## **DAFTAR PUSTAKA**

- [1] Cokbas, Mertcan, Prakash Ishwar, and Janusz Konrad. "Low-resolution overhead thermal tripwire for occupancy estimation." In Proceedings of the IEEE/CVF Conference on Computer Vision and Pattern Recognition Workshops, pp. 88-89. 2020.
- [2] Zhu, Shuai, Thiemo Voigt, Daniel F. Perez-Ramirez, and Joakim Eriksson. "A Low-resolution infrared thermal dataset and potential privacy-preserving applications." In Proceedings of the 19th ACM Conference on Embedded Networked Sensor Systems, pp. 552-555. 2021.
- [3] Metwaly, Aly, Jorge Peña Queralta, Victor Kathan Sarker, Tuan Nguyen Gia, Omar Nasir, and Tomi Westerlund. "Edge computing with embedded ai: Thermal image analysis for occupancy estimation in intelligent buildings." In *Proceedings of the INTelligent Embedded Systems Architectures and Applications Workshop 2019*, pp. 1-6. 2019.
- [4] Kraft, Marek, Przemysław Aszkowski, Dominik Pieczyński, and Michał Fularz. "Low-Cost Thermal Camera-Based Counting Occupancy Meter Facilitating Energy Saving in Smart Buildings." *Energies* 14, no. 15 (2021): 4542.
- [5] Groß, Christian, Reuben Borrison, Johannes Schmitt, and Markus Aleksy. "Towards an Occupancy Count Functionality for Smart Buildings-An Industrial Perspective." In 2020 2nd IEEE International Conference on Industrial Electronics for Sustainable Energy Systems (IESES), vol. 1, pp. 331-336. IEEE, 2020.
- [6] Chidurala, Veena, and Xinrong Li. "Detection of moving objects using thermal imaging sensors for occupancy estimation." *Internet of Things* (2022): 100487.
- [7] Naser, Abdallah, Ahmad Lotfi, Junpei Zhong, and Jun He. "Heat-map based occupancy estimation using adaptive boosting." In 2020 IEEE International Conference on Fuzzy Systems (FUZZ-IEEE), pp. 1-7. IEEE, 2020.
- [8] Zhu, Shuai. "Privacy-preserving Building Occupancy Estimation via Low-Resolution Infrared Thermal Cameras." (2021).

- [9] law Aszkowski, Przemys, and Mateusz Piechocki. "Thermo Presence: The Low-resolution Thermal Image Dataset and Occupancy Detection Using Edge Devices."
- [10] Chidurala, Veena, and Xinrong Li. "Occupancy estimation using thermal imaging sensors and machine learning algorithms." IEEE Sensors Journal 21, no. 6 (2021): 8627-8638.
- [11] Bouazizi, Mondher, and Tomoaki Ohtsuki. "An infrared array sensorbased method for localizing and counting people for health care and monitoring." In 2020 42nd Annual International Conference of the IEEE Engineering in Medicine & Biology Society (EMBC), pp. 4151-4155. IEEE, 2020.
- [12] Narayana, Sujay, Vijay Rao, R. Venkatesha Prasad, Ajay K. Kanthila, Kavya Managundi, Luca Mottola, and T. Venkata Prabhakar. "LOCI: privacyaware, device-free, low-power localization of multiple persons using IR sensors." In 2020 19th ACM/IEEE International Conference on Information Processing in Sensor Networks (IPSN), pp. 121-132. IEEE, 2020.
- [13] Perra, Cristian, Amit Kumar, Michele Losito, Paolo Pirino, Milad Moradpour, and Gianluca Gatto. "Monitoring indoor people presence in buildings using low-cost infrared sensor array in doorways." Sensors 21, no. 12 (2021): 4062.
- [14] Bouazizi, Mondher, Chen Ye, and Tomoaki Ohtsuki. "Low-Resolution Infrared Array Sensor for Counting and Localizing People Indoors: When Low End Technology Meets Cutting Edge Deep Learning Techniques." Information 13, no. 3 (2022): 132.
- [15] LALE, Daniel, Claudia BORZEA, Sorina GOGONEAȚĂ, Cristian NECHIFOR, Mirela VASILE, and Filip NICULESCU. "PASSENGERS MONITORING SYSTEM WITH INFRARED SENSORS AND MICROCONTROLLER."

- [16] Altaf, Muhammad Adeel, Jongsik Ahn, Danish Khan, and Min Young Kim. "Usage of IR Sensors in the HVAC Systems, Vehicle and Manufacturing Industries: A Review." IEEE Sensors Journal (2022).
- [17] Rinta-Homi, Mikko, Naser Hossein Motlagh, Agustin Zuniga, Huber Flores, and Petteri Nurmi. "How Low Can You Go? Performance Trade-offs in Low-Resolution Thermal Sensors for Occupancy Detection: A Systematic Evaluation." Proceedings of the ACM on Interactive, Mobile, Wearable and Ubiquitous Technologies 5, no. 3 (2021): 1-22.
- [18] Naser, Abdallah, Ahmad Lotfi, and Junpei Zhong. "Adaptive thermal sensor array placement for human segmentation and occupancy estimation." IEEE Sensors Journal 21, no. 2 (2020): 1993-2002.
- [19] Maaspuro, Mika. "Low-Resolution IR-Array as a Doorway Occupancy Counter in a Smart Building." International Journal of Online & Biomedical Engineering 16, no. 6 (2020).
- [20] Pandey, Shivam, Rahul Kumar Barik, Somya Gupta, and R. Arthi. "Pandemic Drone with Thermal Imaging and Crowd Monitoring System (DRISHYA)." In Technical Advancements of Machine Learning in Healthcare, pp. 307-325. Springer, Singapore, 2021.
- [21] Naser, Abdallah, Ahmad Lotfi, Junpei Zhong, and Jun He. "Human activity of daily living recognition in presence of an animal pet using thermal sensor array." In Proceedings of the 13th ACM International Conference on PErvasive Technologies Related to Assistive Environments, pp. 1-6. 2020.
- [22] Riquelme, Fabián, Cristina Espinoza, Tomás Rodenas, Jean-Gabriel Minonzio, and Carla Taramasco. "eHomeSeniors dataset: an infrared thermal sensor dataset for automatic fall detection research." Sensors 19, no. 20 (2019): 4565.
- [23] Chaari, Mohamed Zied, and Abdulaziz Aljaberi. "A Prototype of a Robot Capable of Tracking Anyone with a High Body Temperature in Crowded Areas." International Journal of Online & Biomedical Engineering 17, no. 11 (2021).

- [24] Agni, Shravan N. "Activity Recognition of Office Space Users using Thermopile Array Sensor."
- [25] Naser, Abdallah, Ahmad Lotfi, and Junpei Zhong. "A novel privacy-preserving approach for physical distancing measurement using thermal sensor array." In The 14th PErvasive Technologies Related to Assistive Environments Conference, pp. 81-85. 2021.
- [26] Rinta-Homi, Mikko. "Intelligently controlling HVAC with IoT technology." (2020).
- [27] Rezzouki, Marwane, Safae Ouajih, and Guillaume Ferré. "Monitoring Social Distancing in Queues using Infrared Array Sensor." IEEE Sensors Journal (2021).
- [28] Naser, Abdallah, Ahmad Lotfi, and Joni Zhong. "Towards human distance estimation using a thermal sensor array." Neural Computing and Applications (2021): 1-11.
- [29] Chen, Zhangjie. "Data Processing for Device-Free Fine-Grained Occupancy Sensing using Infrared Sensors." PhD diss., Texas A&M University, 2021.
- [30] Tolar, Zachary. "Development of Small-Scale and Low-Power Attitude Determination System for Nanoscale Satellites by Infrared Earth-Imaging Sensors." (2019).
- [31] Abedi, Milad, and Farrokh Jazizadeh. "Deep-learning for occupancy detection using Doppler radar and infrared thermal array sensors." In Proceedings of the International Symposium on Automation and Robotics in Construction (IAARC). 2019.
- [32] Li, Tianfu, Bo Yang, and Tong Zhang. "Human Action Recognition Based on State Detection in Low-resolution Infrared Video." In 2021 IEEE 16th

- Conference on Industrial Electronics and Applications (ICIEA), pp. 1667-1672. IEEE, 2021.
- [33] Krishnan, Arumugasamy Muthukumar, Mondher Bouazizi, and Tomoaki Ohtsuki. "An Infrared Array Sensor-Based Approach for Activity Detection, Combining Low-Cost Technology with Advanced Deep Learning Techniques." Sensors 22, no. 10 (2022): 3898.
- [34] Downing Jr, Raymond. "Development of a Low Power, Low Cost Rural Railway Intersection Smart Detection and Warning System." PhD diss., The University of Texas at San Antonio, 2020.
- [35] Ahmed, Sara, Samer Dessouky, and Raymond Downing. "Development of a Low Power, Low Cost Rural Railway Intersection Smart Detection and Warning System." (2020).
- [36] Muthukumar, K. A., Mondher Bouazizi, and Tomoaki Ohtsuki. "A novel hybrid deep learning model for activity detection using wide-angle low-resolution infrared array sensor." IEEE Access 9 (2021): 82563-82576.
- [37] Dao, Quy Xuan, Viet Thanh Cao, Linh Thi Kim Linh, and Duc Ngoc Trinh. "Design of the mobile-robot-based surveillance system on university campuses to reduce the effects of COVID-19 pandemic." Annals of Computer Science and Information Systems 27 (2021): 23-28.
- [38] Gong, Tianyi, Xinyu Yin, Shicheng Yan, Junhao Pan, Yifan Yang, and Jianyang Liu. "Real-time fall detection system based on deep learning and infrared array sensors." In ITM Web of Conferences, vol. 45, p. 01027. EDP Sciences, 2022.
- [39] Yang Sr, Fan, and Jun Xu Sr. "Thermal map detection method for web page based on thermopile array sensor." In International Conference on Computer Application and Information Security (ICCAIS 2021), vol. 12260, pp. 172-178. SPIE, 2022.

- [40] Chen, Zhangjie, and Ya Wang. "Remote recognition of in-bed postures using a thermopile array sensor with machine learning." IEEE Sensors Journal 21, no. 9 (2021): 10428-10436.
- [41] Tateno, Shigeyuki, Fanxing Meng, Renzhong Qian, and Tong Li. "Human motion detection based on low resolution infrared array sensor." In 2020 59th Annual Conference of the Society of Instrument and Control Engineers of Japan (SICE), pp. 1016-1021. IEEE, 2020.
- [42] Baghezza, Rani, Kévin Bouchard, Abdenour Bouzouane, and Charles Gouin-Vallerand. "Profile Recognition for Accessibility and Inclusivity in Smart Cities using a Thermal Imaging Sensor in an Embedded System." IEEE Internet of Things Journal (2021).
- [43] Naser, Abdallah, Ahmad Lotfi, and Junpei Zhong. "Multiple thermal sensor array fusion towards enabling privacy-preserving human monitoring applications." IEEE Internet of Things Journal (2022).
- [44] Tateno, S., Meng, F., Qian, R., & Hachiya, Y. (2020). Privacy-preserved fall detection method with three-dimensional convolutional neural network using low-resolution infrared array sensor. Sensors, 20(20), 5957.