

## **Measurements Model for SPECT Systems**

### Fields

Signal processing

Medical imaging

### Introduction

SPECT (single photon emission computerized tomography) is a medical Imaging system, in which radioactive substance is injected to the patient, and a gamma camera is used to image its distribution in the body.

In order to get a three dimensional image a computerized tomography algorithm is used on two dimensional projections of the image. This algorithm uses a measurements matrix which models the projections on the camera plains.

### Project description

The purpose of the project is to understand the projections model and create the measurements matrix.

### Requirements

Random signals

Good Matlab programming skills

### Duration

One semester

### Supervisor

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