JAGADAMBHA COLLEGE OF ENGINEERING AND TECHNOLOGY YAVATMAL

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Criteria I

1.3.2 Average Percentage of courses that include experiential learning through project work/field work/internship during the Academic Year 2018-19

INDEX

ESTD 2009

Dr.Hemant M. Baradkar
Principal
Jagadambha College of Engineering &
Technology.Arni Road,Kinhi,Yavatmal

1.3.2 Average Percentages of courses that include experiential learning through project work/field work/internship during the Academic Year 2018-19

SUMMARY SHEET

Sr. No.	Particulars	No. of courses	Page No.
1.	B.E. Electrical Engineering	48	1-2
2.	B.E. Computer Engineering	50	2-3
3.	B.E. Electronics & Telecommunication Engineering	52	3-5
4.	B.E. Mechanical Engineering	57	5-6
5.	B.E. Civil Engineering	53	6-8

ESTD 2009

Dr.Hemant M. Baradkar
Principal
Jagadambha College of Engineering &
Technology,Arni Road,Kinhi,Yavatm...

I

JAGADAMBHA BAHUUDDESHIYA GRAMIN VIKAS SANSTH'S

JAGADAMBHA
COLLEGE OF ENGINEERING & TECHNOLOGY , YAVATMAL
Approved by A.I.C.T.E. & Government of Maharashtra, Affiliated to S.G.B. Amravati University, Amravati.

COLLEGE CODE EN- 1127

Dr. Hemant M. Baradkar
M.Tech. (Electronics), Ph.D. (E & TC. Engg.)
Principal

Dr. Shital A. Watile
M.Sc., Ph.D.
Secretary

1.3.2 Average percentage of courses that include experiential learning through project work/field work/internship during the Last five years

Academic Year 2018-19

Sr. No.	Program name	Program code	Name of the Course that include experiential learning through project work/field work/internship	Course code	Year of offering
1	B.E. Electrical Engineering	112729310	Network Analysis	3EE02	2011-2012
2	B.E. Electrical Engineering	112729310	Energy Resources & Generation	3EE03	2011-2012
3	B.E. Electrical Engineering	112729310	Electronic Devices & Circuits	3EE04	2011-2012
4	B.E. Electrical Engineering	112729310	Electrical Measurement & Instrumentation	3EE05	2011-2012
5	B.E. Electrical Engineering	112729310	Network Analysis - Lab	3EE06	2011-2012
6	B.E. Electrical Engineering	112729310	Electronic Devices & Circuits – Lab	3EE07	2011-2012
7	B.E. Electrical Engineering	112729310	Electrical Measurement & Instrumentation-Lab	3EE08	2011-2012
8	B.E. Electrical Engineering	112729310	Electrical Machine-I	4EE01	2011-2012
9	B.E. Electrical Engineering	112729310	Electromagnetic Theory	4EE02	2011-2012
10	B.E. Electrical Engineering	112729310	Analog & Digital Circuits	4EE03	2011-2012
11	B.E. Electrical Engineering	112729310	Mathematics-IV	4EE04	2011-2012
12	B.E. Electrical Engineering	112729310	Numerical Methods And Computer Programming	4EE05	2011-2012
13	B.E. Electrical Engineering	112729310	Electrical Machine-I-Lab	4EE06	2011-2012
14	B.E. Electrical Engineering	112729310	Analog & Digital Circuits - Lab	4EE07	2011-2012
15	B.E. Electrical Engineering	112729310	Numerical Methods And Computer Programming-Lab	4EE08	2011-2012
16	B.E. Electrical Engineering	112729310	Control Systems-I	5EE01	2012-2013
17	B.E. Electrical Engineering	112729310	Microprocessor & Microcontroller	5EE02	2012-2013
18	B.E. Electrical Engineering	112729310	Electrical Machines-II	5EE03	2012-2013
19	B.E. Electrical Engineering	112729310	Signals & Systems	5EE04	2012-2013
20	B.E. Electrical Engineering	112729310	Free Elective-I : Electronic Test Instruments	5FEET5	2018-2019
21	B.E. Electrical Engineering	112729310	Communication Skills	5EE06	2012-2013
22	B.E. Electrical Engineering	112729310	Control Systems- Lab	5EE07	2012-2013
23	B.E. Electrical Engineering	112729310	Microprocessor & Microcontroller - Lab	5EE08	2012-2013
24	B.E. Electrical Engineering	112729310	Electrical Machines-II – Lab	5EE09	2012-2013
25	B.E. Electrical Engineering	112729310	Communication Skills - Lab	5EE10	2012-2013

ARNI ROAD, YAVATMAL - 445001 (M.S.) INDIA
Tel. / Fax : 07232-291444, Mob. : 9011083260
Wbsite : www.jcoet.org, Email : principal@jcoet.org, principal.jcoet@gmail.com

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1

26	B.E. Electrical Engineering	112729310	Electrical Power-I	6EE01	2012-2013
27	B.E. Electrical Engineering	112729310	Optimization Techniques	6EE02	2012-2013
28	B.E. Electrical Engineering	112729310	Power Electronics	6EE03	2012-2013
29	B.E. Electrical Engineering	112729310	Computer Aided Machine Design	6EE04	2012-2013
30	B.E. Electrical Engineering	112729310	Free Elective-II : Non Conventional Energy Source	6FEEE05	2012-2013
31	B.E. Electrical Engineering	112729310	Electrical Energy Utilization	6EE06	2012-2013
32	B.E. Electrical Engineering	112729310	Power Electronics - Lab	6EE07	2012-2013
33	B.E. Electrical Engineering	112729310	Computer Aided Machine Design - Lab	6EE08	2012-2013
34	B.E. Electrical Engineering	112729310	Electrical Energy Utilization - Lab	6EE09	2012-2013
35	B.E. Electrical Engineering	112729310	Control System-II	7EE01	2013-2014
36	B.E. Electrical Engineering	112729310	Power System Operation & Control	7EE02	2013-2014
37	B.E. Electrical Engineering	112729310	Electrical Power-II	7EE03	2013-2014
38	B.E. Electrical Engineering	112729310	Switchgear & Protection	7EE04	2013-2014
39	B.E. Electrical Engineering	112729310	Professional Elective-I : Computer Methods in Power System Analysis	7EE05	2013-2014
40	B.E. Electrical Engineering	112729310	Project & Seminar	7EE06	2013-2014
41	B.E. Electrical Engineering	112729310	Electrical Power-II - Lab	7EE07	2013-2014
42	B.E. Electrical Engineering	112729310	Switchgear & Protection - Lab	7EE08	2013-2014
43	B.E. Electrical Engineering	112729310	Power System Stability	8EE01	2013-2014
44	B.E. Electrical Engineering	112729310	High Voltage Engineering	8EE02	2013-2014
45	B.E. Electrical Engineering	112729310	Digital Signal Processing	8EE03	2013-2014
46	B.E. Electrical Engineering	112729310	Professional Elective-II : Electric Drives & Control	8EE04	2013-2014
47	B.E. Electrical Engineering	112729310	Project & Seminar	8EE05	2013-2014
48	B.E. Electrical Engineering	112729310	Digital Signal Processing - Lab	8EE06	2013-2014
49	B.E. Computer Engineering	112724510	Programing Methodology	3KE02	2011-2012
50	B.E. Computer Engineering	112724510	Electronic Devices and circuits	3KE03	2011-2012
51	B.E. Computer Engineering	112724510	Discret structure	3KE04	2011-2012
52	B.E. Computer Engineering	112724510	Computer organization	3KE05	2011-2012
53	B.E. Computer Engineering	112724510	Programing Methodology-Lab	3KE06	2011-2012
54	B.E. Computer Engineering	112724510	Electronic Devices and circuits-lab	3KE07	2011-2012
55	B.E. Computer Engineering	112724510	Computer Lab-I (Web Technology)	3KE08	2011-2012
56	B.E. Computer Engineering	112724510	Data structure	4KE01	2011-2012
57	B.E. Computer Engineering	112724510	Analog & Digital ICS	4KE02	2011-2012
58	B.E. Computer Engineering	112724510	Object oriented programing	4KE03	2011-2012
59	B.E. Computer Engineering	112724510	Assembly language programming	4KE04	2011-2012
60	B.E. Computer Engineering	112724510	Theory of computation	4KE05	2011-2012
61	B.E. Computer Engineering	112724510	Data structure-lab	4KE06	2011-2012
62	B.E. Computer Engineering	112724510	Analog & Digital ICS-lab	4KE07	2011-2012
63	B.E. Computer Engineering	112724510	Object oriented programing-lab	4KE08	2011-2012
64	B.E. Computer Engineering	112724510	Assembly language programming-lab	4KE09	2011-2012
65	B.E. Computer Engineering	112724510	Data Communication	5KE01	2012-2013

66	B.E. Computer Engineering	112724510	File structure and data processing	5KE02	2012-2013
67	B.E. Computer Engineering	112724510	System Software	5KE03	2012-2013
68	B.E. Computer Engineering	112724510	Switching theory and logic design	5KE04	2012-2013
69	B.E. Computer Engineering	112724510	Free Elective-I (Production Mangement)	5FEME05	2012-2013
70	B.E. Computer Engineering	112724510	Communication skills	5KE06	2012-2013
71	B.E. Computer Engineering	112724510	System Software-lab	5KE07	2012-2013
72	B.E. Computer Engineering	112724510	Switching theory and logic design-lab	5KE08	2012-2013
73	B.E. Computer Engineering	112724510	Communication skills-lab	5KE09	2012-2013
74	B.E. Computer Engineering	112724510	Operating system	6KE01	2012-2013
75	B.E. Computer Engineering	112724510	Database System	6KE02	2012-2013
76	B.E. Computer Engineering	112724510	Computer resource management	6KE03	2012-2013
77	B.E. Computer Engineering	112724510	Computer Architecture	6KE04	2012-2013
78	B.E. Computer Engineering	112724510	Free elective II: Introduction to Wireless Technology	6FEET5	2018-2019
79	B.E. Computer Engineering	112724510	Professional Ethics	6KE06	2012-2013
80	B.E. Computer Engineering	112724510	Operating system-lab	6KE07	2012-2013
81	B.E. Computer Engineering	112724510	Database System-lab	6KE08	2012-2013
82	B.E. Computer Engineering	112724510	Computer lab-II (Hardware)	6KE09	2012-2013
83	B.E. Computer Engineering	112724510	Signal And System	7KE01	2013-2014
84	B.E. Computer Engineering	112724510	Computer Networks	7KE02	2013-2014
85	B.E. Computer Engineering	112724510	Microprocessor and Interfacing	7KE03	2013-2014
86	B.E. Computer Engineering	112724510	Mobile computing	7KE04	2013-2014
87	B.E. Computer Engineering	112724510	Professional Elective-I : Computer Graphics	7KE05	2013-2014
88	B.E. Computer Engineering	112724510	Computer Networks-lab	7KE06	2013-2014
89	B.E. Computer Engineering	112724510	Microprocessor and Interfacing-lab	7KE07	2013-2014
90	B.E. Computer Engineering	112724510	Mobile computing-lab	7KE08	2013-2014
91	B.E. Computer Engineering	112724510	Project and seminar	7KE09	2013-2014
92	B.E. Computer Engineering	112724510	Digital signal processing	8KE01	2013-2014
93	B.E. Computer Engineering	112724510	Embedded system	8KE02	2013-2014
94	B.E. Computer Engineering	112724510	Software engineering	8KE03	2013-2014
95	B.E. Computer Engineering	112724510	Professional Elective-II : Soft computing	8KE04	2013-2014
96	B.E. Computer Engineering	112724510	Digital signal processing-lab	8KE05	2013-2014
97	B.E. Computer Engineering	112724510	Embedded system -lab	8KE06	2013-2014
98	B.E. Computer Engineering	112724510	Project and seminar	8KE07	2013-2014
99	B.E.Elect.Tel.Comm. Engg	112737210	Object Oriented Programming	3ET2	2017-2018
100	B.E.Elect.Tel.Comm. Engg	112737210	Electronic Devices & Circuits	3ET3	2017-2018
101	B.E.Elect.Tel.Comm. Engg	112737210	Intrumentation & Sensors	3ET4	2017-2018
102	B.E.Elect.Tel.Comm. Engg	112737210	Electromagnetic Fields	3ET5	2017-2018
103	B.E.Elect.Tel.Comm. Engg	112737210	Environmental Science	3ET6	2017-2018
104	B.E.Elect.Tel.Comm. Engg	112737210	Object Oriented Programming Lab	3ETp7	2017-2018
105	B.E.Elect.Tel.Comm. Engg	112737210	Electronic Devices & Circuits Lab	3ETp8	2017-2018

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106	B.E.Elect.Tel.Comm. Engg	112737210	Skill Development Lab -I	3ETp9	2017-2018
107	B.E.Elect.Tel.Comm. Engg	112737210	Signals & Systems	4ET1	2017-2018
108	B.E.Elect.Tel.Comm. Engg	112737210	Network Analysis	4ET2	2017-2018
109	B.E.Elect.Tel.Comm. Engg	112737210	Analog Electronics - I	4ET3	2017-2018
110	B.E.Elect.Tel.Comm. Engg	112737210	Digital Electronics	4ET4	2017-2018
111	B.E.Elect.Tel.Comm. Engg	112737210	Communication Engineering-I	4ET5	2017-2018
112	B.E.Elect.Tel.Comm. Engg	112737210	Environmental Science	4ET6	2017-2018
113	B.E.Elect.Tel.Comm. Engg	112737210	Analog Electronics - I Lab	4ETp7	2017-2018
114	B.E.Elect.Tel.Comm. Engg	112737210	Digital Electronics Lab	4ETp8	2017-2018
115	B.E.Elect.Tel.Comm. Engg	112737210	Communication Engineering-I Lab	4ETp9	2017-2018
116	B.E.Elect.Tel.Comm. Engg	112737210	Skill Development Lab -II	4ETp10	2017-2018
117	B.E.Elect.Tel.Comm. Engg	112737210	Analog Electronics-II	5ET1	2018-2019
118	B.E.Elect.Tel.Comm. Engg	112737210	Power Electronics & Drives	5ET2	2018-2019
119	B.E.Elect.Tel.Comm. Engg	112737210	Microprocessor & Microcontroller	5ET3	2018-2019
120	B.E.Elect.Tel.Comm. Engg	112737210	Communication Engineering-II	5ET4	2018-2019
121	B.E.Elect.Tel.Comm. Engg	112737210	Free Elective I: ENERGY AUDIT & MANAGEMENT	5FEEE5	2012-2013
122	B.E.Elect.Tel.Comm. Engg	112737210	Analog Electronics-II Lab	5ETp6	2018-2019
123	B.E.Elect.Tel.Comm. Engg	112737210	Power Electronics & Drives Lab	5ETp7	2018-2019
124	B.E.Elect.Tel.Comm. Engg	112737210	Microprocessor & Microcontroller Lab	5ETp8	2018-2019
125	B.E.Elect.Tel.Comm. Engg	112737210	Skill Development Lab -III	5ETp9	2018-2019
126	B.E.Elect.Tel.Comm. Engg	112737210	Microcontroller Programming & Application	6ET1	2018-2019
127	B.E.Elect.Tel.Comm. Engg	112737210	Control System Engineering	6ET2	2018-2019
128	B.E.Elect.Tel.Comm. Engg	112737210	Digital Communication	6ET3	2018-2019
129	B.E.Elect.Tel.Comm. Engg	112737210	Digital Signal Processing	6ET4	2018-2019
130	B.E.Elect.Tel.Comm. Engg	112737210	Free Elective II: Jawa Programming	6FEKE5	2012-2013
131	B.E.Elect.Tel.Comm. Engg	112737210	Communication Skill	6ET6	2018-2019
132	B.E.Elect.Tel.Comm. Engg	112737210	Digital Communication Lab	6ETp7	2018-2019
133	B.E.Elect.Tel.Comm. Engg	112737210	Digital Signal Processing Lab	6ETp8	2018-2019
134	B.E.Elect.Tel.Comm. Engg	112737210	Communication Skill Lab	6ETp9	2018-2019
135	B.E.Elect.Tel.Comm. Engg	112737210	Skill Development Lab -IV (Hardware)	6ETp10	2018-2019
136	B.E.Elect.Tel.Comm. Engg	112737210	Data Communication Network	7XT01	2013-2014
137	B.E.Elect.Tel.Comm. Engg	112737210	Microcontroller & Application	7XT02	2013-2014
138	B.E.Elect.Tel.Comm. Engg	112737210	Digital Signal Processing	7XT03	2013-2014
139	B.E.Elect.Tel.Comm. Engg	112737210	Professional Elective I: Satellite & Optical Fiber Communication	7XT04	2013-2014
140	B.E.Elect.Tel.Comm. Engg	112737210	Microcontroller & Application Lab	7XT05	2013-2014
141	B.E.Elect.Tel.Comm. Engg	112737210	Digital Signal Processing Lab	7XT06	2013-2014
142	B.E.Elect.Tel.Comm. Engg	112737210	Simulation Lab	7XT07	2013-2014
143	B.E.Elect.Tel.Comm. Engg	112737210	Project & Seminar	7XT08	2013-2014
144	B.E.Elect.Tel.Comm. Engg	112737210	UHF & Microwaves	8XT01	2013-2014
145	B.E.Elect.Tel.Comm. Engg	112737210	Electronics Circuit Design	8XT02	2013-2014
146	B.E.Elect.Tel.Comm. Engg	112737210	Wireless Communication	8XT03	2013-2014
147	B.E.Elect.Tel.Comm. Engg	112737210	Professional Elective II: /Digital Image Processing	8XT04	2013-2014
148	B.E.Elect.Tel.Comm. Engg	112737210	UHF & Microwaves Lab	8XT05	2013-2014

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4

149	B.E.Elect.Tel.Comm. Engg	112737210	Electronics Circuit Design Lab	8XT06	2013-2014
150	B.E.Elect.Tel.Comm. Engg	112737210	Project & Seminar	8XT07	2013-2014
151	B.E. Mechanical Engineering	112761210	Mechanics of Materials	3ME02	2011-2012
152	B.E. Mechanical Engineering	112761210	Fluid Power -I	3ME03	2011-2012
153	B.E. Mechanical Engineering	112761210	Engineering Thermodynamics	3ME04	2011-2012
154	B.E. Mechanical Engineering	112761210	Manufacturing Process-I	3ME05	2011-2012
155	B.E. Mechanical Engineering	112761210	Mechanics of Material	3ME06	2011-2012
156	B.E. Mechanical Engineering	112761210	Fluid Power -I	3ME07	2011-2012
157	B.E. Mechanical Engineering	112761210	Manufacturing Process-I	3ME08	2011-2012
158	B.E. Mechanical Engineering	112761210	Basic Electrical Drives & Control	4ME01	2011-2012
159	B.E. Mechanical Engineering	112761210	Engineering Metallurgy	4ME02	2011-2012
160	B.E. Mechanical Engineering	112761210	Energy Conversion -I	4ME03	2011-2012
161	B.E. Mechanical Engineering	112761210	Manufacturig Process -II	4ME04	2011-2012
162	B.E. Mechanical Engineering	112761210	Machine Design & Drawing -I	4ME05	2011-2012
163	B.E. Mechanical Engineering	112761210	Basic Electrical Drives & Control-Lab	4ME06	2011-2012
164	B.E. Mechanical Engineering	112761210	Engineering Metallurgy-Lab	4ME07	2011-2012
165	B.E. Mechanical Engineering	112761210	Energy Conversion -I-Lab	4ME08	2011-2012
166	B.E. Mechanical Engineering	112761210	Manufacturig Process -II-Lab	4ME09	2011-2012
167	B.E. Mechanical Engineering	112761210	Machine Design & Drawing -I-Lab	4ME10	2011-2012
168	B.E. Mechanical Engineering	112761210	Production Technology	5ME01	2012-2013
169	B.E. Mechanical Engineering	112761210	Heat Transfer	5ME02	2012-2013
170	B.E. Mechanical Engineering	112761210	Mesurment Systems	5ME03	2012-2013
171	B.E. Mechanical Engineering	112761210	Theory of Mechines - I	5ME04	2012-2013
172	B.E. Mechanical Engineering	112761210	Free Elective-I: Basics of Building Construction	5FEME05	2012-2013
173	B.E. Mechanical Engineering	112761210	Production Technology-Lab	5ME06	2012-2013
174	B.E. Mechanical Engineering	112761210	Heat Transfer-Lab	5ME07	2012-2013
175	B.E. Mechanical Engineering	112761210	Mesurment Systems-Lab	5ME08	2012-2013
176	B.E. Mechanical Engineering	112761210	Theory of Mechines - I-Lab	5ME09	2012-2013
177	B.E. Mechanical Engineering	112761210	Computer Softwere Applications - I-Lab	5ME10	2012-2013
178	B.E. Mechanical Engineering	112761210	Fluid Power - II	6ME01	2012-2013
179	B.E. Mechanical Engineering	112761210	Computer Software Applications	6ME02	2012-2013
180	B.E. Mechanical Engineering	112761210	Control System Engineering	6ME03	2012-2013
181	B.E. Mechanical Engineering	112761210	Theory of Mechines - II	6ME04	2012-2013

5

182	B.E. Mechanical Engineering	112761210	Free Elective-II: Power Supply System	6FEEE05	2012-2013
183	B.E. Mechanical Engineering	112761210	Communication Skills	6ME06	2012-2013
184	B.E. Mechanical Engineering	112761210	Fluid Power - II-Lab	6ME07	2012-2013
185	B.E. Mechanical Engineering	112761210	Computer Software Applications - II-Lab	6ME08	2012-2013
186	B.E. Mechanical Engineering	112761210	Theory of Mechines - II-Lab	6ME09	2012-2013
187	B.E. Mechanical Engineering	112761210	Communication Skills-Lab	6ME10	2012-2013
188	B.E. Mechanical Engineering	112761210	Machine Design & Drawing - II	7ME01	2013-2014
189	B.E. Mechanical Engineering	112761210	Energy Conversion - II	7ME02	2013-2014
190	B.E. Mechanical Engineering	112761210	Industrial Management & Costing	7ME03	2013-2014
191	B.E. Mechanical Engineering	112761210	Automation Engineering	7ME04	2013-2014
192	B.E. Mechanical Engineering	112761210	Professional Elective-I:Tool Engineering	7ME05	2013-2014
193	B.E. Mechanical Engineering	112761210	Project & Seminar	7ME06	2013-2014
194	B.E. Mechanical Engineering	112761210	Machine Design & Drawing - II-Lab	7ME07	2013-2014
195	B.E. Mechanical Engineering	112761210	Energy Conversion - II-Lab	7ME08	2013-2014
196	B.E. Mechanical Engineering	112761210	Automation Engineering-Lab	7ME09	2013-2014
197	B.E. Mechanical Engineering	112761210	Professional Elective-I: Non Conventional Energy System-Lab	7ME10	2013-2014
198	B.E. Mechanical Engineering	112761210	Professional Elective-I:Tool Engineering-Lab	7ME10	2013-2014
199	B.E. Mechanical Engineering	112761210	Professional Elective-II: Automobile Engineering	8ME01	2013-2014
200	B.E. Mechanical Engineering	112761210	Professional Elective-II: Refrigeration & Air Conditioning	8ME02	2013-2014
201	B.E. Mechanical Engineering	112761210	Professional Elective-II: Machine Tool Design	8ME02	2013-2014
202	B.E. Mechanical Engineering	112761210	I.C. Engines	8ME03	2013-2014
203	B.E. Mechanical Engineering	112761210	Operation Research Techniques	8ME04	2013-2014
204	B.E. Mechanical Engineering	112761210	Project & Seminar	8ME05	2013-2014
205	B.E. Mechanical Engineering	112761210	Professional Elective-II: Refrigeration & Air Conditioning-Lab	8ME06	2013-2014
206	B.E. Mechanical Engineering	112761210	Professional Elective-II: Machine Tool Design-Lab	8ME06	2013-2014
207	B.E. Mechanical Engineering	112761210	I.C. Engines-Lab	8ME07	2013-2014
208	B.E. Civil Engineering	112719110	Strength Of Materials	3CE02	2011-2012
209	B.E. Civil Engineering	112719110	Transportation Engineering-I	3CE03	2011-2012
210	B.E. Civil Engineering	112719110	Building Construction AND Materials	3CE04	2011-2012
211	B.E. Civil Engineering	112719110	Engineering Geology	3CE05	2011-2012

Principal
Jagadambha College of Engineering & Technology, Ami Road, Kinhi, Yavatmal

212	B.E. Civil Engineering	112719110	Strength Of Materials - Lab	3CE06	2011-2012
213	B.E. Civil Engineering	112719110	Transportation Engineering - Lab	3CE07	2011-2012
214	B.E. Civil Engineering	112719110	Building Construction AND Materials - Lab	3CE08	2011-2012
215	B.E. Civil Engineering	112719110	Engineering Geology - Lab	3CE09	2011-2012
216	B.E. Civil Engineering	112719110	Geotechnical Engineering-I	4CE01	2011-2012
217	B.E. Civil Engineering	112719110	Fluid Mechanics-I	4CE02	2011-2012
218	B.E. Civil Engineering	112719110	Theory Of Structures-I	4CE03	2011-2012
219	B.E. Civil Engineering	112719110	Sureveying-I	4CE04	2011-2012
220	B.E. Civil Engineering	112719110	Reinforced Cement Concrete-I	4CE05	2011-2012
221	B.E. Civil Engineering	112719110	Geotechnical Engineering-I -Lab	4CE06	2011-2012
222	B.E. Civil Engineering	112719110	Fluid Mechanics-I - Lab	4CE07	2011-2012
223	B.E. Civil Engineering	112719110	Surveying-I - Lab	4CE08	2011-2012
224	B.E. Civil Engineering	112719110	Reinforced Cement Concrete-I - Lab	4CE09	2011-2012
225	B.E. Civil Engineering	112719110	Reinforced Cement Concrete-II	5CE01	2012-2013
226	B.E. Civil Engineering	112719110	Fluid Mechanics-II	5CE02	2012-2013
227	B.E. Civil Engineering	112719110	Building Planning AND CAD	5CE03	2012-2013
228	B.E. Civil Engineering	112719110	Surveying-II	5CE04	2012-2013
229	B.E. Civil Engineering	112719110	Free Elective-I (Production Mangement)	5FECE05	2012-2013
230	B.E. Civil Engineering	112719110	Communication Skills	5CE06	2012-2013
231	B.E. Civil Engineering	112719110	Fluid Mechanics-II-Lab	5CE07	2012-2013
232	B.E. Civil Engineering	112719110	Building Planning And CAD- Lab	5CE08	2012-2013
233	B.E. Civil Engineering	112719110	Surveying-II-Lab	5CE09	2012-2013
234	B.E. Civil Engineering	112719110	Communication Skills-Lab	5CE10	2012-2013
235	B.E. Civil Engineering	112719110	Numerical Methods AND Computer Programming	6CE01	2012-2013
236	B.E. Civil Engineering	112719110	Design Of RCC & Prestress Concrete Structures	6CE02	2018-2019
237	B.E. Civil Engineering	112719110	Water Resources Engineering-I	6CE03	2012-2013
238	B.E. Civil Engineering	112719110	Transportation Engineering-II	6CE04	2012-2013
239	B.E. Civil Engineering	112719110	Free Elective-II(Non conventional energy system)	6FECE05	2012-2013
240	B.E. Civil Engineering	112719110	Estimating AND Costing	6CE06	2012-2013
241	B.E. Civil Engineering	112719110	Numerical Methods AND Computer Programming-Lab	6CE07	2012-2013
242	B.E. Civil Engineering	112719110	Structural Design-I-Lab	6CE08	2012-2013
243	B.E. Civil Engineering	112719110	Estimating AND Costing-Lab	6CE09	2012-2013
244	B.E. Civil Engineering	112719110	Minor Project-Lab	6CE10	2012-2013
245	B.E. Civil Engineering	112719110	Theory Of Structurs-II	7CE01	2013-2014
246	B.E. Civil Engineering	112719110	Geotechnical Engineering-II	7CE02	2013-2014
247	B.E. Civil Engineering	112719110	Structural Design-II	7CE03	2013-2014
248	B.E. Civil Engineering	112719110	Environmental Engineering-I	7CE04	2013-2014

249	B.E. Civil Engineering	112719110	Professional Elective-I: Advanced Earthquake Engineering	7CE05	2013-2014
250	B.E. Civil Engineering	112719110	Theory Of Structures-II - Lab	7CE06	2013-2014
251	B.E. Civil Engineering	112719110	Geotechnical Engineering-II - Lab	7CE07	2013-2014
252	B.E. Civil Engineering	112719110	Structural Design-II - Lab	7CE08	2013-2014
253	B.E. Civil Engineering	112719110	Project and Seminar	7CE09	2013-2014
254	B.E. Civil Engineering	112719110	Water Resources Engineering-II	8CE01	2013-2014
255	B.E. Civil Engineering	112719110	Environmental Engineering-II	8CE02	2013-2014
256	B.E. Civil Engineering	112719110	Project Planning AND Management	8CE03	2013-2014
257	B.E. Civil Engineering	112719110	Professional Elective-II: Advanced Waste Water AND Industrial Waste Treatment	8CE04	2013-2014
258	B.E. Civil Engineering	112719110	Water Resources Engineering-II - Lab	8CE05	2013-2014
259	B.E. Civil Engineering	112719110	Environmental Engineering-II - Lab	8CE06	2013-2014
260	B.E. Civil Engineering	112719110	Project AND Seminar	8CE07	2013-2014

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Jagadambha College of Engineering &
Technology, Arni Road, Kinhi, Yavatmal

1.3.2 Average percentage of courses that include experiential learning through project work/field work/internship during the Last five years

Academic Year 2018-19

Sr. No.	Program name	Program code	Name of the Course that include experiential learning through project work/field work/internship	Course code	Project Work	Field work	Intern ship
1	B.E. Electrical Engg	112729310	Network Analysis	3EE02	✓		
2	B.E. Electrical Engg	112729310	Energy Resources & Generation	3EE03	✓		✓
3	B.E. Electrical Engg	112729310	Electronic Devices & Circuits	3EE04	✓		✓
4	B.E. Electrical Engg	112729310	Electrical Measurement & Instrumentation	3EE05	✓		✓
5	B.E. Electrical Engg	112729310	Network Analysis - Lab	3EE06	✓		
6	B.E. Electrical Engg	112729310	Electronic Devices & Circuits – Lab	3EE07	✓		
7	B.E. Electrical Engg	112729310	Electrical Measurement & Instrumentation-Lab	3EE08	✓		✓
8	B.E. Electrical Engg	112729310	Electrical Machine-I	4EE01	✓		✓
9	B.E. Electrical Engg	112729310	Electromagnetic Theory	4EE02	✓		✓
10	B.E. Electrical Engg	112729310	Analog & Digital Circuits	4EE03	✓		
11	B.E. Electrical Engg	112729310	Mathematics-IV	4EE04	✓		
12	B.E. Electrical Engg	112729310	Numerical Methods And Computer Programming	4EE05	✓		
13	B.E. Electrical Engg	112729310	Electrical Machine-I-Lab	4EE06	✓		
14	B.E. Electrical Engg	112729310	Analog & Digital Circuits - Lab	4EE07	✓		
15	B.E. Electrical Engg	112729310	Numerical Methods And Computer Programming-Lab	4EE08	✓		
16	B.E. Electrical Engg	112729310	Control Systems-I	5EE01	✓		
17	B.E. Electrical Engg	112729310	Microprocessor & Microcontroller	5EE02	✓		
18	B.E. Electrical Engg	112729310	Electrical Machines-II	5EE03	✓		✓
19	B.E. Electrical Engg	112729310	Signals & Systems	5EE04	✓		✓
20	B.E. Electrical Engg	112729310	Free Elective-I : Electronic Test Instruments	5FEET5	✓		✓
21	B.E. Electrical Engg	112729310	Communication Skills	5EE06	✓		
22	B.E. Electrical Engg	112729310	Control Systems- Lab	5EE07	✓		

23	B.E. Electrical Engg	112729310	Microprocessor & Microcontroller - Lab	5EE08	✓			
24	B.E. Electrical Engg	112729310	Electrical Machines-II – Lab	5EE09	✓			
25	B.E. Electrical Engg	112729310	Communication Skills - Lab	5EE10	✓			
26	B.E. Electrical Engg	112729310	Electrical Power-I	6EE01	✓			
27	B.E. Electrical Engg	112729310	Optimization Techniques	6EE02	✓			
28	B.E. Electrical Engg	112729310	Power Electronics	6EE03	✓			
29	B.E. Electrical Engg	112729310	Computer Aided Machine Design	6EE04	✓			
30	B.E. Electrical Engg	112729310	Free Elective-II : Non Conventional Energy Source	6FEEE05	✓			
31	B.E. Electrical Engg	112729310	Electrical Energy Utilization	6EE06	✓			✓
32	B.E. Electrical Engg	112729310	Power Electronics - Lab	6EE07	✓			✓
33	B.E. Electrical Engg	112729310	Computer Aided Machine Design - Lab	6EE08	✓			✓
34	B.E. Electrical Engg	112729310	Electrical Energy Utilization - Lab	6EE09	✓			
35	B.E. Electrical Engg	112729310	Control System-II	7EE01	✓			
36	B.E. Electrical Engg	112729310	Power System Operation & Control	7EE02	✓			
37	B.E. Electrical Engg	112729310	Electrical Power-II	7EE03	✓			
38	B.E. Electrical Engg	112729310	Switchgear & Protection	7EE04	✓			
39	B.E. Electrical Engg	112729310	Professional Elective-I : Computer Methods in Power System Analysis	7EE05	✓			.
40	B.E. Electrical Engg	112729310	Project & Seminar	7EE06	✓			
41	B.E. Electrical Engg	112729310	Electrical Power-II - Lab	7EE07	✓			
42	B.E. Electrical Engg	112729310	Switchgear & Protection - Lab	7EE08	✓			
43	B.E. Electrical Engg	112729310	Power System Stability	8EE01	✓			
44	B.E. Electrical Engg	112729310	High Voltage Engg	8EE02	✓			
45	B.E. Electrical Engg	112729310	Digital Signal Processing	8EE03	✓			
46	B.E. Electrical Engg	112729310	Professional Elective-II : Electric Drives & Control	8EE04	✓			✓
47	B.E. Electrical Engg	112729310	Project & Seminar	8EE05	✓			✓
48	B.E. Electrical Engg	112729310	Digital Signal Processing - Lab	8EE06	✓			✓
49	B.E. Computer Engg	112724510	Programing Methodology	3KE02	✓			✓
50	B.E. Computer Engg	112724510	Electronic Devices and circuits	3KE03	✓			
51	B.E. Computer Engg	112724510	Discret structure	3KE04	✓			
52	B.E. Computer Engg	112724510	Computer organization	3KE05	✓			
53	B.E. Computer Engg	112724510	Programing Methodology-Lab	3KE06	✓			
54	B.E. Computer Engg	112724510	Electronic Devices and circuits-lab	3KE07	✓			
55	B.E. Computer Engg	112724510	Computer Lab-I (Web Technology)	3KE08	✓			
56	B.E. Computer Engg	112724510	Data structure	4KE01	✓			
57	B.E. Computer Engg	112724510	Analog & Digital ICS	4KE02	✓			
58	B.E. Computer Engg	112724510	Object oriented programing	4KE03	✓			
59	B.E. Computer Engg	112724510	Assembly language programming	4KE04	✓			
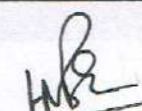
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#	Program	Number	Subject	Code			
60	B.E. Computer Engg	112724510	Theory of computation	4KE05	✓		
61	B.E. Computer Engg	112724510	Data structure-lab	4KE06	✓		
62	B.E. Computer Engg	112724510	Analog & Digital ICS-lab	4KE07	✓		✓
63	B.E. Computer Engg	112724510	Object oriented programing-lab	4KE08	✓		✓
64	B.E. Computer Engg	112724510	Assembly language programming-lab	4KE09	✓		✓
65	B.E. Computer Engg	112724510	Data Communication	5KE01	✓		✓
66	B.E. Computer Engg	112724510	File structure and data processing	5KE02	✓		
67	B.E. Computer Engg	112724510	System Software	5KE03	✓		
68	B.E. Computer Engg	112724510	Switching theory and logic design	5KE04	✓		
69	B.E. Computer Engg	112724510	Free Elective-I (Production Mangement)	5FEME05	✓		
70	B.E. Computer Engg	112724510	Communication skills	5KE06	✓		
71	B.E. Computer Engg	112724510	System Software-lab	5KE07	✓		
72	B.E. Computer Engg	112724510	Switching theory and logic design-lab	5KE08	✓		
73	B.E. Computer Engg	112724510	Communication skills-lab	5KE09	✓		✓
74	B.E. Computer Engg	112724510	Operating system	6KE01	✓		✓
75	B.E. Computer Engg	112724510	Database System	6KE02	✓		✓
76	B.E. Computer Engg	112724510	Computer resource management	6KE03	✓		✓
77	B.E. Computer Engg	112724510	Computer Architecture	6KE04	✓		
78	B.E. Computer Engg	112724510	Free elective II: Introduction to Wireless Technology	6FEET5	✓		
79	B.E. Computer Engg	112724510	Professional Ethics	6KE06	✓		
80	B.E. Computer Engg	112724510	Operating system-lab	6KE07	✓		✓
81	B.E. Computer Engg	112724510	Database System-lab	6KE08	✓		✓
82	B.E. Computer Engg	112724510	Computer lab-II (Hardware)	6KE09	✓		✓
83	B.E. Computer Engg	112724510	Signal And System	7KE01	✓		✓
84	B.E. Computer Engg	112724510	Computer Networks	7KE02	✓		✓
85	B.E. Computer Engg	112724510	Microprocessor and Interfacing	7KE03	✓		✓
86	B.E. Computer Engg	112724510	Mobile computing	7KE04	✓		✓
87	B.E. Computer Engg	112724510	Professional Elective-I : Computer Graphics	7KE05	✓		✓
88	B.E. Computer Engg	112724510	Computer Networks-lab	7KE06	✓		✓
89	B.E. Computer Engg	112724510	Microprocessor and Interfacing-lab	7KE07	✓		
90	B.E. Computer Engg	112724510	Mobile computing-lab	7KE08	✓		
91	B.E. Computer Engg	112724510	Project and seminar	7KE09	✓		
92	B.E. Computer Engg	112724510	Digital signal processing	8KE01	✓		
93	B.E. Computer Engg	112724510	Embedded system	8KE02	✓		
94	B.E. Computer Engg	112724510	Software Engg	8KE03	✓		
95	B.E. Computer Engg	112724510	Professional Elective-II : Soft computing	8KE04	✓		✓
96	B.E. Computer Engg	112724510	Digital signal processing-lab	8KE05	✓		✓
97	B.E. Computer Engg	112724510	Embedded system -lab	8KE06	✓		✓

Principal
Jagadambha College of Engineering & Technology, Arni Road, Kinhi, Yavatmal

98	B.E. Computer Engg	112724510	Project and seminar	8KE07	✓		✓
99	B.E.Elect.Tel.Comm. Engg	112737210	Object Oriented Programming	3ET2	✓		✓
100	B.E.Elect.Tel.Comm. Engg	112737210	Electronic Devices & Circuits	3ET3	✓		
101	B.E.Elect.Tel.Comm. Engg	112737210	Intrumentation & Sensors	3ET4	✓		
102	B.E.Elect.Tel.Comm. Engg	112737210	Electromagnetic Fields	3ET5	✓		
103	B.E.Elect.Tel.Comm. Engg	112737210	Environmental Science	3ET6	✓		
104	B.E.Elect.Tel.Comm. Engg	112737210	Object Oriented Programming Lab	3ETp7	✓		✓
105	B.E.Elect.Tel.Comm. Engg	112737210	Electronic Devices & Circuits Lab	3ETp8	✓		✓
106	B.E.Elect.Tel.Comm. Engg	112737210	Skill Development Lab -I	3ETp9	✓		✓
107	B.E.Elect.Tel.Comm. Engg	112737210	Signals & Systems	4ET1	✓		
108	B.E.Elect.Tel.Comm. Engg	112737210	Network Analysis	4ET2	✓		
109	B.E.Elect.Tel.Comm. Engg	112737210	Analog Electronics - I	4ET3	✓		
110	B.E.Elect.Tel.Comm. Engg	112737210	Digital Electronics	4ET4	✓		
111	B.E.Elect.Tel.Comm. Engg	112737210	Communication Engg-I	4ET5	✓		
112	B.E.Elect.Tel.Comm. Engg	112737210	Environmental Science	4ET6	✓		
113	B.E.Elect.Tel.Comm. Engg	112737210	Analog Electronics - I Lab	4ETp7	✓		
114	B.E.Elect.Tel.Comm. Engg	112737210	Digital Electronics Lab	4ETp8	✓		
115	B.E.Elect.Tel.Comm. Engg	112737210	Communication Engg-I Lab	4ETp9	✓		
116	B.E.Elect.Tel.Comm. Engg	112737210	Skill Development Lab -II	4ETp10	✓		
117	B.E.Elect.Tel.Comm. Engg	112737210	Analog Electronics-II	5ET1	✓		
118	B.E.Elect.Tel.Comm. Engg	112737210	Power Electronics & Drives	5ET2	✓		✓
119	B.E.Elect.Tel.Comm. Engg	112737210	Microprocessor & Microcontroller	5ET3	✓		✓
120	B.E.Elect.Tel.Comm. Engg	112737210	Communication Engg-II	5ET4	✓		✓

Principal
Jagadambha College of Engineering &
Technology, Ami Road, Kinhi, Yavatmal

121	B.E.Elect.Tel.Comm. Engg	112737210	Free Elective I: ENERGY AUDIT & MANAGEMENT	5FEEE5	✓		✓
122	B.E.Elect.Tel.Comm. Engg	112737210	Analog Electronics-II Lab	5ETp6	✓		✓
123	B.E.Elect.Tel.Comm. Engg	112737210	Power Electronics & Drives Lab	5ETp7	✓		
124	B.E.Elect.Tel.Comm. Engg	112737210	Microprocessor & Microcontroller Lab	5ETp8	✓		
125	B.E.Elect.Tel.Comm. Engg	112737210	Skill Development Lab -III	5ETp9	✓		
126	B.E.Elect.Tel.Comm. Engg	112737210	Microcontroller Programming & Application	6ET1	✓		
127	B.E.Elect.Tel.Comm. Engg	112737210	Control System Engg	6ET2	✓		
128	B.E.Elect.Tel.Comm. Engg	112737210	Digital Communication	6ET3	✓		
129	B.E.Elect.Tel.Comm. Engg	112737210	Digital Signal Processing	6ET4	✓		
130	B.E.Elect.Tel.Comm. Engg	112737210	Free Elective II: Jawa Programming	6FEKE5	✓		
131	B.E.Elect.Tel.Comm. Engg	112737210	Communication Skill	6ET6	✓		
132	B.E.Elect.Tel.Comm. Engg	112737210	Digital Communication Lab	6ETp7	✓		
133	B.E.Elect.Tel.Comm. Engg	112737210	Digital Signal Processing Lab	6ETp8	✓		
134	B.E.Elect.Tel.Comm. Engg	112737210	Communication Skill Lab	6ETp9	✓		
135	B.E.Elect.Tel.Comm. Engg	112737210	Skill Development Lab -IV (Hardware)	6ETp10	✓		
136	B.E.Elect.Tel.Comm. Engg	112737210	Data Communication Network	7XT01	✓		✓
137	B.E.Elect.Tel.Comm. Engg	112737210	Microcontroller & Application	7XT02	✓		✓
138	B.E.Elect.Tel.Comm. Engg	112737210	Digital Signal Processing	7XT03	✓		✓
139	B.E.Elect.Tel.Comm. Engg	112737210	Professional Elective I: Satellite & Optical Fiber Communication	7XT04	✓		✓
140	B.E.Elect.Tel.Comm. Engg	112737210	Microcontroller & Application Lab	7XT05	✓		
141	B.E.Elect.Tel.Comm. Engg	112737210	Digital Signal Processing Lab	7XT06	✓		
142	B.E.Elect.Tel.Comm. Engg	112737210	Simulation Lab	7XT07	✓		
143	B.E.Elect.Tel.Comm. Engg	112737210	Project & Seminar	7XT08	✓		

144	B.E.Elect.Tel.Comm. Engg	112737210	UHF & Microwaves	8XT01	✓			
145	B.E.Elect.Tel.Comm. Engg	112737210	Electronics Circuit Design	8XT02	✓			
146	B.E.Elect.Tel.Comm. Engg	112737210	Wireless Communication	8XT03	✓			
147	B.E.Elect.Tel.Comm. Engg	112737210	Professional Elective II: /Digital Image Processing	8XT04	✓			
148	B.E.Elect.Tel.Comm. Engg	112737210	UHF & Microwaves Lab	8XT05	✓			
149	B.E.Elect.Tel.Comm. Engg	112737210	Electronics Circuit Design Lab	8XT06	✓			
150	B.E.Elect.Tel.Comm. Engg	112737210	Project & Seminar	8XT07	✓			
151	B.E. Mechanical Engg	112761210	Mechanics of Materials	3ME02	✓			
152	B.E. Mechanical Engg	112761210	Fluid Power -I	3ME03	✓			
153	B.E. Mechanical Engg	112761210	Engineering Thermodynamics	3ME04	✓			
154	B.E. Mechanical Engg	112761210	Manufacturing Process-I	3ME05	✓		✓	
155	B.E. Mechanical Engg	112761210	Mechanics of Material	3ME06	✓		✓	
156	B.E. Mechanical Engg	112761210	Fluid Power -I	3ME07	✓		✓	
157	B.E. Mechanical Engg	112761210	Manufacturing Process-I	3ME08	✓		✓	
158	B.E. Mechanical Engg	112761210	Basic Electrical Drives & Control	4ME01	✓		✓	
159	B.E. Mechanical Engg	112761210	Engineering Metallurgy	4ME02	✓		✓	
160	B.E. Mechanical Engg	112761210	Energy Conversion -I	4ME03	✓		✓	
161	B.E. Mechanical Engg	112761210	Manufacturig Process -II	4ME04	✓		✓	
162	B.E. Mechanical Engg	112761210	Machine Design & Drawing -I	4ME05	✓			
163	B.E. Mechanical Engg	112761210	Basic Electrical Drives & Control-Lab	4ME06	✓			
164	B.E. Mechanical Engg	112761210	Engineering Metallurgy-Lab	4ME07	✓			
165	B.E. Mechanical Engg	112761210	Energy Conversion -I-Lab	4ME08	✓			
166	B.E. Mechanical Engg	112761210	Manufacturig Process -II-Lab	4ME09	✓			

Principal
Jagadambha College of Engineering &
Technology, Ami Road,Kinhi,Yavatmal

14

167	B.E. Mechanical Engg	112761210	Machine Design & Drawing -I-Lab	4ME10	✓		
168	B.E. Mechanical Engg	112761210	Production Technology	5ME01	✓		
169	B.E. Mechanical Engg	112761210	Heat Transfer	5ME02	✓		
170	B.E. Mechanical Engg	112761210	Mesurment Systems	5ME03	✓		
171	B.E. Mechanical Engg	112761210	Theory of Mechines - I	5ME04	✓		
172	B.E. Mechanical Engg	112761210	Free Elective-I: Basics of Building Construction	5FEME05	✓		
173	B.E. Mechanical Engg	112761210	Production Technology-Lab	5ME06	✓		
174	B.E. Mechanical Engg	112761210	Heat Transfer-Lab	5ME07	✓		
175	B.E. Mechanical Engg	112761210	Mesurment Systems-Lab	5ME08	✓		✓
176	B.E. Mechanical Engg	112761210	Theory of Mechines - I-Lab	5ME09	✓		✓
177	B.E. Mechanical Engg	112761210	Computer Softwere Applications - I-Lab	5ME10	✓		✓
178	B.E. Mechanical Engg	112761210	Fluid Power - II	6ME01	✓		✓
179	B.E. Mechanical Engg	112761210	Computer Software Applications	6ME02	✓		
180	B.E. Mechanical Engg	112761210	Control System Engg	6ME03	✓		
181	B.E. Mechanical Engg	112761210	Theory of Mechines - II	6ME04	✓		
182	B.E. Mechanical Engg	112761210	Free Elective-II: Power Supply System	6FEEE05	✓		
183	B.E. Mechanical Engg	112761210	Communication Skills	6ME06	✓		
184	B.E. Mechanical Engg	112761210	Fluid Power - II-Lab	6ME07	✓		✓
185	B.E. Mechanical Engg	112761210	Computer Software Applications - II-Lab	6ME08	✓		✓
186	B.E. Mechanical Engg	112761210	Theory of Mechines - II-Lab	6ME09	✓		
187	B.E. Mechanical Engg	112761210	Communication Skills-Lab	6ME10	✓		
188	B.E. Mechanical Engg	112761210	Machine Design & Drawing - II	7ME01	✓		
189	B.E. Mechanical Engg	112761210	Energy Conversion - II	7ME02	✓		✓

Principal
Jagadambha College of Engineering &
Technology, Ami Road, Kinhi, Yavatmal

190	B.E. Mechanical Engg	112761210	Industrial Management & Costing	7ME03	✓		✓
191	B.E. Mechanical Engg	112761210	Automation Engg	7ME04	✓		✓
192	B.E. Mechanical Engg	112761210	Professional Elective-I:Tool Engg	7ME05	✓		✓
193	B.E. Mechanical Engg	112761210	Project & Seminar	7ME06	✓		
194	B.E. Mechanical Engg	112761210	Machine Design & Drawing - II-Lab	7ME07	✓		
195	B.E. Mechanical Engg	112761210	Energy Conversion - II-Lab	7ME08	✓		
196	B.E. Mechanical Engg	112761210	Automation Engg-Lab	7ME09	✓		✓
197	B.E. Mechanical Engg	112761210	Professional Elective-I: Non Conventional Energy System-Lab	7ME10	✓		✓
198	B.E. Mechanical Engg	112761210	Professional Elective-I:Tool Engg-Lab	7ME10	✓		✓
199	B.E. Mechanical Engg	112761210	Professional Elective-II: Automobile Engg	8ME01	✓		✓
200	B.E. Mechanical Engg	112761210	Professional Elective-II: Refrigeration & Air Conditioning	8ME02	✓		✓
201	B.E. Mechanical Engg	112761210	Professional Elective-II: Machine Tool Design	8ME02	✓		
202	B.E. Mechanical Engg	112761210	I.C. Engines	8ME03	✓		
203	B.E. Mechanical Engg	112761210	Operation Research Techniques	8ME04	✓		
204	B.E. Mechanical Engg	112761210	Project & Seminar	8ME05	✓		
205	B.E. Mechanical Engg	112761210	Professional Elective-II: Refrigeration & Air Conditioning-Lab	8ME06	✓		
206	B.E. Mechanical Engg	112761210	Professional Elective-II: Machine Tool Design-Lab	8ME06	✓		
207	B.E. Mechanical Engg	112761210	I.C. Engines-Lab	8ME07	✓		
208	B.E. Civil Engg	112719110	Strength Of Materials	3CE02	✓		
209	B.E. Civil Engg	112719110	Transportation Engg-I	3CE03	✓		✓
210	B.E. Civil Engg	112719110	Building Construction AND Materials	3CE04	✓		✓
211	B.E. Civil Engg	112719110	Engineering Geology	3CE05	✓		✓
212	B.E. Civil Engg	112719110	Strength Of Materials - Lab	3CE06	✓		✓
213	B.E. Civil Engg	112719110	Transportation Engg - Lab	3CE07	✓		✓

214	B.E. Civil Engg	112719110	Building Construction AND Materials - Lab	3CE08	✓		✓
215	B.E. Civil Engg	112719110	Engineering Geology - Lab	3CE09	✓		✓
216	B.E. Civil Engg	112719110	Geotechnical Engg-I	4CE01	✓		
217	B.E. Civil Engg	112719110	Fluid Mechanics-I	4CE02	✓		
218	B.E. Civil Engg	112719110	Theory Of Structures-I	4CE03	✓		
219	B.E. Civil Engg	112719110	Sureveying-I	4CE04	✓	✓	
220	B.E. Civil Engg	112719110	Reinforced Cement Concrete-I	4CE05	✓		
221	B.E. Civil Engg	112719110	Geotechnical Engg-I -Lab	4CE06	✓		
222	B.E. Civil Engg	112719110	Fluid Mechanics-I - Lab	4CE07	✓		
223	B.E. Civil Engg	112719110	Surveying-I - Lab	4CE08	✓		
224	B.E. Civil Engg	112719110	Reinforced Cement Concrete-I - Lab	4CE09	✓		
225	B.E. Civil Engg	112719110	Reinforced Cement Concrete-II	5CE01	✓		
226	B.E. Civil Engg	112719110	Fluid Mechanics-II	5CE02	✓		
227	B.E. Civil Engg	112719110	Building Planning AND CAD	5CE03	✓		
228	B.E. Civil Engg	112719110	Surveying-II	5CE04	✓	✓	
229	B.E. Civil Engg	112719110	Free Elective-I (Production Mangement)	5FECE05	✓		✓
230	B.E. Civil Engg	112719110	Communication Skills	5CE06	✓		✓
231	B.E. Civil Engg	112719110	Fluid Mechanics-II-Lab	5CE07	✓		✓
232	B.E. Civil Engg	112719110	Building Planning AND CAD- Lab	5CE08	✓		✓
233	B.E. Civil Engg	112719110	Surveying-II-Lab	5CE09	✓	✓	✓
234	B.E. Civil Engg	112719110	Communication Skills-Lab	5CE10	✓		✓
235	B.E. Civil Engg	112719110	Numerical Methods AND Computer Programming	6CE01	✓		✓
236	B.E. Civil Engg	112719110	DESIGN OF RCC & PRESTRESS CONCRETE STRUCTURES	6CE02	✓		
237	B.E. Civil Engg	112719110	Water Resources Engg-I	6CE03	✓		
238	B.E. Civil Engg	112719110	Transportation Engg-II	6CE04	✓		
239	B.E. Civil Engg	112719110	Free Elective-II(Non conventional energy system)	6FECE05	✓		
240	B.E. Civil Engg	112719110	Estimating AND Costing	6CE06	✓		
241	B.E. Civil Engg	112719110	Numerical Methods AND Computer Programming-Lab	6CE07	✓		
242	B.E. Civil Engg	112719110	Structural Design-I-Lab	6CE08	✓	✓	
243	B.E. Civil Engg	112719110	Estimating AND Costing-Lab	6CE09	✓		
244	B.E. Civil Engg	112719110	Minor Project-Lab	6CE10	✓	✓	
245	B.E. Civil Engg	112719110	Theory Of Structurs-II	7CE01	✓		✓
246	B.E. Civil Engg	112719110	Geotechnical Engg-II	7CE02	✓	✓	✓
247	B.E. Civil Engg	112719110	Structural Design-II	7CE03	✓		✓
248	B.E. Civil Engg	112719110	Environmental Engg-I	7CE04	✓		✓

249	B.E. Civil Engg	112719110	Professional Elective-I: Advanced Earthquake Engg	7CE05	✓		✓
250	B.E. Civil Engg	112719110	Theory Of Structures-II - Lab	7CE06	✓		✓
251	B.E. Civil Engg	112719110	Geotechnical Engg-II - Lab	7CE07	✓		✓
252	B.E. Civil Engg	112719110	Structural Design-II - Lab	7CE08	✓		✓
253	B.E. Civil Engg	112719110	Project and Seminar	7CE09	✓		✓
254	B.E. Civil Engg	112719110	Water Resources Engg-II	8CE01	✓	✓	✓
255	B.E. Civil Engg	112719110	Environmental Engg-II	8CE02	✓		✓
256	B.E. Civil Engg	112719110	Project Planning AND Management	8CE03	✓		✓
257	B.E. Civil Engg	112719110	Professional Elective-II: Advanced Waste Water AND Industrial Waste Treatment	8CE04	✓		✓
258	B.E. Civil Engg	112719110	Water Resources Engg-II - Lab	8CE05	✓	✓	✓
259	B.E. Civil Engg	112719110	Environmental Engg-II - Lab	8CE06	✓		
260	B.E. Civil Engg	112719110	Project AND Seminar	8CE07	✓		

4KE03 OPERATING SYSTEM

Course Pre-requisite: Discrete Structures, Data Structure, Any programming Language

Course Objectives:
1. To make students aware of the kernel and shell structure of the operating systems.
2. To make students aware of the purpose, structure and functions of operating systems
3. To equip students with understanding of the various scheduling algorithms in OS.
4. To make students aware of understanding of memory management in different OS.

Course Outcomes : On completion of the course, the students will be able to
1. Explain memory management issues like external fragmentation, internal fragmentation.
2. Illustrate multithreading and its significance.
3. List various protection and security mechanisms of OS.
4. Analyze and solve the scheduling algorithms.
5. Analyze the deadlock situation and resolve it.
6. Compare various types of operating systems

Unit I: Introduction to OS :   (Hours: 7)
Introduction: Operating System definition, OS Evolution, Components and Services, Process Concept, Process Scheduling, Operations on Processes, Cooperating Processes, Interprocess Communication, Threads Overview, Multithreading Models, Threading Issues, Java Threads

Unit II: Process Scheduling   (Hours: 7)
Foundation and Scheduling objectives, Types of Schedulers, Scheduling criteria: CPU utilization, Throughput, Turnaround Time, Waiting Time, Response Time; Scheduling algorithms: Pre-emptive and Non pre-emptive, FCFS, SJF, RR, Priority, Multilevel Queue, Multilevel Feedback Queue Scheduling

Unit III: Process Synchronization   (Hours: 6)
Process Synchronization Basics: The Critical-Section Problem, Synchronization Hardware, Semaphores, Monitors, Deadlocks: Definition & Characterization, Deadlocks Prevention, Avoidance, Detection and Recovery from Deadlock

Unit IV: Memory Management   (Hours: 7)
Memory Management Background, Swapping, Contiguous Memory Allocation Schemes, Paging, Segmentation, Virtual Memory Management: Background, Demand paging scheme, Process Creation, Page Replacement Policies, Allocation of Frames, Thrashing

Unit V: Unit Title: File System   (Hours: 7)
File-System Interface; Directory Structure, File-System Mounting, File Sharing &Protection, File-System Structure, File-System Implementation, Directory Implementation, Allocation Methods, Free-Space Management. File Recovery

Unit VI: Unit Title: I/O System   (Hours : 6)
I/O Systems : Overview, I/O Hardware, Application I/O Interface, Kernel I/O Subsystem, Transforming I/O to Hardware Operations , Disk Scheduling, Disk Management, Swap-Space Management, RAID Structure.

Text Book : Avi Silberschatz, P.B.Galvin, G.Gagne: "Operating System Concepts" (9/e) John-Wiley & Sons.

Reference Books:
1. A.S.Tanenbaum "Modern Operating Systems" Pearson Education.
2. William Stallings "Operating Systems" Prentice-Hall.
3. D. M. Dhamdhere "Operating Systems" Tata McGraw-Hill.
4. P. Balkrishna Prasad: "Operating Systems" Scitech Publications (I) Pvt.

4KE04 MICROPROCESSOR & INTERFACING

Course Pre-requisite: Computer Programming and Number System

Course Objectives:
1. To explore 8086 microprocessor and its architecture.
2. To introduce interfacing techniques of 8086 microprocessor.
3. To introduce basics of Internet of Things

Course Outcomes : On completion of the course, the students will be able to
1. Describe 8086 microprocessor and its architecture; also understand instruction processing during the fetch-decode-execute cycle.
2. Design and Test assembly language programs using 8086 microprocessor instruction set.
3. Demonstrate the implementation of standard programming constructs, including control structures and functions, in assembly language.
4. Illustrate and realize the interfacing of memory & various I/O devices with 8086 microprocessor.
5. Explain the basic concepts of Internet of Things

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19

Unit I: 8086 Architecture (Hours: 7)

8086 architecture and pin configuration, Software model of 8086 microprocessor. Memory addresses space and data organization. Data types. Segment registers, memory segmentation. IP & Data registers, Pointer, Index registers. Memory addresses generation.

Unit II: 8086 Instruction Set (Hours: 7)

8086 Instruction set overview, addressing modes. 8086 instruction formats. 8086 programming: Integer instructions and computations: Data transfer instructions, Arithmetic instructions and their use in 8086 programming.

Unit III: 8086 Instruction Set (Hours: 6)

8086 programming: logical instructions. Shift and rotate instructions and their use in 8086 programming. 8086 flag register and Flag control instructions, compare instruction, control flow and jump instructions, Loops & loop handling instructions. 8086 programming using these instructions.

Unit IV: Subroutines& Macros (Hours: 7)

The 8086 stack segment and stack related instructions. 8086 I/O Address space. Subroutines and related instructions. Parameter passing, Concept of Macros, Status saving on stack. Concept of recursion at assembly program level. 8086 Programming using subroutines, recursion and macros.

Unit V: 8086 Interrupt (Hours: 7)

8086 Interrupts types, priority and instructions. Interrupt vector table, External hardware-interrupt interface signals & interrupts sequence. Software interrupts. Non-maskable interrupts. 8086 microprocessor interrupt programming.

Unit VI: Internet of Things (IoT) (Hours: 6)

Internet of things: An overview, IoT conceptual framework, IoT Architectural View, Technology behind IoT, Sources of IoT, M2M communication, Examples of IoT.

Text Books:
1. A. K. Ray & K. M. Bhurchandi: Advanced Microprocessors & Peripherals, Third Edition (TMH).
2. Raj Kamal: Internet of Things, Architecture and Design Principals, McGraw Hill Education (India) Pvt Ltd

Reference Books:
1. W. A. Triebel& Avatar Singh: The 8088/8086 Microprocessors (4e) (PHI /Pearson Education)
2. Liu & Gibson: The 8088/8086 Microprocessor Architecture Programming and Interface (6/e) (PHI)

4KE05 THEORY OF COMPUTATION

Course Pre-requisite: Discrete Mathematics, Data Structures

Course Objectives:
1. To understand different automata theory and its operation.
2. To understand mathematical expressions for the formal languages
3. To study computing machines and comparing different types of computational models
4. To understand the fundamentals of problem decidability and Un-Decidability

Course Outcomes : On completion of the course, the students will be able to
1. To construct finite state machines to solve problems in computing.
2. To write regular expressions for the formal languages.
3. To construct and apply well defined rules for parsing techniques in compiler
4. To construct and analyze Push Down, Turing Machine for formal languages
5. To express the understanding of the Chomsky Hierarchy.
6. To express the understanding of the decidability and un-decidability problems.

Unit I: Finite State Machines (Hours: 8)

Alphabet, String, Formal and Natural Language, Operations, Definition and Design DFA (Deterministic Finite Automata), NFA (Non Deterministic Finite Automata), Equivalence of NFA and DFA: Conversion of NFA into DFA, Conversion of NFA with epsilon moves to NFA, Minimization Of DFA, Definition and Construction of Moore and Mealy Machines, Inter-conversion between Moore and Mealy Machines. Minimization of Finite Automata. (Construction of Minimum Automaton)

Unit II: Regular Expression and Regular Grammar (Hours: 8)

Definition and Identities of Regular Expressions, Construction of Regular Expression of the given Language, Construction of Language from the RE, Conversion of FA to RE using Arden's Theorem, Inter-conversion RE to FA, Pumping Lemma for RL, Closure properties of RLs(proofs not required), Regular grammar, Equivalence of RG (RLG and LLG) and FA.

Unit III: Context Free Grammar and Languages (Hours: 8)

Introduction, Formal Definition of Grammar, Notations, Derivation Process: Leftmost Derivation, Rightmost Derivation, Derivation Trees, Construction of Context-Free Grammars and Languages, Pumping Lemma for CFL, Simplification of CFG, Normal Forms (CNF and GNF), Chomsky Hierarchy.

Course Outcomes:

After successfully completing the course, the students will be able to:

1. Justify the basic concepts of object-oriented programming such as data types, functions, classes, objects, constructors, inheritance, overloading etc.
2. Design, implement, test, and debug simple programs in C++.
3. Describe how the class mechanism supports encapsulation and information hiding.
4. To know the concept of operator overloading
5. Understand inheritance in C++
6. Design and test the implementation of Java programming concepts

	Subject: **OBJECT ORIENTED PROGRAMMING**	L
Unit-1	Principles of object-oriented Programming: OOP'S paradigm, basic concept of OOP'S, benefits of OOP'S, Four pillars of OOP, structure of C++ programming, basic data types.	06
Unit-2	User defined data type, derived data type, Abstract data types in C++, operators and control statement, Functionsin C++: Functions, Function over loading, Friend Functions and virtual functions.	06
Unit-3	Classes and objects in C++: Types of classes and its use, concept of object and its implementation, constructor and destructors.	06
Unit-4	Operator and their definition, overloading unary and binary operator, rules for overloading operators, overloading binary operators using friends and string manipulation.	06
Unit-5	Inheritance in C++: Extending classes: Multilevel Inheritance, Multiple inheritances, Hierarchical inheritance, Hybrid inheritance, Virtual base classes and Abstract classes.	06
Unit-6	Introduction to Java programming, JVM, Java programming constructs: variables, primitive data types, identifier, literals, operators, expressions, primitive type conversion and casting, Basics of classes, objects, creating objects, and methods in Java.	06
	Total	36

Text Books:

1. E Balagurusamy, "Object Oriented Programming Using C++ and JAVA", Tata McGraw-Hill.
2. E Balagurusamy, "Object Oriented Programming Using C++" ,Tata McGraw-Hill.

Reference Books :

1. Bjarne Stroustrup, "C++ Programming Language", Pearson Education.
2. H.M.Dietel and P.J.Dietel, "Java How to Program" Pearson Education/PHI, Sixth Edition.
3. Robert Lafore, "Object-Oriented Programming in C++ ", Pearson Education India, (4th Edition).
4. Herbert Schildt , "Java : The Complete Reference" Tata McGraw-Hill (7th Edition).
5. Yeshwant Kanetkar "Let us C++", BPB Publications.
6. Dr. N.B. Vekateswarlu, Dr. E.V. Prasad, "Learn Object Oriented Programming Using Java: An UML Based", S. Chand Publication.

3ETC08 : OBJECT ORIENTED PROGRAMMING -LAB.

Course Requisite:

1. Computer Programming
2. 3ETC05 Object Oriented Programming

Course Objectives:

1. Design, implement, test, and debug simple programs in an object-oriented programming language.
2. Design and test the implementation of C++ programming concepts.
3. Design and test the implementation of java programming concepts.

Course Outcomes:

After successfully completing the course, the students will be able to

1. Justify the basics of object-oriented design and the concepts of encapsulation, abstraction, inheritance, and polymorphism.
2. Design, implement, test, and debug simple programs in an object-oriented programming language.
3. Describe how the class mechanism supports encapsulation and information hiding.
4. Design and test the implementation of C++ and java programming concepts.
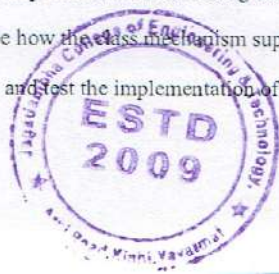
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21

Certificate

Certified that this B.E. Seminar Report titled

"DISPLAY CONTROLLER HAND GESTURE SYSTEM"

By

Miss. Manasi S. Dudke(GL)   Mr. Shubham B. Kunchalwar

Mr. Amar R. Dahake   Miss. Manawsi Darane

Of final year (B.E) during the academic year 2018-2019 is for the partial fulfillment for requirement of the award of the degree of Bachelor of Engineering in Computer Engineering under Sant Gadge Baba Amravati University, Amravati.

Prof. R. K. Solanki
(Project Guide)

Prof. S.A .Murab
(Head of Department)

Dr. H. M. Baradkar
(Principal)

**Department of Computer Engineering
Jagadambha College of Engineering & Technology,
Yavatmal, (M.S), India-445001
Session 2018-2019**

ABSTRACT

This is the gesture based sixth sense technology that controlled output display devices like monitor. This system can control content on the screen by using gesture of fingers without touching this screen. This technology has seamless applications. This provide easy control over the machinaries in the industries. The physical world around us with digital information and let us use natural hand gestures to interact with that information. Using this system we convert the real world into digital world. The gesture computing is the best technology that allows hand or the movement of fingers as input control. In this webcam is play most important role ,it capture the movement of fingers or recognize the color of finger and handle whole work and functionality of the system. In the project scripting language python is used as a backend of the project. Human-Computer Interaction (HCI) exists ubiquitously in our daily lives. It is usually achieved by using a physical controller such as a mouse, keyboard or touch screen. It hinders Natural User Interface (NUI) as there is a strong barrier between the user and computer. There are various hand tracking systems available on the market, but they are complex and expensive. In this paper, we present the design and development of a robust marker-less hand/finger tracking and gesture recognition system using low-cost hardware. We propose a simple but efficient method that allows robust and fast hand tracking despite complex background and motion blur. Our system is able to translate the detected hands or gestures into different functional inputs and interfaces with other applications via several methods. It enables intuitive HCI. We developed sample applications that can utilize the inputs from the hand tracking system. Our results show that an intuitive HCI can be achieved with minimum hardware requirements.

23

Certificate

Certified that this B.E. Seminar Report titled

"DTMF CONTROLLED ROBOT FOR SPY DETECTION"

By

Mr. Anup A. Ingale
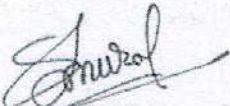
Miss. Vaishnavee D. Gulhane   **Miss. Yogita B. Kakde**

Miss. Roshni R .Khunkar   **Miss. Monika R. Torkade**

of final year (B.E) during the academic year 2018-2019 is for the partial fulfillment for requirement of the award of the degree of Bachelor of Engineering in Computer Engineering under Sant Gadge Baba Amravati University, Amravati.

Prof. S. A. Murab
(Project Guide)

Prof. S. A. Murab
(Head of Department)

Dr. H. M. Baradkar
(Principal)

Department of Computer Engineering
Jagadambha College of Engineering & Technology,
Yavatmal, (M.S), India-445001
Session 2018-2019

24

ABSTRACT

A robot car is controlled by cell phone using DTMF. The robot is controlled by a mobile phone that makes a call to the mobile phone attached to the robot. In the course of a call, if any button is pressed, a tone corresponding to the button pressed is heard at the other end of the call. This tone is called "Dual Tone Multiple-Frequency" (DTMF) tone.

The robot perceives this DTMF tone with the help of the phone stacked on the robot. The received tone is processed by the microcontroller with the help of DTMF decoder. The microcontroller then transmits the signal to the motor driver ICs to operate the motors & our robot starts moving.

Keywords: Arduino Uno R3, Dual Tone Multi Frequency, L293D (motor shield) driver IC.

Dr.Hemant M. Baradkar
Principal
Jagadambha College of Engineering &
Technology Arni R

25

4ETC04 – SIGNALS AND SYSTEMS   Max. Marks: 80

Course Requisite: Engineering Mathematics-III

Course Objectives:

1. Understand the fundamental characteristics of signals and systems.
2. Understand signals and systems in terms of both the time and transform domains.
3. Develop the mathematical skills to solve problems involving convolution and sampling.

Course Outcomes:

After successfully completing the course, students will be able to

1. Understand the continuous time signals and systems mathematically and their classification along with the mathematical operations that can be performed on them.
2. Understand the spectral characteristics of continuous-time periodic signals using Fourier series.
3. Analyze the spectral characteristics of continuous-time aperiodic signals and systems using Fourier Transform.
4. Apply the Laplace transform for analysis of continuous-time systems.
5. Understand the Discrete Time signals and systems mathematically and understand their classification along with the mathematical operations that can be performed on them.
6. Analyze the spectral characteristics of Discrete Time signals and systems using Discrete Time Fourier Transform.

	Subject: Signals and Systems.	L
Unit-1	**Continuous time signals and systems:** Signal Classification, Energy and Power Signal, Signal Operations, Signal models, Even and Odd functions, convolution, System Classification	06
Unit-2	**Continuous-Time Signal Analysis -The Fourier Series:** Periodic Signal Representation by Trigonometric Fourier Series, Existence and Convergence of Fourier Series, Gibbs Phenomenon, Exponential Fourier Series, Magnitude and phase plots of Fourier coefficients.	06
Unit-3	**Continuous-Time Signal Analysis-The Fourier Transform:** Aperiodic Signal Representation by Fourier Integral, Properties of Fourier Transform, Signal Transmission Through LTIC Systems, Signal energy, Inverse Fourier Transform, plotting Fourier Spectrum.	06
Unit-4	**Continuous-Time System Analysis Using Laplace Transform:** Laplace Transform, Region of convergence, Inverse Laplace transforms Application of Laplace transform for determination of solution of differential equation and System realization up to second order, Frequency response of LTIC system.	06
Unit-5	**Time-Domain Analysis of Discrete-Time Signals & Systems:** Signal Operations, Classification of Discrete-Time Systems, Discrete-Time System Equations, System response to Internal condition, Unit Impulse Response, System response to External Input, Classical Solution of Linear Difference Equations.**Sampling and Reconstruction:** Sampling theorem, signal reconstruction spectral.	06
Unit-6	**Fourier Analysis of Discrete-Time Signals:** Discrete-Time Fourier Series (DTFS), Aperiodic Signal Representation by Fourier Integral, Properties of DTFT, Relationship between DTFT & CTFT.	06
	Total	36

Text Books:

1. Lathi B. P., "Principles of Linear Systems and Signals" Second Edition (International Version) Oxford University Press.
2. Alan V. Oppenheim & Alan S. Willsky with S. Hamid Nawab, "Signals & Systems" PHI Publication, Second Edition.

Reference Books:

1. Ambardar A., "Analog And Digital Signal Processing", Thomson Learning-2005.
2. Simon Haykin, Barry Van Veen, "Signals & Systems", IInd Edition, Wiley Pub.
3. Michael J. Roberts, "Signals and Systems Analysis Using Transform Methods and MATLAB", Mc Hill Publication.

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26

List of Experiments :

Experiment No.	Aim of Experiment
Expt - 1	Write a C++ program to swap two variables a) Using third variable b) Without using third variable.
Expt – 2	Write a program in C++ to print the area and perimeter of a rectangle.
Expt - 3	Write a C++ program to generate all the prime numbers between 1 and n, where n is a value supplied by the user.
Expt - 4	Develop programs to implement the concepts of classes and object, accessing members: e.g. a. Design an EMPLOYEE class to contain Data members: Employee_Number, Employee_Name, Basic_Salary, All_Allowances, IT, Net_Salary. Member functions: to read the data of an employee, to calculate Net_Salary and to print the values of all the data members.
Expt – 5	Write a program in C++ to implement parameterized constructor and copy constructor.
Expt - 6	Write a C++ program to implement function overloading.
Expt – 7	Write a program in C++ illustrating the use of virtual functions in a class.
Expt – 8	Write a C++ program to overload unary operator for inverting the value of data variable using member function.
Expt – 9	Write a program in C++ to demonstrate multiple inheritances.
Expt – 10	Write a program in C++ to demonstrate multilevel inheritance.
Expt - 11	Write a program in C++ to implement virtual base class.
Expt – 12	Write a java program to Calculate Circle Area.
Expt – 13	Write a program in Java that reads a number in meters, converts it to feet, and displays the result.

* Minimum 08 experiments should be conducted out of above enlisted.

Semester - IV

4ETC02 - ANALOG CIRCUITS   Max. Marks: 80

Course Requisite:

1.   (3ETC02) Electronic Devices and Circuits

Course Objectives:

1. To understand the basics and internal structure of Op-Amp.
2. To analyze and design linear and non-linear applications of Op-Amp.
3. To understand and design concepts of voltage regulators.
4. To study and synthesize the waveform generators using IC 555 and IC 565.
5. To demonstrate applications of Op-Amp in temperature monitoring.

Course Outcomes:

After successfully completing the course, the students will be able to

1. Perform evaluation of the switching behavior of semiconductor devices.
2. Comprehend the knowledge of basic concepts and performance parameters of Op-Amp.
3. Use Op-Amp for implementation of linear and non-linear applications.
4. Comprehend the knowledge of PLL, its applications and data converters.

Subject: Analog Circuits

		L
Unit-1	**Operational amplifier** Block diagram of Op-Amp, differential amplifier configurations using BJT, constant current source, level shifting, transfer characteristics, frequency response, study of ICuA741, Op-Amp parameters, Inverting and non inverting amplifiers	06
Unit-2	**Linear applications of Op-Amp:** Theory & Design of scaling, summing, differential amplifier, integrator and differentiator, sinusoidal RC oscillators, RC-phase shift, Wein bridge oscillator using IC 741.	06

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27

JAGADAMBHA COLLEGE OF ENGINEERING & TECHNOLOGY, YAVATMAL - 445001

CERTIFICATE

This is to certify that the dissertation entitled "**Animal Detection in Farm Area using Arduino**" is a bonafide work done under our supervision and is submitted to Sant Gadge Baba Amravati University, Amravati in partial fulfillment of the requirement for the Bachelor of Engineering in Electronics & Telecommunication.

Submitted by

Mr. Sameer D. Sawale

Mr. Akash D. Ganthade

Miss. Tejaswini O. Kowale
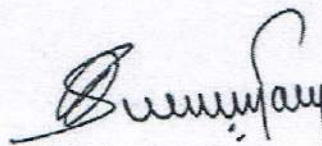
Miss. Mayuri N. Aglawe

Miss. Payal G. Bawane

Prof. S. D. Kale

Project Guide & Co-ordinator

E&TC Engg. Dept.

Dr. A. D. Shelotkar

H.O.D.

E&TC Engg. Dept.

Dr. H. M. Baradkar

Principal,

J..E., Yavatmal

Dr.Hemant M. Baradkar
Principal
Jagadambha College of Engineering &
Technology Arni Road, Nimbi,Yavatm

ESTD
2009

28

ABSTRACT

The main aim of this Project is to protect the crop from animals. In agriculture field human-animal conflict is a major problem; due to this we lost the crops. By this Project we protect the crops without damaging the animals. This system detects the animal by using arduino. This system uses PIR sensor for detecting the animal movement and send signal to arduino controller using GSM module. This system diverts the animals by producing the sound and also send message to farmer.

Keywords: Ultrasonic sensor, Arduino controller, PIR sensor

Dr.Hemant M. Baradkar
Principal
Jagadambha College of Engineering &
Technology, Airi Road, Kalhi Yavatm

29

JAGADAMBHA COLLEGE OF ENGINEERING & TECHNOLOGY, YAVATMAL - 445001

CERTIFICATE

This is to certify that the dissertation entitled "IDENTIFICATION OF DIABETES USING ARTIFICIAL INTELLIGENGE TECHNIQUE" is a bonafide work done under our supervision and is submitted to Sant Gadge Baba Amravati University, Amravati in partial fulfillment of the requirement for the Bachelor of Engineering in Electronics & Telecommunication.

Submitted by

Miss. Rupali P. Nagpure   Miss. Swati C. Bhongade

Miss. Ritu M. Sabu   Miss. Ashwini R. Shepurwar

Prof. S. D. Kale
Project Guide & Co-ordinator
E&TC Engg. Dept.

Dr. A. D. Shelotkar
H.O.D. of
E&TC Engg. Dept.

Dr. H. M. Baradkar
Principal,
J.C.E.T. Yavatmal

30

ABSTRACT

The discovery of knowledge from medical datasets is important in order to make effective medical diagnosis. With the emerging increase of diabetes, that recently affects around 346 million people, of which more than one-third go undetected in early stage, a strong need for supporting the medical decision-making process is generated. Diabetes mellitus is a chronic disease and a major public health challenge worldwide. Diabetes is ascribed to the acute conditions under which the production and consumption of insulin is disturbed in the body which consequently leads to the increase of glucose level in the blood. Using data mining methods to aid people to predict diabetes has gain major popularity. In this project, Bayesian Network classifier was proposed to predict the persons whether diabetic or not. Bayesian networks are considered as helpful methods for the diagnosis of many diseases. They in fact, are probable models which have been proved useful in displaying complex systems and showing the relationships between variables in a graphic way. The advantage e of this model is that it can take into account the uncertainty and can get the scenarios of the system change for the evaluation of diagnosis procedures. The dataset used is Pima Indian Diabetes dataset, which collects the information of persons with and without diabetes.

Key Words: classification, Bayesian network, attributes, prediction, probability.

Dr. Hemant M. Baradkar
Principal
Jagadambha College of Engineering &
Technology Arni Road. Kinhi.Yavatmal

CERTIFICATE

This is to certify that the project Entitled

"DESIGN OF G+2 RCC BUILDING WITH BAR BENDING SCHEDULE"

Has been successfully completed by

SURAJ D. KATHWATE

PRASHANT R. NANDAGAWALI   TAUSIF G. KHAN

SAURABH K. SELOKAR   PRANAY R. WARGHAT

NIKHIL A. FATALE   AMOL R. JAMBHALE

SHUBHAM R. INGOLE   SUFIYAN A.F. KHAN

In partial fulfillment for the degree of
Bachelor of Engineering
(Civil Engineering)
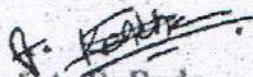
Awarded by

Santa Gadge Baba Amravati University, Amravati, (M. S)
During academic year 2018-2019 under my guidance

Guided by

Prof. M. R. Chudare
Assistant Professor
Department of Civil Engineering

Prof. A. R. Rode
Head of Civil Engg. Dept.
Jagadambha college of Engineering
& Technology, Yavatmal

Dr. H. M. Baradkar
Principal
Jagadambha college of Engineering
& Technology, Yavatmal

ESTD 2009

Dr. Hemant M. Baradkar
Principal
Jagadambha college of Engineering &
Technology, Agri Road, Kinot Yavatmal

ABSTRACT

As the growth of population is increasing day by day, space for residential purpose has become a series issue. So, to achieve economy in space, high rise building began to enhance. As these structures are extended vertically and they are going to withstand the lateral loads in an enormous intensity. Seismic loads are occasional forces on structure that may occur during their life time. Buildings should be able to withstand in minor earthquakes without any structural damage and collapse. Therefore, it is important to know the behaviour of building. Also, it should be economical to construct. This project report provides an investigation over a G+2 RCC building based on same orientation of column, beam, height and shape member. The structural systems used in this project report are "beam-column system". Other consideration is made according to Indian standard. IS 456-2000 is used to design the RCC multi-storey building. So, to achieve economy in structure along with percentage of steel consumed. At the completion of the project conclusion has been arrived regarding to the effect of seismic load application.

Dr. Hemant M. Baradkar
Principal
Jagadambha College of Engineering &
Technology, Arni Road, Kinhi, Yavatmal

33

CERTIFICATE .

This is to certify that the Project Entitled

"EXPERIMENTAL INVESTIGATION ON COMPARISON BETWEEN PLASTIC PAVER BLOCK AND CEMENT PAVER BLOCK"

Has been successfully completed by

Mr. NITIN D. ARSOD

Mr. NITIN S. RATHOD	**Mr. PRATIK V. KANNAO**
Mr. PALASH L. BOTARE	**Mr. SUNIL R. JADHAV**
Mr. KARTIK V. NEHARE	**Miss. DEEPA M. PATIL**
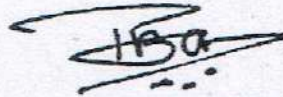
In partial fulfillment for the degree of
Bachelor of Engineering
(Civil Engineering)

Awarded by
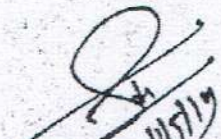
Sant Gadge Baba Amravati University, Amravati, (M. S)
During academic year 2018-2019 under my guidance

Guided by

Prof. P. V. BAN
Assistant Professor (Civil Department)
Jagadambha College of Engineering and Technology,
Yavatmal

Prof. A. R. Rode
Head of Civil Department
Jagadambha college of Engineering
& Technology, Yavatmal

Dr. H. M. Baradkar
Principal
Jagadambha college of Engineering
& Technology, Yavatmal

ABSTRACT

The huge quantity of paver block is consumed by construction industry all over the world. In India, the conventional concrete paver block is produced by using natural aggregate (i.e. fine aggregate and coarse aggregate) but now as the use of paver block has increased all over the world simultaneously use of natural aggregate also increased and as the consumption of aggregate has increase the required good quality of aggregate is not available also poses the environmental problems.

Thus to overcome the demand of material such as aggregate and cement, it is necessary to find alternatives of these materials. On the other hand plastic waste (polythene) generation is also an emerging issue plastic waste is the serious problem to the environment. Generation of Plastic waste is a very serious issue in the world.

Currently about 8 lakh tones of plastic waste dumped in India in a year. The dumped waste pollutes the surrounding environment. As the result it affects both human beings and animals in direct and indirect ways. For solving the disposal of large amount of plastic material, Partial use of plastic in paver block industry is considered as the most feasible application.

In this project, we are utilized PVC plastic waste which is waste of PVC pipe industry. The research work is determination of the effect of use PVC plastic waste powder as replacement of cement in percentage 0, 10, 20, and 30. Cube specimens of 36 numbers were cast cured and tested cube for 7, 14, and 28 days compression strength. We are designed paver block for medium traffic and use grade M-40 as per is code 15658:2006. Plastic is harmful material for human beings, animals, nature etc.it reduce the quantity of cement to be used in concrete. Also PVC powder is provided to be economical and considered as environmental friendly material. In this work it is found experimentally that Plastic paver block gives better strength as compare to conventional paver block.

Dr.Hemant M. Baradkar
Principal
Jagadambha College of Engineering &
Technology,Arni Road,Kinhi,Yavatmal

35

10. Study different Heat Treatment Process for steel.
11. Study of different surface Hardening processes for steels.
12. Study of effect of alloying elements on the properties of steels.
13. Measurement of hardenability by Jominy end quench test apparatus.
14. Study of hardness tester and conversion of Hardness number
15. Industrial visit to study heat treatment plant.
16. Measurement of particle size, grain size, nodularity, coating thickness etc. by using some software like Metzer Microcam 4.0

Practical Examination:

Note : Practical examination shall consist of viva voce/performance based on the above syllabus and practical work.

****

4ME02   ENERGY CONVERSION - I

Course Learning Objectives:
1. To study the properties of steam and its behavior for different thermodynamic process.
2. To study different types of boilers, their mountings, accessories, performance of boilers and different efficiencies.
3. To study the various fuel handling and ash handling system in power plant.
4. To study various types of condensers and cooling towers.
5. To study various thermodynamic aspects of flow of steam through nozzle and diffuser.
6. To study flow of steam through steam turbine and concept of compounding.

Course Outcomes:
1. Students will study the concept steam and steam power plant, mounting and accessories.
2. Students will demonstrate the calculation of various efficiency & related parameters.
3. Student will show the adequate knowledge of fuel & ash handling systems.
4. Students will demonstrate the knowledge of condenser & application.
5. Students will understand the concepts of steam nozzles & steam turbine.

SECTION – A

Unit I : Flow diagram for steam power plant with basic units such as steam generator, turbine, condenser and pump. Steam power plant layout, site selection. Boilers: Introduction to water tube and fire tube boilers used in thermal power plants, packaged Boilers, High pressure boilers; Loeffler, Benson, Lamont Boilers, Boiler mountings and accessories—devices for improving Boiler efficiency. Principle of fluidized bed combustion. Concept of co-generation.   (7 Hrs.)

Unit II : Boiler draught; Types of draught, expression for diameter & height of chimney, condition for maximum discharge, efficiency of chimney, reasons for draught loss. Boiler performance:- Boiler rating, boiler power, equivalent evaporation, efficiency. Effect of accessories on boiler efficiency and heat balance.   (7 Hrs)

Unit III : CONDENSERS : Need, Types of condensers, quantity of cooling water required. Dalton's law of partial pressure, condenser and vacuum efficiency. Sources of air in condensers and its effect on performance. cooling towers: Natural and mechanical wet type cooling tower.

Steam nozzles : Flow of steam through nozzles & diffusers, Maximum discharge, critical pressure ratio, chocking in nozzles, Effect of friction. Determination of throat & exit areas, Nozzle efficiency, no numerical on concept of super saturated flow & Wilson line.   (7 Hrs.)

SECTION – B

UNIT IV : Steam Turbines:- Principle of working, Types of steam turbines such as impulse, reaction, axial & radial flow, back pressure & condensing turbines. Compounding. Reheat, regenerative cycles, bleeding. Analysis limited to two stages only. Analysis of steam Turbines : Flow of steam through impulse & impulse reaction turbine blades, Velocity diagrams. Graphical & analytical methods for work & power developed, axial thrust and efficiency. Height of turbine blades. losses in steam turbines:- blade friction, partial admission, disc friction, gland leakage losses and velocity losses. Governing of steam turbines.   (7Hrs)

UNIT V : NUCLEAR POWER:- Fusion, fission, Chain reaction, conversion and breeding in nuclear fission. Components of Nuclear Power Plant such as Reactor, Steam generator, turbine, Moderator, Control Rods etc., Types of nuclear reactors like BWR, PWR, CANDU and liquidized metal cooled thermal reactors.   (7 Hrs.)

UNIT VI : Introduction to renewable energy, Wind Energy, solar, fuel cell, bio-gas, MHD, Geothermal, OTEC, tidal power plants, Applications of Non conventional energy.   (7 Hours)

Principal
Jagadambha College of Engineering & Technology, Yavatmal

36

CERTIFICATE OF APPROVAL

Certified that the project report entitled "Design and Fabrication of Human Follower Trolley" has been successfully completed by MR. VAIBHAV B. MUNESHWAR, MR. VIPLAV V. BORKAR, MR. YASH C. PATIL, MR. PALASH V. NAWDE, MR. GAURAV B. PACHADE, MR. MD SHOAIB QURESHI under the guidance of PROF. PANKAJ H. MESHRAM in recognition to the partial fulfillment for the award of the degree of Bachelor of Engineering in Mechanical Engineering, "Jagadambha College of Engineering And Technology Yavatmal– 445001. (An institution affiliated to Sant Gadge Baba Amravati University, Amravati)

Prof. P. H. Meshram
(Guide)

Dr. V. L. Bhambere
(HOD, Mech.Engg.Dept.)

Dr. H. M. Baradkar
(Principal)

Dr.Hemant M. Baradkar
Principal
Jagadambha College of Engineering &
Technology, Amti Road Kinhi, Yavatmal

Signature of External Examiner:

Name: N. E. PISE

Date of Examination: 30/5/18

37

ABSTRACT

In today's world, automation is being the key feature of the Modern Production System. There are heavy loads which needs human effort to move such load at desired location. An automatic trolley human follower is developed to help a user or production industry to reduce the utilization of human energy in order to carry heavy things. This project ensures that it will be efficient for low and medium volume industry. This automatic trolley human follower is controlled by an Arduino UNO microcontroller that can follow the user automatically with integrated circuit of ultrasonic sensor and motor drivers. In this project a robotic vehicle is fabricated which runs like a regular trolley by carrying tools from one place to another. This is done by placing HC-SR04 ultrasonic sensor at the front side of the trolley hence 40 kHz of ultrasonic sound waves which are inaudible to human ear, are emitted to a predefined range and whoever person will be at the front of the trolley will be act as a striking medium from which these sound will bounce back to the sensor. So, the elapsed time between the transmitted and the received wave will be calculated by the sensor hence giving you the approximate distance of the person. In this manner the program in the microcontroller will execute by knowing the distance and then follow the person by giving signals to the motor driver which intern drive the motors.

Keywords: Automation, Fabrication, Human follower robot, Electronic Trolley, DC Motor, Ultrasonic Sensors, Motor drivers, Arduino, etc.

Dr.Hemant R. Karadkar
Principal
Jagadambha College of Engineering &
Technology,Arni Road,Jinhi.Yavatmal

38

A
Report on

Field Project

"A Case Study on Reducing Coal Consumption of Cogeneration Power Plant."

JAGADAMBHA
COLLEGE OF ENGINEERING & TECHNOLOGY , YAVATMAL

Arni Road, Yavatmal - 445001 (M.S.)

Ph. 07232-244226, Fax : 07232-244226, Cell : 98 5005 3333

E-mail : principal.jcoet@gmail.com, principal@jcoet.org

Website : www.jcoet.org

Dr. Hemant M. Baradkar
Principal
Jagadambha College of Engineering &
Technology, Arni Road, Kinhi, Yavatmal

ESTD
2009

39

"A Case Study on Reducing Coal Consumption of Cogeneration Power Plant."
By
Mechanical Engineering Department

1.Title of Activity	"A Case Study on Reducing Coal Consumption of Cogeneration Power Plant."
2. Duration of Activity	30 Days
3. Objective	To provide practical knowledge of power plant
4. Venue	RAYMOND UCO DENIM PVT. LTD. YAVATMAL PLANT
5. No. of Beneficiary	6 Students work on this project • Shahbaz .M. Sheik • Amit .S. Malvi • Mayur .R. Bonkile • Shoaib .A. Khan Pathan • Dhananjaygiri • Aparna .R. Ambatkar
6.Guided By	Dr. V. L. Bhambere

INTRODUCTION

Project batch had performed the case study in Raymond UCO Denim Pvt. Ltd as their final year project. In Raymond they carried out case study in the 6 MW cogeneration power plant of this industry under the guidance of Mr. D. K. Sharma, who is the head of this power plant. First Project batch had understood the working of the complete power plant. After understanding the system of power plant they found that there was some scope of improvement in the system. So they performed the detailed case study on to reduce the coal consumption of cogeneration power plant by recovering some amount of heat of steam which is actually wasted in current cogeneration power plant system. This loss of heat takes as steam is condensed in condenser. This heat can be recovered by circulating DM water as cooling water in condenser thus extracting the heat of steam and then using this DM water as feed water of boiler. Due to this the amount of coal required for heating the boiler water to a desired temperature is reduced. Project batch had calculated the annual savings of coal which they will obtain if they use DM water as cooling water in the condenser. Also in current system the pressure reducing and desuper heating system is used for reducing pressure and temperature of steam. The same objective can be obtained if they replace this system by a turbine and in addition to this they also

"A Case Study on Reducing Coal Consumption of Cogeneration Power Plant."
By
Mechanical Engineering Department

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2. Duration of Activity	30 Days
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4. Venue	RAYMOND UCO DENIM PVT. LTD. YAVATMAL PLANT
5. No. of Beneficiary	6 Students work on this project • Shahbaz .M. Sheik • Amit .S. Malvi • Mayur .R. Bonkile • Shoaib .A. Khan Pathan • Dhananjaygiri • Aparna .R. Ambatkar
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INTRODUCTION

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Dr.Hemant M. Baradka
Principal
Jagadambha College of Engineering &
Technology, Ami Road, Kinhi, Yavatmal

41

get power as steam was expanded in turbine. Project batch had calculated the power produced by the turbine for given inlet and outlet conditions. Finally the batch found that they can annually save Rs. 7 lakhs. Then Project batch had submitted their study to Mr. D. K. Sharma sir and it is in consideration for implementation in future.

SNAPSHOTS

Image 1: Boilor

Image 2: Condensor

CERTIFICATE OF RAYMOND UCO DENIM PVT.LTD

raymond UCO
Denim Private Limited

India.Romania.Belgium

Raymond UCO Denim Pvt. Ltd.
Plant: Plot C-1, MIDC, Lohara, Yavatmal - 445 001.
Maharashtra, India
Tel: (91-7232) 304500 / 304545
Fax: (91-7232) 249237
www.raymond.in

DATE – 05/03/2018

CERTIFICATE

The students of Jagadambha College of Engineering and Technology have done the case study in Captive Power Plant as their final year project and submitted the report for DM water heating in condenser along with cooling water as per requirement of the system. We appreciate their effort for new concept which is under consideration for practical implementation possibilities along with OEM of TG System.

Above said study was done by given below students

1) Mr.Shahbaz .M. Sheikh

2) Mr. Amit .S. M

3) Mr. Mayur .R. Bonkile

4) Mr. Shoaib .A. Khan Pathan

5) Mr.Dhananjay giri

6) Miss. Aparna .R. Ambatkar

For Raymond UCO Denim Pvt. Ltd.

For **Raymond** UCO
Denim Pvt.Ltd.

D.K.Sharma
D.G.M. Power Plant

REGISTERED OFFICE
New Hind House, Narottam Morarjee Marg.
Ballard Estate, Mumbai 400 001.
Tel: +91 22 6604 6000
Fax: +91 22 2262 0052
[CIN NO.U17115MH2006PTC162450]

Dr. Hemant M. Baradkar
Principal
Jagadambha College of Engineering &
Technology, Arni Road,Kinhi,Yavatmal.

ESTD
2009

Jagadambha Bahuuddeshiya Gramin Vikas Sanstha's

JAGADAMBHA
COLLEGE OF ENGINEERING & TECHNOLOGY, YAVATMAL
Reg. No. F - 7596 (Ytl.)

JCOET / 17-18 / 633

Date: 18/12/2017

To,
The HR,
Raymond Uco Denim Pvt Ltd ,
Plot No-C1, MIDC Lohara,
Yavatmal, Maharashtra 445001,

Subject: Request Letter to do Case Study in your esteemed organization.

Respected Sir,

The Students of Final year Mechanical Engineering of Jagadambha College of Engineering & Technology, Yavatmal are interested to undertake case study at your prestigious organization. They would like to perform the case study on "Reducing Coal Consumption of cogeneration power plant". This will help them to pursue and learn the practical aspects of theory learnt in the classroom.

Following is the list of interested candidates.

1. Shahbaz M. Shaikh
2. Shoiab A. Khan Pathan
3. Mayur S. Bonkile
4. Dhananjay Giri
5. Aparna R. Ambatkar

For the same, we humbly request you to permit them to undergo for the case study.

Thanking you!

OK

Dr. Hemant M. Baradkar
Principal
Jagadambha College of Engineering &
Technology, Arni Road, Kinni, Yavatmal.

18.12.17

Dr. Hemant M. Baradkar
Principal
Jagadambha College of Engineering & Technology,
Yavatmal

21.12.2017

ARNI ROAD, YAVATMAL - 445 001 (M.S.) INDIA
Tel : (07232) 244226, Fax : (07232) 244226 Mob. 9096548670

44

A
Report on

Field Project

"Analysis & Design of Water Distribution Scheme of Village Kinhi, Tq.Yavatmal, Dist Yavatmal"

JAGADAMBHA
COLLEGE OF ENGINEERING & TECHNOLOGY , YAVATMAL

Arni Road, Yavatmal - 445001 (M.S.)

Ph. 07232-244226, Fax : 07232-244226, Cell : 98 5005 3333

E-mail : principal.jcoet@gmail.com, principal@jcoet.org

Website : www.jcoet.org

ESTD
2009

Dr.Hemant M. Baraukar
Principal
Jagadambha College of Engineering &
Technology,Arni Road,Kinhi,Yavatmal

45

"Analysis & Design of Water Distribution Scheme of Village Kinhi, Tq.Yavatmal, Dist Yavatmal"
By
Civil Engineering Department

1.Title of Activity	"Analysis & Design of Water Distribution Scheme Of Village Kinhi, Tq.Yavatmal, Dist Yavatmal"
2. Date of Activity	28/03/2018
3. Objective	The basic objective of the project is to design water distribution system for Kinhi village in Yavatmal district of Maharashtra.
4. No. of Beneficiary	66 Students work on this project
5.Guided By	Prof. P. S. Kumbhare Prof. V.R. Baankar Prof. M. G. Mandaokar Prof.V.J.Rathod
6. Venue	Kinhi Tq.Yavatmal

INTRODUCTION

A minor project held on analysis and design of water distribution scheme of village Kinhi, Tq.Yavtamal,Dist. Yavatmal.The village is located in Yavatmal Tahasil of Yavatmal district in Maharashtra state, India. It is situated about 7kms away from district headquarter,Yavatmal.

To make availability of potable water to the villagers and to fulfill requirement of water demand to individuals with considering increased population calls for increase in water demand,we have design water distribution system.

The present system of supply adopted in Kinhi, Gram Panchayat is an intermittent supply and network adopted is a dead end system. This system of supply of water in Kinhi, Gram Panchayat may not be reliable to supply required quantity of water in the upcoming years. As the present water distribution system do not fulfill the requirement of the area. Hence the research is carried out for future requirement of water and detailed analysis of new network and concluded about reliability on the distribution network for the future. The analysis is carried out based on various

public demands, quantities of inflows and out flow of the overhead reservoir. This analysis provides the information about various demands, and uses of the public.

This project work consists of profile leveling which is part of surveying work, various calculations for water demand, determination of capacity of water demand, pumping installations, design of water distribution system & design of water tank for future life span.

Need of study:-

The present water supply system in Kinhi village is now a day insufficient to of satisfy the water demands of present population because of increased population with passing of years and the increased population calls for increase in water demand. Thus to fulfill the increased demand of population, we need to redesign the present system.

The basic aim of the project is to design water distribution system for Kinhi village in Yavatmal district of Maharashtra.

The objectives are as follows.

1. Identification of water resources for the system.

2. To conduct field survey for inputs in design.

3. Design of water distribution network system.

4. Operational design for working of system.

Conclusion:-

The main focused of this project is to design and analyses the water distribution network so at the end of analysis it is observed that the entire network has uniform flow.

Dr.Hemant M. Baradka.
Principal
Jagadambha College of Engineering &
Technology,Arni Road,Kinhi,Yavatmal

47

SNAPSHOTS

Image 1: Students understanding the surveying work on site

Image 2: Discussing map of Villege Kinhi & surveying work

Image 3: Surveying work

Image 4: Taking a reading on Bench Mark

Image 5: Surveying work

P.S. Kumbhare

Dr. Hemant M. Baradkar	Dr. Shital A. Watile
M.Tech. (Electronics), Ph.D. (E & TC. Engg.)	M.Sc., Ph.D.
Principal	**Secretary**

Ref. No. JCET/17-18/1118

Date: - 23/03/2018

To,

The Hon'ble Sarpanch,

Village Kinhi.

Yavatmal.

Subject:-To give Permission for conducting Minor Project at Kinhi.

Respected Sir,

As per the above subject, we have planned a **Minor Project** on Design of Water Distribution scheme at village Kinhi, Tq.Yavatmal, Dist Yavatmal for 3rd year (CL-II) students of Civil Engineering Department, Hon'ble Sarpanch of village Kinhi gave us permission to conduct the Project on date **28/03/2018 (Wed)**. Total **66** students from 3rd year (CL-II) will do the project on 28/03/2018 along with **two faculties**.

So, we are requesting you to please accept this application and give us permission for the same.

Thanking you!

Prof.A.R.Rode

HOD

Civil Engg.

Dr.H.M.Baradkar

Principal

Dr.Hemant M. Baradkar

Principal

Jagadambha College of Engineering &

Technology Arni Road, Kinhi,Yavatm

List of Students

ROLL NO	STUDENT NAME	ROLL NO	STUDENT NAME
1	Palash Laxman Botare	34	Vikram Shamrao Chavhan
2	Amol Ramkrishna Jambhale	35	Akash Ramdhan Jadhav
3	Ku. Rajashree Ramkrishna Lute	36	Sopan Sheshrao Adhao
4	Nitin Santosh Rathod	37	Sunil Rajiv Jadhav
5	Ku. Vaishnavi Gajanan Raut	38	Jagdish Datta Kalapad
6	Ku. Vaishnavi D. Sulbhewar	39	Nitin Dadarao Arsod
7	Vishal S Swami	40	Saurabh Santosh Kurhewar
8	Shivaji Vilas Chavhan	41	Shubham Raju Ingole
9	Shah Parvez Yakub Shah	42	Shubham Gajanan Keshattiwar
10	Pranay Ramesh Warghat	43	Ku. Ravina Govind Kadekar
11	Girish V Mahalle	44	Sayyad Adnanali Sadique
12	Sairam V Agrawal	45	Shubham Madan Menewar
13	Akashay Santosh Kadam	46	Shyam Subhash Chaudhari
14	Mohan Vasantrao Nemane	47	Prashant Rajkumar Nandagawali
15	Priyanka Prakash Dande	48	Vitthal P. Pawar
16	Ku. Samidha Dnyaneshwar Thakare	49	Prashik Suresh Thul
17	Vikrant M. Chaudhari	50	Ashwin Vishwas Rathod
18	Ku. Pujal Tukaram Ade	51	Akash R. Bidkar
19	Mayur Subhash Rathod	52	Ku. Kalyani Pandurang Sutare
20	Kunal Harinarayan Yadav	53	Rushabh Sanjay Dhole
21	Anurag Sushil Ambadkar	54	Akshay Vijay . Khadse
22	Pratik Vilas Kannao	55	Dhananjay Pramod Thakare
23	Abhijeet Vishwanath Rajurkar	56	Akshay Gajanan Hingankar
24	Lavkush Shankar Jadhao	57	Kshitij Uttam Fursule
25	Vipul D. Rathod	58	Atul Wamanrao Rathod
26	Sumit Rajendra Thakare	59	Suraj D. Kathwate
27	Ketak Vinayak Bakhade	60	Tushar Shyamrao Raut
28	Kartik Vitthal Nehare	61	Saurabh K. Selokar
29	Ku. Radhika Prashant Holey	62	Dhiraj P. Wankhade
30	Ku. Swati Ashish Labhsetwar	63	Ku. Vishakha S. Gulhane
31	Prashil U. Suddhawar	64	Mohd. Saddam Shah
32	Akshay H. Shirbhate	65	Pankaj Mohan Jadhao
33	Tausif Gulsher Khan	66	Ku. Usama Sahir

P.S. Kumbhare

Corrected

Dr. Hemant M. Baradkar
Principal
Jagadambha College of Engineering &
Technology, Arni Road, Kinhi, Yavatmal.

51

List of Students

ROLL NO	STUDENT NAME	ROLL NO	STUDENT NAME
1	Palash Laxman Botare	34	Vikram Shamrao Chavhan
2	Amol Ramkrishna Jambhale	35	Akash Ramdhan Jadhav
3	Ku. Rajashree Ramkrishna Lute	36	Sopan Sheshrao Adhao
4	Nitin Santosh Rathod	37	Sunil Rajiv Jadhav
5	Ku. Vaishnavi Gajanan Raut	38	Jagdish Datta Kalapad
6	Ku. Vaishnavi D. Sulbhewar	39	Nitin Dadarao Arsod
7	Vishal S Swami	40	Saurabh Santosh Kurhewar
8	Shivaji Vilas Chavhan	41	Shubham Raju Ingole
9	Shah Parvez Yakub Shah	42	Shubham Gajanan Keshattiwar
10	Pranay Ramesh Warghat	43	Ku. Ravina Govind Kadekar
11	Girish V Mahalle	44	Sayyad Adnanali Sadique
12	Sairam V Agrawal	45	Shubham Madan Menewar
13	Akashay Santosh Kadam	46	Shyam Subhash Chaudhari
14	Mohan Vasantrao Nemane	47	Prashant Rajkumar Nandagawali
15	Priyanka Prakash Dande	48	Vitthal P. Pawar
16	Ku. Samidha Dnyaneshwar Thakare	49	Prashik Suresh Thul
17	Vikrant M. Chaudhari	50	Ashwin Vishwas Rathod
18	Ku. Pujal Tukaram Ade	51	Akash R. Bidkar
19	Mayur Subhash Rathod	52	Ku. Kalyani Pandurang Sutare
20	Kunal Harinarayan Yadav	53	Rushabh Sanjay Dhole
21	Anurag Sushil Ambadkar	54	Akshay Vijay . Khadse
22	Pratik Vilas Kannao	55	Dhananjay Pramod Thakare
23	Abhijeet Vishwanath Rajurkar	56	Akshay Gajanan Hingankar
24	Lavkush Shankar Jadhao	57	Kshitij Uttam Fursule
25	Vipul D. Rathod	58	Atul Wamanrao Rathod
26	Sumit Rajendra Thakare	59	Suraj D. Kathwate
27	Ketak Vinayak Bakhade	60	Tushar Shyamrao Raut
28	Kartik Vitthal Nehare	61	Saurabh K. Selokar
29	Ku. Radhika Prashant Holey	62	Dhiraj P. Wankhade
30	Ku. Swati Ashish Labhsetwar	63	Ku. Vishakha S. Gulhane
31	Prashil U. Suddhawar	64	Mohd. Saddam Shah
32	Akshay H. Shirbhate	65	Pankaj Mohan Jadhao
33	Tausif Gulsher Khan	66	Ku. Usama Sahir

52

MDB Electrosoft

Date :- 30/12/2018

Ref. No. :- MDBES/301218/19

This is to certify that

Ms. _Sayli Prashantrao Bhalme_

has done her Full Time internship of 18th Days (13th Dec 2018 - 30th Dec 2018) at MDB Electrosoft.

During Internship she has gone through
1. Basics of Electronics
2. PCB Designing
3. Embedded System Design using Arduino
4. Embedded System Design using Raspberry Pi
5. IoT (Internet of Things)

During the Internship she demonstrated good development skills with a self motivated attitude to learn new things. Her performance exceeded expectations and was able to complete the projects successfully on time.

We wish her all the best for her future endeavours.

Reg No.
27-007-21-
00050

M.D.Bharati
Director
MDB Electrosoft

Dr.Hemant M. Baradkar
Principal
Jagadambha College of Engineering &
Amti Road,Kinhi,Yevatmal

ESTD
2009

53

MDB Electrosoft
REG. NO. 27-007-21-00050

ISO 9001 : 2015 CERTIFIED
DB ROSOFT
We make You Confident Technically

Date :- 30/12/2018

Ref. No. :- MDBES/301218/11

This is to certify that

Ms. *Prachi Ramesh Bhongade*

has done her Full Time internship of 18th Days (13th Dec 2018 - 30th Dec 2018)
at MDB Electrosoft.

During Internship she has gone through
1. Basics of Electronics
2. PCB Designing
3. Embedded System Design using Arduino
4. Embedded System Design using Raspberry Pi
5. IoT (Internet of Things)

During the Internship she demonstrated good development skills with a self motivated attitude to learn new things. Her performance exceeded expectations and was able to complete the projects successfully on time.

We wish her all the best for her future endeavours.

MDB ELECTROSOFT
Reg No
27-007-21-
00050
INDIA

MBharat
30/12/18

M.D.Bharati
Director
MDB Electrosoft

ESTD
2009

Dr. Hemant M. Baradkar
Principal
Jagadambha College of Engineering &
Technology, Arni Road, Kinhi, Yavatmal

www.mdbelectrosoft.in
mdbelectrosoft@gmail.com

Add :- Rajapeth - Ambadevi Road,
near Oswal Bhavan, Amravati
444601 MH-INDIA

Cont. :- 9604922180,9552811938

54

Vinit Transformers

Repairer of Distribution Transformers & CT/PT units

W-2, MIDC, Lohara, Yavatmal – 445001

Date: 19-12-2018

TO WHOM IT MAY CONCERN

    This is to certify that Mr. Nilesh Chandrakant Bodhale under (Department of Electrical Engineering) has successfully completed 15 days (From 03-12-2018 to 19-12-2018) long internship program at this Branch/Company. During the period of him internship program with us, they were found punctual, hardworking and inquisitive.

We wish him every success in life.

For, M/S Vinit Transformer, MIDC, Lohara , Yavatmal.

Dr.Hemant M. Baradka
Principal
Jagadambha College of Engineering &
Technology,Arni Road,Kinhi,Yavatmal

55

Balaji
Construction
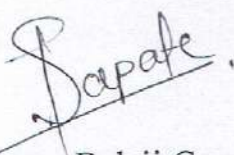
Consulting Civil Engineer
& Approved Valuer
- Plan - Estimate - Valuation
- 3D Elevation - R.C.C.Design

Office: Bharti Complex, in front Of Gramin Police Station Darwha Road, Yavatmal
Email- sapate_san@rediffmail.com

TO WHOM IT MAY CONCERN

This is certify that, Mr./Miss **Snehal M. Kherde** students of

JAGADAMBHA COLLEGE OF ENGINEERING AND TECHNOLOGY,

YAVATMAL had successfully completed the industrial training at Balaji

construction Yavatmal from 01/12/2018 to 30 /12/2018.

From, Balaji Construction

Dr.Hemant M. Baradkar
Principal
Jagadambha College of Engineering &
Technology, Arni Road, Kinhi, Yavatmal

56

Certificate
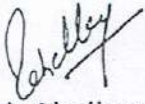
Dt 30.6.2018

This is to certify that MR/Ms **Swapnil Digambar Kale** has completed a 4 week internship on PLC , SCADA , ABB Robot .

During this period we have found him / her to be sincere and very hardworking and result oriented student.

We wish him Best Wishes for his future.

For Automation & Control Systems

Saurabh Ahelleya
Project Manager

Dr. Hemant M. Baradkar
Principal
Jagadambha College of Engineering &
Technology, Arni Road, Kinhi, Yavatmal

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Dr. Hemant M. Baradkar
Principal
Jagadambha College of Engineering &
Technology, Arni Road, Kinhi, Yavatmal

57

JAGADAMBHA

COLLEGE OF ENGINEERING & TECHNOLOGY , YAVATMAL

Approved by A.I.C.T.E. & Government of Maharashtra, Affiliated to S.G.B. Amravati University, Amravati.

COLLEGE CODE EN- 1127

Dr. Hemant M. Baradkar	Dr. Shital A. Watile
M.Tech. (Electronics), Ph.D. (E & TC. Engg.)	M.Sc., Ph.D.
Principal	**Secretary**

JCET/17-18/1272

Date: 25/05/2018

To,
The HR Manager,
Mahindra and Mahindra Ltd.
Nagpur

Subject: Request Letter for Industrial Training.

Respected Sir/Mam,

The Students of **Second Year Mechanical Engineering** of Jagadambha College of Engineering & Technology, Yavatmal are interested to undertake Vocational Education and Training at your prestigious organization from **10th June to 10th July 2018**. This training will help them to pursue and learn the practical aspects of theory learnt in the classroom.

Following is the list of interested candidate.

1. **Piyush Dawale**
2. **Dhiraj Sonkusre**
3. **Vaibhav Mainde**
4. **Ram Eklare**
5. **Siddhant Gajbhiye**

Hence, we humbly request you to permit them to undergo the Industrial Training.

Thanking you!

Dr. Hemant M. Baradkar
Principal
Jagadambha College of Engineering &
Technology, Arni Road,Kinhi,Yavatmal.

Dr. V. G. Hare.
25/05/18

Principal
Jagadambha College of Engineering & Technology.
Yavatmal

MAHATRANSCO
Maharashtra State Electricity Transmission Co. Ltd.

MAHARASHTRA STATE ELECTRICITY TRANSMISSION CO. LTD.

PRAKASHGANGA, PLOT NO. C-19, E-BLOCK, BANDRA KURLA COMPLEX,
BANDRA (EAST), MUMBAI - 400
RECOGNIZED BY CENTRAL ELECTRICITY AUTHORITY (CEA)

Certificate

This Certificate is awarded

To

Ku./Mrs./Shri   Vaishnavi D. Shende

On successfully completion of

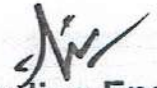## "INDUSTRIAL TRAINING COURSE"

w.e.f. 04/06/2018 to 22/06/2018

at

"DNYANDEEP REGIONAL TRAINING CENTRE"
CHANDRAPUR

Under EHV PC (O&M) Zone, Nagpur.

Dr. Hemant M. Baradkar
Principal
Jagadambha College of Engineering &
Technology, Arni Road, Kinhi, Yavatmal.

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2009

Superintending Engineer &
Training Incharge
HVDC RS O&M CIRCLE
CHANDRAPUR

Date : 22 · June · 2018

MAHATMA GANDHI INSTITUTE FOR RURAL INDUSTRIALISATION
(A National Institute under Ministry of MSME, Govt. of India)

महात्मा गांधी ग्रामीण औद्योगीकरण संस्थान
(सूक्ष्म, लघु और मध्यम उद्यम मंत्रालय, भारत सरकार के अंतर्गत राष्ट्रीय संस्थान)
मगनवाडी, वर्धा. ४४२००१, महाराष्ट्र

MGIRI/REI/TC/76/2018-19

प्रमाण-पत्र
CERTIFICATE

कु. अंकिता कि. देविकर ने महात्मा गांधी ग्रामीण औद्योगीकरण संस्थान, वर्धा ·के ग्रामीण ऊर्जा एवं अवसंरचना विभाग मे दिनाँक 11 जून से 25 जून 2018 तक " सौर चलित एल. ई. डी लाईट उत्पादक" का उद्यमिता प्रशिक्षण सफलतापूर्वक प्राप्त किया ।

Ms. Ankita K. Devikar has successfully completed entrepreneurial training programme during the period from 11th June to 25th June 2018 on " **Solar Based LED Light Manufacturing System**" organized by Rural Energy and Infrastructure Division, Mahatma Gandhi Institute for Rural Industrialization, Wardha.

वरिष्ठ वैज्ञानिक अधिकारी
ऊर्जा एवं अवसंरचना विभाग,एमगिरि, वर्धा
SENIOR SCIENTIFIC OFFICER (REI)
MGIRI, Wardha

उप निदेशक
ऊर्जा एवं अवसंरचना विभाग,एमगिरि, वर्धा
DY. DIRECTOR (REI)
MGIRI, Wardha
Deputy Director
Energy and Infrastucutre
Mahatma Gandhi Institute for
Rural industrialisation
Magabwadi, WARDHA-142 001

Dr. Hemant M. Baradkar
Principal
Jagadambha College of Engineering &
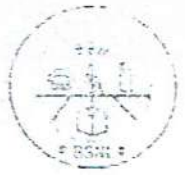Technology, Arni Road.Kinhi, Yavatmal

ESTD 2009

60

BSNL
Connecting India

(A Govt. Of India Enterprise)

REGIONAL TELECOM TRAINING CENTRE, NAGPUR

Opp. TV Tower, Seminary Hills, Nagpur - 440006
Website: www.rttcnagpur.bsnl.co.in   Email : rttcnagpur@bsnl.co.in

CERTIFICATE

Internship In Telecommunication

This is to certify that SHUBHAM SAHEBRAOJI JAYAPURKAR has successfully Completed INTERNSHIP IN TELECOMMUNICATION w. e. f. 11/06/2018 to 22/06/2018 at Regional Telecom Training Centre, Nagpur.

RTTC Nagpur wishes him/her a bright future.

Certificate No. RNGMGNB681-2018-2078040

Course Code : RNGMGNB681   Course Schedule Code : RNGMGNB681-2018-2078

Date: 22/06/2018

Divisional Engineer(Admn.)
RTTC Nagpur

Dr. Hemant M. Baradkar
Principal
Jagadambha College of Engineering &
Technology, Arni Road, Kinhi, Yavatmal.

Dr. Hemant M. Baradkar
Principal
Jagadambha College of Engineering &
Technology, Arni Road, Kinhi, Yavatmal

61

Indira Paryavaran Bhawan,
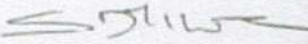Jor Bagh Road, Aliganj
New Delhi-110 003

Dated 10th July, 2018

OFFICE MEMORANDUM

Subject: Summer Internship Scheme for 2018-19 nomination of candidates.

The undersigned is directed to refer to letter no.A-33015/1/2018-P.I dated 6.07.2018 on the above subject and to say that the following candidates have been selected for internship programme by IA Division and attached to the officers as mentioned below-

S.no.	Name of Candidates	Name of Officers/ Sectors	Contact no. of Candidates
1.	Sh. Kamlesh S. Padhen	Dr. S.K. Kerketta, Director, (Hydro)	7972767593
2.	Sh. Rasheed Ullah Khan	Sh. Kushal Vashist, Director (Infra- II)	8605612454
3.	Sh. Sandeep Yadav	Dr. S.K. Kerketta, Director (Thermal)	9806746751
4.	Ms. Shivani Verma	Sh. S.K. Pallerla, Director (Industry I)	9599250312
5.	Ms. Simran	Sh. R.K. Kodali, Director (Infra -I)	9560409388
6.	Sh. Vaibhavkumar P. Jaiswal	Dr. R.B. Lal , AD (Non- Coal)	9503208851
7.	Sh. Ashutosh Dwivedi	Sh. Amit Vashisth, Scientist- D (Non-Coal)	9009731269
8.	Ms. Nikita Yadav	Sh. S K Srivastav, AD, (Industry II)	8448048087
9.	Sh. Alok Meena	Sh. Satyendra Kumar, DS, (CP)	7023775199

All the Above 9 candidates have joined in IA Division on 10.07.2018 (FN) for the Internship Programme.

(S.D. Tiwari)
Under Secretary (IA)

To

Shri S R Amin
Under Secretary (P-I)

Copy to :-
1.Officers concerned.
2. All the Above Candidates.

Dr. Hemant M. Baradkar
Principal
Jagadambha College of Engineering &
Technology, Arni Road, Kinhi, Yavatmal.

ESTD 2009

62