

objects are still vital. Regulating microclimate parameters such as temperature, relative humidity (RH), and luminosity have a great effect on heritage preservation as any deviation in such parameters may lead to destruction of artifacts' materials. Designing and implementing an optimal microclimate control system by automated regulation of the microclimate parameters based on the standards and requirements of preservation conditions is a challenging work. Due to a number of up-to-date technologies developed at a fast pace, museum systems face new requirements minimizing human interaction using automated techniques based on IoT and Semantic Web [1–6]. Using microclimate control systems based on regulating devices are not new to museums, however it still lacks in automation. Due to the rapid development of sensors in smart city systems [7], sensor networks and wireless transmitters are introduced to museum infrastructure as well, nevertheless a feedback to regulate parameters based on measurements is still not introduced. To provide this, a multi-