

國立臺灣科技大學
八十八學年度碩士班招生考試試題

系所別：機械工程系研究所

組別：在職專班

科目：英文

英翻中 -- 請翻譯下列四小題中之英文為中文(共 30 分)

1. Operators of hydroelectric storage dams open the gates on spillways to relieve excess water during flooding. However, these gates can fail due to mechanical problems, loss of power, and operator error. Conversely, spillway gates opened mistakenly when there is no flow can endanger lives and property downstream. (7%)
2. Injection molding parts enabled engineers at Eaton Corp.'s Actuator and Sensor Division in Rochester Hill, Michigan, to design a solenoid-operated pneumatic valve that can be assembled both economically and quickly. (7%)
3. Feedback control is an operation which, in the presence of disturbances, tends to reduce the difference between the output of a system and the reference input and which does so on the basis of the difference. (8%)
4. The Design for Manufacture approach examines the product design in all aspects for ways of integrating the product and process concepts so that the best match is made between product and process requirements and that the integrated product/process ensures inherent ease of manufacture. (8%)

中翻英 -- 請翻譯下列四小題中之中文為英文(共 30 分)

5. 本系教學之目的在培養具有高度技術基礎的機械工程師。(7%)
6. 為了配合我國機械工業界的需要，課程內容盡量涵蓋機械工程領域內之學科。(7%)
7. 本系除了要求學生接受機械工程基本學科訓練外，更鼓勵學生依興趣發展專精技術。(8%)
8. 本系的研究方向以機械設計及製造為主，並注重在工程上之實際應用。(8%)