

2020 9th IEEE International Conference on Communication Systems and Network Technologies

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Different Techniques for Identification of a Bone Fracture in Analysis of Medical Image

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Abstract- Medical Imaging is the practice used to promote body images for medical uses to pinpoint diseases. There are many different techniques available for the identification of fractures in different types of bones. This paper reviews the major techniques appropriate to a search of medical image and compiles over 50 additions to the field, most of which came in the last year. This survey uses different fracture identifying techniques for image segmentation, image classification, fracture detection and other assignments. An analysis is contributed to the study on application area: Flat bone, Short bone, Long bone, Irregular bone, Sesamoid bone. A summary of this is ending with a demanding discussion of directions, test and open challenges for prospect research.

Index Terms- Medical Image, Bone, Fracture, X-Rays, Image Analysis Techniques, Digital Image Processing.

I. INTRODUCTION

In the early 1980s, imaging was done with different processing techniques like segmentation, enhancement, filters and modelling was done with ellipses, lines and

circles to construct rule-based systems that can easy to solve different tasks. Use of external fixator to reduce time in the hospital and to allow uncomplicated healing of a complicated fracture [1]. In the 1990s, some advancement was made. They indicated new directions in the management of this seriously debilitating injury [2]. Open reduction and internal fixation has been recommended more in those years [3]. A wide variety of techniques have been added: Herbert screw, Lag screw, external fixation, tension band, sliding bone graft and plate fixation [5]. In the 2000s, PMMA introduced for chronic osteomyelitis [6]. Techniques evolve from open reduction and rigid internal fixation (ORIF) and introducing Arthroscopic reduction and internal fixation (ARIF) [7]. Non-operative techniques are used for the treatment of injuries in fingers including terminal extensor tendon injuries. [9]. New techniques are introduced for the closure of open fractures wounds [10]. Different types of splint and cast were in trend those days and used in various circumstances in a primary care setting of fractures [11].

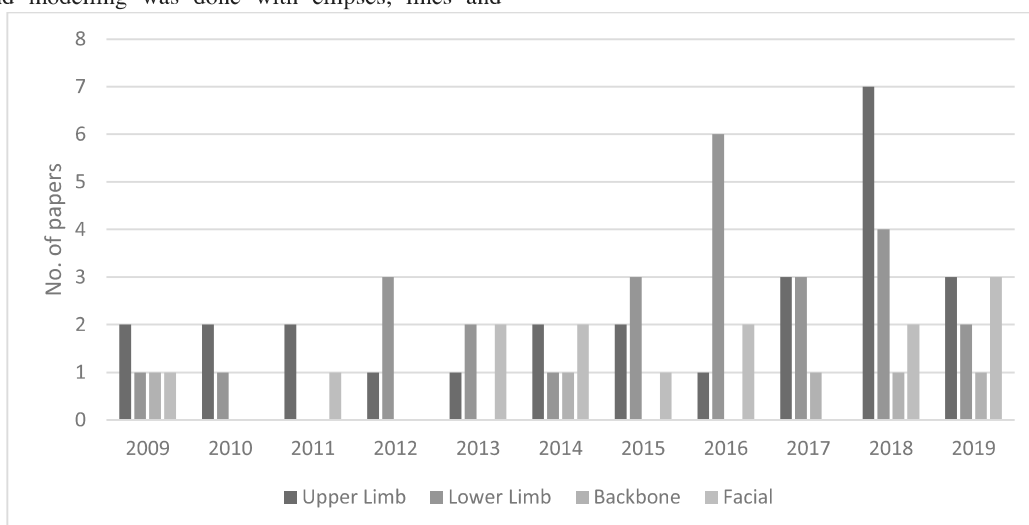


Figure 1 No. of papers published on different portion of the body