

# **2020 IEEE Second Workshop on Machine Learning on Edge in Sensor Systems (SenSys-ML 2020)**

**Sydney, Australia  
21 April 2020**



**IEEE Catalog Number: CFP20Y15-POD  
ISBN: 978-1-7281-9997-9**

**Copyright © 2020 by the Institute of Electrical and Electronics Engineers, Inc.  
All Rights Reserved**

*Copyright and Reprint Permissions:* Abstracting is permitted with credit to the source. Libraries are permitted to photocopy beyond the limit of U.S. copyright law for private use of patrons those articles in this volume that carry a code at the bottom of the first page, provided the per-copy fee indicated in the code is paid through Copyright Clearance Center, 222 Rosewood Drive, Danvers, MA 01923.

For other copying, reprint or republication permission, write to IEEE Copyrights Manager, IEEE Service Center, 445 Hoes Lane, Piscataway, NJ 08854. All rights reserved.

***\*\*\* This is a print representation of what appears in the IEEE Digital Library. Some format issues inherent in the e-media version may also appear in this print version.***

IEEE Catalog Number:	CFP20Y15-POD
ISBN (Print-On-Demand):	978-1-7281-9997-9
ISBN (Online):	978-1-7281-9996-2

**Additional Copies of This Publication Are Available From:**

Curran Associates, Inc  
57 Morehouse Lane  
Red Hook, NY 12571 USA  
Phone: (845) 758-0400  
Fax: (845) 758-2633  
E-mail: [curran@proceedings.com](mailto:curran@proceedings.com)  
Web: [www.proceedings.com](http://www.proceedings.com)

CURRAN ASSOCIATES INC.  
**proceedings**  
.com

# 2020 IEEE Second Workshop on Machine Learning on Edge in Sensor Systems (SenSys- ML) **SenSys-ML 2020**

## Table of Contents

Welcome Message from SenSys-ML'20 Chairs .vi.....  
Committees .vii.....

### SenSys-ML 2020 Technical Papers

Multiple-Image Super-Resolution for Networked Extremely Low-Resolution Thermal Sensor  
Array .1.....  
*Chi-Sheng Shih (National Taiwan University), Yao-Ting Wang (National  
Taiwan University), and Jyun-Jhe Chou (National Taiwan University)*

Latent Representation Learning and Manipulation for Privacy-Preserving Sensor Data  
Analytics .7.....  
*Omid Hajihassani (University of Alberta), Omid Ardakanian (University  
of Alberta), and Hamzeh Khazaei (York University, Toronto)*

Class-Dependent Pruning of Deep Neural Networks .13.....  
*Rahim Entezari (Graz University of Technology) and Olga Saukh (Graz  
University of Technology)*

Tiny Eats: Eating Detection on a Microcontroller .19.....  
*Maria T. Nyamukuru (Dartmouth College) and Kofi M. Odame (Dartmouth  
College)*

**Author Index 25** .....