ME Seminar

Scissors & cuts, from mechanism to popup art

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ABSTRACT

Understanding and designing mechanisms or structures has interested artists, mathematicians, and engineers alike. Starting with the automaton designers of the 19th century, who used cam mechanisms to set the motion of a robot's arm along a particular path, to the origamists who developed the fold patterns on a sheet of paper to design complex folded shapes, artists have known how to program form. In this talk we will look at how geometry of a mechanism/structure enables and constrains the programming capacity, through three examples.

ABOUT THE SPEAKER

Ganga Prasath is a faculty member in the Department of Applied Mechanics & Biomedical Engineering in IIT Madras. He received his PhD from the Tata Institute of Fundamental Research in Physics, Masters degree from Ecole Polytechnique in Mechanics and B.Tech in Mechanical Engineering from IIITDM Chennai. He did his postdoc in the School of Engineering and Applied Sciences at Harvard University where he worked on collective robotics and mechanics of meta-materials. With his background in engineering, physics and applied mathematics, he looks at complex systems with an integrated view of these disciplines.

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