

國立臺灣科技大學  
八十九學年度博士班招生考試試題

系所組別：機械工程系丁組  
科目：系統與控制

1. Describe the differences between the classical control theorem and the state variable theorem, especially in modeling, analysis, performance criteria, and design, respectively. [40%]
2. How to implement a PID controller in computer control system. Write out a program in C language and explain it line by line. Finally, discuss the influences of sampling period. [30%]
3. If you want to construct a robotic system for welding, how about the specifications of all required components in the control system? Describe it in details including hardware and software of each component, respectively. (i.e. HMI, actuator, sensor, drive,...) [30%]

//

