3.2.1 Institution has created an ecosystem for innovations and has initiatives for creation and transfer of knowledge

Response:

The Institution has created an ecosystem for innovation, creation and transfer of knowledge by establishing R&D cell, Incubation Center and Entrepreneurship Cell.

The Eco-System framework enablesthe student and faculty to come together and to pool the passion of innovation environment with the basic concept of the courses that they are going through. The institution creates the infrastructure to ensure that the ideas were implemented and nurture innovative thinking amongst all students. It also provides the platform to make sure that the transfer of knowledge through the innovations.

The ecosystem consists the framework of pooling the ideas through competitions, encouraging the students to prepare the models/prototypes by handholding of the faculty, boosting the students confidence by making to participate in various competitions like technical quiz, project exhibition, paper presentations, poster presentations and present their ideas and models/prototypes to outside world and also won good number of prizes, some of the innovative initiatives were also encouraged to publish papers in various journal/conferences.

The College has set up Entrepreneur Development Cell to hone the analytical skills of students and to help them think out-of-the-box.Physical infrastructure comprising well equipped Library and laboratories with modern simulation tools and equipment for carrying research activities were provided.

Some of the outcomes of the initiatives are :

1. **LED Scrolling Display Using Arduino UNO Board :**

   This is the project which enlightened the views of the ECE Students towards the environment. With the use of the above project, our students decreased the usage of paper for the communication purposes (such as sending the circular to the departments etc.). This project, presented by the students at various fests.

2. **E-Bicycle:**

   E-Bicycle was designed by our students(Y 18 Batch) in 2020.This project mainly consists of a Bicycle, Hub motor(36v,350 watts),Hub controller, Electrical brakes, Speedometer, Throttle(Accelerator), Batteries(Each 12v).All the parts are assembled in proper position and the capacity of the E-Bicycle is 4 hours(if once it is charged).we are having three batteries connected in series each of 12v and the speed obtained is 30km/hr and can uplift weight of 110kgs.this project costs very less compared to any other projects and its totally pollution free and its totally friendly environment. The same E-Bicycle concept can be updated by adding solor system to it, It can be runned on solar and batteries also.

   A science expo was conducted in Neighboring college and our students participated in that event.

3. **Go – Cart with Bio-Gas :**

Students of final year mechanical were prepared the Go-cart, which runs on Bio-Gas with petrol as a initial startup. Bio- Gas is alternative fuel to petrol , produced from the food waste. Go –cart made by the students are working fine with seating capacity of one person. The same is presented in various tech fests occurred in the near by engineering colleges.