a watch-like configuration of sensors to continuously track wrist motion throughout the day and automatically detect periods of eating. The problem of using body-worn sensors to

automatically measure Energy intake [EI] may be broken into two parts.

1. The first part is identifying periods of consumption amongst all daily activities.

2. The second part is estimating EI during those periods.

**Challenges:**

1**.** To detect entire periods of eating during all day daily tracking**.**

2. Free-living studies face the challenge of recording the actual activities of subjects in order to evaluate the automated methods.