1. **SHEET METAL PART DESIGN**
   - Sheet metal part modelling using CAD software.
   - Reverse engineering using contact type microscribe and Rhinoceros software.
   - Dimensional analysis using ATOS compact scan 2M-3D.
   - Free-form surface measurement using CMM.

2. **PRESS TOOL CONSTRUCTION**
   - Press tool detailing using real-world production cut-section models.
   - Tryout of a press tool die using high-fidelity scaled prototypes.

3. **PRESS TOOL DESIGN**
   - Introduction to metal forming.
   - Classification of presses.
   - Key elements of a power press and a press tool die.
   - Identification of press operations.
   - Cutting force, bending force, drawing force, centre of pressure, scrap strip layout, and press tonnage calculations.
   - Sequencing of press operations and multi-stage tooling.
   - Selection of a press tool die.
   - Selection of materials, industrial standards, die sets and standard components using manufacturer catalogs for a press tool die.
   - Design and development of a press tool die.
   - Finite element analysis of a press tool die
   - Computer-aided detail drawing of a press tool assembly.
   - Gather information from the press tool blueprint regarding manufacturing processes, GD & T, and materials to fabricate press tool elements.
   - Manufacture of press tools.
   - Press tool production cost estimation.
   - Acceptance of press tools based on process capability.

<table>
<thead>
<tr>
<th>Duration</th>
<th>Full Time</th>
<th>Part Time</th>
<th>Course Fee: ₹ 40,000 including GST</th>
</tr>
</thead>
<tbody>
<tr>
<td>40 Hours</td>
<td>9.30 am to 4.30 pm</td>
<td>4.30 pm to 7.30 pm</td>
<td>Target audience: UG &amp; PG Students, Research scholars, Faculty, Staff and Practicing engineers.</td>
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For Queries:
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