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| <b>Module Name (Mechanical Engineering)</b> | <b>Total Hours</b> |
| <b>CNC programming and machining</b>        | <b>40</b>          |

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| <b>1</b> | <b>CNC PROGRAMMING WITH THE HELP OF CNC SIMULATION SOFTWARE</b>  | <b>20 Hrs</b> |
|          | <ul style="list-style-type: none"> <li>(a) Introduction to Computer Aided Manufacturing.</li> <li>(b) Constructional Features, Advantages, Limitations and Application of CNC machining.</li> <li>(c) Specification of CNC machining centre.</li> <li>(d) Work Holding and Tool Holding Devices and Automatic tool changer.</li> <li>(e) Co-ordinates of CNC Machine.</li> <li>(f) Work piece zero and Machine zero setting.</li> <li>(g) Part Programing of Lathe and Milling Machine.</li> <li>(h) Canned cycle, Subroutine and Do loops.</li> </ul> |               |
| <b>2</b> | <b>HANDS ON PRACTICE ON CNC MACHINE</b>  | <b>20 Hrs</b> |
|          | <ul style="list-style-type: none"> <li>(a) Familiarization of control panel</li> <li>(b) Setting a Work piece on machine.</li> <li>(c) Entry of Part program in CNC Machine.</li> <li>(d) Work piece setting methods.</li> <li>(e) Tool setting methods</li> <li>(f) Practice on CNC Turning and Milling or Vertical Machining Centre.</li> <li>(g) Routine Maintenance.</li> </ul>  |               |