

# 大同大學 九十六 學年度研究所碩士在職班入學考試試題

考試科目：科技英文                      所別：電機工程研究所                      共 全 頁

註：本次考試 不可以參考自己的書籍及筆記； 不可以使用字典； 不可以使用計算器。

請將以下英文段落翻譯成中文

1. Voice over IP (VoIP) is one of the most emerging technologies, with a very relevant market penetration trend. This technology will represent a cost advantage for the business and private networks with greater flexibility, if no new related vulnerabilities are introduced. (15%)
2. There are two major reasons for the popularity of cascode stages. The first is that they can have large gain for a single stage due to the large impedances at the output. The second is that they limit the voltage across the input drive transistor. This minimizes any short-channel effects which becomes more important with modern technologies having very short channel-length transistors. (20%)
3. Robust watermarking with oblivious detection is essential to practical copyright protection of digital images. Effective exploitation of the characteristics of human visual perception to color stimuli helps to develop the watermarking scheme that fills the requirement. Through color gamut analysis and quantizer design, color watermarks are embedded by modifying quantization indices of color pixels without resulting in perceivable distortion. (20%)
4. In this paper, the proposed observer-based adaptive fuzzy control scheme can deal with the problem of robust stability for a class of uncertain multi-input multi-output (MIMO) nonlinear systems whose states are not available. Finally, the simulations are carried out on a two-link robot manipulator to illustrate the performance of the proposed approach. (15%)
5. A nonlinear system can have a more complicated steady-state behavior that is not equilibrium, periodic oscillation, or almost-periodic oscillation. Such behavior is usually referred to as chaos. Some of these chaotic motions exhibit randomness, despite the deterministic nature of the system. (15%)
6. Consider networks containing resistors, inductors, and capacitors. The application of Kirchhoff's voltage law and Kirchhoff's current law to these simple RLC networks leads us to second order differential equations. (15%)

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