Digital image processing Course Report

The purpose of the course report is to evaluate your level of Digital Image Processing (DIP) knowledge, thinking and writing ability.

Your course report and codes will be **graded** and worth **100 points**. They are graded based on performance, technical merit, and the quality of the written report.

This course report can be one of the following types.

(1) Survey report on sub-topic in DIP
   a) Pick up to 5 papers as core papers in your survey scope
   b) Read the above and expand reading through related work
   c) Comprehend the view and finish your own survey paper

(2) Review report
   a) Pick up a high-level academic paper.
   b) Describe the contribution of the paper in depth with criticisms
   c) Crystallize the significant novelty in contrast to other related work
   d) Suggestions for future work
   e) Write in your words, don't copy!

(3) Project report on a specific problem
   a) Give one solution for the specific problem.
   b) Implement the solution by programming in Matlab, c++, Java or Python, or explore one prototype.
   c) Demonstrate the function of your project.

(4) Algorithm Research Report.
   a) Give one algorithm for one specific problem.
   b) Demonstrate the merits of your algorithm.
   c) If necessary, explore one prototype to show your algorithm
   d) If necessary, compare your algorithm with other related ones.

(5) Any other type of Report.
   a) Present your knowledge and your level as much as possible.
   b) Topic related to DIP.

Requirements:

(1) Length of reports: Min 2500 words, (5 pages in A4 Format), max 6000 words (12 pages in A4 Format).

(2) No plagiarism.

(3) Codes: Only Matlab, c++, Java or Python are acceptable if you develop a project or write codes. Any other programming language will be rejected.

(4) Report must be submitted individually. No collaboration is allowed.

(5) Submitted materials: report and codes (if you developed). For review report or survey report, the papers reviewed by you must be attached.

(6) Submit to the class representative (蒋云翔) by e-mail.

(7) Due date: 12:00 AM, 20th, December 2024.

Grading Criteria (Total: 100 points)

1. **Technical Content (40 points)**
   - Depth of understanding (15 points)
     Thorough explanation of concepts
     Correct use of technical terms
     Clear problem definition
   - Analysis and methodology (15 points)
     Logical approach
     Appropriate methods selection
     Sound theoretical foundation
   - Results and discussion (10 points)
     Clear presentation of results
     Thorough analysis
     Valid conclusions
2. **Innovation and Critical Thinking (25 points)**
   - Original contributions (10 points)
     Novel ideas or approaches
     Creative problem-solving
   - Critical analysis (15 points)
     Comparison with existing work
     Identification of limitations
     Future work suggestions
3. **Writing Quality (20 points)**
   - Organization and structure (8 points)
     Clear logical flow
     Effective section organization
   - Clarity and style (7 points)
     Professional writing style
     Clear explanations
   - Grammar and formatting (5 points)

Correct grammar and spelling
Proper formatting

4. **Implementation (15 points) - For projects with code**
   - Code quality (8 points)
     Clean, well-organized code
     Proper documentation
   - Results and testing (7 points)
     Successful implementation
     Thorough testing

OR

5. **Literature Review (15 points) - For survey/review papers**
   - Literature coverage (8 points)
     Comprehensive review
     Relevant paper selection
   - Synthesis (7 points)
     Effective summary
     Meaningful connections

Format Requirement

Course Report Cover template as below

Digital Image Processing Course Report

[Your Report Title]

Course Information

- Course Name: Digital Image Processing
- Academic Year: 2024 Fall Semester

Student Information

- Name: [Your Name]
- Student ID: [Your ID]
- Major: Computer Science and Technology
- Class: [Your Class]

Instructor

Dr. Qingfeng Zhang （张庆丰）

Submission Information

- Submission Date: [Date]
- Report Type: [Survey/Review/Project/Algorithm Research]

International School, Jinan University