جامعة الملك سعود
كلية علوم الحاسب والمعلومات
قسم هندسة الحاسب

The Plan for the Comprehensive Exam

- **The Exam Preparation:**

A) The exam will be held on weeks 9, 10 and 12.
B) The location as well as the invigilators of each exam will be arranged in Week 5.

- **The Written Core Exam:**

A) It will be held on Monday on Week 9.
B) It will be a 4-hour exam from 8:00 AM to 12:00 PM.
C) The exam will cover three topics: advanced computer architecture, computer networks and digital signal processing. The student needs to answer two topics only.
D) Each topic should have 4 questions, from which the student should answer three questions.
E) To pass the written core exam, the student should get at least 60% in each topic.

- **The Written Concentration Exam:**

A) It will be held on Monday on Week 10.
B) It will be a 4-hour exam from 8:00 AM to 12:00 PM.
C) The concentration exam for the **signals track** will cover two topics of the following four: Digital Image Processing, Digital Speech Processing, Pattern Recognition, and Autonomous Mobile Robots.
D) The concentration exam for the **architecture track** will cover two topics of the following four: Advanced Parallel Processing, Fault Tolerant Systems, Parallel Computing, and Advanced Embedded Systems.
E) The concentration exam for the **networks track** will cover two topics of the following four: Performance Analysis of Local Area Networks, Wireless and Mobile Networks and Network Security, and Internet Protocols and TCP/IP.
F) Each topic should have 4 questions, from which the student should answer three questions.
G) To pass the written concentration exam, the student should get at least 70% in each topic.

- **The Oral Exam:**

A) It will be held on Monday on Week 12.
B) The student will give a presentation on a topic of his/her choice for about 30 minutes. The topic must be related to a field in computer engineering, namely computer architecture, computer

networking, or signal processing. It should present details of the topic including theoretical aspects, methodological aspects, hardware design, algorithm design, and so on. The topic may a may not be used in the student's future research, but it helps if it is.

C) The presentation will be followed by multiple rounds of questions. These questions will be not only on the chosen topic of the presentation but also on any other related topics.