**第五周作业**

1. 根据网络学堂上所提供的阅读材料（准被动行走部分），并结合自己查找的其他资料（文献、图片和视频等），总结准被动行走的概念、已有准被动行走方案的思路，个人提交自己的工作内容的报告。
2. 每个小组共同提出一个以上的准被动行走机器人方案的构想。并汇总所有人的资料完成一个关于准被动行走的调研报告PPT。参考模版

注1: 调研报告模版

1. 报告题目
2. 工作安排—团队的协作及分工
3. 准被动行走的概念
4. 准被动行走方案介绍1～n（原理、研究成果、评价）
5. 本组的准被动行走方案设想
6. 总结

注2: 由于工作量大，建议进行团队合作，即组内的同学要进行适当的讨论和分工。

注3: 参考文献

1. Goswami\_1997\_AR: Limit Cycles in a Passive Compass Gait Biped and Passivity-Mimicking Control Laws
2. Spong\_2007\_RAM: Passivity- Based Control of Bipedal Locomotion
3. Asano\_2000\_IROS: Virtual Passive Dynamic Walking and Energy-based Control Laws
4. Asano\_2001\_ICRA: Extended Virtual Passive Dynamic Walking and Virtual Passivity-mimicking Control Laws
5. Asano\_2005\_ICRA: Parametric Excitation Mechanisms for Dynamic Bipedal Walking
6. Asano\_2005\_TRO: Biped Gait Generation and Control Based on a Unified Property of Passive Dynamic Walking
7. Asano\_2008\_IROS: Pseudo Virtual Passive Dynamic Walking and Effect of Upper Body as Counterweight
8. Zhao\_2009\_IROS: The Instantaneous Leg Extension Model of Virtual Slope Walking
9. Zhang\_2009\_ROBIO: Analysis of a Biped Powered Walking Model Based on Potential Energy Compensation
10. Wu\_2014: Biped Walking by Elastic Potential Energy and Control Strategy
11. Deng\_2016: Level-ground walking for a bipedal robot with a torso via hip series elastic actuators and its gait bifurcation control