## 《图像分析技术及应用》课程中英文简介

Image Analysis Technology and Application

课程代码：071603B **Course Code：**071603B

课程名称：图像分析技及应用 **Course Name：**Image Analysis Technology

and Application

学时：48 **Periods：**48

学分：3 **Credits：**3

考核方式：考查 **Assessment：**Lesson examines

先修课程：程序设计基础、高等数学、**Preparatory Courses：**The basic of Programming design线性代数、数理统计 Advanced mathematics、Linear algebra、Statistics

图像是人类获取和交换信息的主要来源。随着大数据分析技术的飞速发展，如何从图像这种非结构化数据中提取信息越来越受到人们的关注。《图像分析技术与应用》是面向数据科学与大数据技术专业学生的专业选修课。本课程的主要内容包括图像的去噪、增强、分割、复原和特征提取的方法和技术，主要目的从图像的中提取某些特征或者特殊信息，为海量数据的分析打基础。本课程的教学内容侧重于各种图像分析技术的理论与计算机实现。通过本课程的学习，使学生理解和掌握图像分析的理论与方法，提高学生运用计算机解决问题的能力，为学习后续专业知识、形成职业行为能力打下坚实基础，同时提高学生的创新精神和实践能力。

Image is the main source for human to acquire and exchange information. With the rapid development of big data analysis technology, how to extract information from unstructured images has attracted more and more attention. ‘Image Analysis Technology and Application’ is a professional course for students whose major are Data Science and Big Data Technology. The main contents of this course include the theories and techniques of image denoising, image enhancement, image segmentation, image restoration and image feature extraction. The main purpose of this course is to extract some features or special information from the images, and to lay the groundwork for the mass data analysis. The course focuses on the theory and computer implementation of all kinds of image analysis technology. By learning this course, the students can achieve the following ability. Firstly, they can master the theoretical knowledge of image analysis, and understand the basic operation of computer software. Secondly, they can improve their ability to use computer software to solve real problem. At last, the students can improve their innovative spirit and practical ability, form a solid foundation for the future student or work.