

|        |          |        |              |   | Equivalent Course Under 2022 scheme |  |
|--------|----------|--------|--------------|---|-------------------------------------|--|
| Scheme | Semester | Branch | SubjectCode  | Subject Name  | Sub Code                            | Subject Name                                     |
| 2021   | 3        | IP     | 21IP32       | Material Science and Metallurgy                     | BIP302                              | Material Science and Metallurgy                  |
| 2021   | 3        | IP     | 21IP33       | Manufacturing Process - I                           | BIP303                              | Production Engineering - I                       |
| 2021   | 3        | IP     | 21IP34       | Basic Thermodynamics and Fluid Mechanics            | BIP301                              | Basic Thermodynamics                             |
| 2021   | 3        | IP     | 21IPL35      | Computer Aided Component Drawing                    | BIPL305                             | Computer Aided Component Drawing                 |
| 2021   | 3        | IP     | 21SCR36      | Social Connect and Responsibility                   | BSCCK307                            | Social Connect and Responsibility                |
| 2021   | 3        | IP     | 21IP381      | An Overview of Emerging Technologies                | BIP358A                             | An Overview of Emerging Technologies             |
| 2021   | 3        | IP     | 21IP382      | Basics of Industrial Safety                         | BIP358B                             | Basics of Industrial Safety                      |
| 2021   | 3        | IP     | 21IP383      | Introduction to risk management                     | BIP358C                             | Introduction to risk management                  |
| 2021   | 3        | IP     | 21MATDIP31   | Additional Mathematics - I                          | No                                  | No Equivalent                                    |
|        |          |        |              |   |                                     |  |
| Scheme | Semester | Branch | Subject Code | Subject Name  |                                     |  |
| 2021   | 4        | IP     | 21IP42       | Mechanical Measurements and Metrology               | BIP402                              | Mechanical Measurements and Metrology            |
| 2021   | 4        | IP     | 21IP43       | Manufacturing Process - II                          | BIP403                              | Production Engineering -II                       |
| 2021   | 4        | IP     | 21IP44       | Mechanics of Materials                              | BIP401                              | Mechanics of Materials                           |
| 2021   | 4        | IP     | 21BE45       | Biology for Engineers                               | BBOK407                             | Biology for Engineers                            |
| 2021   | 4        | IP     | 21IPL46      | CAD and CAE Lab                                     | BIPL404                             | CAD and CAE Lab                                  |
| 2021   | 4        | IP     | 21IP481      | Essentials of New Product Development               | BIP456A                             | Essentials of New Product Development            |
| 2021   | 4        | IP     | 21IP482      | An Overview of Quality Improvement Tools            | BIP456B                             | An Overview of Quality Improvement Tools         |
| 2021   | 4        | IP     | 21IP483      | Basics of Financial Management                      | BIP456C                             | Basics of Financial Management                   |
| 2021   | 4        | IP     | 21UH49       | Universal Human Values                              | BUHK408                             | Universal Human Values Course                    |
| 2021   | 4        | IP     | 21INT49      | Inter/Intra Institutional Internship                | No                                  | No Equivalent                                    |
| 2021   | 4        | IP     | 21MATDIP41   | Additional Mathematics - II                         | No                                  | No Equivalent                                    |
|        |          |        |              |   |                                     |  |
| Scheme | Semester | Branch | Subject Code | Subject Name  |                                     |  |
| 2021   | 5        | IP     | 21IP51       | Design of Machine Elements                          | BIP503                              | Design of Machine Elements                       |
| 2021   | 5        | IP     | 21IP52       | Computer Integrated Manufacturing and Automation    | BIP502                              | Computer Integrated Manufacturing and Automation |
| 2021   | 5        | IP     | 21IP53       | Quality Assurance and Reliability                   | BIP703                              | Quality Assurance and Reliability                |
| 2021   | 5        | IP     | 21IP54       | Hydraulics and Pneumatics                           | BIP613A                             | Hydraulics and Pneumatics                        |
| 2021   | 5        | IP     | 21IPL55      | Energy Engineering Lab                              | BIPL504                             | Energy Engineering Lab                           |
| 2021   | 5        | IP     | 21RMI56      | Research Methodology & Intellectual Property Rights | BRMK557                             | Research Methodology and IPR                     |
| 2021   | 5        | IP     | 21CIV57      | Environmental Studies                               | BESK508                             | Environmental Studies                            |
| 2021   | 5        | IP     | 21IP581      | Elements of Developing Management Skills            | BIP657A                             | Elements of Developing Management Skills         |
| 2021   | 5        | IP     | 21IP582      | Basics of Rapid Prototyping                         | BIP657B                             | Basics of Rapid Prototyping                      |
| 2021   | 5        | IP     | 21IP583      | Introduction to Maintenance Engineering             | BIP657C                             | Introduction to Maintenance Engineering          |
|        |          |        |              |   |                                     |  |
| Scheme | Semester | Branch | Subject Code | Subject Name  |                                     |  |
| 2021   | 6        | IP     | 21IP61       | Management and Entrepreneurship                     | BIP501                              | Industrial Engineering and Management            |

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|------|---|----|----------|---|----------------|--|
| 2021 | 6 | IP | 21IP62   | Work Study and Ergonomics                           | <b>BIP601</b>  | <b>Work Study and Ergonomics</b>                               |
| 2021 | 6 | IP | 21IP63   | Operations Research                                 | <b>BIP602</b>  | <b>Operations Research</b>                                     |
| 2021 | 6 | IP | 21IP641  | Kinematics of Machines                              | <b>BIP515B</b> | <b>Kinematics of Machines</b>                                  |
| 2021 | 6 | IP | 21IP642  | Composite Materials                                 | <b>BIP405C</b> | <b>Composite Materials</b>                                     |
| 2021 | 6 | IP | 21IP643  | Engineering Economy                                 | <b>BIP515A</b> | <b>Engineering Economy</b>                                     |
| 2021 | 6 | IP | 21IP644  | Advanced Machining Processes                        | <b>BIP405B</b> | <b>Advanced Machining Processes</b>                            |
| 2021 | 6 | IP | 21IP651  | Total Quality Management                            | <b>BIP654A</b> | <b>Total Quality Management</b>                                |
| 2021 | 6 | IP | 21IP652  | Value Engineering                                   | <b>BIP654B</b> | <b>Value Engineering</b>                                       |
| 2021 | 6 | IP | 21IP653  | Management Information Systems                      | <b>BIP654C</b> | <b>Management Information Systems</b>                          |
| 2021 | 6 | IP | 21IP654  | Industrial Hygiene & Occupational Safety and Health | <b>BIP654D</b> | <b>Industrial Hygiene &amp; Occupational Safety and Health</b> |
| 2021 | 6 | IP | 21IP655  | Industrial Robotics                                 | <b>BIP714A</b> | <b>Industrial Robotics</b>                                     |
| 2021 | 6 | IP | 21IPL66  | Software Applications Lab                           | <b>BIPL606</b> | <b>Software Applications Lab</b>                               |
| 2021 | 6 | IP | 21IPMP67 | Mini Project  | <b>BIP586</b>  | <b>Mini Project</b>  |
| 2021 | 6 | IP | 21INT68  | Societal Internship                                 | <b>No</b>      | <b>No Equivalent</b>   |