ABSTRACT

3D printing is a form of additive manufacturing technology where a three-dimensional object is created by adding successive the layers of material. 3D printing is now-a-days used in variety of industries including jewelry, industrial prototype design, architecture, automotive, aerospace, dental and medical industries. It is also known as rapid prototyping. It is a tool less manufacturing method can produce fully dense metallic parts in a short time with high precision without the wastage of material. The main objective of the project is to 3d print a Preassembled compound gear train. Usually, the compound gears are printed separately and then it will be assembled using shaft whereas in this project the gears are designed directly as a single product at a stretch. This project research aims at modelling and developing the compound spur gear using 3D printing technology. Cheap, quick, and customizable movement transfer solution for 3D printing gears compared to alternative modes of gear production. In this project, it is proposed to spur gear model of compound gear. The modelling of a spur gear is using SOLIDWORKS software and Slicing is done with CURA software. The spur gear model is contrasted with different material like Poly Lactic Acid (PLA).