Recognition and Gait Cycle Prediction Using IMU

Zhuo Wang, Yu Zhang, Jiangpeng Ni,
Xinyu Wu, Yida Liu, Xin Ye and Chunjie Chen*
Shenzhen Institute of Advanced Technology, Chinese Academy of Sciences

- Terrain recognition based on intersection angle only quickly recognizes the terrain when walking stably, and its robustness is limited.

- Terrain recognition based on SVM is achieved to 100% after introducing the Gaussian kernel function.

- Wiener one step prediction is applied in predicting the GC, the error from which is less than 4.35%.

Terrain recognition based on SVM