2.10 30110 CREATIVE THINKING TECHNIQUES AND TOOLS FOR SUCCESS

UNIT-1 INTRODUCTION TO THE PRINCIPLES OF CREATIVITY:
In the first week, we focus on the basic principles of creativity and highlight its importance in tackling global challenges. Creativity is explored and applied at two different levels, lower and higher-level creativity.

UNIT-2 CREATIVITY TOOLS:
In this week, we will look at how we can augment our creativity using different methods of Brainstorming, a creativity approach that aids the generation of ideas in solving a stated problem. We particularly focus on the application of brainstorming tools in group activities, with the aim of enabling you to understand, evaluate and apply different types of brainstorming techniques in your own context.

UNIT-3 THINKING STYLES:
There are many thinking styles which can be helpful in creativity. We will focus on the principles as well as application of a variety of thinking approaches that can be used at both at an individual level and in a group, under various professional and personal situations, allowing you to develop competency and accelerate proficiency in the use of some different thinking styles.

UNIT-4 MORPHOLOGICAL ANALYSIS:
You will become familiar with the Principles of Morphological Analysis and learn how to apply it in various life scenarios, from design to developing movie plot-lines, whilst developing a more systematic approach to idea generation.

UNIT-5 TRIZ - THE THEORY OF INVENTIVE PROBLEM SOLVING:
In week 5, we continue to enhance your fluency, flexibility and originality of idea generation by introducing you to another creativity tool called the theory of inventive problem solving (TRIZ). We will particularly focus on application of TRIZ and the TRIZ Contradiction Matrix and how it can be used in problem, both at an individual and in group level.

UNIT-6 SCAMPER:
This week, we will introduce you to the final creativity tool in the course and its importance in generation of ideas and improvement of the existing ones; SCAMPER.
You will become familiar with the concepts of SCAMPER and gain proficiency in its application in various unusual, personal or professional situations, whilst inspiring related ideas.

UNIT-7 USING THE TOOLS IN COMBINATION:
Now that you have mastered a wide range of creativity tools and developed competency in their application over a wide range of situations and domains, we will wrap up by asking you to use these tool in combinations and apply these in context and scenarios that are also related to your

own discipline or context. This will help you reinforce the concepts that you have learnt so far and enable you to use the creativity tools freely in problem solving and idea generation.

References books:
1. Peter Childs
2. Head of the School of Design Engineering Dyson School of Design Engineering
3. Imperial College London is a world top ten university with an international reputation for excellence in science, engineering, medicine and business. Located in the heart of London. Imperial is a multidisciplinary space for education, research, translation and commercialization, harnessing science and innovation to tackle global challenges.
   Imperial students benefit from a world-leading, inclusive educational experience, rooted in the College's world-leading research. Our online courses are designed to promote interactivity, learning and the development of core skills, through the use of cutting-edge digital technology.