



Shanti Education Society's

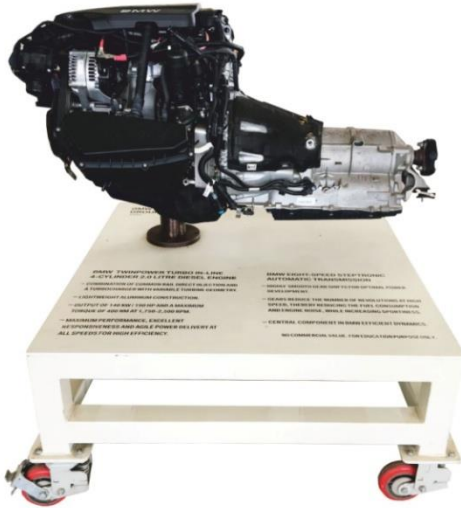
**A. G. PATIL POLYTECHNIC INSTITUTE, SOLAPUR (M.S.)**

●●● ALL PROGRAMS NBA ACCREDITED ●●●

●●● GRANTS RECEIVED FROM BMW ●●●

**Name of Equipment : BMW Engine & Transmission Assembly**

**Name of Organisation : BMW (Germany, India)**



**SPECIFICATION :**

**BMW TWINPOWER TURBO IN-LINE  
4-CYLINDER 2.0 LITRE DIESEL ENGINE**

- Combination of common rail direct injection and a Turbocharger with variable Turbine Geometry
- Lightweight Aluminum Construction
- Output of 140 KW / 190 HP and a maximum Torque of 400 NM at 1,750 - 2,500 RPM
- Maximum Performance, Excellent Responsiveness and Agile Power Delivery at all speeds for High Efficiency.

**BMW EIGHT - SPEED STEPTRONIC  
AUTOMATIC TRANSMISSION**

- Highly smooth Gear Shifts for Optimal Power Development
- Gears reduce the number of Revolutions at High Speed, Thereby Reducing the fuel consumption and engine noise, while increasing sportiness.
- Central Component in BMW Efficient Dynamics



**Coil making Machine by RPK Industries, Pune**



**Dynomometer by Saj Test Pvt. Ltd Pune**



Shanti Education Society's

**A. G. PATIL POLYTECHNIC INSTITUTE, SOLAPUR (M.S.)**

●●● ALL PROGRAMS NBA ACCREDITED ●●●

●●● GRANTS RECEIVED FROM GENERAL ELECTRIC COMPANY ●●●

**Name of Equipment : 3D Printer ( Model : Oremel 3045 Printer ) + Software**

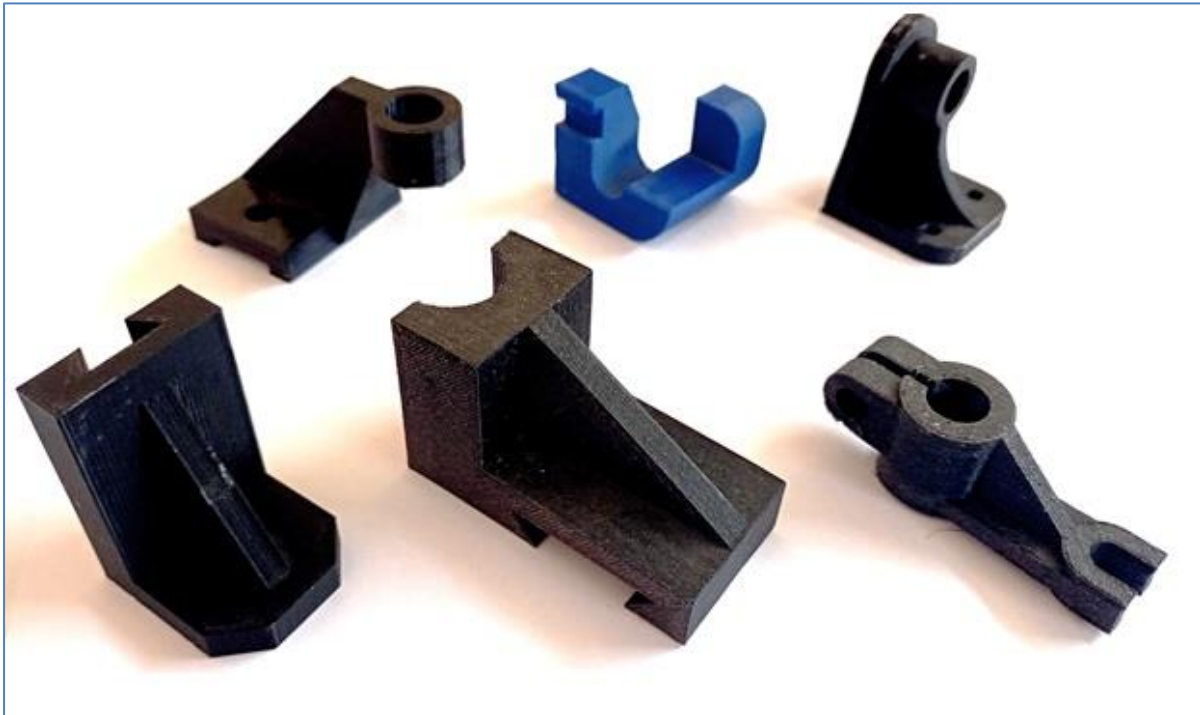
**Name of Organisation : General Electric Company (USA)**



**Specification**

- Extruder : Single extrusion • Extruder Temperature : Up to 280 C, 536 F
- Build Platform Temperature : Up to 100 C, 212 F • Operating Interface : 4.5" full colour IPS touch screen
  - Maximum Build Volume : 10" x 6" x 6.7" (255mm X 155mm x 170mm)
- Layer Thickness : 50 microns (0.05 mm) • Internal Storage : 8 GB • External Storage : USB Flash Drive

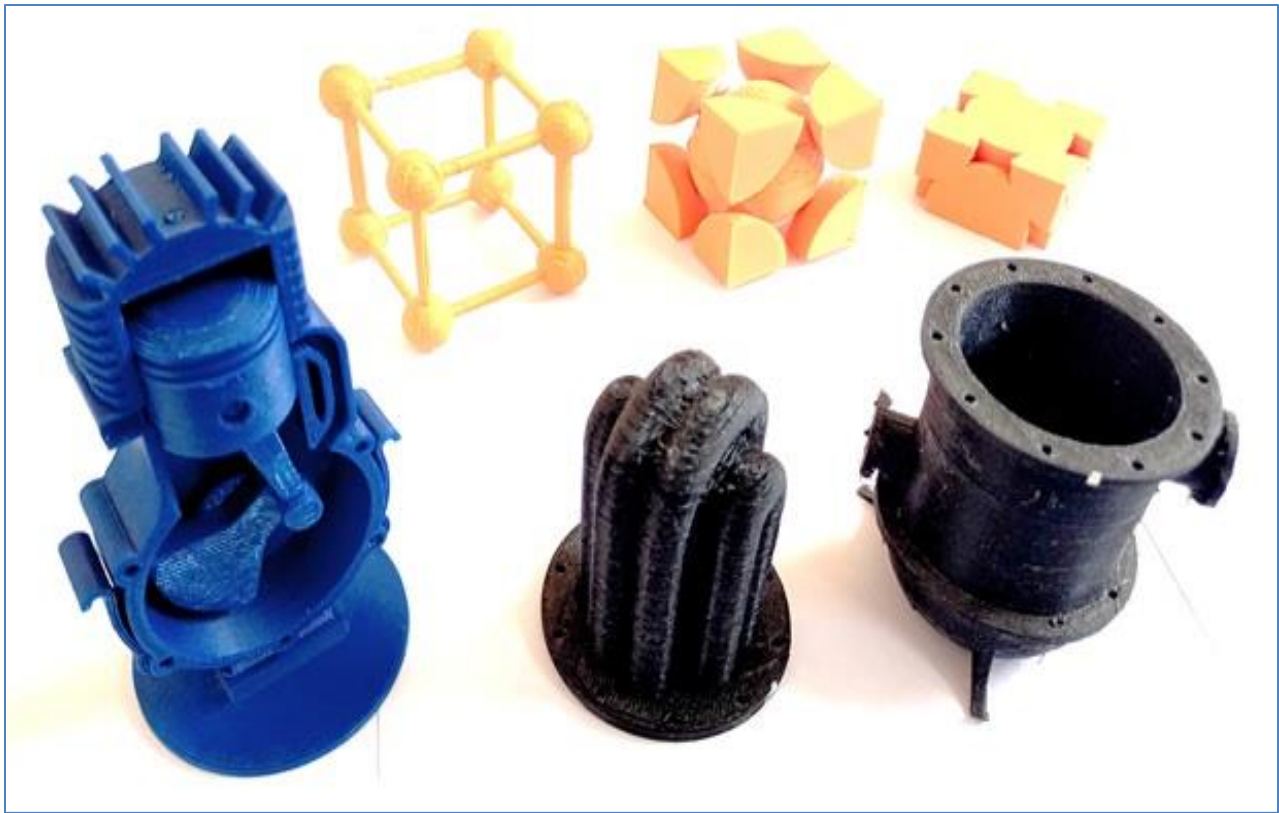
**3D Printed components  
for  
better visualization & Understanding**



**3D Printed models for better understanding of Isometric & Orthographic  
View**



**3D Printed models for better understanding of Intersection of Solids**



**3D Printed models for better visualization of structures**



**Prototyped Models Using 3D Printer**



**Samples Received From Sinterit (Germany) Manufactured by SLS Technology**



**Lathe machine damaged ON/OFF lever is replaced with 3D Printed lever**



**Broken Fan Regulators are replaced with 3D printed Regulators**