**INTRODUCTION**

Artificial intelligence (AI) is actually developing in most of the fields including forensic science. People are approaching to understand the impact of AI in everybody’s life through digital science which is now easily available. In forensic investigations, when investigators encounter a deceased, the main task is to decipher the time that has elapsed between death and discovery of the body. Time since death is defined as postmortem interval (PMI).Estimation of a time frame of death can help the investigators to reach to a conclusive state of the appropriate time of death which can further assist the courtroom proceedings in accepting or rejecting the statements of suspects and witnesses[1]. Prediction of PMI is one of the most challenging variables to quantify and establish for forensic examiners for over years despite numerous development in this area [2].Egyptian

Prediction of PMI is one of the most challenging variables to quantify and establish for forensic examiners for over years despite numerous developments in this area [2].Egyptians .and Greeks performed autopsies on criminals during the early century BC. Later, all methodologies followed for PMI estimation were derived from these previous performance [3].Researches focusing on determining the time of death are divided into two main groups: the early postmortem period and the late postmortem period.From death until the beginning of tissue decomposition, early postmortem period is defined. Whereaslate post-mortem period is known as skeletonization or alterations of the bony matrix[4].

Several approaches have been established to define the time of death depending on short or longer PMI.Determining the time of death is more difficult with longer PMI[5]. Electrical and mechanical stimulation of skeletal muscles few hours postmortem have been used[6].Another researches consider entomology as one of the best method for determination of short as well as long PMI [7].In multiple studies, a relationship was established between decomposition of the body and PMI. Few minutes after death, many biochemical changes startin the body. These changes were divided into five phases of decomposition: fresh, bloat, active decay, advanced decay and dry remains ([8], [9]). Recent studies focus on the estimation of the PMI by biochemical markers through the analysis of chemical substances released after death and accumulated in the body([10], [11]). Researchers studied these biochemical markers in PMI determination in different body tissues such as blood, brain [12], skeletal muscle [13] and pancreas [14]. Biochemical changes of blood biomarkers have been related to three elements including the agonal period of anoxia, the extension of biochemical fluctuations in the early PMI, and the repartition of diffusible constituents between red blood cells and blood serum [15]. The blood markers can be classified within two main categories: metabolites such as sodium, chloride, potassium, ammonia, urea and proteins such as lactate dehydrogenase (LDH) and Aspartate aminotransferase