Workshop on Innovative Technologies for Dietary Intakes Measurements

Call for Abstracts

Imperial College London, South Kensington, London, United Kingdom
17 Sept 2018
www.dietaryintake.org

One of the major barriers in nutritional science is the lack of reliable data on individual dietary intake, especially in Low and Middle Income Country (LMIC) settings. The current methods in dietary intake assessments are inaccurate, time-consuming and expensive. The recent advances in smartphone, camera, artificial intelligence and wearable sensor technologies have led to significant progresses in capturing eating episodes, recognising food items, and providing objective measurements of dietary intakes.

This first international workshop aims to bring together researchers and students from both engineering and nutritional science disciplines who are actively developing dietary monitoring systems or conducting nutritional studies to present and discuss the challenges and technological approaches to address the need of accurate dietary monitoring. The workshop is supported by Bill & Melinda Gates Foundation. The workshop will feature presentations of technical systems, evaluation methodologies and opinion statements.

Authors are invited to submit abstracts (max 300 words) for presentation at the workshop. All submissions must describe original research that is not published or currently under review elsewhere. Areas of interest include, but are not limited to:

- Novel methods for accurate assessment of dietary intake
- Wearable cameras/sensors for dietary intake analysis
- Computer vision techniques for food detection, segmentation and recognition
- Food composition (nutrients, allergens) analysis
- Smartphone technologies for food intake monitoring
- 3D reconstruction for food consumption estimation
- Food image and nutrient databases
- Context aware sensing for eating behaviour analysis
- Methods for determining diet-disease relationships
- Population studies on diet and interventions
- Approaches to create awareness of and reinforce individual eating behaviours
- Strategies to encourage self-monitoring eating behaviours

Selected authors will be invited to submit an extended version of the abstract to the special issue on "Advancement in Dietary Assessment and Self-Monitoring Using Technology" of the journal Nutrients (http://www.mdpi.com/si/nutrients/advancement-dietary-assessment-selfmonitoring), or the frontiers journal Research topic: Quantitative and Technological Approaches to the Monitoring of Food Intake and Nutrition (https://www.frontiersin.org/research-topics/7294/quantitative-and-technological-approaches-to-the-monitoring-of-food-intake-and-nutrition).

Key dates:

- Submission Open: May 1 2018
- Abstract submission Due: May 30 2018
- Author Notification: Jun 10 2018
- Workshop: Sep 17th 2018

Organisers:

- Dr Benny Lo – Imperial College London, UK
- Prof Gary Frost – Imperial College London, UK
- Dr Megan Rollo – University of Newcastle – Australia
- A/Prof Tracy Burrows – University of Newcastle – Australia

Programme Committee:

- Prof Kathryn Maitland – Imperial College London, UK
- Prof Mingui Sun – University of Pittsburgh, US
- Dr. Wenyan Jia – University of Pittsburgh, US
- Prof Edward Sazonov – University of Alabama, US
- Dr Megan A. McCrory – Boston University, US
- Dr Alex Kojo Anderson – University of Georgia, US
- Prof Thomas Baranowski – Baylor College of Medicine, US
- Dr Janine A. Higgins – University of Colorado Denver, US
- Dr Matilda Steiner-Asiedu, University of Ghana, Ghana
- Dr Surapa Thiemjarus – National Electronics and Computer Technology Center, Thailand
- Prof Clare Collins - University of Newcastle, Australia
- Dr Marc Adam - University of Newcastle, Australia
- Dr Shamus Smith - University of Newcastle, Australia

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