



**Shri Vaishnav Vidyapeeth Vishwavidyalaya**  
**Shri Vaishnav Institute of Technology and Science**  
**Choice Based Credit System (CBCS) Scheme in the light of NEP-2020**  
**B.Tech. in Robotics and Automation**

**SEMESTER-VII (2021-2025)**

| SEMESTER-VII (2021-2023)                        |             |                                      |                      |   |    |         |                               |                     |                            |                               |                            |             |
|---|-------------|--------------------------------------|----------------------|---|----|---------|-------------------------------|---------------------|----------------------------|-------------------------------|----------------------------|-------------|
| S. No.  | COURSE CODE | COURSE NAME                          | TEACHING SCHEME/WEEK |   |    | CREDITS | EXAMINATION SCHEME            |                     |                            |                               |                            | TOTAL MARKS |
|   |             |                                      | L                    | T | P  |         | THEORY                        |                     |                            | PRACTICAL                     |                            |             |
|   |             |                                      |                      |   |    |         | End Sem University Exam (60%) | Two Term Exam (20%) | Teachers Assessment* (20%) | End Sem University Exam (60%) | Teachers Assessment* (40%) |             |
| 1   | BBAI501     | Human Values and Professional Ethics | 4                    | 0 | 0  | 4       | 60                            | 20                  | 20                         | 0                             | 0                          | 100         |
| 2   | BTRA701     | Image Analysis and Computer Vision   | 3                    | 0 | 2  | 4       | 60                            | 20                  | 20                         | 30                            | 20                         | 150         |
| 3   | -           | Elective III                         | 3                    | 0 | 2  | 4       | 60                            | 20                  | 20                         | 30                            | 20                         | 150         |
| 4   | -           | Elective IV                          | 3                    | 1 | 0  | 4       | 60                            | 20                  | 20                         | 0                             | 0                          | 100         |
| 5   | -           | Generic Elective IV                  | 3                    | 0 | 0  | 3       | 60                            | 20                  | 20                         | 0                             | 0                          | 100         |
| 6   | BTRA702     | PLC Lab                              | 0                    | 0 | 2  | 1       | 0                             | 0                   | 0                          | 30                            | 20                         | 50          |
| 7   | BTRA704     | Major Project                        | 0                    | 0 | 6  | 3       | 0                             | 0                   | 0                          | 90                            | 60                         | 150         |
| 8   | BTEEE701    | Industrial Training                  | 0                    | 0 | 2  | 1       | 0                             | 0                   | 0                          | 30                            | 20                         | 50          |
| TOTAL   |             |                                      | 16                   | 1 | 14 | 24      | 300                           | 100                 | 100                        | 210                           | 140                        | 850         |
| Legend: L- Lectures, T- Tutorials, P- Practical |             |                                      |                      |   |    |         |                               |                     |                            |                               |                            |             |

Legends: L - Lecture; T - Tutorial/Teacher Guided Student Activity; P - Practical;

\*Teacher Assessment shall be based on following components: Quiz/Assignment/Project/Participation in Class, given that no component shall exceed more than 10 marks.

| S. No. | Course Code | Elective III   |
|--------|-------------|--|
| 1      | BTECIOT711  | Principles of Artificial Intelligence and Machine Learning |
| 2      | BTRA722     | IOT and Data Analytics                                     |
| 3      | BTEI702     | MEMS and NEMS  |

| S. No. | Course Code | Elective IV                 |
|--------|-------------|-----------------------------|
| 1      | BTRA713     | Field and Service Robotics  |
| 2      | BTECIOT703  | Wireless Sensor Networks    |
| 3      | BTRA733     | Design and Failure Analysis |

*Anjali*

*Neelto*

**Chairperson**  
Board of Studies  
Shri Vaishnav Vidyapeeth  
Vishwavidyalaya, Indore

*Neelto*

**Chairperson**  
Faculty of Studies  
Shri Vaishnav Vidyapeeth  
Vishwavidyalaya, Indore

*Syam*  
**Controller of Examinations**  
Shri Vaishnav Vidyapeeth  
Vishwavidyalaya, Indore

*Adhy*  
**Registrar**  
Shri Vaishnav Vidyapeeth  
Vishwavidyalaya, Indore

*OK*  
*11.9.2024*  
**Vice Chancellor**  
Shri Vaishnav Vidyapeeth  
Vishwavidyalaya, Indore