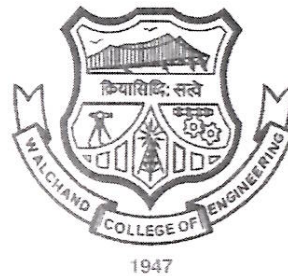


# **Walchand College of Engineering**

*(Government Aided Autonomous Institute)*

Vishrambag, Sangli. 416415



**Credit System for**  
**F.Y. M.Tech. (Computer Science and Information Technology)**  
**Sem-I and II**  
**2022-23**



# Walchand College of Engineering, Sangli

(Government Aided Autonomous Institute)

## Credit System for F.Y. M.Tech. (Computer Science and Information Technology) Sem-I AY 2022-23

Sr.No.	Category	Course Code	Course Name	L	T	P	I	Hrs	Cr	MSE/LA1	ISE/LA2	ESE	Remark
<b>Professional Core (Theory)</b>													
1	PC	6IT501	Advanced Algorithms	3	0	0	0	3	3	30	20	50	
2	PC	6IT502	Unix Internal	3	0	0	0	3	3	30	20	50	
<b>Professional Core (Lab)</b>													
3	PC	6IT550	Research Methodology	0	0	0	2	2	2	30	30	40	
4	PC	6IT551	Advanced Algorithms Lab	0	0	2	0	2	1	30	30	40	POE
5	PC	6IT552	Unix Internal Lab	0	0	2	0	2	1	30	30	40	POE
<b>Professional Elective (Theory)</b>													
6	PE	Refer List	Professional Elective 1	3	0	0	0	3	3	30	20	50	
7	PE	Refer List	Professional Elective 2	3	0	0	0	3	3	30	20	50	
<b>Professional Elective (Lab)</b>													
8	PR	Refer List	Professional Elective 1 Laboratory	0	0	2	0	2	1	30	30	40	
9	PR	Refer List	Professional Elective 2 Laboratory	0	0	2	0	2	1	30	30	40	
<b>Total</b>				<b>12</b>	<b>0</b>	<b>8</b>	<b>2</b>	<b>22</b>	<b>18</b>				

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## Walchand College of Engineering, Sangli

(Government Aided Autonomous Institute)

### Professional Elective Course List for F.Y. M.Tech. (Computer Science and Information Technology)

Sem-I AY 2022-23

Sr.No.	Track	Course Code	Course Name
<b>Professional Elective 1</b>			
1	CS and IT	6IT511	Cloud and Virtualization Techniques
2	CS and IT	6IT512	Ruby & Go Programming Language
3	Interdisciplinary	6IT513	Artificial Intelligence
<b>Professional Elective 2</b>			
1	CS and IT	6IT514	Advanced Distributed Computing
2	CS and IT	6IT515	Modern Application Development
3	Interdisciplinary	6IT516	Image Processing and Pattern Recognition
Sr.No.	Track	Course Code	Course Name
<b>Professional Elective 1 LAB</b>			
1	CS and IT	6IT553	Cloud and Virtualization Techniques Lab
2	CS and IT	6IT554	Ruby & Go Programming Language Lab
3	Interdisciplinary	6IT555	Artificial Intelligence Lab
<b>Professional Elective 2 LAB</b>			
1	CS and IT	6IT556	Advanced Distributed Computing Lab
2	CS and IT	6IT557	Modern Application Development Lab
3	Interdisciplinary	6IT558	Image Processing and Pattern Recognition Lab

#### Notes:

For Theory courses: There shall be MSE, ISE and ESE. The ESE is a separate head of passing.

For Lab courses: There shall be continuous assessment (LA1, LA2, ESE). The ESE is a separate head of passing. The Y in the PoE indicates external component for ESE. Minimum two AICTE mandatory courses need to be completed for award of degree.

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

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**Walchand College of Engineering, Sangli**  
(Government Aided Autonomous Institute)

**Credit System for F.Y. M.Tech. (Computer Science and Information Technology) Sem-II AY 2022-23**

Sr.No.	Category	Course Code	Course Name	L	T	P	I	Hrs	Cr	MSE/LA1	ISE/LA2	ESE	Remark
<b>Professional Core (Theory)</b>													
1	PC	6IT521	Data Mining Methods and Applications	3	0	0	0	3	3	30	20	50	
2	PC	6IT522	Scientific Computing	3	0	0	0	3	3	30	20	50	
<b>Professional Core (Lab)</b>													
3	PC	6IT571	Data Mining Methods and Applications Lab	0	0	2	0	2	1	30	30	40	POE
4	PC	6IT572	Scientific Computing Lab	0	0	2	0	2	1	30	30	40	POE
5	PC	6IT573	Pre-dissertation Work and Seminar	0	0	4	0	4	2	30	30	40	
<b>Professional Elective (Theory)</b>													
6	PE	Refer List	Professional Elective 3	3	0	0	0	3	3	30	20	50	
7	PE	Refer List	Professional Elective 4	3	0	0	0	3	3	30	20	50	
<b>Professional Elective (Lab)</b>													
8	PR	Refer List	Professional Elective 3 Laboratory	0	0	2	0	2	1	30	30	40	
9	PR	Refer List	Professional Elective 4 Laboratory	0	0	2	0	2	1	30	30	40	
<b>Open Elective</b>													
10	OE	Refer List	Open Elective	3	0	0	0	3	3	30	20	50	
<b>Total</b>				<b>15</b>	<b>0</b>	<b>12</b>	<b>0</b>	<b>27</b>	<b>21</b>				

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**Walchand College of Engineering, Sangli**  
(Government Aided Autonomous Institute)

**Professional Elective Course List for F.Y. M.Tech. (Computer Science and Information Technology) Sem-II AY 2022-23**

Sr.No.	Track	Course Code	Course Name
<b>Professional Elective 3</b>			
1	CS and IT	6IT531	Distributed Operating Systems
2	CS and IT	6IT532	System Programming
3	CS and IT	6IT533	Mathematic for Machine Learning
4	Interdisciplinary	6IT534	Soft Computing and Applications
<b>Professional Elective 4</b>			
1	CS and IT	6IT535	Big Data Computing
2	CS and IT	6IT536	High Performance Computing
3	CS and IT	6IT537	Deep Learning
4	Interdisciplinary	6IT538	Geographical Information System & Remote Sensing

Sr.No.	Track	Course Code	Course Name
<b>Professional Elective 3 Lab</b>			
1	CS and IT	6IT574	Distributed Operating Systems Lab
2	CS and IT	6IT575	System Programming Lab
3	CS and IT	6IT576	Mathematic for Machine Learning Lab
4	Interdisciplinary	6IT577	Soft Computing and Applications Lab
<b>Professional Elective 4 Lab</b>			
1	CS and IT	6IT578	Big Data Computing Lab
2	CS and IT	6IT579	High Performance Computing Lab
3	CS and IT	6IT580	Deep Learning Lab
4	Interdisciplinary	6IT581	Geographical Information System & Remote Sensing Lab

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**Walchand College of Engineering, Sangli**  
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**Open Elective Course List for F.Y. M.Tech. (Computer Science and Information Technology) Sem-II AY 2022-23**

Sr.No.	Offering Dept	Sem	Course Code	Course Name
<b>Open Elective</b>				
1	Civil_Env	2	6OE101	Solid Waste Management
2	Civil_Struct	2	6OE102	Structural Health Monitoring
3	Mech_Prod	2	6OE103	Advanced Production systems
4	Mech_Heat	2	6OE104	Waste to Energy
5	Mech_Design	2	6OE105	Industrial Product Design
6	Elect_Power	2	6OE106	Control Techniques for Electrical Drives
7	Elect_Control	2	6OE106	Control Techniques for Electrical Drives
8	Eln	2	6OE108	Introduction to Embedded Systems

**Notes:**

For Theory courses: There shall be MSE, ISE and ESE. The ESE is a separate head of passing.

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

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