



## Training on Parametric Design by Experts from Elephant Creations for the Students of Final Year B.Arch

A Three Day Certified workshop was held between 17 to 19 January, 2019 at Thakur School of Architecture & Planning as a part of Training Initiative. The hands on training received an overwhelming response as the students were able to explore the various possibilities of form development using the potential of parametric programming.

The initiative was part of Training and Placement activity of TSAP to prepare the students for the requirement of Industry.

**Program Title : Breathing Skins**  
**Expertise : Elephant Creations**  
**Date : 17th to 19th January 2019**

### Contents of the Program

#### 01 Understanding fundamentals

**Parametric design** is a process based on **algorithmic** thinking that enables the expression of parameters and rules that, together, define, encode and clarify the relationship between design intent and design response.

##### Topics covered

- **Understanding the concepts of Parametric designs**

**Parametric designs in Nature**

**Case Studies -Application of Parametric designs**

#### 02 Coding the Architecture

Advanced uses of Visual Coding includes parametric modelling for structural engineering, parametric modelling for architecture and fabrication, lighting performance analysis for eco-friendly architecture and building energy consumption.

##### Topics covered

- **Introduction to Rhino (NURBS geometry)**

**Code blocks and algorithms (Grasshopper)**

**Designing with Data trees and lists**

#### 03 Generative design

Generative design is an iterative design process that involves a program that will generate a certain number of design outputs by changing minimal and maximal values of the set of constraints.

##### Topics covered

- **Form formation (Setting Algorithms)**

**Creating Parametric Façade**

**Creating design option using Generative designing**



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Software Training on Parametric Modelling



Hands On training on Parametric Modelling



Lecture Demonstration on Parametric Modelling



Students working on Independent Exercises



Students Working on Creating Parametric Model Components



Students assembling Parametric Components for Modelling

**TRAINING & PLACEMENT**