

Bone age estimation by deep learning in x-ray medical images

ABSTRACT

Patient skeletal age estimation using a skeletal bone age assessment method is a time consuming and very boring process. Today, in order to overcome these deficiencies, computerized techniques are used to replace hand-held techniques in the medical industry, to the extent that this results in better evaluation. The purpose of this research is to minimize the problems of the division of existing systems with deep learning algorithms and the high accuracy of diagnosis. The evaluation of skeletal bone age is the most clinical application for the study of endocrinology, genetic disorders and growth in young people. This assessment is usually performed using the radiologic analysis of the left wrist using the GP (Greulich-Pyle) technique or the TW(Tanner-Whitehouse) technique. Both techniques have many disadvantages, including a lack of human deductions from observations as well as being time-consuming.