

# MULTISPECTRAL IMAGING

COURSE PROJECT FOR [AS-75.2128 IMAGING AND DISPLAY TECHNOLOGY](#)  
HELSINKI UNIVERSITY OF TECHNOLOGY (TKK)

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## INTRODUCTION

Multispectral imaging refers to the use of several different spectral bands when acquiring images. The most common application for multispectral images has been remote sensing and more precisely imaging ultraviolet (UV) and infrared (IR) bands with normal RGB-based visible light imaging. However, recently multispectral imaging have been used in many new applications which are discussed this work emphasizing the methods used in quantifying biological processes. These applications include biometric pattern recognition (face, fingerprint, iris), magnetic resonance imaging (MRI), retinal physiology, non-image forming (NIF) responses of light, and plant physiology among others. The work is started with a brief overview of multispectral imaging (chapter 2) and then followed with an overview of these abovementioned applications (chapter 3). The review is limited to understanding the basic principles, and details such as algorithms and protein-dependent emission spectra have been left out.