

# **Walchand College of Engineering, Sangli**

*(Government Aided Autonomous Institute)*



**Credit System for**

**Final Year B.Tech. (Information Technology)**

**Sem-VII and VIII**

**AY 2020-21**



# Walchand College of Engineering, Sangli

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## Credit System for Final Year B.Tech. (Information Technology) Sem-VII AY 2020-21

| Sr.No.                                    | Category | Course Code | Course Name                               | L         | T        | P         | Hrs       | Credits   | ISE-1 | MSE* | ISE-2 | ESE |  |
|---|----------|-------------|---|-----------|----------|-----------|-----------|-----------|-------|------|-------|-----|--|
| <b>Professional Core (Theory)</b>         |          |             |   |           |          |           |           |           |       |      |       |     |  |
| 1   | PC       | 3IT401      | Cryptography and Network Security         | 3         | 1        | 0         | 4         | 4         | 10    | 30   | 10    | 50  |  |
| 2   | PC       | 3IT402      | Data Mining                               | 3         | 0        | 0         | 3         | 3         | 10    | 30   | 10    | 50  |  |
| 3   | HS       | 3IC401      | Engineering Management and Ethics         | 4         | 0        | 0         | 4         | 4         | 10    | 30   | 10    | 50  |  |
| <b>Professional Core (Lab)</b>            |          |             |   |           |          |           |           |           |       |      |       |     |  |
| 4   | PC       | 3IT451      | Open Source Software Lab                  | 2         | 0        | 2         | 4         | 3         | 25    | 25   | 25    | 25  |  |
| 5   | PC       | 3IT452      | Data Mining Lab                           | 0         | 0        | 2         | 2         | 1         | 25    | 25   | 25    | 25  |  |
| 6   | PC       | 3IT453      | Software Testing and Quality Analysis Lab | 2         | 0        | 2         | 4         | 3         | 25    | 25   | 25    | 25  |  |
| 7   | PC       | 3IT491      | Project 1                                 | 0         | 0        | 4         | 4         | 2         | 25    | 25   | 25    | 25  |  |
| <b>Professional Elective (Theory)</b>     |          |             |   |           |          |           |           |           |       |      |       |     |  |
| 8   | PE       | Refer list  | Professional Elective 4                   | 2         | 1        | 0         | 3         | 3         | 10    | 30   | 10    | 50  |  |
| <b>Open Elective</b>                      |          |             |   |           |          |           |           |           |       |      |       |     |  |
| 9   | OE       | Refer list  | Open Elective 3                           | 3         | 0        | 0         | 3         | 3         | 10    | 30   | 10    | 50  |  |
| <b>Value Added Professional Courses #</b> |          |             |   |           |          |           |           |           |       |      |       |     |  |
| --  |          |             |   |           |          |           |           |           |       |      |       |     |  |
| <b>Value Added Life-Skill Courses #</b>   |          |             |   |           |          |           |           |           |       |      |       |     |  |
| --  |          |             |   |           |          |           |           |           |       |      |       |     |  |
| <b>Total</b>                              |          |             |   | <b>19</b> | <b>2</b> | <b>10</b> | <b>31</b> | <b>26</b> |       |      |       |     |  |



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| Sr.No.                         | Course Code | Course Name                        |
|--------------------------------|-------------|------------------------------------|
| <b>Professional Elective 4</b> |             |                                    |
| 1                              | 3IT411      | High Performance Computing         |
| 2                              | 3IT412      | Mobile Ad-hoc Networks and Sensors |
| 3                              | 3IT413      | Deep Learning                      |
| 4                              | 3IT414      | Digital Image Processing           |
| 5                              | 3IT415      | Software Defined Network           |

|                        |        |   |
|------------------------|--------|---|
| <b>Open Elective 3</b> |        |   |
| 1                      | 1OE402 | Finite Element Method                             |
| 2                      | 1OE416 | Concrete Engineering and Technology               |
| 3                      | 1OE417 | Computational Methods and Optimization Techniques |
| 4                      | 1OE429 | Automobile Engineering                            |
| 5                      | 1OE443 | Industrial Automation                             |
| 6                      | 1OE457 | Cyber Physical Systems                            |
| 7                      | 1OE471 | Business Intelligence                             |
| 8                      | 1OE485 | Data Visualization and Interpretation             |

### Notes:

\* For Lab courses, there will be only internal continuous assessment. ESE is a separate head of passing for both theory and lab courses.

# The Value Added Courses are Optional Courses. The mode of teaching (LTPI) is decided by the resource person.

The list of Value added courses will be updated from time to time. The courses may be on paid basis.

The credits earned from these courses will be shown on grade card. For SPI and CPI calculation, these courses will be excluded.

These courses will be offered as per availability of faculty

@ Minimum 2 mandatory life skill courses are to be completed for award of degree.

\$ Contact hours of each Final Year BTech project batch (of min 5 students) with the guide shall be 1 hour/week.

**For further details refer to Academic and Examination rules and regulations.**



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## Credit System for Final Year B.Tech. (Information Technology) Sem-VIII AY 2020-21

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|---|----------|-------------|-------------------------|----------|----------|-----------|-----------|-----------|-------|------|-------|-----|--|
| <b>Professional Core (Theory)</b>         |          |             |                         |          |          |           |           |           |       |      |       |     |  |
| --  |          |             |                         |          |          |           |           |           |       |      |       |     |  |
| <b>Professional Core (Lab)</b>            |          |             |                         |          |          |           |           |           |       |      |       |     |  |
| 1   | PC       | 3IT492      | Project 2               | 0        | 0        | 20        | 20        | 10        | 25    | 25   | 25    | 25  |  |
| 2   | PC       | 3IT493      | Techno -Socio Outreach  | 0        | 1        | 0         | 1         | 1         | 25    | 25   | 25    | 25  |  |
| <b>Professional Elective (Theory)</b>     |          |             |                         |          |          |           |           |           |       |      |       |     |  |
| 3   | PE       | Refer list  | Professional Elective 5 | 2        | 1        | 0         | 3         | 3         | 10    | 30   | 10    | 50  |  |
| <b>Value Added Professional Courses #</b> |          |             |                         |          |          |           |           |           |       |      |       |     |  |
| --  |          |             |                         |          |          |           |           |           |       |      |       |     |  |
| <b>Value Added Life-Skill Courses #</b>   |          |             |                         |          |          |           |           |           |       |      |       |     |  |
| --  |          |             |                         |          |          |           |           |           |       |      |       |     |  |
| <b>Total</b>                              |          |             |                         | <b>2</b> | <b>2</b> | <b>20</b> | <b>24</b> | <b>14</b> |       |      |       |     |  |



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| Sr.No.                  | Course Code | Course Name                      |
|-------------------------|-------------|----------------------------------|
| Professional Elective 5 |             |                                  |
| 1                       | 3IT431      | Soft Computing                   |
| 2                       | 3IT432      | Geographical Information System  |
| 3                       | 3IT433      | Business Intelligence            |
| 4                       | 3IT434      | Visual Computing                 |
| 5                       | 3IT435      | Software Architecture and Design |

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