A Gesture-based Tool for Sterile Browsing of Radiology Images

Abstract:-

With recent developments of teleradiology technology and services, it has become necessary to better evaluate its extent and use among different countries in Europe. With this goal in mind, the ESR launched two specific surveys intended to gather the current state of adoption and implementation of teleradiology in clinical practice. A special focus on differentiating between insourcing teleradiology services among partners of the same organisation and outsourcing to external services was an essential part of the design of these surveys. The first survey was addressed to 44 national societies of different countries in Europe, while the second survey was intended for all practicing radiologist ESR members. While the results of these surveys reported here may provide a wealth of information to better understand the trends in adoption of teleradiology in Europe, they only represent a snapshot at a certain point in time. The rapid development of telecommunication tools as well as a fundamental change in practice and healthcare economics will certainly influence these observations in the upcoming years. These data, however, will provide objective and relevant parameters for supporting the efforts of experts and policy makers in promoting appropriate criteria and guidelines for adequate use of teleradiology in clinical practice.

Introduction:-

Radiologic Technology or Radiography, or X-Ray as it may also be referred, is the art and science of using radiation to provide images of the bones, organs, soft tissue and vessels that comprise the human body. These x-ray images, that are recorded on x-ray film or displayed on a video monitor, are then used as a tool to diagnose disease, injury or congenital deformity.

Medical Imaging with radiation is an indispensable diagnostic tool of modern medicine; broken bones can be aligned, ulcers can be detected, and many other injuries, traumas and diseases can be diagnosed with x-ray imaging. Diagnosis and treatment of a patient depends on the accurate and precise production of a radiographic (x-ray) examination.   The health professional responsible for performing radiographic examinations is the RadiologicTechnologist (R.T.) Radiologic Technologists are essential members of the health-care team, who work closely with physicians, nurses and other members of allied health.

Radiologic Technology is not for everyone, it can be physically and emotionally demanding, but for those individuals who are team players, dedicated, compassionate and enjoy helping others, this is a rewarding and satisfying career

Literature Survey:-

Evolution of Radiology

radiology images

Radiology is amongst one of the younger branches of medicine with a history of just over a century. Nevertheless, it has plenty to celebrate - and has revolutionised the way medicine is practiced today.

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It all began more than 120 years ago on 8th November 1895 in Wurzburg, Germany. At the Physical Institute of the University of Würzburg, now the University of Applied Sciences Würzburg, Prof Wilhelm Conrad Röntgen (1845-1923) who was working with cathode ray tubes discovered a new type of rays that caused a fluorescent glow in crystals on an adjacent table.

For the next six weeks, he worked all alone cancelling all his other assignments to study this phenomenon. He called these unknown rays as "X- rays". Röntgen observed that these rays could pass through many objects including human tissues but not metal and bone. One of the first films obtained using X-rays was that of the hand of Röntgen's wife Bertha, who later remarked that she had a vague premonition of death after looking at the image of her bones seen through flesh. After completing his experiments with these new rays and documenting its basic properties, Prof Röntgen submitted his findings in a paper to the Physical Medical Society in Wurzburg and remarked: "Now, all hell can break loose."