

Paper Engineering Workshop

Design is the art and science of creating purposeful, functional, and aesthetically pleasing solutions by blending creativity, functionality, and precision. It involves shaping objects, systems, and experiences to fulfill specific needs. Mathematics plays a crucial role in design, providing the framework, structure, and accuracy necessary for translating ideas into reality.

To help first-year students of the Architecture department explore the profound relationship between mathematics and design, Dr. Arun Desai, India's only paper engineer and founder of Studio Chitte (established in 2007), was invited to conduct a Paper Engineering Workshop on 21st and 22nd of October, 2024 as part of the Basic and Architectural Design Studio Class under the guidance of Prof. Pudhuma Bharathi and Prof. Bhagyasri.

With his passion and expertise, Dr. Desai introduced students to the art and science of paper crafting, revealing how mathematical principles could transform a simple sheet of paper into complex, innovative forms. Through strategic folds, precise cuts, and well-placed creases, the students learned to create breathtaking geometries, bringing to life structures such as Foldable Pyramids, Geodesic Domes, Hyperbolic Paraboloids, Fullerenes and Lamp Shades.

The workshop captivated the students, inspiring them to experiment with mathematical concepts in their designs. This hands-on experience not only enhanced their understanding of geometry and spatial manipulation but also sparked their creativity and problem-solving skills.

Taking their newfound knowledge beyond the workshop, the students applied these techniques to their successive models. By integrating the art of paper folding into their architectural explorations, they created intricate curves and innovative forms, reflecting their curiosity, ingenuity, and a growing appreciation for the synergy between mathematics and design.







