E-learning is an Internet-based learning process; it uses internet technology to design, implement, select, manage, support and extend learning, which will not replace traditional education methods, but will greatly improve the efficiency of education. E-learning has a lot of advantages like flexibility, diversity, measurement, openness, and etc. It will become a primary way of learning in the 21st century.

Artificial Intelligence (AI) along with internet technology is known as the semantic web, which is the most interesting and evolving technology for e-learning. It is about making the web more understandable by machines, through an appropriate infrastructure for the intelligent agents to move around the web to perform any complex task for their users. E-Learning has grown organically without a clear picture of the components of a typical E-learning system.

E-learning in this work provides training activity for the sports domain. This aims to provide the learning activity for various learners of the sports community from different sports domain such as games and athletics. In this E-learning system, the instructor and the learner are the active participants. The E-learning system takes either the asynchronous mode of training or the synchronous mode. The instructor gives training based on the
knowledge of the learner through the E-learning system. There exist two types of E-learning system. In the first type, the two way communication takes place between the learner and the e-system, and in the second type it is between the learner and the instructor through the E-learning system.

The total framework of the E-learning system is deployed based on the learner’s key. Based on the key value the E-learning system searches the respective sports domain ontology. If the system is able to find out the correct ontology, then the output will be sent to the learner. The output of the ontology is stored in the query template.

In case the user requires detailed learning content based on physiological variables, then the request is sent to the Constraint Satisfaction Problem (CSP) solver which solves the physiological variable and physical activity constraints. The CSP solver performs two tasks, viz CSP and Planning and Scheduling.

The CSP verifies the input of the learner from the ontology query template. The Physiological variables like Blood Pressure (BP), Heart Rate (HR), Respiratory Rate (RR), Breath Holding Rate (BHR), Vital Capacity (VC) and physical activity (Speed, Power, Stamina) of the learner have been considered. If the constraints based on all the above mentioned variables and values are satisfied for the learner, then the decision is made in the E-learning
system, in such a way that, the learner can learn the suitable content based on learners’ physiological variable for a physical activity.

Planning, using Artificial Intelligence, gives information about the plan of how to achieve a goal, and scheduling provides the timeline considering the resources available and the task to be carried out in time.

The proposed system is designed to handle the physiological variable of the learner, and the variables are processed using the CSP solver. The e-system infers all the rules based on CSP, and gives the response to the learner’s query. The result is made available in an understandable format to the learner. After learning the learner will plan and schedule the goal. When the task is finished by the learner, the E-system calculates the arrival time, and the physiological variable changes at the end of the task. When the task is not completed in time, then the learner analyzes the physiological variables. If the physiological variables are good, then the learner should analyze the physical activity to be carried out before taking up the task. After considering all these steps during the sports activity, the learner is able to reach the goal within optimized time.

The aim of an E-learning system is to fulfil the requirements of the learners and instructors, in order to complete the task and to win the goal. Institutions offering courses online lack efficient evaluation methods for both instructor and the learner.