

ABSTRACT

JAYADI. The Application of Scientific Evidence in the Criminal Case Proofing System and its Accordance with Science and Technology Development" Dissertation under the guidance of Prof. Dr. Surya Jaya, SH, MH., as the Main Adviser and Dr. Petrus Irwan Panjaitan, SH., MH., As Co-Adviser.

The background of the research was on a philosophical, theoretical, principle and practice interpretation of the unconformity of the use of legal evidence (article 184 of the Criminal Procedure Code) and the conformity of scientific evidence in a criminal case verification and confirmation system. The modus of conventional crimes that occurred in the period of 2016 to July 2018 according to legal data found, the total of conventional criminal taken place every year 235,529 cases and modern criminal acts, every year an average of 39,898 cases, of all the total cases that carried out by law enforcement to requesting of crime scene examination as forensic laboratory just 14.56% and physical evidence examination just 7.48%. Evidence of material based on modus, element of action, principle of interaction and/or physical contact, exchange principle of matter and structure of criminal acts always derived comes from Characteristic of the human evident, material of non human and virtual virtual evident have of individualistic the structure and composition.

The research was conducted with a hermeneutic approach to defined the inconsistency of the use of legal evidence and aligned scientific evidence to formulate problems of research are why scientific evidence can be used as a tools to make legal policies have a legitimate, strong, binding, convincing, universally accepted and guarantee legal fair in the system of proof of a criminal case? and why is scientific evidence always relevant and in line with the development of criminal acts and science and technology ?. Based on the research of methodology was conducting interpreting alignment relationship between substance of criminal law, legal evidence and the characteristics of evidence materials. With the theory a proofing criminal case, negative proofing system and principles transfer of matter acts of crimes, the superiority and weakness of legal evidence and scientific evident was identified base on a principles of analysis and interpretation law of individualistic acts, the validity of the legal evidence and the scientific evidence are compared.

Result of the research was findings that that relevant evidence was not a guide or general knowledge from eyes witness but evident of materials have contained scientific information and explanations about the relationship between characteristics of the evidence with the identity of the perpetrators, victims and crime scenes. The evident just can to produced from the examinations and /or testing base research as laboratory forensic by forensic scientists, The evidence could be used as a tools to case verification, calibrate of eyewitness testimonies, to improve confidence perfectly and as a tools to make judgment in a manner humanist, neutral, honest, true and fairness. The principle of scientific proof is always in line with the development of science, technology and evolution of crimes because substance of scientific evidence as a representation of forensic scientist cultures to conducting empirical observational and directly research to evident of materials base on principle to acts of law, exchange principle of materials, individualistic principle, analysis and technical evidence principle in conducting with standards procedures of examination and /or laboratory technical. The result of the examination forensic laboratory. it's comparing to legal evidence that is very feudal to criminalization someones by law enforcement.

Keywords: Scientific Evidence, Standard of Proof and Forensic Expert Witness