

**Table B.6.2:** Additional Facilities created in the laboratories

Sr. No.	Facility Name	Details	Reason(s) for creating facility
01	CNC Laboratory (Establishment year 2018-2019)	<ol style="list-style-type: none"> <li>1. CNC Lathe</li> <li>2. CNC Milling</li> <li>3. Six Arm Robot</li> </ol>	To provide complete picture of Automation and working of robot in Automation in Production and Computers Integrated Manufacturing System. Part Programming
02	Advance engine setup (Establishment year 2019-2020)	<p>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 Highly smooth gear shifts for optimal power development Gears reduce the number of revolution at high speed, thereby reducing the fuel consumption and engine noise, while increasing sportiness</p>	A technical training initiative aimed at imparting quality practical skills for budding engineers
03	Automobile lab (Establishment year 2020-2021)	<ol style="list-style-type: none"> <li>1. sectional working model of petrol and diesel engines</li> <li>2. Gas turbine</li> <li>3. Ram jet Engine</li> <li>4. Cut section of single cylinder 4 stroke Diesel engine</li> <li>5. Sectional working Model of 2 stroke Petrol Engine.</li> <li>6. Sectional working model of 4 stroke, 3 cylinder Petrol Engine</li> <li>7. Ignition System of a Maruti car Engine</li> <li>8. Model of Carburetor - 4 different type</li> </ol>	This model helps the student to understand the working of automobile parts very easily. It is specially made dissectible for demonstration purposes.
04	3 D PRINTER (Establishment year 2020-2021)	<ol style="list-style-type: none"> <li>1. TEVO-Tarantula I3 Aluminium Extrusion 3D Printer Kit printer</li> <li>2. rolls filament 8 GB SD card LCD as gift.</li> <li>2. Phrozen Sonic Mini 4K Resin 3D Printer (Industry supported lab by PYE Technologies India)</li> </ol>	1. 3D PRINTER is a machine allowing the creation of a physical object from a three-dimensional digital model, typically by laying down many thin layers of a material in succession.

			<p>2. Tevo Tarantula - Prusa i3 3D printer features automatic bed leveling (optional) and bigger bed (optional). The auto-leveling version uses a proximity sensor to detect the aluminum print bed where the normal version of the printer uses a micro-switch to detect the end of travel for the Z-Axis movement (vertical limits)</p>
05	Research Lab	ANSYS Software	<p>Establishing a research lab in mechanical engineering benefits students, faculty, industries, and society at large. It fosters innovation, skill development, interdisciplinary collaboration, and the application of knowledge to real-world challenges.</p>