Design Thinking

A Session on Enhancing Skill of Students

By turning new concepts into tangible forms and applying scientific knowledge to solve societally relevant problems, engineering design blends creativity and cutting-edge engineering techniques.

In the modern world, design has permeated every element of our existence, from the things we use to the places we live. The need for talented and imaginative designers has therefore increased dramatically in recent years. Design thinking has gained popularity as a method of problem-solving that includes defining the issue, generating ideas for solutions, testing, prototyping, and demonstrating empathy for the user.

Although it is frequently linked to the entertainment and arts sectors, creativity is just as significant in the business and technological sectors. Actually, a key element of design thinking is creativity. It is the capacity to generate original, cutting-edge concepts that have never been investigated before. Being creative involves more than just coming up with original ideas; it also involves repurposing preexisting concepts in novel and creative ways. Creativity is employed in design thinking to investigate and produce a variety of problem-solving approaches.

Contrarily, innovation is the process of bringing fresh, imaginative concepts to life. It entails taking chances and questioning the status quo in order to produce something novel and worthwhile. Innovation can take many different forms, such as new business models, procedures, and goods and services. Innovation is used in design thinking to test and prototype novel concepts and solutions. The goal is to identify the optimal solution that satisfies both user and business needs.

Innovation and creativity go hand in hand with design thinking. There wouldn't be any fresh concepts to investigate without creativity, and there wouldn't be any means of implementing those concepts without innovation. The significance of creativity and innovation in design thinking, as well as how to foster and develop them, will be covered in the sections that follow.

The process of transforming a creative idea into a practical solution is known as innovation. It is an essential part of design thinking and entails taking chances and questioning the status quo. Innovation is important in design thinking because it allows designers to create solutions that are both practical and effective.

In design thinking, innovation can take many different forms. It may entail rethinking conventional design methods, utilizing novel materials or technologies, or coming up with fresh approaches to issues. Designers can produce designs that are not only useful but also economical, sustainable, and easy to use by embracing innovation.

Although innovation and creativity are valuable in and of themselves, combining the two is where design thinking truly shines. Designers can produce genuinely original and useful solutions when they blend creativity and innovation. Incorporating creativity and innovation into design thinking can result in design innovations and assist in resolving some of the most challenging issues confronting modern society.

Integrating creativity and innovation into design thinking has several advantages, one of which is that it enables designers to tackle issues from a comprehensive perspective. Designers can think about the larger context in which a design will be used rather than just its functional aspects. This can result in designs that take into account social, cultural, and environmental aspects in addition to functional requirements.

Dr K L Mokariya well conveyed all the above-mentioned things with examples and design engineering Canvas to 2nd and 4th Sem students. Empathize, Define, Ideate, Prototype, Test words were conveyed to students with examples. Ideation, Ideation canvas, Ideation process Experimentation Evolution Discovery Interpretation, Ideation process Experimentation Evolution Discovery Interpretation,5 phases process of ideation, Five Steps of Ideation, Steps for successful product development Ideation, Meaning of Empathy, Empathy Canvas, AEIOU framework, SCAMPER technique, Product Development Canvas and importance of Design Engineering to innovation and research was explained in very best manner with motivation to students. On each of the Canvas what exactly the title should be and when the actual title of the product is written was also well conveyed. The session was organised by Prof A S Mishal and delivered by Dr K L Mokariya SSIP 2.0 Coordinator and Head Electrical Engineering Department.