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MAE 434 Learning 2 Learn Assignment

Incorporating Secondary Sources

Source: [1]

[1] G. Wu, H. Sun, J. Zou, and L. Wan, "The basic motion control strategy for the water-jet-propelled USV," in Mechatronics and Automation, 2009. ICMA 2009. International Conference on, 2009, pp. 611-616.

 According to Wu, et al., a motion controller is need to “detect environmental, target identification, avoid obstacle, autonomous path plan, and…auto drive” (p. 1). In their **2009 basic motion control** strategy study, it was found that motion control of an unmanned vehicle is achieved by “environmental information collection and mission state feedback” (Wu et al., 2009, p.2). This directly correlates to the dependency of Old Dominion University’s ASV on GPS data to identify course set-points and inertial measurements to correct vehicle orientation and heading. Wu examines communication tasks, feedback data and an actual motion control system are essential in processing positional data, sending/receiving commands necessary to compensate for external forces, and control algorithms to execute movement (p. 2-3).