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ME 295 (JAN) 3:0

Geometric Modelling for Computer Aided Design

Instructor(s): B Gurumoorthy, Debakar Sen

Course description:

Representation of curves and surfaces-parametric form, Bezier, B. Spline and NURBS, intersection of curves and surfaces, interpolation, topology of surfaces, classification, characterization, elements of graph theory, representation of solids: graph based models and point set models, Euler operators, boundary evaluation, computation of global properties of solids

Prerequisites:

Resources:

Piegl, L., and Tiller, W., The NURBS Book, Springer-Verlag, 1995. Mantyla, M., An Introduction to Solid Modeling, Computer Science Press, 1988.,Carter, J.S., How Surfaces Intersect in Space – An Introduction to Topology, World Scientific, 1993.,Fomenko, A.T., and Kunii, T.L., Topological Modeling for Visualization, Springer - Verlag, 1997.

Outcomes:

Additional information:

Course website: