

# **Project Proposal**

## **Advanced Computer Graphics (CS 685)**

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Topic : **Efficient Rendering Method For Point Model**

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*Point Based Rendering* is an alternative rendering technique to conventional polygon based rendering. Instead of a set of triangles, the object is represented by a cloud of single points, each with a surface normal. Point based rendering is very useful for highly complex models, which would otherwise require a huge number of triangles whose projected area is less than one pixel. The increasing popularity of points as rendering primitives has led to a variety of different rendering algorithms.

Any *Point Based Rendering Algorithm* has to take into account that there are no holes left in the rendered scene and the output is visually pleasing and devoid of any aliasing effects. In this project we propose to study a variety of *Point Based Rendering Algorithms* available in literature and implement an algorithm which best suites the above requirements. The input to the system will be a set of points defining the scene with their corresponding normals and color values. The output of the algorithm will be a completely rendered scene.