

**UNIVERSITI TEKNOLOGI MARA**

**TECHNICAL REPORT**

**LAMP DESIGN GENERATED BY BEZIER AND WANG BALL  
CURVE**

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## ABSTRACT

Lampshades design is the important part to be considered as when designing a space because it influences the condition of mind, form and size of a room. It is also important because it influences the amount produced of one example light. This exploration put us to use Bezier curve and Wang-Ball curve to develop better lampshade design. The aspirations of these designs are to represent design lampshades by using Bezier curve and Wang-Ball curve from degree two until degree five. This study presents the comparison between of the two curves of 3 designs in a different lampshade as a case. Deriving the mathematical formula for Bezier and Wang Ball Curve from degree two till degree five is an influential step to achieve the result. Comparison of the design of each degree in the same lampshade will be focused on to find the best curve between these two curves, which is the last objective of our research. The MATLAB software was used to program all the results and graph them. For the represent lampshade design, Wang-Ball Curves are a more suitable and adaptable strategy to use while creating the lampshade design in this study. If there are several control points, curves look a lot better. The ability to construct a smooth curve increases with the number of control points. Nonetheless, depending on the specifics of the design to be generated, designers are free to select their own way.