

(54) Title of the invention : DEVELOPMENT OF ECONOMICAL 3D PRINTER

(51) International classification :B33Y 300000, B41J 021750, B41J 290200, G06F 083800, G06K 151200

(86) International Application No:PCT// /  
Filing Date :01/01/1900

(87) International Publication No : NA

(61) Patent of Addition to Application Number :NA  
Filing Date :NA

(62) Divisional to Application Number :NA  
Filing Date :NA

(71)Name of Applicant :  
**1)Dr. D. Maneiah**  
 Address of Applicant :CMR Technical Campus Kandlakoya Hyderabad  
 Telangana India 500081 Hyderabad -----  
**2)Dr. Kode Jaya Prakash**  
**3)Dr. Yeole Shivraj Narayan**  
**4)Dr. K. Balashowry**  
**5)Mr. Narendra Pothula**  
**6)Dr. C. Govinda rajulu**  
**7)Dr. K. Vijaya Kumar Reddy**  
**8)Dr. A. Aruna Kumari**  
**9)Dr. D. V. Sreekanth**  
 Name of Applicant : NA  
 Address of Applicant : NA

(72)Name of Inventor :  
**1)Dr. D. Maneiah**  
 Address of Applicant :CMR Technical Campus Kandlakoya Hyderabad Telangana  
 India 500081 Hyderabad -----  
**2)Dr. Kode Jaya Prakash**  
 Address of Applicant :VNR Vignana Jyothi Institute of Engineering and  
 Technology Bachupally Hyderabad Telangana India 500090 Hyderabad -----  
**3)Dr. Yeole Shivraj Narayan**  
 Address of Applicant :VNR Vignana Jyothi Institute of Engineering and  
 Technology Bachupally Hyderabad Telangana India 500090 Hyderabad -----  
**4)Dr. K. Balashowry**  
 Address of Applicant :VNR Vignana Jyothi Institute of Engineering and  
 Technology Bachupally Hyderabad Telangana India 500090 Hyderabad -----  
**5)Mr. Narendra Pothula**  
 Address of Applicant :VNR Vignana Jyothi Institute of Engineering and  
 Technology Bachupally Hyderabad Telangana India 500090 Hyderabad -----  
**6)Dr. C. Govinda rajulu**  
 Address of Applicant :Guntur Engineering College Guntur Secunderabad Andhra  
 Pradesh India 522019 Guntur -----  
**7)Dr. K. Vijaya Kumar Reddy**  
 Address of Applicant :JNTU College of Engineering JNTUH Hyderabad  
 Telangana India 500085 Hyderabad -----  
**8)Dr. A. Aruna Kumari**  
 Address of Applicant :JNTU College of Engineering JNTUH Hyderabad  
 Telangana India 500085 Hyderabad -----  
**9)Dr. D. V. Sreekanth**  
 Address of Applicant :St.Marins Engineering College , Dhulapally, Kompally  
 Hyderabad -----

(57) Abstract :  
 Abstract A 3D printer is an additive manufacturing technique where 3D objects and parts are made by the addition of multiple layers of material. It produces physical 3D models from digital data. It can also be called as rapid prototyping. It is a mechanized method where 3D objects are quickly made on a reasonably the required size machine connected to a computer containing blueprints of any object. The additive method may differ with the subtractive process, where the material is removed from a block. The main reason to use 3d printer is for 90% of material utilization, increase product life, lighter and stronger. 3D printing is efficiently utilized in various fields such as aerospace, automobile, medical, construction and in manufacturing of many house hold products. Therefore, 3D printer is very useful and involving many fields of Mechanical Engineering knowledge, thus 3D printing develops not only knowledge in mechanical, electric, sensors and actuators and material properties, but also creativity and problem solving that are so important.

No. of Pages : 17 No. of Claims : 6