



注意事項：

1. 答案依序書寫於答案卷上，不必抄題。
2. 答案卷不可書寫任何可辨別個人姓名或特殊標記，違者不予計算。
3. 請於試題紙上填寫准考證號碼，繳卷時「試題」、「答案卷」一併繳回。
4. 本試題請參考所附論文作答。(以中英文作答均可)

一、WLD: A Robust Local Image Descriptor

Short Answer Questions (You can find the answers within this paper)

1. List the two components of 「WLD」 in the paper. What are the definitions of the components?
2. Find the differential excitation $\xi(x_c)$ of the following 3×3 image. [see Equation(6)]

196	250	253
211	230	243
198	230	215

3. How may one extract the WLD histogram from 「2D histogram of differential excitations and orientations of an image」 to 「A WLD histogram」?
4. Which data set of the training set is used in the application of face detection? What is the source and data number? How may one produce the data set?
5. Which method of classification techniques is adopted in this paper? What is the source?

二、Energy-Efficient Beaconless Geographic Routing in Wireless Sensor Networks

1. () Is the proposed EBGR a loop-free protocol? (True or False)
2. () In the following models, which was the mobility scenario adopted by the experiments?
 - (a) Random Walk Mobility Model
 - (b) Brownian Model
 - (c) Markovian Model
 - (d) Mobility Vector Model
3. () Why the proposed routing protocol is energy-efficient?
 - (a) It is a topology-based routing protocol
 - (b) It is a beaconless geographic routing protocol
 - (c) It is a greedy routing protocol
 - (d) It is a dynamic routing protocol
4. In highly dynamic scenarios, what are the drawbacks of routing protocols based on maintaining neighbor information?
5. What are the advantages of the proposed EBGR?