**Call for Papers (CFP)**

**HealthDL: Deep Learning for Wellbeing Applications Leveraging Mobile Devices and Edge Computing.**

Workshop Chair: Mooi Choo Chuah (Lehigh University), Yingying Chen (Rutgers University)

Publicity Chair: Xiaonan Guo (Indiana University-Purdue University Indianapolis)

The availability of affordable wearable Internet of Things and powerful smartphones with embedded sensors has revolutionalized intelligent health and wellness applications. Users often use wIoT and smartphones to collect medical data and later sending them to the cloud for further analysis. Edge-based solution where analysis and inference of such data are carried out on edge devices has also been proposed to address the security and privacy concern of users since the data is not transferred to untrusted cloud for inferencing. However, resource constraints on the edge devices pose challenges in using deep learning solutions. Research needs to be conducted to produce efficient system design and algorithms that can be deployed in edge devices. In addition, many wearables and smartphone applications now rely on voice assistants which utilize deep-learning based neural conversation models. Efficient low resource DL-based neural conversation models need to be designed to allow for personalized services. This workshop invites researchers from academia and industry to submit papers related but not limited to the following topics:

* E2E deep learning for smart health applications.
* Deep learning for sensing, analysis and interpretation of wIOT healthcare data.
* Resource constrained deep learning schemes for smartphones and wIOT
* Edge-based Deep learning & AI models (e.g. sensor-based, visual-based or NLP-based) for mental health or other illnesses
* Transfer learning and model compression for smart health applications
* Context-aware ubiquitous healthcare systems based on wearables, edge machine learning
* Emerging applications or sensors for personalized health and fitness

Workshop submission deadline: April 3rd, 2020

Acceptance Notice: April 20th, 2020

Camera ready deadline: May 1st, 2020

Workshop Date: June 19th, 2020

Submission Specifications

The papers are limited to 6 pages including references. The formatting should adhere to the formatting requirements of [ACM Mobisys submissions](https://www.sigmobile.org/mobisys/2020/submission): <https://www.sigmobile.org/mobisys/2020/submission>

The papers should be submitted to the workshop submission site: <https://healthdl2020.hotcrp.com> The workshop website: <http://eceweb1.rutgers.edu/~daisylab/mobisys20workshop>

Any questions regarding submission issues should be directed to [sea.yang@rutgers.edu](mailto:sea.yang@rutgers.edu)