



**Centre for Artificial Intelligence**

**Scheme of Evaluation**

**B. Tech. VIII Semester (Information Technology (Artificial Intelligence and Robotics))**

(for batch admitted in academic session 2021 – 22)

| S. No.   | Subject Code | Category Code | Subject Name   | Maximum Marks Allotted  |                                |                       |                  |                |                       |                          |            |            | Total Marks | Contact Hours per week |          |           | Total Credits | Mode of Teaching | Mode of Exam |
|--|--------------|---------------|--|---|--------------------------------|-----------------------|------------------|----------------|-----------------------|--------------------------|------------|------------|-------------|------------------------|----------|-----------|---------------|------------------|--------------|
|  |              |               |  | Theory Slot   |                                |                       |                  | Practical Slot |                       |                          | MOOCs      |            |             | L                      | T        | P         |               |                  |              |
|  |              |               |  | End Term Evaluation   |                                | Continuous Evaluation |                  | End Sem. Exam. | Continuous Evaluation |                          | Assignment | Exam       |             |                        |          |           |               |                  |              |
|  |              |               |  | End Sem. Exam.  | Proficiency in subject /course | Mid Sem. Exam.        | Quiz/ Assignment |                | Lab work & Sessional  | Skill Based Mini Project |            |            |             |                        |          |           |               |                  |              |
| 1.   | DE           | DE            | Departmental Elective* (DE-5)                          | -   | -                              | -                     | -                | -              | -                     | -                        | 25         | 75         | 100         | 3                      | -        | -         | 3             | Online           | MCQ          |
| 2.   | OC           | OC            | Open Category* (OC-3)                                  | -   | -                              | -                     | -                | -              | -                     | -                        | 25         | 75         | 100         | 3                      | -        | -         | 3             | Online           | MCQ          |
| 3.   | 240801       | DLC           | Internship/ Research Project/ Innovation & Start-up*** | -   | -                              | -                     | -                | 250            | 150                   | -                        | -          | -          | 400         | -                      | -        | 18        | 9             | Offline          | SO           |
| 4.   | 240802       | -             | Professional Development <sup>†</sup>                  | -   | -                              | -                     | -                | 50             | -                     | -                        | -          | -          | 50          | -                      | -        | 4         | 2             | Interactive      | SO           |
| <b>Total</b>   |              |               |  | -   | -                              | -                     | -                | <b>300</b>     | <b>150</b>            | -                        | <b>50</b>  | <b>150</b> | <b>650</b>  | <b>6</b>               | <b>-</b> | <b>22</b> | <b>17</b>     | -                | -            |
| <b>Additional Course for Honours or minor Specialization</b> |              |               |  | <b>Permitted to opt for maximum two additional courses for the award of Honours or Minor specialization</b> |                                |                       |                  |                |                       |                          |            |            |             |                        |          |           |               |                  |              |

\*All of these courses will run through SWAYAM/ NPTEL/ MOOC with credit transfer.

<sup>†</sup>Evaluation will be based on participation/laurels brought by the students to the institution in national/state level technical and other events during the complete tenure of the UG programme (participation in professional chapter activities, club activities, cultural events, sports, personality development activities, collaborative events, MOOCs, technical events, institute/department committees, etc.)

**MCQ:** Multiple Choice Question    **AO:** Assignment + Oral    **PP:** Pen Paper    **SO:** Submission + Oral

| Mode of Teaching |         |         |             | Mode of Examination |    |       |       | Total Credits |
|------------------|---------|---------|-------------|---------------------|----|-------|-------|---------------|
| Theory           |         | Lab     | PDC         | Theory              |    |       | Lab   |               |
| Online           | Blended | Offline | Interactive | PP                  | AO | MCQ   | SO    |               |
| 6                | -       | 9       | 2           | -                   | -  | 6     | 11    | 17            |
| 35.29            | -       | 52.95   | 11.76       | -                   | -  | 35.29 | 64.71 | Credits %     |

D.No 520  
30/12/2024

Faculty of Engineering & Technology  
MITS-DU

MCO  
Dean 24/12/24

GWB

*(Handwritten signatures and marks)*



## Centre for Artificial Intelligence

### B. Tech. VIII Semester (*Information Technology (Artificial Intelligence and Robotics)*)

| DE -5* |              |   |
|--------|--------------|---|
| S. No. | Subject Code | Subject Name  |
| 1      | 240831       | Introduction to Large Language Models (LLMs) - 12 weeks     |
| 2      | 240832       | Wheeled Mobile Robots- 8 weeks                              |
| 3      | 240833       | Collaborative Robots (COBOTS): Theory and Practice- 8 weeks |

| OC-3*  |              |  |
|--------|--------------|--|
| S. No. | Subject Code | Subject Name   |
| 1      | OC-3         | Design and Engineering of Computer Systems - 8 weeks |
| 2      | OC-3         | Social Networks - 12 weeks                           |
| 3      | OC-3         | Fuzzy Logic and Neural Networks - 8 weeks            |

### List of courses to be opted for Honours in VIII Semester

| Honours*  |  |                                    |   |
|---|--|------------------------------------|---|
| <i>(to be opted by students of Parent Department)</i> |  |                                    |   |
| Course Code   | Course Name  | Course Code                        | Course Name                                     |
| <b>Track 1: Information Security</b>                  |  | <b>Track 2: Internet of Things</b> |   |
| H24082501   | Systems and Usable Security (4 Weeks)                          | H24082504                          | Edge Computing (8 Weeks)                        |
| H24082502   | Quantum algorithm and Cryptography (12 Weeks)                  | H24082505                          | Wireless Ad Hoc and Sensor Networks (8 Weeks)   |
| H24082503   | Wireless Ad Hoc and Sensor Networks (8 Weeks)                  | H24052503                          | Introduction to Internet of Things (12 weeks)   |
| H24062501   | Secure Computation: Part I (12 Weeks)                          | H24062503                          | Sensors and actuators (12 weeks)                |
| H24062502   | Information Security- 5 - Secure Systems Engineering (8 Weeks) | H24062504                          | Microprocessors and Microcontrollers (12 weeks) |
| <b>Track 3: High Performance Computing</b>            |  |                                    |   |
| H24082506   | High Performance Scientific Computing (12 Weeks)               |                                    |   |
| H24082507   | Affective Computing (12 Weeks)                                 |                                    |   |
| H24082508   | Edge Computing (8 Weeks)                                       |                                    |   |
| H24062505   | Parallel Computer Architecture (12 Weeks)                      |                                    |   |
| H24062506   | GPU Architectures and Programming (12 Weeks)                   |                                    |   |

\* Course run through SWAYAM/NPTEL/ MOOC Learning Based Platform

**Note:** In each semester (starting from V to VIII semester), it is required to opt for new subjects towards Honours Degree/ Minor Specialization.

Handwritten signatures and initials in blue ink at the bottom of the page.



## Centre for Artificial Intelligence

### Scheme of Evaluation

### B. Tech. VIII Semester (Artificial Intelligence (AI) and Data Science)

(for batch admitted in academic session 2021 – 22)

| S. No.   | Subject Code | Category Code | Subject Name   | Maximum Marks Allotted  |                                |                       |                  |                |                       |                          |            |            | Total Marks | Contact Hours per week |          |           | Total Credits | Mode of Teaching | Mode of Exam |
|--|--------------|---------------|--|---|--------------------------------|-----------------------|------------------|----------------|-----------------------|--------------------------|------------|------------|-------------|------------------------|----------|-----------|---------------|------------------|--------------|
|  |              |               |  | Theory Slot   |                                |                       |                  | Practical Slot |                       |                          | MOOCs      |            |             | L                      | T        | P         |               |                  |              |
|  |              |               |  | End Term Evaluation   |                                | Continuous Evaluation |                  | End Sem. Exam. | Continuous Evaluation |                          | Assignment | Exam       |             |                        |          |           |               |                  |              |
|  |              |               |  | End Sem. Exam.  | Proficiency in subject /course | Mid Sem. Exam         | Quiz/ Assignment |                | Lab work & Sessional  | Skill Based Mini Project |            |            |             |                        |          |           |               |                  |              |
| 1.   | DE           | DE            | Departmental Elective* (DE-5)                          | -   | -                              | -                     | -                | -              | -                     | -                        | 25         | 75         | 100         | 3                      | -        | -         | 3             | Online           | MCQ          |
| 2.   | OC           | OC            | Open Category* (OC-3)                                  | -   | -                              | -                     | -                | -              | -                     | -                        | 25         | 75         | 100         | 3                      | -        | -         | 3             | Online           | MCQ          |
| 3.   | 270801       | DLC           | Internship/ Research Project/ Innovation & Start-up*** | -   | -                              | -                     | -                | 250            | 150                   | -                        | -          | -          | 400         | -                      | -        | 18        | 9             | Offline          | SO           |
| 4.   | 270802       | -             | Professional Development <sup>#</sup>                  | -   | -                              | -                     | -                | 50             | -                     | -                        | -          | -          | 50          | -                      | -        | 4         | 2             | Interactive      | SO           |
| <b>Total</b>   |              |               |  | -   | -                              | -                     | -                | <b>300</b>     | <b>150</b>            | -                        | <b>50</b>  | <b>150</b> | <b>650</b>  | <b>6</b>               | <b>-</b> | <b>22</b> | <b>17</b>     | -                | -            |
| <b>Additional Course for Honours or minor Specialization</b> |              |               |  | <b>Permitted to opt for maximum two additional courses for the award of Honours or Minor specialization</b> |                                |                       |                  |                |                       |                          |            |            |             |                        |          |           |               |                  |              |

\*All of these courses will run through SWAYAM/ NPTEL/ MOOC with credit transfer.

<sup>#</sup>Evaluation will be based on participation/laurels brought by the students to the institution in national/state level technical and other events during the complete tenure of the UG programme (participation in professional chapter activities, club activities, cultural events, sports, personality development activities, collaborative events, MOOCs, technical events, institute/department committees, etc.)

MCQ: Multiple Choice Question    AO: Assignment + Oral    PP: Pen Paper    SO: Submission + Oral

| Mode of Teaching |         |         |             | Mode of Examination |    |       |       | Total Credits |
|------------------|---------|---------|-------------|---------------------|----|-------|-------|---------------|
| Theory           |         | Lab     | PDC         | Theory              |    | Lab   |       |               |
| Online           | Blended | Offline | Interactive | PP                  | AO | MCQ   | SO    |               |
| 6                | -       | 9       | 2           | -                   | -  | 6     | 11    | 17            |
| 35.29            | -       | 52.95   | 11.76       | -                   | -  | 35.29 | 64.71 | Credits %     |

Faculty of Engineering & Technology  
 MITS-DU

*(Handwritten signatures and initials)*



## Centre for Artificial Intelligence

### B. Tech. VIII Semester (*Artificial Intelligence (AI) and Data Science*)

| DE -5* |              |   |
|--------|--------------|---|
| S. No. | Subject Code | Subject Name  |
| 1      | 270831       | Introduction to Large Language Models (LLMs) - 12 weeks                                       |
| 2      | 270832       | Essentials of Data Science with R Software-1; Probability and Statistical Inference- 12 weeks |
| 3      | 270833       | User-centric Computing For Human-Computer Interaction - 8 weeks                               |

| OC-3*  |              |  |
|--------|--------------|--|
| S. No. | Subject Code | Subject Name   |
| 1      | OC-3         | Design and Engineering of Computer Systems - 8 weeks |
| 2      | OC-3         | Social Networks - 12 weeks                           |
| 3      | OC-3         | Fuzzy Logic and Neural Networks - 8 weeks            |

### List of courses to be opted for Honours in VIII Semester

| Honours*  |  |                                    |   |
|---|--|------------------------------------|---|
| <i>(to be opted by students of Parent Department)</i> |  |                                    |   |
| Course Code   | Course Name  | Course Code                        | Course Name                                     |
| <b>Track 1: Information Security</b>                  |  | <b>Track 2: Internet of Things</b> |   |
| H27082501   | Systems and Usable Security (4 Weeks)                          | H27082504                          | Edge Computing (8 Weeks)                        |
| H27082502   | Quantum algorithm and Cryptography (12 Weeks)                  | H27082505                          | Wireless Ad Hoc and Sensor Networks (8 Weeks)   |
| H27082503   | Wireless Ad Hoc and Sensor Networks (8 Weeks)                  | H27052503                          | Introduction to Internet of Things (12 weeks)   |
| H27062501   | Secure Computation: Part I (12 Weeks)                          | H27062503                          | Sensors and actuators (12 weeks)                |
| H27062502   | Information Security- 5 - Secure Systems Engineering (8 Weeks) | H27062504                          | Microprocessors and Microcontrollers (12 weeks) |
| <b>Track 3: High Performance Computing</b>            |  |                                    |   |
| H27082506   | High Performance Scientific Computing (12 Weeks)               |                                    |   |
| H27082507   | Affective Computing (12 Weeks)                                 |                                    |   |
| H27082508   | Edge Computing (8 Weeks)                                       |                                    |   |
| H27062505   | Parallel Computer Architecture (12 Weeks)                      |                                    |   |
| H27062506   | GPU Architectures and Programming (12 Weeks)                   |                                    |   |

\* Course run through SWAYAM/NPTEL/ MOOC Learning Based Platform

**Note:** In each semester (starting from V to VIII semester), it is required to opt for new subjects towards Honours Degree/ Minor Specialization.

G.M.H.

*[Signature]*

*[Signature]*

*[Signature]*

*[Signature]*

*[Signature]*

*[Signature]*





**Centre for Artificial Intelligence**

**B. Tech. VIII Semester (Artificial Intelligence (AI) and Machine Learning)**

| DE -5* |              |   |
|--------|--------------|---|
| S. No. | Subject Code | Subject Name  |
| 1      | 280831       | Introduction to Large Language Models (LLMs) - 12 weeks         |
| 2      | 280832       | Deep Learning for Natural Language Processing - 12 weeks        |
| 3      | 280833       | User-centric Computing For Human-Computer Interaction - 8 weeks |
| 4      | 280834       | Fuzzy Logic and Neural Networks- 8 weeks                        |

| OC-3*  |              |  |
|--------|--------------|--|
| S. No. | Subject Code | Subject Name   |
| 1      | OC-3         | Design and Engineering of Computer Systems - 8 weeks |
| 2      | OC-3         | Social Networks - 12 weeks                           |
| 3      | OC-3         | Fuzzy Logic and Neural Networks - 8 weeks            |
| -      | -            | -  |

**List of courses to be opted for Honours in VIII Semester**

| Honours*  |  |                                    |   |
|---|--|------------------------------------|---|
| <i>(to be opted by students of Parent Department)</i> |  |                                    |   |
| Course Code   | Course Name  | Course Code                        | Course Name                                     |
| <b>Track 1: Information Security</b>                  |  | <b>Track 2: Internet of Things</b> |   |
| H28082501   | Systems and Usable Security (4 Weeks)                          | H28082504                          | Edge Computing (8 Weeks)                        |
| H28082502   | Quantum algorithm and Cryptography (12 Weeks)                  | H28082505                          | Wireless Ad Hoc and Sensor Networks (8 Weeks)   |
| H28082503   | Wireless Ad Hoc and Sensor Networks (8 Weeks)                  | H28052503                          | Introduction to Internet of Things (12 weeks)   |
| H28062501   | Secure Computation: Part I (12 Weeks)                          | H28062503                          | Sensors and actuators (12 weeks)                |
| H28062502   | Information Security- 5 - Secure Systems Engineering (8 Weeks) | H28062504                          | Microprocessors and Microcontrollers (12 weeks) |
| <b>Track 3: High Performance Computing</b>            |  |                                    |   |
| H28082506   | High Performance Scientific Computing (12 Weeks)               |                                    |   |
| H28082507   | Affective Computing (12 Weeks)                                 |                                    |   |
| H28082508   | Edge Computing (8 Weeks)                                       |                                    |   |
| H28062505   | Parallel Computer Architecture (12 Weeks)                      |                                    |   |
| H28062506   | GPU Architectures and Programming (12 Weeks)                   |                                    |   |

\* Course run through SWAYAM/NPTEL/ MOOC Learning Based Platform

**Note:** In each semester (starting from V to VIII semester), it is required to opt for new subjects towards Honours Degree/ Minor Specialization.

*(Handwritten signatures and initials)*