

**SSN COLLEGE OF ENGINEERING**  
**SSN Nagar, Kalavakkam-603110**  
**Department of CSE**  
**COURSE PLAN**

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|                            |          |   |
|----------------------------|----------|---|
| <b>SUBJECT NAME</b>        | <b>:</b> | <b>ARTIFICIAL INTELLIGENCE</b>              |
| <b>SUBJECT CODE</b>        | <b>:</b> | <b>CS6659</b>                               |
| <b>DEGREE / YEAR</b>       | <b>:</b> | <b>B.E. CSE / III YEAR</b>                  |
| <b>SEMESTER</b>            | <b>:</b> | <b>VI</b>                                   |
| <b>NAME OF THE FACULTY</b> | <b>:</b> | <b>Dr. S. SHEERAZUDDIN / Dr. S. KAVITHA</b> |

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**Teaching methodology and aids: Powerpoint presentations\Projector\Use of ICT\Chalk and Blackboard (Content Delivery Method (CDM)) (for all topics) T-Tutorial, S-Seminar**

| Sl.No | Unit No  | Topic   | CDM | No of Hrs (plan) | No of Hrs (actual) | Remarks |
|-------|--|---|-----|------------------|--------------------|---------|
| 1     | <b>UNIT 1</b><br><br><b>(10 Hrs)</b><br><br><b>Introduction To AI And Production Systems</b> | Introduction to AI, Problem Formulation-Problem Definition                                |     | 2                |                    |         |
| 2     |  | Production Systems-Control Strategies, Search Strategies                                  |     | 1                |                    |         |
| 3     |  | Problem characteristics, Production system characteristics -Specialized production system |     | 1                |                    |         |
| 4     |  | Problem solving methods - Problem graphs, Matching, Indexing and Heuristic functions      |     | 2                |                    |         |
| 5     |  | Hill Climbing-Depth first and Breath first Constraints satisfaction - Related algorithms  | T   | 3                |                    |         |
| 6     |  | Measure of performance and analysis of search algorithms                                  |     | 1                |                    |         |
|       |  | <b>Planned Hours</b>  |     | <b>10</b>        |                    |         |
| 7     | <b>UNIT 2</b><br><br><b>( 10 Hrs)</b><br><br><b>Representat ion of Knowledge</b>             | Game playing  |     | 2                |                    |         |
| 8     |  | Knowledge representation, Knowledge representation using Predicate logic                  |     | 2                |                    |         |
| 9     |  | Introduction to predicate calculus, Resolution  |     | 2                |                    |         |
| 10    |  | Use of predicate calculus, Knowledge representation using other logic                     | T   | 2                |                    |         |
| 11    |  | Structured representation of knowledge  |     | 2                |                    |         |
|       |  | <b>Planned Hours</b>  |     | <b>10</b>        |                    |         |

| Sl.No | Unit No   | Topic  |   | No of Hrs (plan) | No of Hrs (actual) | Remarks |
|-------|---|--|---|------------------|--------------------|---------|
| 12    | <b>UNIT 3</b><br><b>(9 Hrs)</b><br><br><b>Knowledge Inference</b>           | Knowledge representation, Production based system, Frame based system    |   | 2                |                    |         |
| 13    |   | Inference - Backward chaining, Forward chaining, Rule value approach     |   | 2                |                    |         |
| 14    |   | Fuzzy reasoning - Certainty factors                                      |   | 2                |                    |         |
| 15    |   | Bayesian Theory-Bayesian Network-Dempster - Shafer theory.               |   | 3                |                    |         |
|       |   | <b>Planned Hours</b>   |   | <b>9</b>         |                    |         |
| 16    | <b>UNIT 4</b><br><b>(9 Hrs)</b><br><br><b>Planning and Machine Learning</b> | Basic plan generation systems - Strips                                   |   | 2                |                    |         |
| 17    |   | Advanced plan generation systems – K strips                              |   | 2                |                    |         |
| 18    |   | Strategic explanations -Why, Why not and how explanations                |   | 2                |                    |         |
| 19    |   | Learning- Machine learning, adaptive Learning.                           | T | 3                |                    |         |
|       |   | <b>Planned Hours</b>   |   | <b>9</b>         |                    |         |
| 20    | <b>UNIT 5</b><br><b>(9 Hrs)</b><br><br><b>Expert Systems</b>                | Expert systems - Architecture of expert systems, Roles of expert systems |   | 3                |                    |         |
| 21    |   | Knowledge Acquisition –Meta knowledge, Heuristics                        |   | 2                |                    |         |
| 22    |   | Typical expert systems - MYCIN, DART, XOON                               | S | 3                |                    |         |
| 23    |   | Expert systems shells  |   | 1                |                    |         |
| 24    |   | <b>Planned Hours</b>   |   | <b>9</b>         |                    |         |

**Total Number of Syllabus Hours : 45**

**Total Number of Planned Hours : 47**

**PREPARED BY**

**Dr. S. SHEERAZUDDIN / Dr. S. KAVITHA**

**APPROVED BY**

**HOD-CSE**