

This bachelor thesis "The Evolution of Radiography" deals with sequential development of this imaging method. It covers time period from discovery of X-rays by Wilhelm Conrad Röntgen in 1895, over the conventional Radiography to the current methods and trends of the digital Radiography. For this important discovery, Wilhelm Conrad Röntgen, german physicist, got the Nobel Prize in 1901. This work provides complex information about X-ray technology and describes the image creation procedure. The "Analog Radiography" chapter describes Radiography equipment and the projection type transition: from the conventional film screen radiography to the computed and direct radiography. In case of the Computed radiography (CR) the cassette containing the X-ray film is replaced by a cassette with the photostimulable phosphor. The manipulation with the cassette is almost the same. But we don't need the dark room to get the final image, it is replaced by the reading device – the scanner. The simplest and optimal imaging system for future is the direct radiography (DR). The direct radiography uses two types of semi-conductor detectors described in detail in this work: with direct and indirect conversion of X-rays to electrical impulses. These semi-conductors are placed under the Bucky grid on examination table or on the wall-stand. In conclusion of this work positives and negatives of analog and digital Radiography are discussed including patient dose loads for chosen examinations.