MANIPAL UNIVERSITY JAIPUR

School of Computing and Information Technology

Department of Computer and Communication Engineering

Internet of Things Lab

About the Lab: The Internet of Things (IoT) allows direct integration between the physical world and computer-based systems, helping to connect people, processes and devices. To familiarize the students with the fundamental concepts, techniques and tools of IoT and its integration with other technologies such as Artificial Intelligence (AI), the IoT lab is developed in room number-114, Academic Block-2. This lab provides the infrastructure for working on the projects that involves integration of AI and IoT. The lab is equipped with six high end GPU machines. Five GPU machines contain i9 processor, RTX 3080 GPU, 64 GB RAM, and 2TB Hard Disk, and sixth GPU machine has i9 processor, RTX 3080 GPU, 96 GB RAM, and 2TB Hard Disk. The lab is also equipped with WRAP Kit, Arduino, Raspberry pie, and sensors for monitoring temperature, humidity, distance, etc. The lab also provides the kits for working on health and plant monitoring projects. This lab is used by the B.Tech students, PhD Scholars, and faculty members to carry out their research works

Outcomes of the lab: The outcomes listed below show the use of the lab resources.

1. Sinwar, D., Dhaka, V.S., Pradhan, N. et al. Offline script recognition from handwritten and printed multilingual documents: a survey. IJDAR 24, 97–121 (2021). https://doi.org/10.1007/s10032-021-00365-5.
2. Nitesh Pradhan, Vijaypal Singh Dhaka, Geeta Rani, Himanshu Chaudhary, Machine Learning Model for Multi-View Visualization of Medical Images, The Computer Journal, , bxaa111, https://doi.org/10.1093/comjnl/bxaa111
3. Nitesh Pradhan, Vaibhav Singh, Virat Kumar, Parth Goel & Vijaypal Singh Dhaka (2020) Conversion of two dimensional images into multi-view images of bone using deep learning, Computer Methods in Biomechanics and Biomedical Engineering: Imaging & Visualization, DOI: 10.1080/21681163.2020.1817792
4. Pradhan, N., Dhaka, V.S., Rani, G. et al. Transforming view of medical images using deep learning. Neural Comput & Applic (2020). https://doi.org/10.1007/s00521-020-04857-z.
5. Rani, G., Oza, M.G., Dhaka, V.S. et al. Applying deep learning-based multi-modal for detection of coronavirus. Multimedia Systems (2021). https://doi.org/10.1007/s00530-021-00824-3