## ORIENTAL COLLEGE OF TECHNOLOGY, BHOPAL <br> Approved by AICTE, New Delhi \& Govt. of M.P. Affiliated to Rajiv Gandhi Proudyogiki Vishwavidyalaya; Bhopal <br> Oriental Campus, Raisen Road, Bhopal-462021 (MP) INDIA

Date: 17 June 2014

## Policy for Value Added Course

1. The minimum duration of each Value Added Course will be of 30 hrs .
2. Only students who are registered for the semester will be allowed to attend the course.
3. The assessment procedure will be based on the Class Room Assessment, Objective test \& attendance.
4. The course is free to enfoll and learn from. But if student want a certificate, then they have to register and write the proctored exam conducted by us in person at Oriental College of Technology, Bhopal
5. Criteria to get a Certificate: Final score $=$ Class Room Assessment Score + Objective Test Score, with minimum of $60 \%$ attendance during the course.
6. Student will be eligible for a certificate only if :
a. Class Room Assessment $>=25 / 50$
b. Objective Test Score $>=25 / 50$.
c. If one of the two clause $(a, b)$ is not met, student will not get the certificate even if the Final score $>=50 / 100$.
7. Students will be issued with a certificate consisting of student name, semester, course name, Course duration.

Copy to:

1. Academic Committee
2. All HoD's, OCT




## ABOUT THE ORIENTAL GROUP

Oriental Group of Institutes (Indore - Bhopal- Jabalpur) India established in the year 1995 is a self financed premier education group imparting education in the disciplines of Engineering, Pharmacy, Management and Advanced Computer Studies. The Oriental College of Technology, offers six under graduate Bachelor of Engineering courses and three post graduate, Master of Technology courses. The college is having an excellent library, internet lab, modern labs for each department, central workshop, sports \& games facilities etc.
Bhopal, the capital of Madhya Pradesh, is also known as city of lakes. It is well connected to all parts of the country by rail and air. The institute is about 09 km from Bhopal railway station, and 07 km from Habibganj railway station and 18 km from Raja Bhoj Airport.

## ABOUT THE DEPARTMENT

The Department of Electronics \& Communication is a major strength of the institute. The Department has an excellent group of faculty with experience in teaching, Industry and Research. The state-of-art facilities-and competent faculties provide an excellent climate for the all round development of the students. It has well qualified, committed and motivated faculty members having specialization in various streams. The core competency of the Department is in the area of VESI, Arduino \& Embedded System.

The EC Department offers M.Tech Course in Electronics along with Undergraduate Program (B.E/ B.Tech) with an intake of 18 and 120 respectively.

## ABOUT THE COURSE

Electronics \& Communication Engineering department organizing "PCB Designing", the Value Added course which can provide benefits to the participants in many ongoing research areas in latest technologies. Printed circuit boards are used in all but the simplest electronic products.

## OBJECTIVES \& CONTENTS

This program is designed to provide circuit board designers with a balanced foundation of theoretical knowledge and practical skills in schematic capture and design documentation.
$\checkmark$ To know latest's trends in PCB Designing.
$\checkmark$ To know the basics of bread board.
$\checkmark$ To know the basics of layout designing through software.
$\sqrt{ }$ To know the basics of etching, drilling, component mounting, testing-procedure.

## ELIGIBILITY

The Second year Students of Electronics \& Communication Engineering branch are eligible to attend the PCB designing course.

REGISTRATION
No Registration fees.

## INVITED SPEAKERS

Mr. Abhigyanam Giri
Director, Ind Eyes Pvt. Ltd. Bhopal


Orantal College Thakral Nagai,

# Oriental College of Technology, Bhopal 

Electronics \& Communication Engineering
Value Added Course: PCB Designing
Course Code: EC 20001

## Module 1

## Computerized capture of electronic designs

Introduction to all types of electronics components, bread board and testing/measuring instruments. Practical verification of electronic components with Multimeter. Creation of sỵmbolic representation of circuits (schematic diagram), Searching, loading and, placing of components, Wiring connections between components, Updating component, information in PCB layout (Auto packaging), Different tools used for PCB designing

## Module 2

Introduction of PROTUEUS ARES software for PCB designing
Introduction to PROTUEUS ARES software, connecting the schematic from ISIS to ARES for netlisting, selecting the components footprints as per design, picking and placing the components, making new footprints, assigning footprint to components.

## Module 3

## Introduction to PCB Layout

PCB Structure and Standards, Tracks, Pads and Vias, Netlist, Design of PCB layout of a circuit, Define the Board Outline, etching \& drilling of PCB, Place the components, Routing of the components Manual and Automatic, Detection and repair of Design rules violation, clearance errors and missing or incomplete connections, 3D View of the designed board.

## Module 4

## Analysis Components

Debugging Tools, Thermal Analysis and Electromagnetic Analysis, Multisim MCU Module, Source Code Editor, MCU Design Overview, MCU Wizard, Building an MCU Workspace, Errors and Warnings, Simulation of Machine Code File, Multisim MCU Module Source Code Editor, Opening a Debug View, Debug Window Settings, Simulation Markers, Breakpoints, Memory View, Miscellaneous Problem for Multisim.

## Module 5: PCB Designings

## Head of Department

Electronics \&efohustiation Engineering
Oriental College of Tochnology, Bhopal

Making cejrcuits on PCB Design Software, Deploying basic chrrcuits from paper to schematic windowiesting the schematic for errors, Making Board Layout, Checking for errors and
 shooting techmiques are applied.

## SCHEDULE

Five Days Value Added Course on PCB Designing [25-Sep-2017 To 29-Sep-2017]

| 25 Sep 2017 Teacher |  |  |
| :---: | :---: | :---: |
| Time Session |  | Teacher |
| 9:30-10:00 AM | Inauguration |  |
| 10:00 AM-12:30PM | Introduction to Bread Board and different active and passive components | Mr. Abhigyanam |
| 12:30-1:10PM | LUNCH | Mr. Abhigyanam |
| 01:10-3:10PM | Practice Session on Bread Board using components |  |
| 3:10-3:30PM | Break | Mr. Abhigyanam |
| 03:30-5:30PM | Introduction to PCB and accessories |  |
| 26 Sep 2017 Teacher |  |  |
| Time | Session | Mr. Kapil Gupta |
| 11:00-11:30AM | Break | Mr. Abhigyanam |
| 11:30-01:00PM | Practice Session on PCB including layout designing through software |  |
| 01:00-1:40PM | LUNCH | Mr. Abhigyanam |
| 01:40-4:30PM | Practice Session on PCB including layout pasting over PCB |  |
| 27 Sep 2017 Teacher |  |  |
| Time | Session | Teacher |
| 9:00-11:00AM | Etching \& Drilling of PCB |  |
| 11:00-11:30AM | Break | Mr. Kapil Gupta |
| 11:30-01:00PM | Component mounting |  |
| 01:00-1:40PM | Testing of P | Mr. Abhigyanam |
| 01:40-4:30PM 28 Sep 2017 |  |  |
|  | Session | Teacher |
| $\frac{\text { Time }}{\text { 9:00-11:00AM }}$ | Assignment : Designing of Alarm circuit | Mr. Abhigyanam |
| 9:00-11:00AM | Break |  |
| 11:00-11:30AM | Class Room Assessment | Mr. Kapil Gupta |
| 11:30-01:00PM 01:00-1:40PM | LUNCH |  |
| 01:00-1:40PM | Testing of PCB | Mr. Amish Jha |
| 01:40-4:30PM 29 Sep 2017 |  |  |
| Time | Session | Teacher |
| 9:00-11:00AM | Assignment : Designing of Digital lock circuit | Mr. Amish Jha |
|   <br>  using [01110] <br> $11: 00-11.304 \mathrm{M}$ Break |  |  |
| 11:00-11:30AM | Objective Test | Mr. Kapil Gupta |
| 11:30-01:00PM |  |  |
| CHNOTR $00-1: 40 \mathrm{PM}$ | LUNCH | Mr. Abhigyanam |
| - 01:49-2:30PM | Testing of PCB and Assignment submission | Mr. Abhigyanam |
|  | Feedback from students | Mr. Abhigyanam |
|  | Valedíctory \& Certificate distribution |  |


| ORIE | AL COLLE | OF TECHNOLO | GY, BHOPAL |
| :---: | :---: | :---: | :---: |
| Value Added course on PCB Designing Objective Test (MCQ), Date: 25-29 Sep, 2017 |  |  |  |
| Branch : | Electronics \& Communication Engineering |  |  |
| Semester: | $3^{\text {rd }}$ |  | Max. Marks-50 Minimum Marks:25 |
| Subject: | PCB Designing | Subject Code: EC 20001 | Time :1:30 Hrs |
| Note | The question from 1 to 30 is of 1 marks each. The question from 31 to $\mathbf{4 0}$ is of $\mathbf{2}$ marks each. |  |  |

1) PCB stands for,
a) Printing Circuit Board
b)Printout Circuit Board
c) Printed Circuit Board
d) None of these
2) What is the ratio of tin \& lead in soldering metal alloy?
a) $50 \% \& 50 \%$
b) $20 \% \& 80 \%$
c) $10 \% \& 90 \%$
d) $60 \%$ \& $40 \%$
3) Resistibility has a relation with
a)Length of the material
b) Width of the Material
c) Cross section area of the material d)All of them
4) Color code for 1 ohm resistance is -
a) Black, Brown, Gold
b)Brown, Black Gold
c) Both of them
d)None of them
5) If a circuit uses 1200 volts at 800 mA , what is the input power?
a) 1000 watts
b) 554 watts
c) 300 watts
d) 960 watts
6) The three basic meters-voltmeter, ammeter and ohmmeter combined into a case are known as a:
a) Kilometer b) Multimeter c) Wavemeter d) Wattmeter
7) The unit of electrical charge is -
a) Coulomb b) Newton c) Ampere d) Volt
8) The Ohm is the unit of measure of:
a) Resistance b) Electromotive force c) Current d) Magnetomotive force
9) What is the unit of Capacitance?
a) Ohm b) Henry c) Maxwell d) Farad
10) The unit of conductance is -
a) Ohm
b) Ampere
c) Mho
d) Voh
11) The three basic particles which make up all atoms are the:
a) Coulomb, ampere and electron b) Electron, proton and nucleus
c) Quark, neutron and proton
d) Electron, proton and neutron
12) No. of electrons in Helium atom
a) 30 b) 2
c 1
d) None of the above
13) Coulomb's taw states:
a) Unlike Charges attract and like charges repel.
Oriental College of Technology Thakral Nagar, Raisen Road Bhopal
b) Like charges attract and unlike charges repel.
14) Material which have a large number of free electrons are called as:
a) Inductors
b) Insulators
c) Semiconductor
d) Conductors
15) Bend the leads of components at $\qquad$ degree angle with PCB.
a) 40
b) 50
c) 35
d) 45
16) If colour code is Red, Brown, Red, Silver then value of $R$ is,
a) 21 K ohm, $5 \%$
b)
22 ohm, 5\%
c) $2100 \mathrm{ohm}, 10 \%$
d) 2.2 K ohm, $10 \%$
17) A potentiometer is a:
a)Variable power supply
b)Variable resistor
c)Variable capacitor
d) Meter for measuring potential difference
18) The Ability of a device or circuit to oppose any change in current flow is:
a) Capacitance
b) Resistance
c) Inductance
d) Conductance
19) The opposition to the movement of electrons is:
a) Resistance
b) Voltage
c) Current
d) Magnetism
20) The device which is used to measure current?
a) Coulomb meter
b) Ammeter
c) Voltmeter
d) Ohmmeter
21) The device which is used to measure Voltage?
a) Ammeter
b) Ohmmeter
c) Voltmeter
d) Potentiometer
22) The device which is used to measure resistance?
a) Voltmeter
b) Ammeter
c) Wavemeter
d) Ohmmeter
23) The nucleus of an atom is located at the center and is composed of:
a)Electron and Protons b)Protons and Neutrons c)Coulombs and Neutrons d)Electrons and Neutrons
24) What measurements can you make using a oscilloscope?
a) Current, Voltage and resistance
b) Voltage, period and frequency
c) Time, frequency and resistance
d) Power, distance and frequency
25) The temperature range for soldering process is.. $\qquad$
A. $40^{\circ} \mathrm{C}$ to $100^{\circ} \mathrm{C}$
B. $180^{\circ} \mathrm{C}$ to $250^{\circ} \mathrm{C}$
C. $300^{\circ} \mathrm{C}$ to $500^{\circ} \mathrm{C}$
D. $600^{\circ} \mathrm{C}$ to $900^{\circ} \mathrm{C}$
26) A soldering iron 'bit' is made of. $\qquad$
A .Brass
B.Tin
C.Steel
D.Copper
27) Heat for soldering process is supplied by $\qquad$
A.Soldering iron
B.Induction furnace
C.Electric resistance method
D.Any of the above
28) Soldering iron is made of wedge shape in order to. $\qquad$
A.Apply high pressure at edge
B.Retain heat
C.Retain solder
D.Forge welding
29) The pringse of using flux in soldering is to.....
A. Increase faidige êf splder metal
B.Feel up gaps left in a bad joint

D.Prevent oxides forming
A.Resin
B. $\mathrm{NH}_{4} \mathrm{CL}$
C.Borax
D.Soft iron
30) The temperature range of brazing process is $\qquad$
A. $150^{\circ} \mathrm{C}$ to $250^{\circ} \mathrm{C}$
B. $250^{\circ} \mathrm{C}$ to $450^{\circ} \mathrm{C}$
C. $500^{\circ} \mathrm{C}$ to $700^{\circ} \mathrm{C}$
D. $700^{\circ} \mathrm{C}$ to $900^{\circ} \mathrm{C}$
31) The purpose of using borax in brazing is to $\qquad$
A.Replace flux
C.Accelerate the formation of oxides on the work
B.Dissolve oxides when heating the work
D.Prevent the spelter from melting too quickly
32) The flux is brazing process is used in the form of.......
A.Powder
B.Liquid
C.Paste
D.Any of the above
33) Which among the below mentioned packages does not belong to the category of 'Small Outline Package'?
a. SO
b. SOP
c. SOT
d. SON
34) Which among the below stated soldering methods is also renowned as 'High Frequency Resistance Soldering'?
a. Iron Soldering
b. Furnace Soldering $=\mathrm{c}$. Torch Soldering
d. Electrical Soldering
35) Which among the below mentioned approaches belongs to the category of In-circuit Testing?
a. Impedance Testing
b. Component Testing
c. Apply Signal and check output
d. All of the above
36) High current circuits are purposely located or placed near the edge of PCB in accordance to the supply lines for $\qquad$
$\begin{array}{ll}\text { a. Removal of heat } & \text { b. Isolation of stray current } \quad \text { c. Reduction of path length } d \text {. All of the above }\end{array}$
37) Which phenomenon is not reduced by the circuit paths of lowest impedances especially provided by power and return planes for shielding purposes?
a. Radiation
b. Convection
c. Noise
d. Crosstalk
38) Which among the below specified assertions is not a grounding consideration associated with ADC as well as DAC?
a. Analog side to analog ground
b. Digital side to digital ground
c. Use of separate power supply and connection of their ground leads to single point reference
d. Reduction of inductive loop area between power and return traces
39) Which among the below stated devices/equipments are preferred for elimination of ground and supply line noise especially in TTL/CMOS / ECL PCB designing?
a. Coupling capacitor b. Decoupling capacitor c. Snubber circuits d. All of the above

## CLASS ROOM ASSESSMENT

Max Marks:50
Min Marks:25
Max Marks:50

Oriental College of Technology Thakral Nagar, Raisen Road
Q. Designing of Dige tal Kock circuit using [0110] Bhopal
Q.Design differential amplifier circuit using PCB.


## ORIENTAL COLLEGE OF TECHNOLOGY, BHOPAL <br> department of electronics \& communication engineering

Value Added Course: $P(B$ Designing
Course Code: $E(2000 /$
Students Attendance Sheet


## ORIENTAL COLLEGE OF TECHNOLOGY, BHOPAL

department of electronics \& communication engineering
Value Added Course: $P(B$ Designing
Course Code : $E(2000)$
Students Attendance Sheet

| S.NO. | ENROLL NO | NAME OF STUDENT | $25 \operatorname{sep}$ | 26 Sep | 37 Sep | $28 \mathrm{Pe} \mathrm{\rho}$ | 29 Sep |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| 87 | 0126EC161091 | SHIVANI TIWARI | Afluesi | - 1 thor | Ctrua | Ativonil | H/Les |
| 88 | 0126EC161092 | SHRADDHA SRIVASTAVA | Ss | So | f1 | FL |  |
| 89 | 0126 EC 161093 | SHRIYA JOSHI | stapys | Sropf | smip | Sminje | Simp |
| 90 | 0126EC161094 | SHRUTI | -thrute. | Nhruti | thruer | thruti | Ohseti |
| 91 | 0126EC161095 | SHRUTI HAJARE | Shueffina* | shlofatyare | Sinttigare | sinelfyere | smiftajars |
| 92 | 0126 EC 161096 | SHRUTI SONI | Shauti | Shruti | Shoret | Shruti | Shucti |
| 93 | $0126 \mathrm{EC161097}$ | SHUBHAM BOHARE | Shubhem | Shuthen | Shubhan | Shubhan | Shuthan |
| 94 | 0126 EC 161098 | SIDDHARTH SHRIVASTAVA | Siddharth, | Sidddark | ciddham | Sidd tard. | findka,k |
| 95 | 0126EC161100 | SNEH SOURAV | Sheh | Sinch | Sneh | Snen | Sneh |
| 96 | 0126EC161102 | SONIYA SINGH | Jenia | Somiy | Sonna | Soncs | sonla |
| 97 | 0126 EC 161103 | SOUMYA VERMA | $5 y$ | nsw | crv | esv | ASv |
| 98 | 0126EC161104 | SOURABH SAHU | abhint | virbsatu | Parrablate | kurndta | aurabatu |
| 99 | 0126EC161105 | SOURABH SINGH | Somabh | Somabl | Concobs | Sormabs | Somese |
| 100 | 0126EC161106 | SUCHITA SONI | boun | Suthy | 3, out | Succto | Ructus |
| 101 | 0126EC161107 | SUPRIYA ASATI | sinseasit | Pasali | 0489t | SAkats | Sosati |
| 102 | 0126EC161109 | SWARNIM DUBEY | Larain | Euanme | Evomu | Braex | Sramis |
| 103 | 0126EC161110 | SWARNIM SHARMA | Seasmm | calasndo | duorspis) | unsasin | ouocen |
| 104 | 0126 EC 161111 | SWETA GUPTA | $\sec \sqrt{E} \sqrt{A}$ | $\log 2 \pi \sqrt{4}$ | -W\% | fasion | Sus $\sqrt{\text { a }}$ |
| 105 | 0126 EC 161112 | TANAY AGRAWAL | Tanay | Tanay | Tanay | Tamay | Tomay |
| 106 | 0126EC161113 | TWINKLE DANGE | SD. | S-D. | 50 | D. | $\mathrm{JO}^{\circ}$ |
| 107 | 0126 EC 161114 | UJJWAL KUMAR | $\checkmark$ Shuale | USpalta | ofnalle | Vfrualle | Ufual6 |
| 108 | 0126 EC 161115 | UTTAM SHARMA | itftim | 14them | Cham | U4tar | Utam |
| 109 | 0126 EC 161116 | VAIBHAV SOLANKI | vaubhars | Vaublar | laublo | Naublan | Napionas |
| 110 | 0126 EC 161117 | VIKASH KUMAR | $1+2$ |  | $27$ | $12$ | $90$ |
| 2111 | 0126 EC 161119 | VIVEK VERMA | is vele | vivek | Visela | virek | vikek |

tethup


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ORIENTAL COLLEGE OF TECHNOLOGY, BHOPAL
department of electronics \& communication engineering
Value Added Course: PCB Designing
Course Code : EC 20001
Students Assessment Sheet, 25-29 Sep 2017

| S.NO. |
| :---: | :--- | :--- | :---: | :---: | :---: | :---: | :---: |
|  |

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department of electronics \& communication engineering
Value Added Course: PCB Designing
Course Code : EC 20001
Students Assessment Sheet, 25-29 Sep 2017

| Students Assessment Sheet, 25-29 Sep 2017 |
| :--- | :--- | :--- | :--- | :--- | :--- | :--- | :--- |

# ORIENTAL COLLEGE OF TECHNOLOGY, BHOPAL 

department of electronics \& communication engineering
Value Added Course: PCB Designing
Course Code : EC 20001
Students Assessment Sheet, 25-29 Sep 2017



Oriental College of Technology Thakral Nagar, Raisen Road

Bhopal

## Course Evaluation/ Feedback Form

| Value Added Course | PCB Designing |
| :--- | :--- |
| Date: | $25-29$ Sep 2017 |
| Program Location: | Oriental College of Technology, Bhopal |
| Presenter(s): | Mr. Kapil Gupta, Mr. Amish Jha, Mr. Abhigyanam Giri |

Please respond to the following statements by using the 5-point rating scale to indicate the extent to which you agree or disagree with each statement. Please circle the number that applies.

| 1. The instructor is well prepared for class session. | 5 (4) 321 |
| :---: | :---: |
| 2. The instructor answered all question carefully and completely. | 5 (4) 321 |
| 3. The instructor uses example to make material understand. | 54321 |
| 4. The instructor stimulated interest in the course. | 5 (4)321 |
| 5. The instructor made the course material interesting. | (5) 4321 |
| 6. The materials provided were sufficient \& appropriate for the program. | (5) 4321 |

## 40. Course Certificate

This is to certify that Mr./Ms. BHARAT JESWANI of EC-III Sem, OCT, Bhopal, has Successfully Completed the "Value Added Course" on "PCB Designing" during 25-29 Sep 2017, organized by Department of Electronics \& Communication Engineering, Oriental College of Technology, Bhopal.


## 

This is to certify that Mr./Ms. SUPRIYA ASATI of EC-III Sem, OCT, Bhopal, has Successfully Completed the "Value Added Course" on "PCB Designing" during 25-29 Sep 2017, organized by Department of Electronics \& Communication Engineering, Oriental College of Technology, Bhopal.


PCB Designing(Sep. 2017)2016 Admitted Batch



## ORIENTAL COLLEGE OF TECHNOLOGY, BHOPAL

## Department of Electronics \& Communication Engineering



## Report on Value Added Course on PCB Designing

Date and Time: September 25, to September 29, 2017. Venue: EC, OCT Campus, Organized by: EC,OCT, Bhopal. Name of the Speakers: Mr. Abhigyanam Giri, Director IndEyes Infotech Pvt. Ltd., Mr. Amish Ku. Jha, Assistant Professor, EC, OCT \& Mr. Kapil Gupta, Assistant Professor, EC, OCT, Participants Details: Second year students of Electronics \& Communication Engineering.

## Summary of the Event

To bridge the gap between the academic and industry need, Value Added Courses are conducted regularly in our College. It is important for higher education institutions to supplement the curriculum to make students better prepared to meet industry demands as well as develop their own interests and aptitudes. The Value added course Plays an important role in Strengthening the technical skills of undergraduates. In the race of making good and bright career in short span of time, most of the time students neglect the aim and the need of education. In view of this changing pattern and condition of youth education in India, and to guide students on different topics which are not covered under the defined academic syllabus, the Electronics \& Communication Engineering Department of Oriental College of Technology in association with IndEyes InfoTech Pvt. Ltd, had organized "Value Added Course on PCB Designing" from September 25, to September 29, 2017 for the students of second year. This Course syllabus was covered by Mr. Abhigyanam Giri, Director IndEyes Infotech Pvt. Ltd., Mr. Amish Ky. Tiak/Esssistant Professor, EC, OCT \& Mr. Kapil Gupta, Assistant Professor, EC, OCT in 30 54.


Director
Thakral Nagar, Raisen Road Bhonal

On September 25, the course started with the inaugural speech of Dr. Ranjeeta Khare, Director, Oriental College of Technology. In her speech, she emphasized to bridge the gap between the academic and industry need.
On September 25, the Course coordinator, Mr. Abhigyanam Giri, guided all students on the topic "Printed Circuit Board (PCB) Designing". In his speech, he had explained the need for every student to have skills to get a job.
On September 26, Mr. Abhigyanam Giri, explained, how to design layout through software on PCB.
On September 27, Mr. Kapil Gupta, explained, etching and drilling of PCB. Also Testing of PCB was done by Mr. Abhigyanam Giri.
On September 28, Mr. Abhigyanam Giri, given assignment to students on Designing of alarm circuit, after that testing of PCB was done by Mr. Amish Jha.
On September 29, Mr. Amish Jha, has given assignment to students on Designing of digital lock code, then testing of PCB was done.
At last, Dr. Rahul Dubey, Head EC, Convenor of Course gave away the vote of thanks. He thanked Mr. Abhigyanam Giri for providing his valuable time for successful conduction of this course for our students. He also thanked Mr. Amish Ku. Jha \& Mr. Kapil Gupta for addressing the student audience on the said topic. At the end he thanked all the faculties, office staff and student volunteers for their support in organizing this program successfully.

Dr. Rahul Dubey

Course Convenor
Head, EC, OCT

Oriental College of Technology Thakral Nagar, Raisen Road Bhopal

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Approved by AICTE., Ncw Delhi \& Govt. of M.P. Affiliated to Rajiv Gandhi Proudyogiki Vishwavidyalaya, Bhopal
Oriental Campus, Raisen Road, Bhopal-462021 (MP) INDIA
Date: 17 June 2014

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Copy to:


1. Academic Committee -
2. All HoD's, OCT


Director
Oriental College of Technology
Thakral Nagar, Raisen Road
Ehodal

## Registration Form

Name

Enrollment No

Branch: $\qquad$

Semester: $\qquad$

Address $\qquad$
$\qquad$
$\qquad$

City \& Pin. $\qquad$


Contact No

Place:

Signature


## CHIEF PATRONS

Dr. K. L. Thakral
Founder Chairman, Oriental Group of Institutes and Chancellor, Oriental University, Indore

## PATRONS

Shri. Praveen Thakral
Chairman, Oriental Group of Institutes
Mrs. Niraj Ghei
Chair Person, Oriental College of Technology, Bhopal
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COURSE COORDINATOR
Mr. Praveen Choudhary
Mobile: +918770913910 Technology
COOIFA THSJKG?AMMITEE MEMBERS

CONTACT
Mrs. Preeti Gup peoy u9s es yeñen jejye


## Oriental College of Technology, Bhopal



## Value Added Course

On
"Circuit Designing"
[ $9^{\text {th }}$ to $13^{\text {t/ }}$ October 2017]

In Association with


Organised By
Department of Electrical \& Electronics Engineering

Mobile: +917024119755 \&0100J!Q
Mr. Praveen Choudhary
Mobile: +918770913910
Oriental College of Technology,
Thakral Nagar. Rasen Road, Bhopal - 162021 Phone 2529026, 2529057. Cax 0755-2524472

## ABOUT THE ORIENTAL GROUP

Oriental Group of Institutes (Indore - BhopalJabalpur) India established in the year 1995 is a self financed premier education group imparting education in the disciplines of Engineering, Pharmacy, Management and Advanced Computer Studies. The Oriental College of Technology, offers six under graduate Bachelor of Engineering courses and three post graduate, Master of Technology courses. The college is having an excellent library, intermet lab, modern labs for each department, central workshop, sports \& games facilities etc.
Bhopal, the capital of Madhya Pradesh, is also known as city of lakes. It is well connected to all parts of the country by rail and air. The institute is about 09 km from Bhopal railway station, and 07 km from Habibganj railwayier and 18 km from Raja Bhoj Airport.


## ABOUT THE DEPARTMENT

The Department of Electrical \& Electronics is a major strength of the institute. The Department has an excellent group of faculty with experience in teaching. Industry and Research. The state-of-art facilities and competent faculties provide an excellent climate for the all round development of the students. It has well qualified, committed and motivared faculty members having specialization in various streams.
The EX Department offers M.Tech Course in Power Electronics along with Undergraduate Program (B.E/ B.Tech) with an intake of 18 and 120 respectively.
ABOUT THE COURSE
Circuit design using discrete and
integrated circuits is one of the most
practical courses for electric design engineers. This course fully utilizes knowledge leamed in all the fundamental electric and electronic circuits for advanced circuit modeling, design, and simulation..

## ob.IECTIVES

Develop understanding of practical op amp circuit models, limitations, noises, time- and frequency-domain behaviors, and its role in feedback systems. Develop ability of designing practical circuits through
conceptual, analytical, and simulating stages.

## ELIGIBILITY

The Students Electrical \& Electronics Engineering branch are eligible to attend the course.

REGISTRATIOS
No Registration fees.



# Oriental College of Technology, Bhopal 

## Module 1

Electrical \& Electronics Engineering<br>Value Added Course: Circuit Designing Course Code: EX 20001

## Introduction to Basic Electronics

Basic Electronics Components, Resistor (Ohms Law, Voltage \& Current), Capacitors, Diode, Integrated Circuit, LEDs, Transistor, LDR's, Temperature Sensor, Breadboard, Logic Gates, Practical Use of Electronics Components like Resistor, Capacitor \& Diode.

## Module 2

## Introduction to Circuit Designing

Introduction, Breadboard Description, Hands on Session-Circuit 1: Designing basic Circuit for LED Glowing on breadboard, Circuit 2: Buzzer Testing on breadboard., Circuit 3: LDR based Light Operating System., Circuit 4: Water Tank Full Alert

## Module 3

## Advanced Circuit Designing

Circuit 5: Dancing Light using Transistor \& Six LEDs, Circuit 6: Musical Bell (UM66), Circuit 7: Morning Alarm depend on Light, Circuit 8: Fire Alarm using IC., Circuit 9: Siren (Ambulance, Police, Fire) using IC., Circuit 10: Logic Gates (AND, OR \& NOT) Gate.

## Module 4

## Introduction to PCB Layout

PCB Structure and Standards, Tracks, Pads and Vias, Netlist, Design of PCB layout of a circuit, Define the Board Outline, etching \& drilling of PCB , Place the components, Routing of the components Manual and Automatic, Detection and repair of Design rules violation, clearance errors and missing or incomplete connections, 3D View of the designed board.

## Module 4

## PCB Designings

Making circuit on PCB Design Software, Deploying basic circuits from paper to schematic window Testing the schematic for errors, Making Board Layout, Checking for errors and finalizing layout.


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Oriental College of Technology
Thakral Nagar, Ralsen Road
Bhopal

| SCHEDULE |  |  |
| :---: | :---: | :---: |
| 5 Days Value Added Course on Circuit Designing [9 ${ }^{\text {th }}$ to $13^{\text {th }}$ Oct. 2017] |  |  |
| $9^{\text {Ih }}$ Oct 2017 |  |  |
| Time | . Session | Teacher |
| 9:30-10:00 AM | Inaugural Programme |  |
| 10:00 AM-12:30PM | Introduction to Basic Electronics | Mr. Lalit Jain |
| 12:30-1:10PM | LUNCH |  |
| 01:10-3:10PM | Arrangement of electronics components | Mr. Lalit Jain |
| 3:10-3:30PM | Break |  |
| 03!30-5:30PM | Practical Use of Electronics Components like Resistor, Capacitor \& Diode | Mr. Lalit Jain |
| $10^{\text {th }}$ Oct 2017 |  |  |
| Time | Session | Teacher |
| 9:00-11:00AM | Introduction to Circuit Designing | Mr. Lalit Jain |
| 11:00-11:30AM | Break |  |
| 11:30-01:00PM | Hands on Session | Mr. Lalit Jain |
| 01:00-1:40PM | LUNCH |  |
| 01:40-4:30PM | Hands on Session | Mr. Lalit Jain |
| $11^{\text {th }}$ Oct 2017 |  |  |
| Time | Session | Teacher |
| 9:00-11:00AM | Hands on Session | Mr. Ashish Bohre |
| 11:00-11:30AM | Break |  |
| 11:30-01:00PM | Hands on Session | Mr. Ashish Bohre |
| 01:00-1:40PM | LUNCH |  |
| 01:40-4:30PM | Hands on Session | Mr. Ashish Bohre |
| $12^{\text {th }}$ Oct 2017 |  |  |
| Time | Session | Teacher |
| 9:00-11:00AM | Assignment | Mr. Lalit Jain |
| 11:00-11:30AM | Break |  |
| 11:30-01:00PM | Class Room Assessment | Mr. Lalit Jain |
| 01:00-1:40PM | LUNCH |  |
| 01:40-4:30PM | Introduction to PCB Layout | Mr. Lalit Jain |
| $13^{\text {th }}$ Oct 2017 |  |  |
| Time | Session | Teacher |
| 9:00-11:00AM | Assignment | Mr. Ashish Bohre |
| 11:00-11:30AM | Break | 1 |
| 11:30-01:00PM | Objective Test | Nshish Bohre |
| 01:00-1:40PM | LUNCH |  |
| 01:40-2:30PM | PCB Designings | 0 of eombatog |
| 2:30-3:30PM | Feedback from students orlenta | dr. Ahtish Bohre |
| 3:30-4:30 PM | Yaidicrebs Certificate distribution Thakr | Broph hish Bohre |



1. Which formula shows a direct proportionality between power and voltage?
a) $V=I R$
b) $P=V I$
c) $P=\mathbb{R}$
d) $I=V / R$
2. With 1 mA of current, what wattage rating should a 470 ohm resistor have?
a) 1/4 watt
b) 1/2 watt
c) 1 watt
d) 2 watts
3. How is a $3.9 \mathrm{k} \Omega$ resistor color-coded?
a) red, white, red, gold
b) red, green, orange, silver
c) orange, white, red, gold

d) orange, green, orange, silver
4. Ohm's law is not:
b) $V=I R$
c) $I=V / R$
d) $R=I V$
e) $R=V / I$
5. What are the two major categories for resistors?
a) low and high ohmic value
b) commercial and industrial
c) low and high power value
d) fixed and variable
6. The unit of electrical charge is the
b) coulomb
c) joule
d) volt
e) watt
7. Current flows in a circuit when
b) switch is opened
c) a switch is closed
d) the switch is either open or closed
e) there is no voltage
8. The minimum resistance value for a blue, gray, red, silver resistor is
a) $12 \Omega$
b) $120 \Omega$
c), $800 \Omega$
d), $460 \Omega$
9. What is the capacitance when $Q=60 \mu \mathrm{C}$ and $\mathrm{V}=12 \mathrm{~V}$ ?
b) $720 \mu \mathrm{~F}$

c) $5 \mu_{\mathrm{F}}$
d) $50 \mu_{\mathrm{F}}$
e) $12 \mu_{\mathrm{F}}$
10. .In photo emissive transducers, electrons are attracted by $\qquad$
a) Cathode
b) Anode
c) Grid
d) Body
11. .LDR's are also called $\qquad$
a) Photo voltaic cell
b) Photo resistive cell
c) Photo emissive cell
d) All of the mentioned
12. Which of the following materials can be used as photoconductive transducer?
a) Selenium
b) Silicon
c) Germanium
d) All of the mentioned
13. Semiconductor layer using silicon and germanium is known as
a) Photo diodes
b) Photo junction diodes
c) Photo material
d) Photo sensitive materials
14. What are the two basic types of breadboards?
a) Flat boards and circular boards
b) Plug boards and solder boards
c) Solderless boards and plug boards
d) Connected boards and unconnected boards
15. The advantages of a plug board type of breadboard are $\qquad$
a) There are none. Solder boards are the only type of breadboard that should be used
b) They are extremely easy to solder and the connection can last for years even when being vibrated
c) They require very few tools, can be reconfigured easily, and are better than solde fion boards
d) They can be reused and reconfigured easily and require very few tools
16. Photo transistor is a three terminal device.
a) True

b) False

17. A sine wave voltage is applied across a capacitor. When the frequency of the voltage is decreased, the current
a.) increases
b) remains constant
c) decreases
d) increases
18. Which type of solderability testing is carried out for the generation of solder sample due to immersion of wire or sheet metal specimen in a bath of molten solder?
a) Solder Bath Testing
b. Meniscus Rise Testing
c. Solder Iron Testing
d. None of the above
19. Which among the below stated soldering methods is also renowned as 'High Frequency Resistance Soldering'?
a. Iron Soldering
b. Furnace Soldering
c. Torch Soldering
d. Electrical Soldering
20. Which among the below mentioned approaches belongs to the category of In-circuit Testing?
a. Impedance Testing
b. Component Testing
c. Apply Signal and check output
d. All of the above


# Oriental College of Technology, Bhopal 

Department of Electrical \& Electronics Engineering
Value Added Course on Circuit Designing
9th Oct. to 13 Oct 2017

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## Oriental College Of Technology, Bhopal

## Electrical \& Electronics Engineering Department

Value Added Course: Circuit Designing,9-13 oct 2017
Course Code: EX 20001
ASSESSMENT SHEET

| Sno | Enrollment No. | Name of students | Class room assessment score(mark $\mathrm{s} / 50$ ) | $\begin{array}{\|l\|} \hline \text { Objective } \\ \text { test } \\ \text { score(mark } \\ \text { s/50) } \\ \hline \end{array}$ | Total score | Eligible to receive certificate or not |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| 1 | 0126EX161002 | Abhishek Bhargava | 40 | 40 | 80 | Eligible |
| 2 | 0126EX161003 | Aman | 37 | 40 | 77 | Eligible |
| 3 | 0126EX161004 | Anbesa | 45 | 47.5 | 92.5 | Eligible |
| 4 | 0126EX161005 | Ankita Singh Parihar | 35 | 45 | 80 | Eligible |
| 5 | 0126EX161006 | Anurag Kumar Tiwari | 45 | 40 | 85 | Eligible |
| 6 | 0126EX161008 | Arpit Shrivastava | 40 | 40 | 80 | Eligible |
| 7 | 0126EX161009 | Arun Kumar Patel | A | A | 0 | Not Eligible |
| 8 | 0126EX161010 | Ashish Kumar Choubey | 30 | 45 | 75 | Eligible |
| 9 | $0126 \mathrm{EX161011}$ | Bhupendra | 30 | 30 | 60 | Eligible |
| 10 | 0126EX161012 | Chetan Okhade | 35 | 45 | 80 | Eligible |
| 11 | $0126 \mathrm{EX161013}$ | Chitransh Deshmukh | 45.5 | 30 | 75.5 | Eligible |
| 12 | $0126 \mathrm{EX161014}$ | Deepak Singh Rathour | 30 | 45 | 75 | Eligible |
| 13 | 0126 EX161015 | Gopal Ubnare | A | A | 0 | Not Eligible |
| 14 | 0126 E 161016 | Harshit Raj | 32 | 42 | 74 | Eligible |
| 15 | $0126 \times 161017$ | Karuna Gokhe | 42 | 40 | 82 | Eligible |
| 16 | $0126 \mathrm{EX161018}$ | Madhu Kumari | 38 | 40 | 78 | Eligible |

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| 170 | 0126 EX161019 | Mamta Vijay Mali | 29 | 40 | 69 | Eligible |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| 180 | $0126 \mathrm{EX161020}$ | Manish Kumar Mishra | 30 | 42 | 72 | Eligible |
| 190 | 0126 EX161021 | Manish Verma | 28 | 35 | 63 | Eligible |
| 20 | $0126 \mathrm{EX161022}$ | Mudassir Ahmed | 40 | 47.5 | 87.5 | Eligible |
| 210 | 0126EX161023 | Neelesh Pandey | 36 | 27 | 63 | Eligible |
| 22 | 0126EX161024 | Neha Joshi | 48 | 35 | 83 | Eligible |
| 23 | 0126EX161025 | Nishant Prakash | 30 | 45 | 75 | Eligible |
| 24 | 0126EX161027 | Nitin Ekka | A | A | 0 | Not Eligible |
| 25 | 0126EX161028 | Pradeep Kumar Sahu | 30 | 45 | 75 | Eligible |
| 26 | 0126 EX161029 | Prakash Dubey | 30 | 30 | 60 | Eligible |
| 27 | 0126EX161030 | Pranjal Vyas | 35 | 45 | 80 | Eligible |
| 28 | 0126 EX 161031 | Rahul Kumar Yadav | 45.5 | 30 | 75.5 | Eligible |
| 29 | 0126EX161032 | Raj Anand | 30 | 45 | 75 | Eligible |
| 30 | 0126EX161034 | Rituja Bokade | 32 | 42 | 74 | Eligible |
| 31 | 0126EX161035 | Rivanshu Sharma | 42 | 40 | 82 | Eligible |
| 32 | $0126 E \times 161037$ | Sachin Gupta | 38 | 40 | 78 | Eligible |
| 33 | $0126 E \times 161038$ | Saket Kumar | A | A | 0 | Not Eligible |
| 34 | 0126EX161039 | Samarth Sharma | 45.5 | 30 | 75.5 | Eligible |
| 35 | 0126EX161040 | Satyam Samrat | A | A | 0 | Not Eligible |
| 36 | 0126E×161041 | Shivam Kushwaha | 32 | 42 | 74 | Eligible |
| 37 | $0126 \mathrm{EX161043}$ | Shreya Tamrkar | 42 | 40 | 82 | Eligible |
| 38 | 0126E×161045 | Shubham Prakash | 38 | 40 | 78 | Eligible |
| 39 | 0126E×161046 | Shubhank Thakur | 32 | 42 | 74 | Eligible |
| 40 | 01260 161047 | Siddh | A | A | 0 | Not Eligible |

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Bhopal

| 41 | 0126 EX161048 | Sonal Atewar | Sligible |  |  |  |
| :---: | :--- | :--- | :--- | :--- | :--- | :--- |
| 42 | 0126 EX161049 | Sujal Nagle | 42 |  |  |  |
| 43 | 0126 EX161050 | Sumit Ankar | 45.5 | 30 | 75.5 | Eligible |
| 44 | 0126 EX161051 | Sumit Kumar | 27 | 45 | 72 | Eligible |
| 45 | 0126 EX161052 | Tanya Mohil Sharma | 40 | 40 | 80 | Eligible |
| 46 | 0126 EX161053 | Tripti Goswami | 28 | 30 | 58 | Eligible |
| 47 | 0126 EX161054 | Urvashi Dani | 38 | 40 | 78 | Eligible |
| 48 | 0126 EX161055 | Utkarsh Malviya | 29 | 40 | 69 | Eligible |
| 49 | 0126 EX161056 | Utkarsh Patel | 30 | 42 | 72 | Eligible |
| 50 | 0126 EX161057 | Vaibhav Singh Chauhan | 32 | 42 | 74 | Eligible |
| 51 | 0126 EX161058 | Varun Kumar Vaishy | 42 | 40 | 82 | Eligible |
| 52 | 0126 EX161059 | Vikas Kumar Singh | A | A | 0 | Not Eligible |



Course Evaluation/ Feedback Form

| Value Added Course | Circuit Designing |
| :--- | :--- |
| Date: | $9-13^{\text {th }}$ oct 2017 |
| Program Location: | Oriental College of Technology, Bhopal |
| Presenter(s): | Mr. Ashish Bohre |

Please respond to the following statements by using the 4-point rating scale to indicate the extent to which you agree or disagree with each statement. Please circle the number that applies.
$4=$ Strongly Agree $\quad 3=$ Agree $\quad 2=$ Disagree $\quad 1=$ Strongly Disagree

| 1. The Course was well organized. | (4) 321 |
| :---: | :---: |
| 2. The Course objectives were stated clearly met. | (4) 321 |
| 3. The information and/or skills presented were relevant and Appropriate. | (4)321 |
| 4. The presenter(s) provided adequate time for questions and answered them effectively. | (4) 321 |
| 5. The presenter(s) allowed me to work with and learn from others. | $4(3) 21$ |
| 6. The materials provided were sufficient \& appropriate for the program. | (4)21 |
| 7. The physical arrangements were adequate. | (4)321 |



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## ORIENTAL COLLEGE OF TECHNOLOGY, BHOPAL



SESSION: 2017-18

## DEPARTMENT OF ELECTRICAL \& ELECTRONICS ENGINEERING CERTIFICATE

THIS IS TO CERTIFY THAT MR. /MS. ABHISHEK BHARGAVA OF EX-III SEM, OCT, BHOPAL, HAS COMPLETED THE "VALUE ADDED COURSES" ON "CIRCUIT DESIGNING" DURING 913, OCT. 2017, ORGANIZED BY DEPARTMENT OF ELECTRICAL \& ELECTRONICS ENGINEERING, ORIENTAL COLLEGE OF TECHAYLOGY, BHOPAL.
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HOD, EX, OCT

## ORIENTAL COLLEGE OF TECHNOLOGY, BHOPAL

## Department of Electrical $\&$ Electronics Engineering



## Report on Value Added Course on Circuit Designing

Date and Time: October 09, to October 13, 2017. Venue: EX,OCT Campus. Organized
By: EX.OCT, , Bhopal. Name of the Speakers: Mr. Lalit jain. Preeti Gupta., Assistant., Prof. EX Deptr.
OCT Bhopal, Mr. Ashish Bohre, Assistant Prof. EX Deptt. OCT Bhopal.
Participants Details: II year students of Electrical \& Electronics Engineering.

## Summary of the Event



II year
On January 15, the course started with the inaugural and presidential speech of Dr. Ranjeeta Khare . Director, Oriental College of Technology. In his presidential speech she emphasized on the need to collaborate the academic and the non academic education.
On Iebruary 15, the Course coordinator, Praveen Choudhary, guided all students on the topic "Circuit Designing". In his speech, he had explained the need for every student to have skills to get a job.

At last, Prof. Preeti Gupta, Head EX, Convenor of Course gave away the vote of thank. He thanked Mr. Lalit jain and Ashish Bohre and all the faculties, office staff and student wolunteers for their unconditional support in organizing this Course.


Orlental Collen. Thakral No

## circuit Designing of to 13 october 2017




## Oriental College of Technology, Bhopal

Date: 17 June 2014

## Policy of Value Added Course

1. The minimum duration of each Value Added Course will be of 30 hrs .
2. Only students who are registered for the semester will be allowed to attend the course.
3. The assessment procedure will be based on the Class Room Assessment, Objective test \& attendance.
4. The course is free to enrol and learn from. But if student want a certificate, then they have to register and write the proctored exam conducted by us in person at Oriental College of Technology, Bhopal
5. Criteria to get a Certificate: Final score $=$ Class Room Assessment Score + Test Score, with minimum of $60 \%$ attendance
6. Student will be eligible for a certificate only if :
a. Class Room Assessment $>=25 / 50$
b. Exam Score $>=25 / 50$.
c. If one of the 2 criteria is not met, student will not get the certificate even if the Final score $>=50 / 100$.
7. Students will be issued with a certificate consisting of student name, semester, course name, Course duration.


Copy to:

1. Academic Committee
2. All HoD's, OCT


Director, OCT


Oriental Collisge of Technology Thakral Nagar, Raisen Road Bhopal

| Registration Form |  |
| :---: | :---: |
| Name: <br> Enrollment No |  |
|  |  |
| Branch: |  |
| Semester:............................................... |  |
| Address................................................ |  |
| City \& Pin.............................................. |  |
| E-mail ID............................................... |  |
| Contact No:............................................ |  |
| Place: |  |
| Signature |  |
| Date: | - * |

## CHIEF PATRONS

Dr. K. L. Thakral
Founder Chairman, Oriental Group of Institutes and Chancellor. Oriental University, Indore

## PATRONS

Shri. Praveen Thakral
Chairman, Oriental Group of Institutes

## Mrs. Niraj Ghei

Chair Person, Oriental College of Technology, Bhopal

## ADVISORY COMMITTEE

Dr. Ranjeeta Khare
Director, OCT, Bhopal

## CONVENOR

Dr. Adarsh Sachdeva
octhodme@oriental.ac.in

## COURSE COORDINATOR

Mr. Saumitra Kumar Sharma Mobile: +919589455704
saumitra204@gmail.com
ORGANISING COMMITTEE MEMBERS
Mr. Amit Pratap Singh Bhadouria Mr. Dharmendra Yadav Mr. Anish Pandey Mr. Shahnawaz Ansari

CONTACT
Mr. Saumitra Kumar Sharma Mobile: +919589455704 saumitra204@gmail.com
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Thakral Nagar, Raisen Road, Bhopal - 462021
Phone:: 2529026, 2529057, Fax: 0755-2529472

Mr. Shahnawaz Ansari
Mobile: +918253033270
Shahnawaz91@gmail.com

Oriental College of Technology,

Value Added Course
On
"AutoCAD"
[12th-17th March ,2018]
For II -Year Students

## Bhopal



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Bhopal
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hakral Nagar, Raisen Road, Bhopal-4620
Phone:: 2529026, 2529057, Fax: 0755-2529472

# Oriental College of Technology, Bhopal 

Mechanical Engineering
Value added course -AutoCAD
Time Durations - 30Hrs
Course code - ME-20001
Syllabus

## Module 1

## INTRODUCTION TO AUTOCAD

Starting AutoCAD
AutoCAD Screen Components
Drawing Area, Command Window, Navigation bar, Status bar
Invoking Commands in AutoCAD
Keyboard, Ribbon, Application Menu, Tool Palettes, Menu Bar, Toolbar, Shortcut Menu
AutoCAD Dialog Boxes
Starting a New Drawing
Open a Drawing, Start from Scratch, Use a Template, Use a Wizard
Saving Your Work
Save Drawing as Dialog box
Using the Drawing Recovery Manager to Recover Files
Closing a Drawing
Opening an Existing Drawing
Opening an Existing Drawing Using the Select File Dialog Box, Opening an Existing Drawing Using the Start up Dialog Box, Opening an Existing Drawing Using the Drag and Drop Method
Quitting AutoCAD
Creating and Managing Workspaces
Creating a New Workspace, Modifying the Workspace Settings, Autodesk Exchange, Home

## Module 2

## GETTING STARTED WITH AUTOCAD

## Dynamic Input Mode

Enable Pointer Input, Enable Dimension Input where possible, Show command prompting and command input near the crosshairs, Drafting Tooltip Appearance
Drawing Lines in AutoCAD
The Close Option, Undo Option
Invoking tools Using Dynamic INPUT/Command Prompt
Coordinate Systems
Absolute Coordinate System, Relative Coordinate System, Relative Polar Coordinates, Direct Distance Entry, Erasing Objects, Cancelling and Undoing a Command
Object Selection Methods
Window Selection, Window Crossing Method, Drawing a Circle, BASIC Display Commands Setting Units Type and Precision
Specifying the Format, specifying the Angle Format
SETTING the Limits OF A DRAWING

Module 3
STARTING WITH ADVANCED SKETCHING
Drawing Arcs, Drawing Rectangles, Drawing Ellipses, Drawing RetraEtolygapnd pationg Potylines, Placing Points, Drawing Infinite Lines, Writing a Single I

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Thakral Nagar, Raisen khopal
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## Module 4

WORKING WITH DRAWING AIDS
Introduction
Understanding the Concept and use of LAYERS
Advantages of Using Layers
Working with Layers
Creating New Layers, Making a Layer Current, Controlling the Display of Layers, Deleting Layers
Object Properties
Changing the Colour, Changing the Line type, changing the Line weight, Changing the Plot
Style, Properties Palette, Quick Properties Palette
Drafting Settings dialog box
Setting Grid, Setting Snap,Snap Type
Drawing Straight Lines using the Ortho Mode
Working with Object Snaps
Auto Snap, Endpoint, Midpoint, Nearest, Centre, Tangent, Quadrant, Intersection, Apparent Intersection, Perpendicular, Node, Insertion, Snap to None, Parallel, Extension, From, Midpoint between 2 Points, Temporary Tracking Point, Combining Object Snap Modes
Running Object Snap Mode
Overriding the Running Snap, Cycling through Snaps
Using Auto Tracking
Object Snap Tracking, Polar Tracking,Auto Track Settings
Function and Control Keys
Module 5
PRACTICE SESSION FOR INDIVIDUAL ASSIGNMENTS AND PROJECT



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Oriental College of Technology Thakral Ramsh Thakral Nagar, Ral
Bhopal


Value Added Course on AutoCAD
Objective Test, Date: 17 March 2018

| Branch: | Mechanical Engineering |  |
| :--- | :--- | :--- |
| Semester: | IV Semester | Max. Marks-50 <br> Minimum Marks:25 |
| Subject: | AutoCAD | Time: 1:30Hrs |
| Note | All questions are compulsory. Each Question is of 2.5 Marks. |  |

1. An arrow appearing after a name in a drop-down menu means that:
(a) A command name will appear at the command line
(b) A dialog will appear on screen
(c) A sub-menu will appear
(d) A tool will be activated.
2. A tool tip is:
(a) The tool name appearing in a rectangle when the cursor is placed on a tool icon
(b) The name given to a tool
(c) The instruction which appears at the left-hand end of the status bar when a tool is chosen
(d) A tip which can be read from the Help screen for a tool.
3. To call the Line tool from the command line, the following abbreviation can be entered:
(a) lin
(b) li
(c) 1
(d) $\ln$.
4. When the F6 key of the keyboard is pressed, the following facility is toggled on/off:
(a) Snap
(b) Ortho
(c) DUCS
(d) DYN.
5. The set variable PELLIPSE can be set to either 0 or 1 when it allows the following actions:
(a) When set to 0 the Edit Polyline tool to be used on ellipses
(b) When set to 1 the Edit Polyline tool to be used on ellipses
(c) When set to 0 it allows ellipses to be drawn with the major axis at any angle
(d) When set to 0 ellipses become polylines.
6. When saving an AutoCAD 2008 drawing it is filed with the extension:
(a) *.drw
(b) *.dwg
(c) ${ }^{*} . \mathrm{dwt}$
(d) ${ }^{*} \mathrm{dg}$.
7. The Dynamic Input (DYN) system can be toggled on/off by pressing which key of the keyboard:
(a) F6
(b) F7
(c).F12
(d) F3.
8. What is the function of entering commandline at the keyboard:
(a). It enables the command line to be used for entering command
(b). It brings back the command palette when it has been hidden
(c). It can only be used when DYN is set on to allow Dynamic Input to work
(d). It places the command palette at the bottom of the screen.

9. The toolbar at the top of the AutoCAD 2008 window is:
(a) The Draw toolbar
(b) The Modify toolbar
(c) The Standard toolbar
(d) The Properties toolbar
10. The Design Center palette can be opened from the:
(a) Layer toolbar
(b) Properties toolbar
(c) Modify toolbar
(d) Standard toolbar
11. Press the F9 key of the keyboard for:
(a) Grid on/off
(b) Snap on/off
(c) Ortho on/off
(d) Osnap on/off
12. In the coordinate system of AutoCAD 2008:
(a) Positive $x$ figures are to the left
(b) Positive $x$ figures are to the right
(c) Positive $x$ figures are in the direction vertically upwards
(d) Positive x figures are in the direction vertically downwards.
13. Drawing templates are held in files with the file extension:
(a) *.dwt
(b) -*.dwg
(c) *.bmp
(d) *.dwr.
14. A left-click on a name in a drop-down menu showing three dots (...) appearing after the
name means that:
(a) A command name will appear at the command line
(b) A dialog will appear on screen
(c) A sub-menu will appear
(d) A tool will be activated.
15. AutoCAD 2008 can be opened with:
(a) A left-click on the AutoCAD 2008 shortcut icon in the Windows desktop
(b) By typing acad at the keyboard
(c) Automatically when the computer is switched on
(d) By selecting from a list which appears on screen when the computer is switched on.
16. The term dragging means:
(a) Left-click on an item and the item can be moved to another position on screen
(b) Double-click on an item. The item can then be moved to another point on screen;
(c) Holding down the left-hand button of the mouse on an item can be moved to another point on screen
(d) Press the right-hand button of the mouse. This allows an item to be moved anywhere on screen.
17. The key F9 toggles on/off:
(a) Snap
(b) Ortho
(c) Grid
(d) DYN.
18. When entering absolute coordinate numbers at the command line, the coordinates are preceded by:
(a) The letter a
(b) The symbol @
(c) The letters ab
(d) There is no need to enter anything in front of the coordinate numbers
19. The command line abbreviation for the Circle tool is:
(a) cir
(b) c
(c) ci
(d) cl .
20. The Arc tool can be called by entering the following abbreviation at the command line:
(a) ar
(b) a
(c) ac; (
(d) There is no abbreviation. The name arc must be entered in full.


Oriental College of Technology Bhopal

## Department of Mechanical Engineering

Attendance sheet for value added cource on 3D-printing-and-3Dseanning Acto CAD

| S. <br> No. | ENROLLMENT No | NAME |  | $\infty$ $\stackrel{y}{3}$ $\stackrel{y}{c}$ $\stackrel{1}{3}$ | $\infty$ <br>  <br>  <br> $\vdots$ <br> $\vdots$ | $\infty$ $\underset{\sim}{3}$ $\stackrel{\omega}{6}$ $\stackrel{1}{6}$ |  | - |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| 1 | 0126ME161001 | AAKASH CHANDRA | P | . | $p$ | P | . | $P$ |
| -2 | 0126ME161002 | AAYUSH SINGHAI | P | $\Gamma$ | p | . | $p$ | $\rho$ |
| 3 | 0126ME161003 | ABHAY KUMAR | . |  | + | , | $p$ |  |
| 4 | 0126ME161004 | ABHISAR GAUTAM | $\rho$ |  | $p$ | $\rho$ |  | $p$ |
| 5 | 0126ME161005 | ABHISHEK JAIN | P | P | + | $p$ | , | $p$ |
| 6 | 0126ME161006 | ABHISHEK MISHRA |  |  |  | . | . |  |
| 7 | 0126ME161007 | ABHISHEK MISHRA | $\rho$ | , | $p$ | P |  | $p$ |
| 8 | 0126ME161008 | ADAMYA SHAH | P | P | $P$ | $p$ | P | $p$ |
| 9 | 0126ME161009 | AKHIL VILATKAR | . | , | . | , | - | P |
| 10 | 0126ME161010 | ALOK MINZ | . | $\therefore$ | - | $P$ | 8 | P |
| 11 | 0126ME161011 | AMAN SIKARWAR | P | $p$ | . | P | $\theta$ | ' |
| 12 | 0126ME161012 | AMBUJ GAUTAM | p | $P$ | $p$ | - | - | $P$ |
| 13 | 0126ME161013 | ANUJ RAJPUT | $p$ | P | , | $P$ | P | - |
| 14 | 0126ME161014 | ANUPAMA SARATHE | P | $P$ |  | P | P | p |
| 15 | 0126ME161015 | ANURAG SINGH | , |  | P | P | $p$ | , |
| 16 | 0126ME161016 | ARJUN BHADOURIYA |  | , | . | - | , |  |
| 17 | 0126ME161017 | ASHISH TRIPATHI | $P$ | P | , | P | $p$ | , |
| 18 | 0126ME161018 | ASHUTOSH SHARMA | . |  |  |  |  |  |
| -19 | 0126ME161019 | ASWIN NAWANGE | P | $p$ | , | -P | P | , |
| 20 | 0126ME161020 | ATUL DWIVEDI | , |  | P | P | P | , |
| 21 | 0126ME161021 | ATUL SURVARIYA | P | $p$ |  | , | $p$ |  |
| 22 | 0126ME161022 | AYUSH DIWAN | P | $P$ | P | $P$ | , | $p$ |
| 23 | 0126ME161024 | BHAVESH KAIGAONKAR | $p$ | , | $p$ | + | $p$ | $p$ |
| 24 | 0126ME161025 | BRAJPAL SINGH | , | $\stackrel{ }{+}$ |  | , |  | , |
| 25 | 0126ME161026 | DEEPAK SINGH GOUR | $P$ |  | - | $p$ | , | $p$ |
| 26 | 0126ME161027 | DEVERSHI DUBEY | $P$ | 8 | , | $p$ | $p$ | , |
| 27 | $0126 \mathrm{ME161028}$ | DIVYANSH TOMAR | $p$ | $p$ | , | $p$ | P | , |
| 28 | 0126ME161029 | DIVYANSHU SINGH | $p$ | $\bigcirc$ | $p$ | P | $p$ | 1 |
| 29 | 0126ME161030 | GUFRAN MOHAMMED | , | ? | , | P | P | P |
| 30 | 0126ME161031 | HARSH GUPTA |  | - | , | r | ' | , |
| 31 | 0126ME161032 | HARSH TIWARI | P | ' | P | , | P | p |
| 32 | 0126ME161033 | HIMANSHU KUMAR | $p$ | - | P | - | P | 1 |
| 33 | 0126ME161034 | HIMANSHU SINGH |  | P | , | p | 1 | 1 |
| 34 | 0126ME161035 | KUMAR MANGALAM | $P$ | $p$ | $\rho$ | 1 | $p$ | $p$ |
| -35 | 0126ME161036 | KUNAL DONGRE |  |  |  |  |  |  |
| 36 | SY26ME161037 | MADHUR CHATURVEDI | $P$ | , | $P$ | , | $P$ | ' |
|  |  | MANOJ VISHWAKARMA | $p$ | $P$ | $P$ | , | $P$ | $p$ |
|  | Orgmeldob | MD FAIYAZ | P |  | P | $p$ | $p$ | 1 |
|  | Kizhich 680 | MD SHARIQUE KHAN | $p$ | $P$ | $P$ |  | \$ | $p$ |
|  | OH26MER6T041 | MD JUNED KHAN | , | $P$ |  | $p$ | NP | $p$ |
| Oriental Coilege of lectr- : -us, Thakral Nagar, Raisen Road Bhopal |  |  |  |  |  |  |  |  |



## Oriental College of Technology Bhopal

Department of Mechanical Engineering
Attendance sheet for value added cource on 3D-printing-and-3D-scanning Acdo CAD

| S. <br> No. | $\begin{gathered} \text { ENROLLMENT } \\ \text { No } \end{gathered}$ | NAME |  | $\begin{aligned} & \infty \\ & \stackrel{\sim}{1} \\ & \stackrel{y}{c} \\ & \stackrel{y}{c} \end{aligned}$ | $\begin{aligned} & \infty \\ & \underset{\sim}{\top} \\ & \stackrel{N}{0} \\ & \underset{\sim}{4} \end{aligned}$ |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| 81 | 0126ME161083 | SHUBHAM SINGH |  |  |  |  |  |  |
| \$2 | 0126ME161084 | SHYAM SUNDAR TIWAR | $p$ | , | * | , | $p$ | $p$ |
| 83 | 0126ME161085 | SHYAMENDRA PRATAP | $p$ | $p$ | ! | $p$ | 。 | , |
| 84 | 0126ME161086 | SIDDHANT BANARSI | $\checkmark$ | P | $p$ | -p | $P$ |  |
| 85 | 0126ME161087 | SPARSH TYAGI |  | P | p | $\rho$ | $P$ | , |
| 86 | 0126ME161089 | SUSHANT SINGH | $p$ P | $p$ | $\sim$ | A | P |  |
| 87 | 0126ME161090 | TANVEER KUNDNANI | $p$ | $p$ | + | $p$ | $p$ | P |
| 88 | 0126ME161091 | TUSHAR MISHRA | $p$ | P | $P$ |  |  | - |
| 89 | 0126ME161092 | UDIT VYAS | $P$ | $p$ | , | $?$ | p | 1 中 |
| 90 -91 | 0126ME161093 | UTKARSH BANSAL | $N$ | $p$ | , | $p$ | A | $p$ |
| -91 | 0126ME161094 | VIKRANT GAYKWAD | ' | $p$ | $p$ | 1 | $\bigcirc$ | P. |
| 92 | 0126ME161095 | VINIT SINGH BAGHEL | P | $\bigcirc$ | If | - $p$ | - | P |
| 93 | 0126ME161096 | VISHAL KUSHWAHA | r | $P$ r | $\cdot P$ | r | $p$ | $P_{1}{ }^{\text {. }}$ |
| 94 | 0126ME161097 | WAQUAR AHMAD | $p$ | $p$ | , | 1 | $\rho$ | 1 |
| 95 | 0126MEI73D01 | HARIOM TIWARI | $p$ | , | $\rho$ | P | $p$ | P |



Director
Oriental College of Technology Thakral Nagar, Raisen Road Bhopal





COURSE EVALUATION/ FEEDBACK FORM

| Value Added Course | AutoCAD |
| :--- | :--- |
| Date: | 12th - 17th March ,2018 |
| Program Location: | Oriental College of Technology, Bhopal |
| Presenter(s): | Mr. Saumitra Sharma |

Please respond to the following statements by using the 4-point rating scale to indicate the extent to which you agree or disagree with each statement. Please circle the number that applies.

$$
4=\text { Strongly Agree } \quad 3=\text { Agree } \quad 2=\text { Disagree } \quad I=\text { Strongly Disagree }
$$

| 1. The Course objectives were stated clearly and met. | 4321 |
| :---: | :---: |
| 2. The Course was well organized. | 4321 |
| 3. The information and/or skills presented were relevant and useful | 4321 |
| 4. The presenter(s) provided adequate time for questions and answered them effectively. | 4321 |
| 5. The presenter(s) allowed me to work with and learn from others. | 431 |
| 6. The materials provided were sufficient \& appropriate for the program. | 4321 |
| 7. The physical arrangements were adequate. | 4321 |



## AutoCAD

## March 12, to March 17, 2018.



Director


Oriental College of Techno: Thakral Nagar, Raisen Road Bhopal

## ORIENTAL COLLEGE OF TECHNOLOGY, BHOPAL

|Approved by AICTE, New Delhi \& Govt. of M.P. Affiliated to Rajiv Gandhi Proudyogiki Vishwavidyalaya, Bhopal
Oriental Campus, Raisen Road, Bhopal-462021 (MP) [INDIA]


Session: 2017-18

## Department of Mechanical Engineering CERTIFICATE

This is to certify that Mr./Ms. AAKASH CHANDRA student Of $2^{\text {nd }}$ YEAR, OCT, Bhopal, has Completed the "Value Added Course" on "AutoCAD" during $12^{\text {th }}-17^{\text {th }}$ March ,2018 organized by Department of Mechanical Engineering, Oriental College of Technology,"Btopal.


Coordinator, ME, OCT


Oriental Director
Thakral Nagar, Raisen Poolo y


## ORIENTAL COLLEGE OF TECHNOLOGY, BHOPAL

## Department of Mechanical Engineering



## Report on Value Added Course on Auto CAD

Date and Time:
Venue:
Organized by:
Name of the Speakers:

Participants Details:

March 12, to March 17, 2018.
Mechanical Engineering Department, OCT Campus. Mechanical Engineering Department, OCT, Bhopal. Mr. Saumitra Sharma, Assistant Professor, Department of Mechanical Engineering, OCT, Bhopal, Mr. A P S Bhadouria, Assistant Professor, Department of Mechanical Engineering, OCT, Bhopal, Mr. Dharmendra Yadav, Assistant Professor, Department of Mechanical Engineering, OCT, Bhopal, Mr. Shahnawaz Ansari, Assistant Professor, Department of Mechanical Engineering, OCT, Bhopal. Second year students of Mechanical Engineering.

## Summary of the Event

The Value added course Play an important role in Strengthening the technical skills of undergraduates. In the race of making good and bright career in short span of time, most of the time students neglect the aim and the need of education. In view of this changing pattern and condition of youth education in India, and to guide students on different topics which are not covered under the defined academic syllabus, the Mechanical Engineering Department of Oriental College of Technology, had organized "Value Added Course on Auto CAD" from March 12, to March 17, 2018 for the students of second year . Mechanical Engineering, OCT, Bhopal, Mr. A P S Bhadouria, Assistant Professor, Department of

Mechanical Engineering, OCT, Bhopal, Mr. Dharmendra Yadav, Assistant Professor, Department of Mechanical Engineering, OCT, Bhopal, Mr. Shahnawaz Ansari, Assistant Professor, Department of Mechanical Engineering, OCT, Bhopal in 30 Hrs. of 6-Day program.
On March 12, the course started with the inaugural and presidential speech of Dr. Ranjeeta Khare, Director, Oriental College of Technology. In his presidential speech she emphasized on the need to collaborate the academic and the non academic education.
On March 12, the Course coordinator, Mr. Saumitra Sharma, guided all students on the topic "AutoCAD". In his speech, he had explained the need for every student to have skills to get a job. He also explained about brief introduction of AutoCAD. Mr. Dharmendra Yadav and Mr. APS Bhadouria also explained some more details of AutoCAD workbench.
On March 13, Mr. Dharmendra Yadav, explained, how to start AutoCAD. Mr. APS Bhadouria explained, about coordinate system and Mr. Shahnawaz Ansari explained, about object selection methods.
On March 14, Mr. APS Bhadouria, explained, how to do advance sketching. Mr. Dharmendra Yadav explained, how to place different lines and points and Mr. Saumitra Sharma explained, how to write a single line text.
On March 15, Mr. Dharmendra Yadav, explained, details of drawing aids. Mr. APS Bhadouria explained, different object properties and Mr. Saumitra Sharma explained, how to work with object snaps.
On March 16, Practice sessions taken by Mr. Dharmendra Yadav, Mr. APS Bhadouria and Mr. Saumitra Sharma.
On March 17, Mr. APS Bhadouria, has given assignment to students on modelling of different ICengine parts.
At last, Dr. Adarsh Sachdeva, Head ME, Convenor of Course gave away the vote of thank. He thanked to all speaker for providing valuable time for successful conduction of this course for our students. At the end he thanked all the faculties, office staff and student volunteers for their unconditional support in organizing this Course.

## Dr. Adarsh Sachdeva




Director

# ORIENTAL COLLEGE OF TECHNOLOGY, BHOPAL <br> Amount by AICIE, New Delis Govt, of MIP Ablated to lajiv Gandhi Proudyogitl Vishwavidyalaya, Bhopal Oriental Campus, Raven Road, Hhopal-462021 (MII) INDIA 

Date: 17 June 2014

## Policy for Value Added Course

1. The minimum duration of each Value Added Course will be of 30 hrs.
2. Only students who are registered for the semester will be allowed to attend the course.
3. The assessment procedure will be based on the Class Room Assessment, Objective test \& attendance.
4. The course is free to en foll and learn from. But if student want a certificate, then they have to register and write the proctored exam conducted by us in person at Oriental College of Technology, Bhopal
5. Criteria to get a Certificate: Final score $=$ Class Room Assessment Score + Objective Test Score, with minimum of $60 \%$ attendance during the course.
6. Student will be eligible for. a certificate only if:
a. Class Room Assessment $>=25 / 50$
b. Objective Test Score $>=25 / 50$.
c. If one of the two clause $(\mathrm{a}, \mathrm{b})$ is not met, student will not get the certificate even if the Final score $>=50 / 100$.
7. Students will be issued with a certificate consisting of student name, semester, course name, Course duration.


> Director
> Oriental College of Technology Thakkral agar, Raise Road Brecal

1. Academic Committee
2. All HoD's , OCT


Oriental College of Technology Thakral Nagar, Risen Road Bhopal
Bhopal, the capital of Machya Pradesh, is also isoo
country by rail and air..
central workshop. sports \& games facilities ecc. : of faculty with experience in teaching, industr. Research. The state-of-ant facilities and coms faculties provide an excellent climate for the all
 committed and motivated faculy members : specialization in various streams. The core compr of the Deparment is in the area of AUTC Designing.
ABOUT THE COLR
Civil Engineering plays prominent role in every 3 and vital role in development of Nation. -AUTO is Value Added course which will provide tencfits participants in many ongoing research areas in technologies.
CHIEF PATRONS
Or. K. L. Thakral
PATRONS
Shri. Praveen Thakral
Criental University, Indores and Chancellor,
Chairman, Oriental Group of Institutes
Mrs. Niraj Ghei
Chair Person, Oriental College of Technology, Bhopal
ADVISORY COMMITTEE
Dr.Ranjeeta Khare
Director, OCT, Bhopal
CONVENOR
 Mobile: $+91942567 \overline{2395}$
COURSECORRDINATOR
IEROD YOV. JW -Mobile: 9713648401





 Advanced Computer Studies.
Oriental College of Technology,
Value Added Course

## uo

## "AUTOCAD" <br> 11/09/2017 to 15/09/2017 <br> $2^{\text {nd }}-$ Year Students

## Organized By

Department of Civil Engineering
EThakral Nagar, Raisen Road, Bhopal -
Phone:: 2529026, 2529057, Fax: 07552529472
city of lakes. It is well connectes to all parts
ABOUT THE DEPARTMFNT
The Department of Civil Engineering is a major sc

$\frac{\text { QOEOFTEC }}{\text { Director }}$
Oriental College of Technology Thakral Nagar, Raisen Road

Oriental College of Technology
Thakral Nagar, Raisen Road Bhopal

# ORIENTAL COLLEGE OF TECINOLOGY, BHOPAL 

Department of Civil Engineering
AUTO CAD
Value added courso
Time Durations - 30 Hrs
CE-20001
Course coordinator -Mr.Alok Goyal
Session-1

## 1 Introduction

2. Computer Hardware and Software Concepts Systems WINDOWS-XP. Windows-7, File

Computer and Oper
Introduction of Personal Computer and Operating Systems WINDOWSXP. Wid Management

Session- 2

1. Construction of plane and complex geometrical figures
2. Principles of Projections
3. Projections of Straight Lines and Solids
4. Section of Solids

## Session- 3

1. Setting up a drawing starting from scratch
2. Setting up a drawing using a Wizard
3. Using and creating a template file
4. Opening an existing drawing
5. Screen layout
6. Pull-down menus
7. Screen icons
8. Command line
9. status bar
10. Dialogue boxes
11. Drawing Commands
12. Lines, Ray, Construction Line
13. Multiline and polylines
14. Rectangles
15. Arc, Circle and Ellipse
16. Polygon, Spline

Session. 4

1. Co-ordinate input methods (directive, absolute, relative and polar)
2. Starting a New Drawing/Opening an existing drawing
3. Drawing Commands (multi-line \& single line) and Formatting Text Styles
4. Hatching Command Drawing Settings and Aids
5. View Commands \& Drawing Setins ant (multi-line \& single line) and Formatting Text Styles
6. Modify Command -1) Hatcning 2) Dimension Style and Multi-leader Style
7. Dimension Command Form
8. Saving and Plotting

## Session- 5

1. Individual Project \& Team Project

Date-11/09/2017 to 15/09/2017

| $11 / 09 / 2017$ | Modules |  |
| :--- | :--- | :--- |
| Inaugurations Ceremony | N |  |
| Introduction to AUTOCAD soflware |  |  |
| I.unch time | N |  |
| Learning basics of drawings | M |  |
| Break |  |  |
| Introduction to 2D \& 3D Drawings |  |  |

Faculties

## Time

$9: 30-10: 00 \mathrm{AM}$
10:00 AM-12:301'M
12:30-1:10PM
01:10-3:10PM
3:10-3-301'M
03:30-5:301M
12/09/2017
Time
9:00.11:00AM
$11: 00-11: 30 \mathrm{AM}$
11:30-01:00PM
$01: 00-1: 40 \mathrm{PM}$
01:40-4:30PM

|  | Session |
| :--- | :--- |
|  | T |
|  | Introductions to principle of projection |
| Break | Mr |
| Arc, circle and ellipse |  |
|  | Lunch |
|  | Introductions to Sections of Solids |

Teacher
Mr. Manish Kumar Sharma

Mr. Alok Goyal

Mr. Alok Goyal

| $13 / 09 / 2017$ |
| :--- |
| Time |
| $9: 00-11: 00 \mathrm{AM}$ |
| $11: 00-11: 30 \mathrm{AM}$ |
| $11: 30-01: 00 \mathrm{PM}$ |
| $01: 00-1: 40 \mathrm{PM}$ |
| $01: 40-4: 30 \mathrm{PM}$ |


| Session | Teacher |
| :--- | :--- |
| Learning of 3D drawing | Mr. Alok Goyal |
| Break |  |
| Various Structural elements such as staircase | Mr. Dharmendra Singh Dangi |
| Lunch time |  |
| Drawing various structural elements of a building | Mr. Alok Goyal |


| Session | T |
| :--- | :--- |
| Practice Session on Various commands of | M |
| AUTOCAD | Break |
| Practice Session on 2D \& 3D drawing | M |
| Lunch time |  |
| Saving \& plotting commands |  |


| Teacher |
| :--- |
| Mr. Alok Goyal |


| Time |
| :--- |
| $9: 00-1.1: 00 \mathrm{AM}$ |

11:00-11:30AM
11:30-01:00PM
01:00-1:40PM
01:40-4:30PM
15/09/2017



Criental Cu ge itestreleg?
B1O7:

ORIENTAL COLLEGE OF TECHNOLOGY, BHOPAL
Department of Civil Engineering
Value Added Course on Auto CAD
Multiple Choice Test
Date: 15/09/2017

| Branch: | Civil Engineering |  | Max. Marks-50 <br> Minimum Marks:25 |
| :--- | :--- | :--- | :--- |
| Semester: | Third Semester |  | Subject Code: CE 20001 | Time: 1:301Irs | Subject: |
| :--- |
| AUTO CAD |
| Note |

Multiple Choice Questions
(a) The Draw toolbar
(b) The Modify toolbar
(c) The Standard toolbar
(d) The Properties toolbar
2. The DesignCenter palette can be opened from the:
(a) Layer toolbar
(b) Properties toolbar
(c) Modify toolbar
(d) Standard toolbar
3. Press the F9 key of the keyboard for:
(a) Grid on/off
(b) Snap on/off
(c) Ortho on/off
(d) Osnap on/off
4. In the coordinate system of AutoCAD 2008:
(a) Positive x figures are to the left
(b) Positive $x$ figures are to the right
(c) Positive $x$ figures are in the direction vertically downwards.
(d) Positive x figures are in the direction vertically downwards
5. Drawing templates are held in files with the file extension:
(a) . dwt
(b) -*.dwg
(c) *.bmp
(d) *.dwr.

6. A left-click on a name in a drop-down men n showing three dots (...) appearing after the
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(b) By typing scad at the hey board
(c) Automatically when the computer is switched on when the computer is switched on.
(d) By seloting from a list which appears on screen
S. The tern dragging means:
(a) 1 eft-clich on an item and the item can en be moved to another point on screen;
(b) Double-clich on an item. The item came mouse on an item can be moved to another point
(c) Holding down the left-hand button any mite moved anywhere on on screen
(d) Press
9. An arrow appearing after a name in a drop-down menu means that:
(a) A command name will appear at the command line
(b) A dialog will appear on screen
(c) A sub-menu will appear
(d) A tool will be activated.
10. To call the Line tool from the command line, the following abbreviation can be entered:
(a) lin
(b) li
(c) 1
(d) In.


Oriental College of Technology
Thakral Nagar, Raisen Road Bhopal

Oriental College of Technology,Bhopal

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1 PRISCH．1ADA



Director
Oriental College of Technology Thakral Nagar，Raisen Road Bhodal

Oriental College of Technology,Bhopal
Department of Clvil Engineering auto cao (Value Added Course)

Course Code: (I 20001
Date - $11 / 09 / 2017$ to $15 / 09 / 2017$
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## Orlontal Collogjo of Tochnolony, Bhopal

## Foodbnck Form

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| , | Oriental College of Teclinology. Bhopal |
| . | Mr. Manish Kumar Sharma, Mr. Alok (ioyal, Mr. Dharmendra Singh Dangi |

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# Oriental College of Technology, Bhopal <br> Department of Civil Engineering <br> AUTO CAD (Value Added Course) <br> Course Code: CE 20001 <br> Date - 11/09/2017 to 15/09/2017 



ORIENTAL COLLEGE OF TECHNOLOGY, BHOPAL
[Approved by AIcTE, New Delhi $\&$ Govt of mP. Affixated to Rajiv Gandhi Proudyogiki Vishwavidyalaya, Bhopal
Oriental Campus, Risen Road, Bhopal-462021 (MP) INDIA]
ORIENTAL COLLEGE OF TECHNOLOGY, BHOPAL
[Approved by AICTE, New Delis \& Govt. of m.P. Affiliated to Rajiv Gandhi Proudyogiki Vishwavidyalaya, Bhopal
Oriental Campus, Raisen Road, Bhopal-462021 (MP) INDIA]
ORIENTAL COLLEGE OF TECHNOLOGY, BHOPAL
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Oriental Campus, Raisen Road, Bhopal-462021 (MP) INDIA]
This is to certify that Mr.Ms AAMIR UDDIN KHAN of CE III Semester, OCT, Bhopal,
has Successfully Completed the "Value Added Course" on "AUTOCAD" during 1115 Sept 2017, organized by Department of Civil Engineering, Oriental College of

ORIENTAL COLLEGE OF TECHNOLOGY, BHOPAL
[Approved by AIcTE, New Delhi $\&$ Govt of mP. Affixated to Rajiv Gandhi Proudyogiki Vishwavidyalaya, Bhopal
Oriental Campus, Risen Road, Bhopal-462021 (MP) INDIA]
Technology, Bhopal.
Head of Department, CE CCT


# ORIENTAL COLLEGE OF TECHNOLOGY <br> BHOPAL 



## Department of Civil Engineering

## Report on Value Added Course on "AUTOCAD"

Date and Time: 11/09/2017 to 15/09/2017. Venue: CE, OCT Campus. Organized by: CE, OCT, Bhopal. Name of the Speakers: Mr. Manish Kumar Sharma (HOD CE), Mr.Alok Goyal \& Mr. Dharmendra Singh Dangi, Participants Details: Second year students of Department of Civil Engineering.

## Summary of the Event

The Value added course plays an important role in strengthening the technical skills of undergraduates. In the race of making good and bright career in short span of time, most of the time students neglect the aim and the need of education. In view of this changing pattern and condition of youth education in India, and to guide students on different topics which are not covered under the defined academic syllabus, the Civil Engineering Department of Oriental College of Technology had organized "Value Added Course on Auto Cad" from 11/09/2017 to 15/09/2017 for the students of second year.

This Course syllabus was covered by Mr. Manish Kumar Sharma (HOD CE), Mr.Alok Goyal \& Mr. Dharmendra Singh Dangi CE, OCT in 30 Hrs. of 5-Day program.

On 11/09/2017, the course started with the inaugural and presidential speech of Dr. Ranjeeta Khare, Director, Oriental College of Technology. In his presidential speech she emphasized on the need to collaborate the academic and the non academic education.

On 11/09/2017, Mr. Manish Kumar Sharma (HOD CE), Mr.Alok Goyal, make students Learned Introduction to AUTO CAD Software \& rafoidgion to 2D \& 3D dralwings, On $12 / 99 / 2017, \mathrm{Mr}$.

Manish Kumar Sharma, make students Leaned Introductions to principle of projection. Are circles and eclipse. On 13/09/2017. Mr.Alok Goyal \& Mr. Dharmendra Singh Dangi, make students learned 3D Drawing \& Drawing various structural elements of a building \& Footings. On 14/09/2017. Mr. Mannish Kumar Sharma (HOD CE), Mr. Alok Goyal Conducted Practice Session on Various commands of AUTOCAD such as saving and plotting commands. On 15/09/2017. Mr.Alok Goyal, assigned to draw Designing of 1 BHK plan followed by Value added course assessment test organised by Mr. Dharmendra Singh Dangi. At last Mr. Manish Kumar Sharma (HOD CE) Convenor of Course gave away the vote of thank. She also thanked Mr. Alow Goral \& Mr. Dharmendra Singh Dangi for addressing the student audience on the said topic. At the end he thanked all the faculties, office staff and student volunteers for their unconditional support in organizing this Course.

Mr. Manish Kumar Sharma
Course Convenor
CE, OCT



Oriental College of Technology Thakral Nagar, Raisen Road Bhopal

## Oriental College Of Technology, Bhopal

Date: 17 June 2014

## Policy of Value Added Course

1. The minimum duration of each Value Added Course will be of 30 hrs.
2. Only students who are registered for the semester will be allowed to attend the course.
3. The assessment procedure will be based on the Class Room Assessment, Objective test \& attendance.
4. The course is free to enroll and learn from. But if student want a certificate, then they have to register and write the proctored exam conducted by us in person at Oriental College of Technology, Bhopal
5. Criteria to get a Certificate: Final score = Class Room Assessment Score + Test Score, with minimum of $60 \%$ attendance
6. Student will be eligible for a certificate only if :
a. Class Room Assessment $>=25 / 50$
b. Exam Score $>=25 / 50$.
c. If one of the 2 criteria is not met, student will not get the certificate even if the Final score $>=$ 50/100.
7. Students will be issued with a certificate consisting of student name, semester, course name, Course duration.

Copy to:
I. Academic Committee
2. All HoD's, OCT


## Director

Oriental Cubage of Techanogy
Thakal Wager, Ramen Road
Bharal

Registration Form

Name:

Enrollment No. $\qquad$

Branch : $\qquad$

Semester: $\qquad$

Address. $\qquad$
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City \&Pin. $\qquad$

E-mail id. $\qquad$

Contact No : $\qquad$


## CHIEF PATRONS

Dr. K. L. Thakral
Founder Chairman, Oriental Group of Institutes and
Chancellor, Oriental University, Indore

## PATRONS

Shri. Praveen Thakral Chairman, Oriental Group of Institutes

Mrs. Niraj Ghei
Chair Person, Oriental College of Technology, Bhopal
ADVISORY COMMITTEE
Dr. Ranjeeta Khare
Director, OCT, Bhopal

CONVENOR
Dr. L. K. Vishwamitra octhodcse@oriental.ac.in Mobile: +919630087969

Oriental College of Technology,
Bhopal


## Value Added Course

On
"JAVA PROGRAMMING"
[16-20, October, 2017]
For III-Year Students

## Organized By

Department of Computer Science Engineering

ORGANISING COMMITTEE MEMBERS
Mr. Sourabh Jain
Mobile: +918770547965
Mr. Pradeep Mishra

CONTACT
Dr. L. K. Vishwamitra octhodcse@oriental.ac.in Mobile: +919630087969 Mr. Pradeep Mishra
Mobile: +91992617094

Oriental College of Technology, Thak finagar, Raisen Road, Bhopal - 462021 CNV NRM: 2529026, 2529057, Fax: 0755-2529472 Directot
Oriental College of Toohology Thakrol Moget ". 's. Fond

ABOUT THE ORIENTAL GROUP
Oriental Group of Institutes (Indore - BhopalJahalpur) India established in the year 1995 is a self finaned premier education group imparting ducation in the disciplines of Engineering. Phamacy, Management and Advanced Computer Studies The Oriental College of Technology offers six under graduate Bachelor of Engineering courses and three post graduates Master of Technology courses The college is having an excellent library, intemer lab, modern labs for each department, central worishop, sports © games facilities ete.
Bhopal, the capital of Madhya Pradesh, is also known as city of lakes. It is well connected to all parts of the country by rail and air. The institute is atout 09 km from Bhopal railway station, and 07 km from Habibsanj railway station and 18 km from Raja Bhoi Airpor.

## ABOUT THE DEPARTMENT

The Deparment of Computer Science is a major strength of the institute. The Department has an excellent group of faculty with experience in teaching. Industry and Research. The state-of-art facilities and competansthettres provide an evcellent dimate for the all fönd devefopment of the students. It has wel gualifia, comphitted and motivated faculty members baviogerecialization in various streams.

The CS Department offers M.Tech Course in Computer Science along with Undergraduate $\checkmark$ Program (B.E/B.Tech) with an intake of 18 and 120 respectively.

## ABOUT THE COURSE

Computer Science Engineering plays prominent role in every domain and vital role in development o Nation. "Java Programming" is Value Added course which will provide benefits to the participants in many ongoing research areas in latest technologies.

## OBJECTIVESE CONTENTS

Java is a high-level programming language and computing platform developed by Sun Microsystems in 1995. With the growing importance of web based and mobile based applications, Java today is the foundation for most networked applications and is considered to be useful for scripting, web-based content, enterprise software, games and mobile applications.
$\checkmark$ To know the basics of Java and JVM.
$\checkmark$ To know about the basic java application, blocks, loops and branches.
$\checkmark$ To know about the GUl programming, arrays, generic programming and collection of classes and GU1.

## ELICIBILITY

The Third year Students of Computer Science Engineering branch is eligible to attend the Java programming course.

## REGISTRATION

No Registration fees. SPEAKERS

## Mr. Sourabh Jain

Associate Professor, Dept CSE, OCT Bhopal


Java


# ORIENTAL COLLEGE OF TECHNOLOGY, BHOPAL <br> <br> Department of Computer Science \& Engineering 

 <br> <br> Department of Computer Science \& Engineering}


## Java Programming Syllabus (CSE30001)

## Module 1-Introduction

$T_{3}$, es of Programming language and Paradigms. Java - what, where and why? Platform independency, Comparison in Java with C and C++, Role of Java Programmer in Industry ,Java Evolution and History ,Features of Java Language. The Java Virtual Machine (JVM) - The heart of Java. Java's Magic Byte code JDK , JRE and JIT

## Module 2- Language Fundamentals or Grammar of Java

The Java Environment: Installing Java in WINDOWS and LINUX. Java Program Development in different environment. Java Source File Structure ',Introduction to VI, notepad, edit plus editor and Net beans, Eclipse IDE, Compilation and Executions procedure using different editor and IDE, Reference parameters, Output parameters, Access specifiers and its requirement in java. Naming conventions.

## Module 3- Reserve / Keywords present in Java Primitive Data types and Block in java

Lexical Tokens, Identifiers, Instance of operator and typecasting. Primitive Data types and Block in javaDeft types int, char, float, double, Boolean, short, long , byte , UNICODE system, Value type, Reference type, Types and Scope of variables, Static variables, Instance variable, Local variables, final variable, :ransient variable, volatile variable, Static block and Non-static block, Static, non-static, final, abstract, native and synchronized Communicate java application with other language using java native interface.

## Module 4-Decision Making

Java Operators, Wrapper Class, Decision making and branching Programming with Java

## Module 5-Extending Classes

Object Oriented Programming, Extending Classes and Inheritance, Package, Exception Handling, The Idea behind Exceptions Exceptions \& Errors, Types of Exception, Checked and Un-Checked Exceptions, Control Flow in Exceptions, Use \& tr k and catch block


Director
Oriental College of Technology Thakal Merger, Ramen Road Bromal


Head of Department


## ORIENTAL COLLEGE OF TECHNOLOGY, BHOPAL

## Department of Computer Science \& Engineering


$\qquad$ Enrollment No: $\qquad$

1) What is the range of short data type in Java?
a) -128 to 127
b) -32768 to 32767
C) -2147483648 to 2147483647
$\therefore$ ) None of the mentioned
2) An expression involving byte, int, and literal numbers is promoted to which of these?
a) int
b) long
c) byte
d) float
3) What will be the output of the following Java code?
class increment \{
public static void main(String ergs[])
\{
int $g=3$;
System.out.print(++g * 8);
\}
\}
a) 25 b) 24 c) 32 d) 33

In object-oriented programming, composition relates to
(a) The use of consistent coding conventions
(b) The organization of components interacting to achieve a coherent, common behavior
(c) The use of inheritance to achieve polymorphic behavior
(d) The organization of components interacting not to achieve a coherent common behavior
(e) The use of data hiding to achieve polymorphic behavior.
4) Which of these is an incorrect array declaration?
a) int $\operatorname{arr}[]=$ new int[5]
b) int [] arr = new int[5]
c) int arr[] = new int [5]
d) int arr[] = int [5] חeWEGE
5) What will be the output of the following Java code?

a) 0
b) value stored in arr[0]
c) 00000
d) Class name@ hashcode in hexadecimal form
6) Object-oriented inheritance models the
(a) "is a kind of" relationship
(b) "has a" relationship
(c) "want to be" relationship
(d) inheritance does not describe any kind of relationship between classes
(e) "contains" of relationship.
7) The wrapping up of data and functions into a single unit is called
(a) Encapsulation (b) Abstraction
(c) Data Hiding (d) Polymorphism (e) Message passing.
8) Polymorphism
(a) Is not supported by Java
(b) Refers to the ability of two or more objects belonging to different classes to respond to exactly the same message in different class-specific ways
(c) Simplifies code maintenance
(d) Not simplifies code maintenance
(e) Refers to the ability of two or more objects belonging to different classes to respond to exactly the same
.essage in different class-specific ways and simplifies code maintenance.
9) In object-oriented programming, new classes can be defined by extending existing classes. This is an example of:
(a) Encapsulation (b) Interface (c) Composition
(d) Inheritance (e) Aggregation.
10) Given a class named student, which of the following is a valid constructor declaration for the

## class?

(a) Student (student s) \{ \} (b) Student student () \{ \}
(c) Private final student () \{ \} (d) Void student ( ) \{ \}
(e) Static void student() $\}$.
11) What is garbage collection in the context of Java?
(a) The operating system periodically deletes all of the java files available on the system.
(b) Any package imported in a program and not used is automatically deleted.
(c) When all references to an object are gone, the memory used by the object is automatically reclaimed.
(d) The JVM checks the output of any Java program and deletes anything that doesn't make sense.
(e) When all references to an object are gone the memory used by the object is not reclaimed.
12) The concept of multiple inheritances is implemented in Java by
xtending two or more classes.
II. Extending one class and implementing one or more interfaces.
III. Implementing two or more interfaces.
(a) Only (II) (b) (I) and (II) (c) (II) and (III)
(d) Only (I) (e) Only (III).
13) In Java, declaring a class abstract is useful
(a) To prevent developers from further extending the class
(b) When it doesn't make sense to have objects of that class
(c) When default implementations of some methods are not desirable
(d) To force developers to extend the class not to use its capabilities
(e) When it makes sense to have objects of that class.
14) What is the error in the following class definitions?

Abstract class xy \{abstract sum (int anthev) $\{d\}$
(a) Class header i
(b) Constructor is
(c) Method is not defined properly
(d) Method is defined properly
(e) No error.
15) Which of these field declarations are legal within the body of an interface?
(a) Private final static int answer $=42$ (b) public static int answer =42
(c) final static answer $=42$ (d) int answer
(e) No error.
16) A package is a collection of
(a) Classes (b) Interfaces (c) Editing tools
(d) Classes and interfaces (e) Editing tools and interfaces.
17) Which component is used to compile, debug and execute java program?
a) JVM
b) JDK
c) JIT
d) $J R E$
18) Basic Java language functions are stored in which of the following java package?
(a) java. lang (b) java.io (c) java.net (d) java.util (e) java.awt
19) Which of the following is a member of the java.lang package?
(a) List (b) Queue (c) Math (d) Stack (e) Process.
20) Which of the following has a method names flush( )?
F) Input stream (b) Output Stream
(c) Reader stream (d) Input reader stream
(e) Input output stream.
21) Which object of HttpSession can be used to view and manipulate information about a session?
a. session identifier
b. creation time
. last accessed time
d. All mentioned above
22) Connection Pooling Class manages no of user requests for connections to improve the performance.
a. True
b. False
23) Which case of a session bean obtains the User Transaction object via the EJBContext using the getUserTransaction( method in EJB transaction management?
a. Bean-managed transactions
b. Container-managed transactions
c. Both A \& B
d. None of the above

Which services are provided to EJB components by the EJB container?
a. Transaction support
b. Persistence support
c. Naming support
d. All mentioned above
25) Which of these is necessary to specify at time of array initialization?
a) Row
b) Column
c) Both Row


## Java Programming Syllabus (CSE30001)

Answers:-
1)A) $b$
2) A) a
3) A) $c$
4)A) d
5) A) $d$
6) A) a
7) A) a
S) A) e
9) A) $d$

10A) a
11) A) C
12) A) C
13) A) $b$
14) A) c
15).A) b
16)A) d
17) A) b
18) A) a
19) A) $b$
20) A) b

21ans d
22ans a
23ans a
24ans d 25)Ans a






## Feedback Form

| Value Added Course | lava Programming (CSE 30001) |
| :---: | :--- |
| Date: | $16-20$ oct 2017 |
| Program Locatiqn: | CSE Dept Oriental College of Technology, Bhopal |
| Presenter(s): | Mr: Sourabh Jain |

Please respond to the following statements by using the 4-point rating scale to indicate the extent to which you agree or disagree with each statement. Please circle the number that applies.
A $4=$ Strongly Agree $\quad 3=$ Agree $\quad 2=$ Disagree $\quad 1=$ Strongly Disagree

| 1. The Course objectives were stated clearly and met. | 4 (3) 21 |
| :---: | :---: |
| 2. The Course was well organized. | 4 (3) 21 |
| 3. The information and/or skills presented were relevant and useful | (4) 321 |
| 4. The presenter(s) provided adequate time for questions and answered them effectively. | (4) 321 |
| 5. The presenter(s) allowed me to work with and learn from others. | 4 (3) 21 |
| 6. The materials provided were sufficient \& appropriate for the program. | (4) 31 |
| 7. The physicalerrungaments were adequate. | 4 (3) 21 |
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## Department of Computer Science \& Engineering

This is to certify that Mr./MS. ABHHSHER ANAND of CS-V Sem, OCT, Bhopal, has Successfully Completed the "Value Added Course" on "JAVA Programming "during 16-20 Oct 2017, organized by Computer Science and Engineering Department of Oriental College of Technology, Bhopal
Head of Department, CS OCT

Value Added Course Java Programming (CSE 30001 )


# ORIENTAL COLLEGE OF TECHNOLOGY, BHOPAL <br> Department of Computer Science \& Engineering 



Report on Value Added Course on "Java programming"<br>Date and Time: 16-20, October, 2017<br>Organized by: CSE, OCT, Bhopal<br>Name of the Speakers: Mr. Saurabh Jain, Associate Professor, Mr. Pradeep Mishra Associate Professor, Ms. Vibha Nigam Assistant Professor.<br>Participants' Details: For III -Year Stưdents<br>Venue: CSE, OCT Campus

## Summary of the Event

Computer Science Engineering plays prominent role in every domain and vital role in development of Nation. "Java Programming" is Value Added course which will provide benefits to the participants in many ongoing research areas in latest technologies.

The Department of Computer Science and .Engineering Oriental College of Technology organized "Value Added Course on "Java Progranming" from 16 October 2017 to 20 October, 2017 for the students of Third year.

This Course syllabus was covered by Mr. Saurabh Jain Associate. Professor, Mr. Pradeep Mishra Associate Professor and Ms. Vibha Nigam Assistant Professor, CSE, OCT in 30 Hrs. of 5-Day program.

Inaugural Ceremony started by Director Speech on 16 th October 2017 and this course is conducted as per schedule and on 20 th October, 2017 valedictory function was conducted.



Oriental College of Technology Thakral Nagar, Raisen Road Bhopal


Prof. Amit Dubey
Course Coordinator
CSE, OCT

## ORIENTAL COLLEGE OF TECHNOLOGY, BHOPAL <br> Approved by AICTE, New Delhi \& Goít, of M.P. Amtinted to Rajlv Gandhi Proudyogiki Yishwavidyalaya; Bhopal

Oriental Campus, Raisen Road. Bhiopai-462021 (MP) INDIA
Date: 17 June 2014

## Rolicy for Value Added Course

1. The minimum duration of each Value Added Course will be of 30 hrs .
2. Onily students who are registered for the semester will be allowedto attend the course.
3. The assessment procedure will be based on the Class Room Assessment, Objective test \& attendance.
4. The course is free to eniroll and learn from. But if student want a certificate, then they have to register and wite the proctored exam conducted by us in person at Oriental College of Technology, Bliopal
5. Criteria to get a Certificate: Final score $=$ Class Room Assessment Score + Objective Test Score, with minimum of $60 \%$ attendance during the course.
6. Student will be eligible fort. a certificate only if :
a. Class Room Assessment $>=25 / 50$
b. Objective Test Score $>=25 / 50$.
c. If one of the two clause ( $a, b$ ) is not met, student will not get the certificate even if the Final score $>=50 / 100$. $\because ;$
7. Students will be issued with a certificate consisting of student name, semester, course name, Course duration.

## Copy to:

 Director Öriental Collego of Technolos Tinakral Nagar, Raisen Roa Bhepal

## 1. Academic Committee

2. All HoD's, OCT


## Registration Form

Name:

Enrollment No. $\qquad$

Branch: $\qquad$

Semester: $\qquad$ Address. $\qquad$

City \& Pin $\qquad$

E-mail id.

Contact No: $\qquad$

## CHIEF PATRONS

Dr. K. L. Thakral
Founder Chairman, Oriental Group of Institutes and Chancellor, Oriental University, Indore

## PATRONS

Shri. Praveen Thakral
Chairman, Oriental Group of Institutes
Mrs. Niraj Ghei
Chair Person, Oriental College of Technology, Bhopal

## ADVISORY COMMITTEE

Dr. Ranjeeta Khare
Director, OCT, Bhopal

## CONVENOR

Mrs. Roopali SOni
octhodit@oriental.ac.in
Mobile: +919827042079

## COURSE COORDINATOR

## Mrs. Kavita Rawat

Mobile: +917987524436
Mr. Sujeet kumar
Mobile: +918602659579
ORGANISING COMMITTEE MEMBERS
Mr. Nilabh Kumar
Miss. Ruchi Jain

## CONTACT

Mrs. Roopali SOni octhodit@oriental.ac.in Mobile: +919827042079

Mrs. Kavita Rawat
Mobile: +917987524436

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## Oriental College of Technology,



## Value Added Course

0 O<br>"JAVA"<br>[19-23. Seruenber, 2int]<br>For HII-Fien Sturleas

## Bhopal

## ABOUT THE ORIENTAL GROUP

Oriental Group of Institutes (Indore - BhopalJabalpur) India established in the year 1995 is a self financed premier education group imparting education in the disciplines of Engineering, Pharmacy, Management and Advanced Computer Studies. The Oriental College of Technology offers six under graduate Bachelor of Engineering courses and three post graduate, Master of Technology courses. The college is having an excellent library, internet lab, modern labs for each department, central workshop, sports \& games facilities etc.
Bhopal, the capital of Madhya Pradesh, is also known as city of lakes. It is well connected to all parts of the country by rail and air. The institute is about 09 km from Bhopal railway station, and 07 km from Habibganj railway station and 18 km from Raja Bhoj Airport.

## ABOUT THE DEPARTMENT

The Department of Information Technology is a major strength of the institute. The Department has an excellent group of faculty with experience in teaching, Industry and Reseashorthe state-of-art facilities and compety paeudicsingrovide an exce'lent climate for the students. It has motivated faculty members having specialization in
various streams. The core competency of the Department is in the area of Software Engineering, Database Management Systems, Data Structures etc. The Information Technology Department offers Undergraduate Program (B.E/ B.Tech) with an intake 120 Students.

## ABOUT THE COURSE

Information Technology department plays prominent role in every domain and vital role in development of Nation. JAVA is Value Added course which will provide benefits to the participants in many ongoing research areas in latest technologies.

## OBJECTIVES \& CONTENTS

Java is a widely used programming language expressly designed for use in the distributed environment of the internet. ... Java can be used to create complete applications that may run on a single computer or be distributed among servers and clients in a network.

## ELIGIBILITY

The third year Students of Information Technology branch are eligible to attend the Course on JAVA

REGISTRATION
No Registration fees.
SPEAKERS
Mrs. Kavita Rawat
[Assistant Professor, Oriental College of Technology, Bhopal] \&
Mr. Sujeet kumar
[Assistant Professor, Oriental College of Technology, Bhopal]


Oriental College of Technology, Bhopal
Department of Information Technology
Syllabus of Value Added Course on
JAVA

## dule - 1

- The Java Virtual Machine Variables and data types
- Conditional and looping constructs
- Arrays
- Fields and Methods **
- Overloading methods
- Garbage collection
- Nested classes
- Overriding methods


## [odule -2

- Polymorphism
- Making methods and classes final
- Abstract classes and methods
- Interfaces
- The Exception class
- Cloning objects
- The JDK LinkedList class
- Strings
- String conversions


## Module-3

- Package access
- Documentation comments
- Configuring applets
- Applet capabilities and restrictions
- Layout Managers
- Event Handling
- The Action Listener interface
- Panels
- Classes for various controls, such as label, choice, list,
- Checkbox, etc.
- Dialogs and frames


## Module-4

- Using nesulaf
- Usirgyde admp
- Graphics camper
- Sy andorplextifioi
- Inpuios, aim and Gy putStream classes
- Readerad Wtite classes

- Working with URLs
- Concepts of URLs

Module -5
Java security
JDBC Product
Types of Drivers

- Two-Tier Client/Seryer Mode
- Three-Tier Client/Sever Model
- Basic Steps of JDBC
- Creating and Executing SQL Statement
- The Result Set Object
- Working with Database MetaData
- Interface -
\& Advanced Servlets
- Servl
- Life cycle of Servlet
- Java Servlet Development Kit
- Javax.servlet package.
- Reading Servlet Parameters
- Reading Initialization Parameters
- The javax.servlet.http Package
- Handling HTTP



| Objective type test on JAVA |  |  |  |
| :--- | :--- | :--- | :--- |
| Branch: | Information Technology |  |  |
| Semester: | V Semester | Subject Code: IT 30001 | Time: 1 Hour |
| Subject: | Value added course on JAVA |  |  |
| Note | All questions are compulsory | Max Marks 50 |  |

1. Which of the following option leads to the portability and security of Java?
a. Bytecode is executed by JVM
b. The applet makes the Java code secure and portable
c. Use of exception handling
d. Dynamic binding between objects
2. Which of the following is not a Java features?
a. Dynamic
b. Architecture Neutral
c. Use of pointers
d. Object-oriented
3. The lu0021 article referred to as a
a. Unicode escape sequence
b. Octal escape
c. Hexadecimal
d. Line feed

4 $\qquad$ is used to find and fix bugs in the Java programs.
a. JVM
b. JRE
c. JDK
d. JDB
5. Which of these literals can be contained in float data type variable?
a) $-1.7 \mathrm{e}+308$
b) $-3.4 \mathrm{e}+038$
c) $+1.7 \mathrm{e}+308$
d) $-3.4 \mathrm{e}+050$
6. Which data type value is returned by all transcendental math functions?
a) int
b) float
c) double
d) long
7. What will be the output of the following Java code? class average \{
public static void main(String args[])
OGY double num []$=\{5.5,10.1,11,12.8,56.9,2.5\} ;$
puble result;

```
    }
}
```

a) 16.34
b) 16.566666644
c) 16.46666666666667
d) 16.46666666666666

8 What will be the output of the following Java code?

```
class increment {
public static void main(String args[])
{
                int g=3;
                System.out.print(++g * 8);
                }
}
```

a) 25
b) 24
c) 32
d) 33

9 Which of the following is a valid declaration of a char?
a. char ch = 'lutea';
b. char $\mathrm{ca}=$ 'tea';
c. $\quad$ char $\mathrm{cr}=\mathrm{lu} 0223$;
d. char $\mathrm{cc}=$ 'litea';

10Can we create an instance of Enum outside of Enum itself?
a) True
b) False

11 What will be the output of the following Java code?

```
enum Season
{
WINTER, SPRING, SUMMER, FALL
};
System.out.println(Season.WINTER.ordinal());
```

a) 0
b) 1
c) 2
d) 3

12If weify bradd Enum constants to a TreeSet, what sorting order will it use?

b) Sorteef in fiphabetical order of Enums
c) Sorted Gís'ed on * der() method
d) Sorted in descending order of names of Enums

13 What is the return type of the hashCode() method in the Object class?

```
                                    oject
                mt
                long
                void
```

Which class does all the Enums extend?
i) Object
b) Enums
c) Enum
d) EnumClass

15Are enums are type-safe?
a) True
b) False ;

16 Which of the following is a valid long literal?
a. ABH8097
b. L990023
c. 904423
d. $0 x n f 029 \mathrm{~L}$

17 Which of these can be returned by the operator \&?
a) Integer
b) Boolean
c) Character
d) Integer or Boolean

18Literals in java must be appended by which of these?
a) L
b) 1
c) $D$
d) $L$ and I

19Literal can be of which of these data types?
a) integer
b) float
c) boolean
d) all of the mentioned

20 What does the expression float $\mathrm{a}=35 / 0$ return?
a. 0
b. Not a Number

c. Infinity
d. Run time exception

21 Which of these is an incorrect string literal?
a) "Hello World"
b) "HellolnWorld"
c) "l"Hello World!""

23Whichofthese operators is used to allocate memory to array variable in Java?
b) alloc
c) newo
d) new mahoc
ch of the following tool is used to generate API documentation in HTML format from omments in source code?
a. javap tool
b. javaw command
c. Javadoc tool
d. javah command

24 Which of the following creates a List of 3 visible items and multiple selections abled?
a. new List(false, 3)
b. new List(3, true)
c. new List(true, 3)
d. new List(3, false)

25 Which of the following for loop declaration is not valid?
a. for (int $\mathrm{i}=99 ; \mathrm{i}>=0 ; \mathrm{i} / 9$ )
b. for (int $\mathrm{i}=7 ; \mathrm{i}<=77 ; \mathrm{i}+=7$ )
c. for (int $\mathrm{i}=20 ; \mathrm{i}>=2 ;-\mathrm{i})$
d. for (int $i=2 ; i<=20 ; i=2 * i)$


ORIENTAL COLLEGE OF TECHNOLOGY
DEPARTMENT OF INFORMATION TECHNOLOGY
Course Code: IT $\mathbf{3 0 0 0 1}$








# ORIENTAL COLLEGE OF TECHNOLOGY,BHOPAL 

[Approved by AICTE, New Delht \& Govt. of M.P. Affiliated to Rajiv Gandhi Proudyogiki Vishwavidyalaya, Ebopal Oriental Campus, Raisen Road, Bhopal-462021 (MP) INDIA]


## Department of Information Technology

Sessian: 2017-18

## CERTIFILATE

This is to certify thatMr./Ms Prashant Jain ofIT VSemester, OCT, Bhopal, has Successfitfly Completed the "Value Added Course" on "山AVA Pogermig" during 19-23Sept 2017, organized by Department of Information Teanoicey. Oriental anfogie of technology, Bhopal.


B-Ordinator, IT, DCT


Head of Department, IT, पCT

- Director

Oriental College of T Rakh - Thakral Nagar, Rai Bhopal

Course Evaluation/ Feedback Form

| dded Course | IAVA |
| :--- | :--- |
| e: | 19 TO 23 September 2017 |
| gram Location: | Oriental College of Technology, Bhopal |
| senter(s): | Miss Kavita Rawat, Mr Sujeet Kumar |

Please respond to the following statements by using the $\checkmark$ mark to indicate the extent to which you agree or disagn with each statement.

|  | Excellent | $\begin{aligned} & \text { Very } \\ & \text { Good } \end{aligned}$ | Good | Fair |
| :---: | :---: | :---: | :---: | :---: |
| Rereive syllabus \& instructions at first | $\downarrow$ |  |  |  |
| Course objectives stated clearly |  | $\checkmark$ |  |  |
| Material presented in class matches syllabus | $\checkmark$ |  |  |  |
| Instructor responded questions |  | , |  |  |
| instructor demonstrates adequate knowledge of course | $\checkmark$ |  |  |  |
| Instructor uses appropriate teaching methods |  |  |  |  |
| instructor returns papers \& tests promp: |  |  |  |  |
| Class time is used efficient |  |  |  |  |
| Instructor is helpful |  |  |  |  |
| Instructor is well prepared | $v$ |  |  |  |
| Instructors overall teaching |  |  |  |  |
| Recommend the class |  |  |  |  |



## ORIENTAL COLLEGE OF TECHNOLOGY, BHOPAL

## Department of Information Technology



## Report on Value Added Course on JAVA

Date and Time: 19 September, to 23 September, 2017. Venue: Department of Information Technology ,OCT Campus, Bhopal. Organized by: Information Technology Department, OCT, Bhopal. Name of the Speakers: The speakers were from Department of Information Technology OCT, Bhopal they are Miss Kavita Rawat, Mr Sujeet kumar. Participants Details: The students participated were Third Year Students

## Summary of the Event

The value added courses adds value to the basic ongoing degree program. The students get an insight into the technological advancements and the recent trends that are prevailing in the outside world which gives an added benefit to the placement and gives added advantages to the employment opportunities of the students

The course is divided into five modules and at the end there was an assessment by which the students are awarded certificates.

On September $19^{\text {th }}$, the course started with the inaugural and presidential speech of Director, Oriental College of Technology. In his presidential speech emphasized on the need to collaborate the academic and the non academic education.

The course was conducted strictly according to the schedule and at last the convener of the course
gave away the vote of thank.. At the end the convener thanked all the faculties, office staf and student volunteers for their ung

Prof. Roopali Soni
Course Convenor
IT, OCT


Director
Oriental College of Technology
Thakral Nagar, Raisen Road Bhopal


Director
Oriental College of Technolo Thakral Nagar, Raisen Road Bhopal

## Oriental College Of Technology, Bhopal

Date: 17 June 2014

## Policy of Value Added Course

1. The minimum duration of each Value Added Course will be of 30 hrs .
2. Only students who are registered for the semen se will be 30 hrs .
3. The assessment procedure will be based one will be allowed to attend the course.
4. The course is free to enroll and and write the proctored exam conduct em. But if student want a certificate, then they have to register
5. Criteria to get a Certificate: Final seer by us in person at Oriental College of Technology, Bhopal of $60 \%$ attendance
6. Student will be eligible for a certificate only if :
a. Class Room Assessment $>=25 / 50$
b. Exam Score $>=25 / 50$.
c. If one of the 2 criteria is not met, student will not get the certificate even if the Final score $>=$
$50 / 100$.
7. Students will be issued with a certificate consisting of student name, semester, course name, Course duration.

Copy to:

1. Academic Committee
2. All HoD's, OCT



Director
Oriental College of Topology
Thana hagar, Ruben Road
Bharal

## Registration Form

Name :

Enrollment No $\qquad$
Branch : $\qquad$
Semester : $\qquad$

Address $\qquad$
$\qquad$
$\qquad$
$\square$
City \&Pin. $\qquad$

E-mail id.. $\qquad$

Contact No $\qquad$


## CHIEF PATRONS

Dr. K. L. Thakral
Founder Chairman, Oriental Group of Institutes and Chancellor, Oriental University, Indore

## PATRONS

Shri. Praveen Thakral Chairman, Oriental Group of Institutes

Mrs. Niraj Ghei
Chair Person, Oriental College of Technology, Bhopal

## ADVISORY COMMITTEE

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Director, OCT, Bhopál
CONVENOR
Dr. L. K. Vishwamitra octhodcse@oriental.ac.in Mobile: +919630087969

## COURSE COORDINATOR <br> Mr. Amit Dubey Mobile: +919039911014

## ORGANISING COMMITTEE MEMBERS

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Mr. Pradeep Mishra
CONTACT
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octhodcse@oriental.ac.in
Mobile: +919630087969
Mr. Pradeep Mishra
Mobile: +91992617094

Oriental College of Technology, Bhopal


## Value Added Course

On
"Machine Learning"
[19-23, September, 2017]
For IV-Year Students

Organized By
Department of Computer Science Engineering

Oriental College of Technology,
Tha agar, Raisen Road,Bhopal - 462021 $\sqrt{\text { Phone }} 2529026,2529057$, Fax: 0755-2529472 Drestor
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## ABOUT THE ORIENTAL GROUP

Oriental Group of Institutes (Indore - BhopalJabalpur) India established in the year 1995 is a self financed premier education group imparting education in the disciplines of Engineering, Pharmacy, Management and Advanced Computer Studies. The Oriental College of Technology offers six under graduate Bachelor of Engineering courses and three post graduate, Master of Technology courses. The college is having an excellent library, internet lab, modern labs for each department, central workshop, sports \& games facilities etc.
Bhopal, the capital of Madhya Pradesh, is also known as city of lakes. It is well connected to all parts of the country by rail and air. The institute is about 09 km from Bhopal railway station, and 07 km from Habibganj railway station and 18 km from Raja Bhoj Airport.

ABOUT THE DEPARTMENT
The Department of Computer Science is a major strength of the institute. The Department has an excellent group of faculty with experience in teaching, Industry and Research. The state-of-art facilities and competent faculties provide an excellent climate fof the all round development of the students. It has Hell qualified, committed and motivated faculty mefribers having speyialization in various streams. The CS IDepariment offers M.Tech Course in Computer Science Engineering along with

Undergraduate Program (B.E/ B.Tech) with an intake of 18 and 120 respectively.

## ABOUT THE COURSE

Computer Science Engineering plays prominent role in every domain and vital role in development of Nation. "Machine Learning" is a Value-Added course which will focus on providing vast knowledge on data, algorithms and automation of the systems.

## OBJECTIVES\& CONTENTS

Machine learning is a method of data analysis that automates analytical model building. It is a branch of artificial intelligence based on the idea that systems can learn from data, identify patterns and make decisions with minimal human intervention.
$\checkmark$ To know about data preparation capabilities.
$\int$ To learn training machines using data representation of artificial neural networks.
$\checkmark$ To know about principal component of data modeling.

## ELIGIBILITY

The Fourth year Students of Computer Science Engineering branch is eligible to attend the Machine

## REGISTRATION

No Registration fees.

## SPEAKERS <br> Mr. Pradeep Mishra Associate Professor, Dept CSE, OCT Bhopal



Learning course.

Thakran hers, hatsen hoad
Enopal

## oriental college of technology, BHOPAL

Department of Computer Science and Engineering


MACHINE LEARNING SYLLABUS (CSE 40001)

## Module-I

Introduction to machine learning, data Visualization, data processing, data normalization, limitations, application regression, machine learning models, supervised and unsupervised learning.

## Module -II

Activation functions like sigmoid, Linearity vs non linearity, Types of neural network, initialization of weight, training, testing.

## Module -III

Convolution layer, convolution neural network and flattening, sub sampling, inception network, implementation of CNN.

## Module -IV

RL-framework, Recurrent neural network, Reinforcement Learning, RL-framework, MDP, Bellman equations, Value Iteration and Policy Iteration

## Module -V

Application of machine learning, Support Vector Machines, Bayesian learning, in computer vision, speech processing, natural language processing


| SCHEDULE-- Machine Learning(CSE 40001) |  |  |
| :---: | :---: | :---: |
| 5 Days Value Added Course on Machine Learning[19 Sep 2017 to 23 Sep 2017] |  |  |
| Dayi-19 Sep 2017 |  |  |
| Time | Session | Instructor |
| 9:30-10:00 AM | Inaugural Programme |  |
| 10:00 AM-12:30PM | Introduction to Machine Learning | Mr. Pradeep Mishra |
| 12:30-1:10PM | LUNCH |  |
| 01:10-3:10PM | Data Visualization, data processing, data normalization, application regression, ML models | Mr. Pradeep Mishra |
| 3:10-3:30PM | Break |  |
| 03:30-5:30PM | Practice session | Mr. Pradeep Mishra |
| Day2-20 Sep 2017 |  |  |
| Time | Session | Instructor |
| 9:00-11:00AM | Introducing activation functions like Sigmoid | Mr. Sourabh Jain |
| 11:00-11:30AM | Break |  |
| 11:30-01:00PM | Linearity, non-linearity, neural networks and its types, weight initialization | Mr. Pradeep Mishra |
| 01:00-1:40PM | LUNCH |  |
| 01:40-4:30PM | Practice Session | Mr. Pradeep Mishra |
| Day3-21 Sep 2017 |  |  |
| Time | Session | Instructor |
| 9:00-11:00AM | Convolution layer \& Convolution neural networks | Mr. Sourabh Jain |
| 11:00-11:30AM | Break |  |
| 11:30-01:00PM | Sub sampling, inception network, implementation of CNN | Mr. Sourabh Jain |
| 01:00-1:40PM | LUNCH |  |
| 01:40-4:30PM | Practice session | Mr. Pradeep Mishra |
| Dayd-22 Sep 2017 |  |  |
| Time | Session | Instructor |
| 9:00-11:00AM | RL-framework, recurrent neural network, reinforcement learning, MDP, Value and Policy iteration | Mr. Pradeep Mishra |
| 11:00-11:30AM | Break |  |
| 11:30-01:00PM | Class Room Assessment | Ms Vibha Nigam |
| 01:00-1:40PM | LUNCH |  |
| 01:40-4:30PM | Practice session | Ms Vibha Nigam |
| Day5-23 Sep 2017 |  |  |
| Time | Session | Instructor |
| 9:00-11:00AM | Applications of ML, support vector machines, Bayesian Learning | Mr. Sourabh Jain |
| 11:00-11:30AM | Break |  |
| 11:30-01:00PM | Speech processing and natural language processing | Mr. Sourabh Jain |
|  |  |  |
| $01,409 \% \Omega \mathrm{mM}$ | Practice sessian | Mr. Pradeep Mishra |
| $24 W^{2}-5: 5 \mathrm{PM}$ | Feedbackfrom students | O ogy Ms Vibha Nigam |
| $336+30 \mathrm{pM}$ | Valedictory \& Certificate distribution ${ }^{\text {zen }}$ | ${ }^{\text {chd }}$ Mr. Pradeep Mishra |

## Marks Scored:

Semester: VII Subject Name/Code: Machine Learning(CSE40001) Max Marks:50
Name of Student: $\qquad$ Enrollment No: $\qquad$

1. Which of the following is a widely used and effective machine learning algorithm based on the idea of bagging?
a. Decision Tree
b. Regression
c. Classification
d. Random Forest
2. To find the minimum or the maximum of a function, we set the gradient to zero because:
a. The value of the gradient at extrema of a function is always zero
b. Depends on the type of problem
c. Both A and B
d. None of the above
3. The most widely used metrics and tools to assess a classification model are:
a. Confusion matrix
b. Cost-sensitive accuracy
c. Area under the ROC curve
d. All of the above
4. Which of the following is a good test dataset characteristic?
a. Large enough to yield meaningful results
b. Is representative of the dataset as a whole
c. Both A and B
d. None of the above
5. Which of the following is a disadvantage of decision tree ?
a.

c. Deci tiontite sester mone to be overfit
d. None of the above
6. How do you handle missing or corrupted data in a dataset?
a. Drop missing rows or columns
b. Replace missing values with mean/median/mode
c. Assign a unique category to missing values
d. All of the above
7. What is the purpose of performing cross-validation?
a. To assess the predictive performance of the models
b. To judge how the trained model performs outside the sample on test data
c. Both A and B
8. Why is second order differencing in time series needed?
a. To remove stationarity
b. To find the maxima or minima at the local point
c. Both $A$ and $B$
d. None of the above
9. When performing regression or classification, which of the following is the correct way to preprocess the data?
a. Normalize the data $\rightarrow$ PCA $\rightarrow$ training
b. PCA $\rightarrow$ normalize PCA output $\rightarrow$ training
c. Normalize the data $\rightarrow$ PCA $\rightarrow$ normalize PCA output $\rightarrow$ training
d. None of the above
10. Which of the following is an example of feature extraction?
a. Constructing bag of words vector from an email
b. Applying PCA projects to a large high-dimensional data
c. Removing stopwords in a sentence
d. All of the above
2.1. What is pca.components_in Sklearn?
a. Set of all eigen vectors for the projection space
b. Matrix of principal components
c. Result of the multiplication matrix
d. None of the above options
11. Which of the following is true about Naive Bayes ?
a. Assumes that all the features in a dataset are equally important
b. Assumes that all the features in a dataset are independent
c.

d. None ovine arise options
12. Which of tie follogytiticiaf tents about regularization is not correct?
a. Using too large a value of lambda can cause your hypothesis to underfit the data.
b. Using too large a value of lambda can cause your hypothesis to overfit the data.
c. Using a very large value of lambda cannot hurt the performance of your hypothesis.
d. None of the above
13. How can you prevent a clustering algorithm from getting stuck in bad local optima?
a. Set the same seed value for each run
b. Use multiple random initializations
c. Both A and B
d. None of the above
14. Which of the following techniques can be used for normalization in text mining?
a. Stemming
b. Lemmatization
c. Stop Word Removal
d. Both A and B
15. In which of the following cases will K-means clustering fail to give good results? 1) Data points with outliers 2) Data points with different densities 3) Data points with nonconvex shapes
a. 1 and 2
b. 2 and 3
c. 1,2 , and 3
d. 1 and 3
16. Which of the following is a reasonable way to select the number of principal components " k "?
a. Choose k to be the smallest value so that at least $99 \%$ of the variance is retained.
b. Choose k to be $99 \%$ of $\mathrm{m}(\mathrm{k}=0.99 * \mathrm{~m}$, rounded to the nearest integer).
c. Choose k to be the largest value so that $99 \%$ of the variance is retained.
d. Use the elbow method
17. You run gradient descent for 15 iterations with $a=0.3$ and compute $J$ (theta) after each iteration. You find that the value of J(Theta) decreases quickly and then levels off. Based on this, which of the following conclusions seems most plausible?
a. Rather than using the current value of a, use a larger value of $a($ say $a=1.0)$
b. Rather than using the current value of a , use a smaller value of a (say $\mathrm{a}=0.1$ )
c. $\mathrm{a}=0.3$ is an effective choice of learning rate
d. None of the above
18. What is a sentence parser typically used for?
a. It is used to parse sentences to check if they are utf-8 compliant.
b. It is used to parse sederoses derive their most likely syntax tree structures.
c. It is used to parge eneqtices to assign POS tags to all tokens.


19. Suppose you have trained a logistic regression classifier and it outputs a new example $x$ with a prediction $/$ (x, 1 )
0.2. This means
a. Our estimate for $\mathrm{P}(\mathrm{y}=1 \mid \mathrm{x})$
b. Our estimate for $\mathrm{P}(\mathrm{y}=0 \mid \mathrm{x})$
c. Our estimate for $P(y=1 \mid x)$
d. Our estimate for $\mathrm{P}(\mathrm{y}=0 \mid \mathrm{x})$
20. Which of the following is a widely used and effective machine learning algorithm based on the idea of bagging?
a. Decision Tree
b. Regression
c. Classification
d. Random Forest
22.) Which of the following is a good test dataset characteristic?

Large enough to yield meaningful results
b. Is representative of the dataset as a whole
c. Both A and B
d. None of the above
23.) How do you handle missing or corrupted data in a dataset?
a. Drop missing rows or columns
b. Replace missing values with mean/median/mode
c. Assign a unique category to missing values
d. All of the above
24.) Why is second order differencing in time series needed?
a. To remove stationary

To find the maxima or minima at the local point
c. Both A and B
d. None of the above
25) Which of the following statement is true in following case?
a. Feature F 1 is an example of nominal variable.
b. Feature F1 is an example of ordinal variable.
c. It doesn't belong to any of the above category.
d.


8-c
9-a
10-d
11-a
12-c
13-d
14-b
15-d
16-c
17-a
18-c
19-b
20-b
21-d
22-c
23-d
24-c
25-b




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Thaki ham Hatsen Road
Bhoral
4


| 89 | 0126 CS 141099 | shubilam kumar yadav | zupuler | A | crustat | 1 |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| 90 | $0126 \mathrm{CS141100}$ | shweta gayaki | (2) luela | 4 | OSu*ta | A |  |
| 91 | $0126 C 5141101$ | siddiarth kourav | A | A | A | A | , |
| 92 | 0126 CS 141102 | SmRITI megilasilila | A | (wiri | Omite | Shuti' |  |
| 93 | 0126 CS 141103 | SNEHIL DUBEY | A | A | A | A | A |
| 94 | $0126 \mathrm{CS141104}$ | SONIYA SHANKUSIIAL. | 55 | 0 | SSS | 8.8 | 5.5 |
| 95 | 0126 CS 141105 | SRISHTIRUPA VYAS | $051 y^{\circ}$ | SVyas | A | Suyas | 4 |
| 96 | 0126 CS 141107 | SUmit kumar gujpta | A. | Cexabla | Saspla | Supt | A |
| 97 | $0126 \mathrm{CS141108}$ | SUNNY KUMAR | Kumat | A | puma | Kumis | Rynar |
| 98 | 0126CS141109 | SUNNY PRAKASII | A | A | A | A | A |
| 99 | 0126 CSI 14111 | SUYASH TIWARI | A | 4 | A | A | A |
| 100 | $0126 \mathrm{CS141112}$ | TANISHA SHRIVAStava | Tamisha | A | arushe | - $\operatorname{arasin}^{2}$ | A |
| 101 | $0126 \mathrm{CS141113}$ | TOSHIKA DUBEY | Conshi | A | Coshi | 'Tosh | A |
| 102 | 0126 CS 141114 | VIJAYTA SINGII THAKUR | thoteric | A | Thukers |  | Thate |
| 103 | 0126 CS 141115 | VIKASH SHARMA | 4 | Nupins | COMM | $00^{2}$ | A |
| 104 | 0126 CS141116 | VIKRAM SINGH CHAUHAN | Usfo | A | ves | 4 | V5 |
| 105 | 0126 CS 141117 | VISHAL SONI | $\operatorname{Vashos}_{\cos }$ | A | Wishor | Vista | 4 |
| 106 | 0126 CS 141118 | VISHWAJ GONDANE | N6 | A | बG | ver | 26 |
| 107 | $0126 \mathrm{CS141119}$ | Yash tagal | A | - Kagar | - Higga | etagi | A |
| 108 | 0126 CS 141120 | YASH VARDHAN RATHI | Yask | A | Mash | Yash. | A |
| 109 | 0126CE141005 | ABHISHEK JAIN | Jouse | A | Aaus | Javer | Jalus |



Oricutal College of Tachonology, Blappal

Course: Machilne Learilng , 19-2.1 Sept 2017
Value Adiled Comra. Course Code: CS 10001




$\operatorname{Si} 66120$
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## Feedback Form

| Value Added Course | Machine Learning (CSE 40001) |
| :---: | :--- |
| Date: | $19-23$ Sep 2017 |
| Program Location: | CSE Dept Oriental College of Technology, Bhopal |
| Presenter(s): | Mr. Pradeep Mishra |

Please respond to the following statements by using the 4-point rating scale to indicate the extent to which you agree or disagree with each statement. Please circle the number that applies.
$4=$ Strongly Agree $\quad 3=$ Agree $\quad 2=$ Disagree $\quad 1=$ Strongly Disagree


## 

[Approved by AICTE, New Delhi \& Govt. of M.P. Affiliated to Rajiv Gandhi Proudyogiki Vishwavidyalaya, Bhopal Orientai Campus, Raisen Road, Bhopal-462021 (MP) INDIA]


## Department of Computer Science And Engineering

This is to certify that Mr./Ms. AAYUSHI of CS-VII Sem, OCT, Bhopal, has Successfully Completed the "Value Added Course" on "Machine Learning " during 19-23 Sept 2017, organized by Computer Science and Engineering Department of Oriental College of Technology, Bhopal.

Co-Ordinmar, CS, OCT


Director, OCT


# ORIENTAL COLLEGE OF TECHNOLOGY, BHOPAL <br> <br> Department of Computer Science \& Engineering 

 <br> <br> Department of Computer Science \& Engineering}


Report on Value Added Course on "Machine Learning"<br>Date and Time: 19-23, September, 2017<br>Organized by: CSE, OCT, Bhopal<br>Name of the Speakers: Mr. Saurabh Jain, Associate Professor, Mr. Pradeep Mishra Associate<br>Professor, Ms. Vibha Nigam Assistant Professor.<br>ParticipantsDetails: For IV-Year Studè̀nts<br>Venue: CSE, OCT Campus

## Summary of the Event

Computer Science Engineering plays prominent role in every domain and vital role in development of Nation. "Machine Learning" is a Value-Added course which will focus on providing vast knowledge on data, algorithms and automation of the systems.

The Department of Computer Science and Engineering Oriental College of Technology organized "Value Added Course on "Machine Learning" from 19 September 2017 to 23 September, 2017 for the students of Fourth year.

This Course syllabus was covered by Mr. Pradeep Mishra Associate Professor, Mr. Saurabh Jain Associate Professor and Ms. Vibha Nigam Assistant Professor, CSE, OCT in 30 Hrs. of 5-Day program.

Inaugural Ceremony started by Director Speech on 19 th September, 2017 and this course is conducted as per schedule and on 23 rd September,, 2017 valedictory function was conducted.




Prof. Amit Dubey
Course Coordinator
CSE, OCT


Director
Oriental College of Technology Thakral Nagar, Raisen Road Bhodal

## ORIENTAL COLLEGE OF TECHNOLOGY, BHOPAL <br> Approved by AICTE, New Delhi \& Govt of M.P. Amilinted to Rajiv Gandhi Proudyogiki Vishwavidyalaya; Bhopal

## Policy for Value Added Course

1. The minimum duration of each Value Added Course will be of 30 hrs.
2. Only students who are registered for the semester will be allowedto attend the course.
3. The assessment procedure will be based on the Class Room Assessment, Objective test \& attendance.
4. The course is free to enifoll and learn from. But if student want a certificate, then they have to register and write the proctored exam conducted by us in person at Oriental College of Technology, Bliopal
5. Criteria to get a Certificate: Final score = Class Room Assessment Score + Objective Test Score, with minimum of $60 \%$ attendance during the course.
6. Student will be eligible fồt a certificate only if :
a. Class Room Assessment $>=25 / 50$
b. Objective Test Score $>=25 / 50$.
c. If one of the two clause ( $\mathrm{a}, \mathrm{b}$ ) is not met, student will not get the certificate even if the Final score $>=50 / 100$.
7. Students will be issued with a certificate consisting of student name, semester, course name, Course duration.

8. Academic Committee :
9. AH HoD's, OCT Oriental Collego of Technology
Thakral Nagar, Raisen Road Bhopal

## Copy tọ:



## Registration Form

Name:

Enrollment No

Branch:

Semester: $\qquad$

Address. $\qquad$
$\qquad$

City \& Pin $\qquad$

E-mail id. $\qquad$
Contact No: $\qquad$


## CHIEF PATRONS

Dr. K. L. Thakral
Founder Chairman, Oriental Group of Institutes and Chancellor, Oriental University, Indore

## PATRONS

Shri. Praveen Thakral Chairman, Oriental Group of Institutes

## Mrs. Niraj Ghei

Chair Person, Oriental College of Technology, Bhopal

## ADVISORY COMMITTEE

Dr. Ranjeeta Khare Director, OCT, Bhopal

## CONVENOR

Mrs. Roopali SOni octhodit@oriental.ac.in Mobile: +919827042079

## COURSE COORDINATOR

Mr Jitendra Singh Rathore
Mobile: +919109190390
Mrs. Sapna Kushwah
Mobile: +917987545017
ORGANISING COMMITTEE MEMBERS
Mr. Nilabh Kumar
Miss. Ruchi Jain

## CONTACT

Mrs. Roopali SOni octhodit@oriental.ac.in Mobile: +919827042079

Mr. Harendra Singh
Mobile: +918518852274

Oriental College of Technology, Bhopal


Value Added Course
$\operatorname{de}$

## "Mean Stack Development"

[25-29, Sertember, 2017]
For IV-Mear 5tureness

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Department of infinamiva Techankeg

Oriental College ar anemmangy-



## ABOUTHH:ORIENTAI GROUP

Oriental Group of Institutes (Indore - BhopalJabalpur) India established in the year 1995 is a self financed premier education group imparting education in the disciplines of Engineering, Pharmacy, Management and Advanced Computer Studies. The Oriental College of Technology offers six under graduate Bachelor of Engineering courses and three post graduate, Master of Technology courses. The college is having an excellent library, internet lab, modern labs for each department, central workshop, sports \& games facilities etc.
Bhopal, the capital of Madhya Pradesh, is also known as city of lakes. It is well connected to all parts of the country by rail and air. The institute is about 09 km from Bhopal railway station, and 07 km from Habibganj railway station and 18 km from Raja Bhoj Airport.

## ABOUT THE DEPARTMENT

The Department of Information Technology is a major strength of the institute. The Department has an excellent group of faculty with experience in teaching, Industry and Research. The state-of-art facilities $\because E T A O$, xcelory climate fir b he all round development of बupdenk ఝidinas well qualified, committed and motriefted kigithy members having specialization in various >trams the core competency of the

Department is in the area of Software Engineering. Database Management Systems, Data Structures etc. The Information Tech ology Department offers Undergraduate Program (B.E/ B. Tech) with an intake 120 Students.

## ABOUT THE COURSE:

Information Technology department plays prominent role in every domain and vital role in development of Nation. MEAN STACK DEVELOPMENT is Value Added course which will provide benefits to the participants in many ongoing research areas in latest technologies.

## OBJECTIVES \& CONTENTS

Mean stack refers to a collection of JavaScript technologies used to develop web applications. Therefore, from the client to the server to thedatabase everything is based on JavaScript. MEAN is a full-stack development toolkit used to develop a fast and robust web application

## ELIC:IBIL.ITY

The Fourth year Students of Information Technology branch are eligible to attend the Course on MEAN STACK DEVELOPMENT

REGISTRATION
No Registration fees. SPEAKERS
Mr. Jitendra Singh Rathore
[Assistant Professor, Oriental College of
Technology, Bhopal]
Miss Sapna Kushwah
[Assistant Professor, Oriental College of Technology, Bhopal]


Director Tocology Thakral Hagar, Risen Roast

# Oriental College of Technology, Bhopal 

Department of Information Technology
Syllabus of Value Added Course on
Mean Stack Development

## Module - 1

- HTML, CSS, BootStrap,
- Passport,
- Web pack,
- Basic web concepts,
- Advanced Web Concepts,
- RDBMS,
- REST API


## Module - 2

- Introduction
- How to install
- How to set up a project
- Angular CLI • Components and modules
- Data binding and Event binding
- Templates and Directives
- Pipes • Routing • Services
- HTTP Service and HTTP Client
- Forms
- Angular animations and materials


## Module-3

- Nodejs - Introduction
- How to install
- How to reate a nodejs app, how to create a nodejs server, sending basic request and responses.
- Node Package Manager (NPM)
- Callbacks concept
- Event driven programming concepts
- Event loop and Emitter
- Buffers, Streams, File system
- Global objects • Utility modules
- Web module • Rest API through Nodejs
- How to scale a nodejs application
- Packaging

O-LEGMongoDB - Introduction
${ }^{\circ} \mathrm{O}_{8} \operatorname{lom}_{m_{2}} O$ Overview


Oriental College of Technology Thakral Hagar, Raisen Road

## Create Collection

- Drop Collection
- Datatypes • Insert Document
- Query Document
- Update Document
- Delete Document
- find() method
- Limit, Sort and Indexing
- Aggregation
- Replication and sharding
- Create Backup
- Deployment
- Mongodb with Nodejs
- Templating
- Static files


## Module5

- Form Data
- Express with Databaşe (Mongodb)
- Cookies, Sessions • Aúthentication
- Rest APIs
- Scaffolding
- Error handling and debugging


| SCHEDULE |  |  |
| :---: | :---: | :---: |
| 5 Days Value Added Course on Mean Stack Development [25-Sep-2017 To 29-Sep-2017] |  |  |
| 25Sep 2017 |  |  |
| Time | Session | Teacher |
| 9:30-10:00 AM | Inaugural Programme |  |
| 10:00 AM-12:30PM | Introduction to Mean Stack Development, Introduction to HTML,CSS, Bootstrap | Mr Jitendra Singh Rathore |
| 12:30-1:10PM | LUNCH |  |
| 01:10-3:10PM | Passport, Web pack Basic Web Concepts, | Mr Jitendra Singh Rathore |
| 3:10-3:30PM | Break |  |
| 03:30-5:30PM | RDBMS, Rest API | Mr Jitendra Singh Rathore |
| 26Sep 2017 |  |  |
| Time ${ }^{i}$ | Session | Teacher |
| 9:00-11:00AM | How to Install, How to set up a Project | Mr Jitendra Singh Rathore |
| 11:00-11:30AM | Break |  |
| 11:30-01:00PM | Angular CLI, Components and Modules, Data Binding and event binding | Mr Jitendra Singh Rathore |
| 01:00-1:40PM | LUNCH |  |
| 01:40-4:30PM | Templates and Directives Forms and Angular animations etc | Miss Kavita Rawat |
| 27Sep 2017 |  |  |
| Time | Session | Teacher |
| 9:00-11:00AM | NodeJs - Introductions, How to Install, How to create a Nodejs app, Node package Manager(NPM) | Mr Jitendra Singh Rathore |
| 11:00-11:30AM | Break |  |
| 11:30-01:00PM | Web Module Rest API through NodeJs | Mr Jitendra Singh Rathore |
| 01:00-1:40PM | LUNCH |  |
| 01:40-4:30PM | How to scale Nodejs applications, Global Objects | Mr Jitendra Singh Rathore |
| 28 Sep 2017 |  |  |
| Time | Session | Teacher |
| 9:00-11:00AM | Mongo DB- Introduction Overview How to Install Data Modeling | Mr Jitendra Singh Rathore |
| 11:00-11:30AM | Break | Mr Jitendra Singh Rathore |
| 11:30-01:00PM | Create Database ,drop Data base, Create Collection Drop Collection datatypes Insert Documents, Update Documents, Static files |  |
| 01:00-1:40PM | LUNCH | Mrs. Sapna Kushwah |
| 01:40-4:30PM | Class Room Assessment |  |
| 29Sep 2017 |  |  |
| Time | Session | Teacher |
| 9:00-11:00AM | Form data Express with Database(Mongodb), Cookles Sesslons | Mrs. Sapna Kushwah |
| 11:00-11:30AM | Break |  |
| 11:30-01:00PM | Scafolding Error Handlling and debugging | Mrs. Sapna Kushwah |
| 01:00-1:40PM | LUNCH |  |
| 0140030089 | Practical Examples with small hands on | Mrs. Sapna Kushwah |
|  | Objective test | Mrs. Sapna Kushwah Oriental |
|  | Valedictory \& Certificate distribution | Mrs. Sapna Kushẉ̧̈hakral |

1 In which of the following areas, Node.js is not advised to be used?
A - Single Page Applications
B - JSON APIs based Applications
C-CPU intensive applications
D - Data Intensive Realtime Applications (DIRT)
2 By default, npm installs any dependency in the global mode.
A-true
B-false
3 Which of the following is true about EventEmitter.on property?
$A$ - on property is used to fire event.
$B-$ on property is used to bind a function with the event.
$C$ - on property is used to locate an event handler.
$D$ - None of the above.
4 Which method of fs module is used to get information about file?
A - fs.open(path, flags[, mode], callback)
B - fs.stat(path, callback)
C - fs.readFile(path, flags[, mode], callback)
$D$ - None of the above.
5 Which method of fs module is used to read a directory?
A - fs.readDirectory(path[, mode], callback)
B - fs.read(path[, mode], callback)
C - fs.readdir(path, callback)
D - None of the above.
6 Which of the following code prints memory usage?
A - console. $\log$ (process.memoryUsage());
B - console.log('Current version: ' + process.memory());
C - console.log('Current version: ' + process.getMemory());
D - None of the above.
7 Which of the following module is required for network specific operations?
A - os module
B - fs module
C-net module
D - None of the above.
8 net.isIP(input) returns 4 for IP version 4 addresses.
A-true
she of the above.
hild processes always have three streams child.stdin, child.stdout, and child.stderr ch may be shared with the stdio streams of the parent process.
A - true
B -false
11 Which of the following is true about RESTful web services?
A. Webservices based on REST Architecture are known as RESTful web services
B. Webservices uses HTTP methods to implement the concept of REST architecture
C. Both of the above
D. None of the above

12 The Node.js modules can be exposed using
A. module.expose
B. module
C. module.exports
D. All of the above

13 In Nodejs how node based web servers differ from traditional web servers?
A. Node based server uses a single threaded model and can serve much larger number of requests compared to any traditional server like Apache HTTP Server.
B. Node based server process request much faster than traditional server.
C. There is no much difference between the two.
D. All of the above

14 Which statement executes the code of sample.js file?
A. nodejs sample.js
B. node sample.js
C. sample.js
D. None of the above

15 What are the key features of Node.js?
A. Real time Data intensive
B. Highly scalable servers for Web Applications
C. Builds fast and scalable network Applications
D. All of the above

16 How can we check the current version of NPM?
A. nm --version
B. nm --er
C. rpm help
D. None of the above

17 What is the advantage of using node.js?
A. It provides an easy way to build scalable network programs
B. Generally fast
C. Great concurrency
D. All of these

18 Why a Node.JS code is pretty fast although being written in JavaScript?
A. Node.JS internally converts JavaScript code to Java based code and then execute the
same
B. Node.JS internally converts JavaScript code to $C$ based code and then execute the same
C. Being built on Google Chrome's V8 JavaScript Engine 19 What is REPL in Node.js?
A. Eval


Ied to serve static resources in Node.js?

C. node-resource
D. static

What should you do in your code to improve your application's performance?
A. Use gzip compression
B. Don't use synchronous functions
C. Do logging correctly
D. Handle exceptions properly

22 Is console a global object?
A. null
B. false
C. true
D. None

23 To install Node.js express module
A. $\$$ npm install express
B. \$ node install express
C. \$ install express
D. None of above

24 Which of the followings are valid languages for Node.js?
A. JavaScript
B. Java
C. $\mathrm{C}++$
D. C\#

25Which of the following tool automates various tasks of Node.js application?
A. Express.js
B. GruntJS
C. NPM
D. None of the above


Oriental College of Technology
Thakral Nagar, Raisen Road
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## ORIENTAL COLLEGE OF TECHNOLOGY Value Added Course: Mean Stack Development OF INFORMATION TECHNOLOGY

Course Code: IT 40001









## ORIENTAL COLLEGE OF TECHNOLOGY.BHOPAL

 Oriental Campus, Raisen Road, Bhopal-462021 (MP) IND:A]


# Department of Information Technolagy 

Session: 20I7-18

## CERTIFILATE

This is to certify thatMr./Ms Kausar Parveen of IT VIISemester, OCT, Bropal, has Successfully Completed the "Value Added Course" on "Mean Seor Development"during 25-29 Sept 2017, organized by Deparûment of Informatoo Technology, Oriental College of Technology, Bhopal.


Co-Drdinatar, IT, OLT


Head of Department, IT, ICT

Oriental Collector
Thakral Nagar otrachoology Bhopal Misen Pirecter, IUT

## Course Evaluation/ Feedback Form

| ale Added Course <br> Special course | Mean Stack Development |
| :--- | :--- |
| Duration | 25 To 29 September 2017 |
| Venue | Oriental College of Technology, Bhopal |
| Presenter(s): | Mr Jitendra Singh Rathore, Mrs Sapna Kushwah |

Please respond to the following statements by using the $\checkmark$ mark to indicate the extent to which you agree or disagree

| with each statement. | Excellent | Very <br> Good | Good | Fair | Poor |  |
| :--- | :--- | :--- | :--- | :--- | :--- | :--- |
| The course as a whole was: |  |  |  |  |  |  |
| The course content was: |  |  |  |  |  |  |
| The instructor's contribution to the course was: |  |  |  |  |  |  |
| The instructor's effectiveness in teaching the subject matter |  |  |  |  |  |  |
| was: |  |  |  |  |  |  |
| Course Organization was: |  |  |  |  |  |  |
| Clarity of instructor's voice was: |  |  |  |  |  |  |
| Explanations by instructor were: |  |  |  |  |  |  |

Instructor's use of examples and illustrations was:
Quality of questions or problems raised by the instructor was:
Student's confidence in instructor's knowledge was: instructor's enthusiasm was:

Encouragement given to students to participate was:
Answers to student questions were:
Availability of extra help when needed was:
Use of class time was:
istructor's interest in student's progress was:
mount you learned was:
arity of student requirements was:


Director Oriental College of Technology Thathalicuatifyediser Road

## ORIENTAL COLLEGE OF TECHNOLOGY, BHOPAL

Department of Information Technology


## Report on Value Added Course on Mean stack Development

Date and Time: 25 September, to September 29, 2017. Venue: Department of Information Technology , OCT Campus, Bhopal. Organized by: Information Technology Department, OCT , Bhopal. Name of the Speakers: The speakers were from Department of Information Technology OCT , Bhopal they are Mr Jitendra Rathore ,Miss Kavita Rawat and Mrs Sapna Kushwah. Participants Details: The students participated were Fourth Year Students

## Summary of the Event

The value added courses adds value to the basic ongoing degree program. The students get an insight into the technological advancements and the recent trends that are prevailing in the outside world which gives an added benefit to the placement and gives added advantages to the employment opportunities of the students
The course is divided into five modules and at the end there was an assessment by which the students are awarded certificates.

On September 25, the course started with the inaugural and presidential speech of Director Oriental College of Technology. In his presidential speech emphasized on the need to collaborat the academic and the non academic education.

The course was conducted strictly according to the schedule and at last the convener of the course gave away the vote of thank.. At the end the convener thanked all the faculties, office staff a student volunteers for their unconditional support in organizing this Course.

## Prof. Roopali Soni

## Course Convenor

 IT, OCT
lour
Director Oriental College of Technolog: Thakral Nagar, Raisen Road


## ORIENTAL COLLEGE OF TECHNOLOGY, BHOPAL

Approved by AICTE, New Delhi \& Govt. of M.P. Affiliated to Rajiv Gandhi Proudyogiki Vishwavidyalaya, Bhopal Oriental Campus, Raisen Road, Bhopal-462021 (MP) INDIA

Date: 17 June 2014

## Policy for Value Added Course

1. The minimum duration of each Value Added Course will be of 30 hrs.
2. Only students who are registered for the semester will be allowed to attend the course.
3. The assessment procedure will be based on the Class Room Assessment, Objective test \& attendance.
4. The course is free to enroll and learn from. But if student want a certificate, then they have to register and write the proctored exam conducted by us in person at Oriental College of Technology, Bhopal
5. Criteria to get a Certificate: Final score $=$ Class Room Assessment Score + Objective Test Score, with minimum of $60 \%$ attendance during the course.
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a. Class Room Assessment $>=25 / 50$
b. Objective Test Score $>=25 / 50$.
c. If one of the two clause $(\mathrm{a}, \mathrm{b})$ is not met, student will not get the certificate even if the Final score $>=50 / 100$.
7. Students will be issued with a certificate consisting of student name, semester, course name, Course duration.

## Copy to:



Director
Oriental College of Technology Thakral Nagar, Raisen Road Bhopal

1. Academic Committee
2. All HoD's, OCT


Director
Oriental College of Technology Thakral Nagar, Raisen Road Bhopal


## ABOUT THE ORIENTAL GROUP

Oriental Group of Institutes (Indore - Bhopal- Jabalpur) India established in the year 1995 is a self financed premier education group imparting education in the disciplines of Engineering, Pharmacy, Management and Advanced Computer Studies. The Oriental College of Technology, offers six under graduate Bachelor of Engineering courses and three post graduate, Master of Technology courses. The college is having an excellent library, internet lab, modern labs for each department, central workshop, sports \& games facilities etc.
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## ABOUT THE DEPARTMENT

The Department of Electronics \& Communication is a major strength of the institute. The Department has an excellent group of faculty with experience in teaching, Industry and Research. The state-of-art facilities and competent faculties provide an excellent climate for the all round development of the students. It has well qualified, committed and motivated faculty members having specialization in various streams. The core competency of the Department is in the area of VLSI, Arduino \& Embedded System.


The EC Department offers M.Tech Course in Electronics along with Undergraduate Program (B.E/ B. Tech) with an intake of 18 and 120 respectively.

## ABOUT THE COURSE

Electronics \& Communication Engineering plays prominent role in every domain. "APPLICATIONS OF IOT" is Value Added course which can provide benefits to the participants in many ongoing research areas in latest technologies. Internet of Things is a new revolution of the Internet. A world where the real, digital and the virtual are converging to create smart environments that make energy, transport, cities and many other areas: more intelligent.

## OBJECTIVES \& CONTENTS

Internet of Things covers the current Industry Trends in Io T which encompass a wide range of skills that are integral and necessary part of everyday business, day life or work environment.
$\checkmark$ Introduction to the Internet of Things
$\checkmark$ IOT architecture
$\checkmark$ IOT Protocol
$\checkmark$ Detail of IOT Simulator $=$
$\checkmark$ Open Source Platform for IOT

## ELIGIBILITY

The Fourth year Students of Electronics \& Communication Engineering branch is eligible to attend the "APPLICATIONS OF IOT" course.

REGISTRATION

## No Registration fees.

INVITED SPEAKER
Mr. Abhigyanam Giri


Director, Ind Eyes Pvt. Ltd. Bhopal


Oriental College of Technology Thakral Nagar, Raisen Road Bhopal

## Oriental College of Technology, Bhopal

Electronics \& Communication Engineering<br>Value Added Course: Applications of IoT<br>Course Code: EC 40001

Module 1: What is IOT, architecture of network, architecture of device, what is embedded system, why we use embedded system in IOT, IOT applications.

Module 2: Basic electronic components of IOT, resistors, LED, transistors, capacitors, diode, zener diode, relay, switch.

Module 3: What is Arduino and ESP8266, History of ESP8266 and Arduino, Software and Hardware description, comparison between ESP8266 and Arduino, programming software. $\$

Module 4: Glow LED, Different patterns of LED, Pull up and pull down condition of switch, LED by switch, LED by two switch, Hello printing on LCD, Different name pattern on LCD.

Module 5: Wireless Protocols (SPI, USART, I2C, Modbus, UART), Networking Protocols (OSI Reference Model, Ethernet, TCP/IP,).

Module 6: RF Module, GSM Module, LAN Module, Bluetooth module, Wi-Fi Module.

Module 7: Project Name: Liquid Level Monitoring System
Use: This project IOT Liquid Level Monitoring system is a very innovative system which will inform the users about the level of liquid and will prevent it from overflowing.
Components Required: Hardware Specifications : Atmega Microcontroller, ESP8266 Wi-fi Módule, HC-SR04 Ultrasonic, LCD Display, Buzzer, Crystal Oscillator, Resistors, Capacitors, Transistors, Cables and Connectors, Diodes, PCB and Breadboards, LED, Transformer/Adapter, Push Buttons, Switch, IC Sockets,
Software Specifications : Arduino Compiler, MC Programming Language: Embedded C, IOTGecko.


## SCHEDULE

## Five Days Value Added Course on Applications of IoT [18-Sep-2017 To 22-Sep-2017]



> Oriantal College of Technology Thakral Nagar, Raisen Road. Bhopal

| ORIENTAL COLLEGE OFTECHNOLOGY, BHOPAL |  |  |  |
| :--- | :--- | :--- | :--- |
| Value Added course on Applications of IoT |  |  |  |
| Objective Test, Date 18-22 |  |  |  |
| Sep 2017 |  |  |  |

1. Is MQTT a Standard?
d. HTTP
a.Yes
b. No
2. IANA stands for:
a. Internal Assessment Numerical Access
b. Internet Association Numbers Authority
c. International Aid for Network Automation
d. Internet Assigned Numbers Authority
3. Standard port number for secure MQTT is:
a. 1883
b. 8000
c. 8883
d. 8888
4. Is CoAP a IETF standard?
a. True
b. False
5. Bluetooth 5.0 promises:
a. $4 x$ Speed, $2 x$ Range, $2 x$ Data
b. $6 x$ Speed, $3 x$ Range, $3 x$ Data
c. $2 x$ Speed, $4 x$ Range, $8 x$ Data
d. $3 x$ Speed, $4 x$ Range, $8 x$ Data
6. Terms SSL and TLS stand for:
a. Secure Socket Layers and Transport Layer Session
b. Secure Socket Layers and Transport Layer Security
c. Secure Socket Layout and Transport Level Session
d. Session Socket Layers and Transport Layer Session
7. Which one out of these is not a data link layer technology:
a. Bluetooth
b. UART
c. WiFi
8. Which transport layer protocols is used by DHCP?
e. RSVP
f. TCP
g. DCCP
h. UDP
9. Which layer is called a port layer in OSI model:
i. Session
j. Application
k. Presentation
I. Transport
10. What is a firewall in computer networks:
m. A system designed to prevent unauthorized access
n. A web browser
o. The physical boundary of network
p. The Network Operating System
11. Router operate at ............ layer of OSI reference model?
Layer 2 (Data Link)
Layer 3 (Network)
Layer 1 (Physical)
Layer 4 (Transport)
12. Each IP packet must contain:
a. Only Destination IP Address
b. Only Source IP Address
c. None of Above
d. Source and destination IP Addresses
13. Which one of this is not a networking device:
a. Router
b. Switch
c. Bridge

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Thakral Nagar, Raisen Road Bhopal
d. Traffic Analyzer
14. What is the standard length of MAC address:
a. 16 bits
b. 32 bits
c. 48 bits
d. 64 bits
15. What is the use of Ping command:
a. To know network speed
b. None of the above
c. To test a host on the network is reachable
d. To test storage device
16. What is Secure Shell (SSH):
a. A router
b. A firewall
c. A network protocol
d. Python Shell
17. What does VNC stand for:
a: Various Network computers
b. Virtual Network Computing
c. None of the above
d. Virtual Network Communication
18. What is the purpose of bin directory in Linux environment:
a. Contains essential device files
b. Contains essential binary commands
c. Containing configuration files
d. Contains user home directories
19. What is Inter Integrated Communication(I2C):
a. An application layer protocol
b: A networking communication protocol for multi-master support
c. An OS for distributed network communication
d. A cellular communication protocol
20. How many wires does SPI protocol use:
a. 2
b. 3
c. 1
d. 4
21. What does LTÉstand for:
a. Long Term Efrors.
b. Long Termevolution
c. Lengthy Terminal Estimation
d. Long Term Estimates
22. Which one out of these is not LPWAN technologies:
a. SigFox
b. WiFi
c. NB-IoT
d. LoRa
23. Frequency band used by 802.11 ah standard is:
a. $\quad 60 \mathrm{GHz}$
b. $\quad 2.4 \mathrm{GHz}$
c. Sub 1 GHz
d. 5 GHz
24. Fuzzy Logic is a form of:
a. Hexa state logic
b. Two-valued logic
c. Binary set logic
d. Many valued logic
25. $\qquad$ involves predicting a response with meaningful magnitude, such as quantity sold, stock price, or return on investment.
a. Summarization
b. Clustering
c. All of the mentioned
d. Regression
26. Which of the following language is preferred for loT analytics ?
a. Python
b. S
c. $R$
d. All of the mentioned
27. Which one is simplest form of analytics
a. Predictive
b. Descriptive
c. All of the mentioned
d. Prescriptive
28. The method by which companies analyze customer data or other types of information in an effort to identify patterns and discover relationships between different data elements is often referred to as:
a.
b. Customer data manàgement
c. Data mining

d. Data digginglrector
e. Aubieb bit frellabs of Technology Thakral Nagar, Raisen Road
29. A collection of lines that connects several devices is called
a. Bus
b. Cable
c. Power line
d. Transmission Line
30. A start bit in UART communication is always:
a. 1
b. Neither of these
c. 0

## Class Room Assessment

Q: Describe the liquid level monitoring system with the help of block diagram. Also design the circuit using PCB.


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## ORIENTAL COLLEGE OF TECHNOLOGY, BHOPAL

DEPARTMENT OF ELECTRONICS \& COMMUNICATION ENGINEERING Value Added Course: Applications of IOT Course Code: E(4000) Students Attendance Sheet

Sep-17


ORIENTAL COLLEGE OF TECHNOLOGY, BHOPAL
DEPARTMENT OF ELECTRONICS \& COMMUNICATION ENGINEERING Value Added Course: Applications of 107 Course Code : EC 40001 Students Attendance Sheet

| S.NO. | ENROLL NO | NAME OF STUDENT | Sep-17 |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  |  |  | 18-Sep | 19-Sep | 20-Sep | 21-Sep | 22-Sep |
| 77 | $0126 E C 141091$ | SAKSHI JAIN | - Aqain | Hyan | Asing | faw | Asam |
| 78 | 0126EC141092 | SAKSHI SAXENA | 38 | \% | $85$ | Is |  |
| 79 | $0126 E C 141093$ | SANDEEP ARTANI | sandey |  |  |  |  |
| 80 | $0126 E C 141094$ | SHANKEY SAHU |  |  |  |  |  |
| 81 | $0126 E C \neq 41096$ | SHASHI KANT | ant |  | 79n? | (and |  |
| 82 | 0126 EC141097 | SHILPY KUMARI | charma. | cumu | skuns |  |  |
| 83 | $0126 E C 141098$ | SHRADDHA AGARWAL | Asarent- | Anpra | mharaz | Sta | hriwen |
| 84 | 0126EC141099 | SHRUTI SHRIVASTAVA | Wruti | Sluruti | Shruti | Shouti | ruti |
| 85 | $0126 E C 141100$ | SHUBHAM DHAKAD | Arubisios | Shuphame | thuthers | Ahubhare | thuston |
| 86 | $0126 E C 141101$ | SHUBHAM JAIN | uns. | Stain | रो |  | ¢ four |
| 87 | 0126 EC 141102 | SHUBHAM SAHU |  |  | as |  |  |
| 88 | 0126EC141103 | SHUBHAM TRIPATHI | , | (59) | (8). |  |  |
| 89 | 0126 EC 141104 | SONALI TYAGI | Soriale | Sonal: | fonoli | cronal |  |
| 90 | 0126 EC141105 | SOURABH SANTORE | santal | saintas | Ssantma | santro | Sexht |
| 91 | 0126 EC141106 | SUNIL KUMAR | skemar | Skecnar | skemar | stumar | skuma |
| 92 | 0126 EC141107 | SURAJ SAHU | ABS | AB5 | A | AB5, | 43) |
| 93 | 0126 EC141108 | SURBHI SINGH | Susthi | Susbhi | Susbhy | Susthe | Susbh |
| 94 | 0126 EC 141109 | SWECHHA DWIVEDI | Suathenem | Such | Cuchmen | Sutheman | Sucthwal |
| 95 | 0126 EC141110 | TANISHA GOINDANI | tamisha | TANISHA | TAMISHA | - fralsha | TPrulish |
| 96 | 0126 EC 141111 | TANYA ARORA | $\sim$ | am | havom | Tavan | liom |
| 97 | 0126 EC 141112 | TEJ RAM PATEL |  | Jy |  |  |  |
| 98 | 0126 EC141113 | TRISHA ACHARYA | Frishy | fforst | 4thrs | $\mathrm{OHSL}_{3}$ | Fugrs |
| 99 | 0126 EC 141114 | TUSHAR RAICHANDANI | Sistantm | Iuswerkas | Jusminh | Instars ${ }^{\text {a }}$ | luchara |
| 100 | $0126 E C 141115$ | UTKARSH DIXIT | ABS | ABS | ABS | $A B S$ | 4RS |
| 101 | 0126 EC141116 | UTKARSH DUBEY | Atcash. | Uticosh | Ctkasg | latkash | Whesse |
| 102 | 0126 EC141117 | VARTIKA AGRAWAL | vartice | Vartike | Vartice | Vartics | Vartics |
| 103 | 0126 EC141118 | VIJETA MOOLCHANDANI | Viseta | Viseta | Viseta | ViJeta | Vijeta |
| 104 | 0126 EC141119 | VIVEK KUMAR | Villefor | Viveh | Vivela | Llivele | Vives |
| 105 | 0126EC141120 | YASH JAIN | 7.I | $\pm 7$ | 正 | 7. 5 | 7 f |
| 106 | 0126EC153D01 | MOHANI SONI | mohani | mohani | mohan 1 | mohani | mohani |
| 107 | 0126EC153D02 | SIDDHARTH | Sidh-s | Siden | firdha | fivelhan | Siflltan |

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## ORIENTAL COLLEGE OF TECHNOLOGY, BHOPAL

department of electronics \& communication engineering
Value Added Course:Applications of lot
Course Code :EC 40001
Students Attendance Sheet, 18-22 Sep 2017

| ORIENTAL COLLEGE OF TECHNOLOGY, BHOPAL <br> DEPARTMENT OF ELECTRONICS \& COMMUNICATION ENGINEERING <br> Value Added Course:Applications of loT <br> Course Code :EC 40001 <br> Students Attendance Sheet, 18-22 Sep 2017 |  |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| S.NO. | ENROLL NO | NAME OF STUDENT | Class Room <br> Assessment Score (Marks/50) | Objective Test Score (Marks/50) | Total Score | Eligible for Certificate or not |
| 44 | $0126 E C 141055$ | KAJAL KUMARI | 35 | 40 | 75 | Eligible |
| 45 | 0126EC141056 | KAJAL SINGH | 38 | 34 | 72 | Eligible |
| 46 | 0126EC141057 | KANIKA SHARMA | 26 | 32 | 58 | Eligible |
| 47 | 0126EC141058 | KM SWAPNIL JAIN | 44 | 44 | 88 | Eligible |
| 48 | 0126EC141059 | MANI MEGHLAY ANAND | 35 | 38 | 73 | Eligible |
| 49 | 0126EC141060 | MONICA | 32 | 30 | 62 | Eligible |
| 50 | 0126EC141061 | MONICA RAO * | 28 | 26 | 54 | Eligible |
| 51 | 0126EC141062 | NEELIMA TIWARI | 26 | 28 | 54 | Eligible |
| 52 | $0126 E C 141063$ | NIKITA GUPTA | 25 | 30 | 55 | Eligible |
| 53 | 0126EC141064 | NISHI GUPTA | 44 | 44 | 88 | Eligible |
| 54 | $0126 E C 141065$ | NITIN KATYAYAN | 38 | 34 | 72 | Eligible |
| 55 | $0126 E C 141066$ | NITYA | 26 | 32 | 58 | Eligible |
| 56 | $0126 E C 141067$ | NIVEDITA KUMARI | 44 | 44 | 88 | Eligible |
| 57 | $0126 E C 141068$ | NUPUR GURJAR | 35 | 38 | 73 | Eligible |
| 58 | 0126EC141069 | PALLAVI | 32 | 30 | 62 | Eligible |
| 59 | $0126 E C 141070$ | PANKAJ SENGAR | A | 10 | 10 | Not Eligible |
| 60 | $0126 E C 141071$ | PIYUSH KESARWANI | 44 | 44 | 88 | Eligible |
| 61 | 0126EC141072 | POOJA THAKUR | 25 | 30 | 55 | Eligible |
| 62 | 0126EC141073 | PRAGYA AGRAWAL | 35 | 40 | 75 | Eligible |
| 63 | $0126 E C 141075$ | PRASANTH | A | A | 0 | Not Eligible |
| 64 | $0126 E C 141076$ | PRAVEEN KUMAR | 26 | 32 | 58 | Eligible |
| 65 | $0126 E C 141077$ | PRERNA PRAJAPATI | 28 | 30 | 58 | Eligible |
| 66 | 0126EC141079 | RACHIT DARE | A | A | 0 | Not Eligible |
| 67 | $0126 E C 141080$ | RAHUL ROHIRA | A | 14 | 0 | Not Eligible |
| 68 | $0126 E C 141081$ | RAIMA RAJ | 28 | 26 | 54 | Eligible |
| 69 | 0126 EC141082 | REEMA KUMARI | 26 | 30 | 56 | Eligible |
| 70 | $0126 E C 141083$ | RITESH KUMAR | 25 | 30 | 55 | Eligible |
| 71 | $0126 E C 141084$ | ROHIT KUMAR | 35 | 40 | 75 | Eligible |
| 72 | $0126 E C 141085$ | ROSHAN KUMAR | 38 | 34 | 72 | Eligible |
| 73 | 0126 EC141086 | ROSHIYA R JOHN | 24 | 30 | 54 | Eligible |
| 74 | $0126 E C 141087$ | RUPALI SHARMA | A | A | 0 | Not Eligible |
| 75 | 0126EC141089 | SACHIN RAGHUWANSHI | A | A | 0 | Not Eligible |
| 76 | $0126 E C 141090$ | SAJAL SINGHAI | 26 | 32 | 58 | Eligible |
| 77 | $0126 E C 141091$ | SAKSHI JAIN | 28 | 30 | 58 | Eligible |
| 78 | 0126 EC 141092 | SAKSHI SAXENA | 44 | 44 | 88 | Eligible |
| 79 | $0126 \mathrm{EC141093}$ | SANDEEP ARTANI | 32 | 30 | 62 | Eligible |
| 80 | 0126 EC141094 | SHANKEY SAHU | 28 | 26 | 54 | Eligible |
| 81 | $0126 E C 141096$ | SHASHI KANT | 26 | 28 | 54 | Eligible. |
| 82 | $0126 E C 141097$ | SHILP PY KUMARI | 25 | 30 | 55 | Eligible |
| 83 | 0126EC141098 | SHRADDHA AGARWAL | 44 | 44 | 88 | Eligible |
| 84 | $0126 E C 141099$ | SHRUTISHRIVASTAVA | 38 | 34 | 72 | Eligible |
| 85 | 0126EC141100 | SHUBHAM DHAKAD | 26 | 32 | 58 | gigible |
| 86 | 0126EC141101 | SHUBIMM JAIN | 28 | 30 | 58) ${ }^{\text {n }}$ | ctor Eligible |

[^1]ORIENTAL COLLEGE OF TECHNOLOGY, BHOPAL
DEPARTMENT OF ELECTRONICS \& COMMUNICATION ENGINEERING
Value Added Course:Applications of IoT
Course Code :EC 40001
Students Attendance Sheet, 18-22 Sep 2017

| S.NO. | ENROLL NO | NAME OF STUDENT | Class Room <br> Assessment Score <br> (Marks/50) | Objective Test Score (Marks/50) | Total Score | Eligible for Certificate or not |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| 87 | $0126 E C 141102$ | SHUBHAM SAHU | 35 | 38 | 73 | Eligible |
| 88 | $0126 E C 141103$ | SHUBHAM TRIPATHI | 32 | 30 | 62 | Eligible |
| 89 | $0126 E C 141104$ | SONALI TYAGI | 28 | 26 | 54 | Eligible |
| 90 | $0126 E C 141105$ | SOURABH SANTORE | 26 | 30 | 56 | Eligible |
| 91 | $0126 E C 141106$ | SUNIL KUMAR | 25 | 30 | 55 | Eligible |
| 92 | $0126 E C 141107$ | SURAJ SAHU | A | A | 0 | Not Eligible |
| 93 | 0126EC141108 | SURBHI SINGH | 38 | 34 | 72 | Eligible |
| 94 | 0126 EC 141109 | SWECHHA DWIVEDI | 24 | 30 | 54 | Eligible |
| 95 | 0126 EC 141110 | TANISHA GOINDANI | 44 | 44 | 88 | Eligible |
| 96 | $0126 E C 141111$ | TANYA ARORA | 26 | 32 | 58 | Eligible |
| 97 | $0126 E C 141112$ | TEJ RAM PATEL | 28 | 30 | 58 | Eligible |
| 98 | $0126 E C 141113$ | TRISHA ACHARYA | 35 | 38 | 73 | Eligible |
| 99 | $0126 E C 141114$ | TUSHAR RAICHANDANI | 32 | 30 | 62 | Eligible |
| 100 | $0126 E C 141115$ | UTKARSH DIXIT | A | A | 0 | Not Eligible |
| 101 | $0126 E C 141116$ | UTKARSH DUBEY | 26 | 30 | 56 | Eligible |
| 102 | $0126 E C 141117$ | VARTIKA AGRAWAL | 25 | 30 | 55 | Eligible |
| 103 | $0126 E C 141118$ | VIJETA MOOLCHANDANI | 35 | 40 | 75 | Eligible |
| 104 | 0126 EC 141119 | VIVEK KUMAR | 26 | 32 | 58 | Eligible |
| 105 | 0126EC141120 | YASH JAIN | 28 | 30 | 58 | Eligible |
| 106 | 0126EC153D01 | MOHANI SONI | 15 | 22 | 37 | Not Eligible |
| 107 | 0126EC153D02 | SIDDHARTH | 32 | 30 | 62 | Eligible |



Oriental College of Technology Thakral Nagar, Raisen Road Bhopal

Course Evaluation/ Feedback Form

| Value Added Course | Applications of IoT |
| :--- | :--- |
| Duration | 18-22 Sep 2017 |
| Venue | Oriental College of Technology, Bhopal |
| Presenter(s): | Mr. Kapil Gupta |

Please respond to the following statements by using the 5-point rating scale to indicate the extent to which you agree or disagree with each statement. Please circle the number that applies.

$$
\text { 5=Undecided } \quad 4=\text { Strongly Agree } \quad 3=\text { Agree } \quad 2=\text { Disagree } \quad 1=\text { Strongly Disagree }
$$

| 1. The instructor is well prepared for class session. | 5 | 4 | 3 | 2 |
| :--- | :--- | :--- | :--- | :--- |

[^2]
## Course Certificate

This is to certify that Mr./Ms. Ashutosh Kumar of EC-VII Sem, OCT, Bhopal, has Successfully Completed the "Value Added Course" on "Applications of ToT" during 1822 Sep 2017, organized by Department of Electronics \& Communication Engineering, Oriental College of Technology, Bhopal.


Coordinator, OCT

HOD, EC, OCT hus Director, OCT

ORIENTAL COLLEGE OF TECHNOLOGY, BHOPAL
Department of Electronics \& Communication Engineering

## Course Certificate

This is to certify that Mr./Ms. Akansha Jain of EC-VII Sem, OCT, Bhopal, has Successfully Completed the "Value Added Course" on "Applications of LoT" during 18-22 Sep 2017, organized by Department of Electronics \& Communication Engineering, Oriental College of Technology, Bhopal.



HOD, EC, OCT Ditedirector, OCT Oriental College of Technology Thakral Nagar, Raisen Road Bhopal

Value Added Couse On Applications of IoT


Oriental College of Technoc. y
Thakral Nagar, Raisen Road Bhopal

## ORIENTAL COLLEGE OF TECHNOLOGY, BHOPAL

## Department of Electronics $\boldsymbol{\&}$ Communication Engineering



# Report on Value Added Course on Applications of IoT 

Date and Time: September 18, to September 22, 2017. Venue: EC, OCT Campus, Organized by: EC,OCT, Bhopal. Name of the Speakers: Mr. Abhigyanam Giri, Director IndEyes Infotech Pvt. Ltd., Mr. Amish Ku. Jha, Assistant Professor, EC, OCT \& Mr. Kapil Gupta, Assistant Professor, EC, OCT, Participants Details: $4^{\text {th }}$ year students of Electronics \& Communication Engineering.

## Summary of the Event

To bridge the gap between the academic and industry need, Value Added Courses are conducted regularly in our College. It is important for higher education institutions to supplement the curriculum to make students better prepared to meet industry demands as well as develop their own interests and aptitudes. The Value added course Plays an important role in Strengthening the technical skills of undergraduates. In the race of making good and bright career in short span of time, most of the time students neglect the aim and the need of education. In view of this changing pattern and condition of youth education in India, and to guide students on different topics which are not covered under the defined academic syllabus, the Electronics \& Communication Engineering Department of Oriental College of Technology in association with IndEyes InfoTech Pvt. Ltd, had organized "Value Added Course on Applications of IoT" from September 18, to September 22, 2017 for the students of $4^{\text {th }}$ year.


Director
Oriental College of Technology Thakral Nagar, Raisen Road Bhopal

This Course syllabus was covered by Mr. Abhigyanam Giri, Director IndEyes Infotech Pvt. Ltd., Mr. Amish Ku. Jha, Assistant Professor, EC, OCT \& Mr. Kapil Gupta, Assistant Professor, EC, OCT in 30 Hrs. of 5-Day program.

On September 18, the course started with the inaugural speech of Dr. Ranjeeta Khare, Director, Oriental College of Technology. In her speech, she emphasized to bridge the gap between the academic and industry need.

The Course coordinator, Mr. Abhigyanam Giri, guided all students on the topic "Applications of IoT". In his speech, he had explained the need for every student to have skills to get a job.

On September 19, Mr. Abhigyanam Giri, introduced basics principle of IoT.
On September 20, Mr. Kapil Gupta, explained, different name pattern of LCD.
On September 21, Mr. Abhigyanam Giri, explained liquid level monitoring system.
On September 22, Mr. Amish Jha, explained designing of liquid level monitoring system.
At last, Dr. Rahul Dubey, Head EC, Convenor of Course gave away the vote of thanks. He thanked Mr. Abhigyanam Giri for providing his valuable time for successful conduction of this course for our students. He also thanked Mr. Amish Ku. Jha \& Mr. Kapil Gupta for addressing the student audience on the said topic. At the end he thanked all the faculties, office staff and student volunteers for their support in organizing this program successfully.


ORIENTAL COLLEGE OF TECHNOLOGY, BHOPAL
Approved by AICTE., Ncw Delhi \& Govt. of M.P. Affiliated to Rajiv Gandhi Proudyogiki Vishwavidyalaya, Bhopal
Oriental Campus, Raisen Road, Bhopal-462021 (MP) INDIA
Date: 17 June 2014

## Policy for Value Added Course

1. The minimum duration of each Value Added Course will be of 30 hrs.
2. Only students who are registered for the semester will be allowed to attend the course.
3. The assessment procedure will be based on the Class Room Assessment, Objective test \& attendance.
4. The course is free to enroll and learn from. But if student want a certificate, then they have to register and write the proctored exam conducted by us in person at Oriental College of Technology, Bhopal
5. Criteria to get a Certificate: Final score $=$ Class Room Assessment Score + Objective Test Score, with minimum of $60 \%$ attendance during the course.
6. Student will be eligible for a certificate only if:
a. Class Room Assessment $>=25 / 50$
b. Objective Test Score $>=25 / 50$.
c. If one of the two clause $(\mathrm{a}, \mathrm{b})$ is not met, student will not get the certificate even if the Final score $>=50 / 100$.
7. Students will be issued with a certificate consisting of student name, semester, course name, Course duration.

Copy to:


1. Academic Committee -
2. All HoD's, OCT


Director
Oriental College of Technology
Thakral Nagar, Raisen Road
Ehodal

## Registration Form



## CHIEF PATRONS

Dr. K. L. Thakral
Founder Chairman, Oriental Group of Institutes and
Chancellor, Oriental University, Indore

## PATRONS

Shri. Praveen Thakral
Chairman, Oriental Group of Institutes
Mrs. Niraj Ghei
Chair Person, Oriental College of Technology, Bhopal
ADVISORY COMMITTEE
Dr. Ranjecta Khare
Director, OCT, Bhopal

## CONVENOR

Mrs. Preeti Gupta
octhodex@oriental.ac.in
Mobile: +917024119755
COURSE COORDINATOR
Mr. Raveendra Soni
Mobile: +917987012064

ORGANISING COMMITTEE MEMBERS
Mr.Lalit Jain
Mr. Kaushal Sen

CONTACT
Mrs. Preeti Gupta octhodex@oriental.ac.in
Mobile: +917020rientat College of Technology
Thakral Nagar, Ralsen Road Oriental College of Technology,
Mr. Lalit Jain Bhopal Thakral Nagar. Raisen Reval.Bhopal 462021
Mobile: +917972366098

Oriental College of Technology,

Value Added Course
On
"PLC \& SCADA"
$16^{\text {th }}$ to $10^{\text {hh }}$ Feb. 20181

In Association with

,

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Organised By
Department of Electrical \& Electronics Engineering

##  <br> IndEyes <br> $\bigcirc$

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\begin{aligned}
& \text { nology } \\
& \text { Road Oriental College of Technology, } \\
& \text { Thatral Nagar. Raisen Rost. Bhopal t621 } \\
& \text { Phome 2529026, 2929057. Fav: 0755-2529472 }
\end{aligned}
$$

## ABOUT THE ORIT NTALGROUP

Oriental Group of Institutes (Indore - BhopalJabalpur) India established in the year 1995 is a self financed premier education group imparting education in the disciplines of Engineering, Pharmacy, Management and Advanced Computer Studics. The Oriental College of Technology, offers six under graduate Bachelor of Engineering courses and three post graduate, Master of Technology courses. The college is having an excellent library, internet lab, modern labs for each department, central workshop, sports \& games facilities etc.
Bhopal, the capital of Madhya Pradesh, is also known as city of lakes. It is well connected to all parts of the country by rail and air. The institute is about 09 km from Bhopal railway station, and 07 km from Habibganj railway station and 18 km from Raja Bhoj Airport.


## ABOUT TIIE DFPARTMFNT

The Department of Electrical \& Electronics is a major strength of the institute. The Department has an excellent group of faculty with experience in teaching, Industry and Research. The state-of-art facilities and competent faculties provide an excellent climate for the all round development of $\checkmark$ the students. It has well qualified, committed and $\checkmark$ motivated faculty members having specialization in various streams.

The EX Department offers M.Tech Course in Power Electronics along with Undergraduate Program (B.E/B.Tech) with an intake of 18 and 120 respectively.

## ABOUT THE COURSE

## Programmable Logic Controller or PLC is a

computing system used to control electromechanical processes. SCADA stands for Supervisory Control and Data Acquisition. It is a type of industrial control system that is used to monitor and control facilifies and infrastructure in industries.

OB.JECTIVES The main objective of PLC \& Scada Worlistup to make the aspiring engineers acquainted with the conceptual as well as practical knowledge of the Industrial Automation \& latest technologies being used to achieve industrial automation. The idea of organizing this workshop is to inculcate the basic fundamentals of automation in the students and
provide them with a platiorm to work on, In The Near Future.

## ELIGIBILTTY

The Students Electrical \& Electronics Engineering branch are eligible to attend the course.

## REGISTRATION

No Registration fees.

## SPEAKFRS

Mr. Abhijeet Singh
Assistant Prof. EX Deptt. OCT Bhopal
Mr. Rishabh Shukla
Assistant Prof. EX Deptt. OCT Bhopal
Mr. Praveen Choudhary
Assistant Prof. EX Deptt. OCT Bhopal


# ORIENTAL COLLEGE OF TECHNOLOGY, BHOPAL 

Department of Electrical \& Electronics Engineering
Value Added Course: PLC \& SCADA
Course Code: EX 40001

## Module I:

## Presentation on Recent Trends in Industrial Automation \& PLC-SCADA

Introduction To Automation, Why We Need Automation, Where Automation?, Evolution In Industrial Automation (A Brief History), Different Type Of Industrial Control Mechanisms), Introduction To PLCs, PLC Advantages Over Microcontrollers, Area Of Applications, DATA Flow During Automation, Motor Drives Introduction \& Their Need, Sensors Introduction \& Their Need, HMI Introduction \& Its Need, SCADA Introduction\& Its Need

## Module II:

PLCs \& PLC Programming- Allen Bradley Micrologix 1000 PLC (Digital PLC), Delta (Analog PLC)

Module III:
SCADA Programming- Basic \& Advanced- Wonderware InTouch
Module IV:
Sensors- Proximity Sensor, Inductive Sensor, IR Sensor, Limit Switch/ Level Switch
Module V:
Projects-4 Projects will be covered during the training.


Oriental College of Technology Thakral Nagar, Raisen Road Bhopal

## SCHEDULE

| 5 Days Value Added Course on PLC \& SCADA [6 ${ }^{\text {th }}$ to $10^{\text {th }}$ Feb. 2018] |  |  |
| :---: | :---: | :---: |
| Time $6^{\text {th }}$ Feb 2018 |  |  |
| Time | Session | Teacher |
| 9:30-10:00 AM | Inaugural Programme | Teacher |
| 10:00 AM-12:30PM | Presentation on Recent Trends in Industrial Automation \& PLC-SCADA | Mr. Abhijeet Singh |
| 12:30-1:10PM | LUNCH |  |
| 01:10-3:10PM | Detail study of PLC \& SCADA | Mr. Abhijeet Singh |
| 3:10-3:30PM | Break | Mr. Abmijeen Sing |
| 03:30-5:30PM | PLC I/Os Basics, Burning \& Interfacing Concepts | Mr. Abhijeet Singh |
|  |  |  |
| Time | Session | Teacher |
| 9:00-11:00AM | PLCs \& PLC Programming | Mr. Rishabh Shukla |
| 11:00-11:30AM | Break |  |
| 11:30-01:00PM | Practice Session on Allen Bradley Micrologix 1000 PLC (Digital PLC) | Mr. Rishabh Shukla |
| 01:00-1:40PM | LUNCH |  |
| 01:40-4:30PM | Practice Session on Delta (Analog PLC) | Mr. Rishabh Shukla |
| $8^{\text {th }}$ Feb 2018 |  |  |
| Time | Session | Teacher |
| 9:00-11:00AM | SCADA Programming- Basic \& Advanced | Mr. Abhijeet Singh |
| 11:00-11:30AM | Break |  |
| 11:30-01:00PM | Wonderware InTouch |  |
| 01:00-1:40PM | LUNCH | Mr. Abhijeet |
| 01:40-4:30PM | Checking Errors | Mr. Abhijeet Singh |
| $9^{\text {th }}$ Feb 2018 |  |  |
| Time | Session | Teacher |
| 9:00-11:00AM | Assignment | Mr. Praveen Choudhary |
| 11:00-11:30AM | Break |  |
| 11:30-01:00PM | Class Room Assessment | Mr. Praveen Choudhary |
| 01:00-1:40PM | LUNCH |  |
| 01:40-4:30PM | Detail study of Sensors | Mr. Praveen Choudhary |
| $10^{\text {th }}$ Feb 2018 |  |  |
| Time | Session | Teacher |
| 9:00-11:00AM | Assignment | Mr. Abhijeet Singh |
| 11:00-11:30AM | Break |  |
| 11:30-01:00PM | Objective Test | Mr. Abhijeet Singh |
| 01:00-1:40PM | LUNCH |  |
| 01:40-2:30PM | Projects | Mr. Abhijeet Singh |
| 2:30-3:30PM | Feedback from students | Mr. Abhijeet Singh |
| 3:30-4:30 PM | Valedictory \& Certificate distribution | Mr. Abhijeet Singh |

Director
E.



1. Examine-on instruction in PLC language is symbolically represented by what shape?
A. -] [-
B. -()-
C. -]/[-
D. None of these
2. The symbol -(L)- represent what instruction in the PLC language?
A. OUT output unlatch instruction.
B. OTL output latch instruction.
C. Examine off instruction.
D. Output energize instruction.
3.The address T4:6.ACC is used to address what?
A. Accumulator for timer 4 in file 6 .
B. Preset value of timer 6 in file 4.
C. Accumulator for timer 6 in file 4 .
D. Accumulator for counter 6 in file 4 .
3. To reset the time for a PLC what condition must be true?

A. Reset rung of TON must be true.
B. Reset rung of TON must be false.
C. RST instruction with timer address must be true.
D. RST instruction with associated timer address must be false.
5.The below rung would represent what Boolean equation?

A. $X \cdot Y=Z$
B. $X+Y=Z$
C. $X \cdot Y^{\prime}=Z$
D. None of the above.
6.To increase the number of inputs and outputs of the PLC, one can use expansion modules.
A. True.
B. False.
C. None of the above.
7.Solenoids, lamps, motors are connected to:
A. Analog output.
B. Digital output.
C. Analog input.
D. Digital input.
4. In a counter instruction if the accumulator value becomes greater than or equal to the preset value then which of the following is true?
A. CU bit goes on.
B. DN bit goes on.
C. Both CU and DN bits go on.
D. None of the above.
5. Which of the following instruction enables a jump to a subroutine?
A. JMP
B. SBR
C. RET
D. None of the above.
6. Which of the following is not a comparison instruction?

A. GEQ
B. EQU
C. LIM
D. MOV
11.Instructions available in PLCs can be grouped in two categories: $\qquad$ and
a) basic ladder _ enhanced ladder
b) basic ladder and simple ladder
c) enhanced ladder _relational ladder
7. $\qquad$ is a method of entering ladder logic representation.
a) Segment programming
b) TINT
c) Boolean mnemonics.
13.When $\qquad$ contacts are actuated, they disrupt the power supply through them.
a. normally open type
b. normally closed type
c. both $a$. and $b$.
d. none of the above
14.The type of memory which is fast and temporarily stores the data which are immediately
required for use is called as
$\qquad$
a. HDD
b. ROM
c. RAM
d. SSD
8. How is the speed of operation of conventional relay system as compared to digital controllers?
a. very slow
b. very fast
c. same
d. almost similar
16.The capability of convention relay systems for complex operations is $\qquad$ that of the PLCs. $\qquad$
a. poor than
b. excellent than
c. as good as
d. unpredictable as

9. How is the noise immunity of PLCs to electrical noises as compared to that of conventional relay controllers?
a. poor
b. excellent
c. as good as noise immunity of conventional relay controllers
d. unpredictable
10. $\qquad$ of PCs can be done in very little time.
a. Programming
b. Installation
c. Commissioning
d. All of the above
11. PLC can be $\qquad$ in plant to change the sequence of operation.
a. only programmed
b. only reprogrammed
c. programmed and reprogrammed
d. able to give a set point
20.The PLC is used in $\qquad$ .
a. machine tools
b. automated assembly equipment
c. moulding and extrusion machines
d. all of the above


# Oriental College of Technology , Bhopal 

Department of Electrical \& Electronier Enqueering Value Added Course on PLC \& SCADA

6 to 10 Feb .2018


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| 68 | 0126EX141082 | Ravi Kumar Aadityan | Reavi | RONV | Pavs | Pesy | Pous |
| 69 | $01201 \times 1+1083$ | Ray Sahab Maurya | fary | Rants | Paris |  |  |
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| 91 | $0126 \times 141109$ | Suman Abhinav Sharma | Ex | － 60 | co | 0 | ct |
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| 97 | $0126 \mathrm{~L} \times 141115$ | Vaibhar Singh | raidsa | aithro | cashate | Vaidt | valibran |
| 98 | O126EX141116 | Vaibhar Singh Umath | UW | Usary | 1 duat | - Jiom | dinte |
| 99 | $0126 \times \times 141117$ | Vinay Kumar Singh | $12 x+2$ | $(\sqrt{\sin \theta})$ | (atresy | Vangs | vinast |
| 100 | 0126E×141119 | Vinay Tiwari | $\sqrt{2})^{2 a d}$ | Viray | Viver | $N$ inay | Mast |
| 101 | 0126E $\times 141120$ | Vishakha | $\mathrm{V}^{2}+\mathrm{h}$ |  |  | $\sqrt{2}$ |  |
| 102 | 0126EX141122 | Vivek Kumar Duivedi | $A$ | O. | F- | A | - |
| 103 | 012617141060 | Prabhat Prashun | Prabl | Prafr | S Praft | Praflw | Troitut |

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| Oriental College Of Technology, Bhopal <br> Electrical \& Electronics Engineering Department Value Added Course: PLC \& SCADA,6-10 Feb 2018 Course Code: EX 40001 ASSESSMENT SHEET |  |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Sno | Enrollment No. | Name of students | Class <br> room <br> assessment <br> scorc(mar <br> $\mathbf{k s} / 50$ ) | Objective <br> test <br> score(mar <br> $\mathrm{ks} / 50)$ | $\begin{array}{\|l\|} \hline \text { Total } \\ \text { score } \end{array}$ | Eligible to <br> receive <br> certificate or <br> not |
| 1 | $0126 \mathrm{EX111034}$ | Mahesh Kumar Koli | 30 | 35 | 65 | Eligible |
| 2 | 0126EX131059 | Neha Parsai | 38 | 40 | 78 | Eligible |
| 3 | 0126 Ex 131093 | Shashikant Singh | 29 | 40 | 69 | Eligible |
| 4 | 0126 EX141001 | Abhishek Jain | 30 | 42 | 72 | Eligible |
| 5 | 0126 EX141002 | Abhishek Raikwar | 45.5 | 30 | 75.5 | Eligible |
| 6 | $0126 \mathrm{EX141004}$ | Abnish Ranjan | 32 | 42 | 74 | Eligible |
| 7 | 0126 EX141005 | Aditya Raj Vatsh | A | A | 0 | Not Eligible |
| 8 | $0126 \mathrm{EX141006}$ | Aditya Sony | 30 | 30 | 60 | Eligible |
| 9 | 0126EX141007 | Ajit Kumar | 35 | 45 | 80 | Eligible |
| 10 | 0126EX141008 | Akash Singh Thakur | 45.5 | 30 | 75.5 | Eligible |
| 11 | 0126EX141009 | Akshat Mishra | A | A | 0 | Not Eligible |
| 12 | 0126 EX141010 | Akshay Marmat | 29 | 40 | 69 | Eligible |
| 13 | 0126 Ex 141013 | Aman Verma | 30 | 42 | 72 | Eligible |
| 14 | 0126 EX141015 | Amit Kumar Chaudhary | 28 | 35 | 63 | Eligible |
| 15 | 0126 EX141016 | Anshuman Singh | 40 | 47.5 | 87.5 | Eligible |
| 16 | 0126 EX 141017 | Anuj Richhariya | 36 | 27 | 63 | Eligible |
| 17 | 0126 Ex141018 | Arif Akhtar | 48 | 35 | 83 | Eligible |
| 18 | 0126 EX141019 | Arvind Kumar Tripathi | A | A | 0 | Not Eligible |
| Director <br> Oriental College of Terhnology Thakral Nagar, Raisen Road Bhopal |  |  |  |  |  |  |




Director
Oriental College of Terhnology Thakral Nagar, Raisen Road Bhopal

| 67 | $0126 E \times 141081$ | Ravi Khare | 30 | 45 | 75 | Eligible |
| :---: | :--- | :--- | :--- | :--- | :--- | :--- |
| 68 | $0126 E \times 141082$ | Ravi Kumar Aadityan | 30 | 30 | 60 | Eligible |
| 69 | $0126 E \times 141083$ | Ray Sahab Maurya | 35 | 45 | 80 | Eligible |



| 90 | 0126 EX141107 | Subhash Chandra <br> Sharma | 45.5 | 30 | 75.5 | Eligible |
| :--- | :--- | :--- | :--- | :--- | :--- | :--- |
| 91 | 0126 EX141109 | Suman Abhinav Sharma | 32 | 42 | 74 | Eligible |
| 92 | 0126 EX141110 | Suraj Saurabh Mishra | 42 | 40 | 82 | Eligible |
| 93 | 0126 EX141111 | Sushmita Kumari | 45.5 | 30 | 75.5 | Eligible |
| 94 | 0126 EX141112 | Suyash Mishra | A | A | 0 | Not Eligible |
| 95 | 0126 EX141113 | Taha Zafar Ali | 30 | 45 | 75 | Eligible |
| 96 | 0126 EX141114 | Tripti Raj | 30 | 30 | 60 | Eligible |
| 97 | 0126 EX141115 | Vaibhav Singh | 35 | 45 | 80 | Eligible |
| 98 | 0126 EX141116 | Vaibhav Singh Umath | 30 | 45 | 75 | Eligible |
| 99 | 0126 EX141117 | Vinay Kumar Singh | 30 | 30 | 60 | Eligible |
| 100 | 0126 EX141119 | Vinay Tiwari | 35 | 45 | 80 | Eligible |
| 101 | 0126 EX141120 | Vishakha | Vivek Kumar Dwivedi | A | A | 0 |
| 102 | 0126 EX141122 | Prabhat Prashun | 30 | 30 | 60 | Eligible |
| 103 | $0126 I T 141060$ |  |  |  | 75 | Eligible |



Course Evaluation/ Feedback Form

| Value Added Course | PLC \& SCADA |
| :--- | :--- |
| Date: | $6-10$ Feb 2018 |
| Program Location: | Oriental College of Technology, Bhopal |
| Presenter(s): | Mr. Abhijeet Singh |

Please respond to the following statements by using the 4-point rating scale to indicate the extent to which you agree or disagree with each statement. Please circle the number that applies.

$$
4=\text { Strongly Agree } \quad 3=\text { Agree } \quad 2=\text { Disagree } \quad 1=\text { Strongly Disagree }
$$

| 1. The Course objectives were stated clearly and met. | (4) 321 |
| :---: | :---: |
| 2. The Course was well organized. | 4 (3) 21 |
| 3. The presenter(s) possesses the deep knowledge of the course that taught. | (4)321 |
| 4. The presenter(s) provided adequate time for questions and answered them effectively. | (4) 31 |
| 5. The presenter(s) inspires you by his/her knowledge in the course. | 4 (3) 21 |
| 6. The materials provided were sufficient \& appropriate for the program. | (4) 321 |
| 7. The course contents compared with your expectations. | (4) 321 |



## Director

Oriental College of Technology ${ }_{1}$ Thakral Nagar, Raisen Road

Bhopal

## ORIENTAL COLLEGE OF TECHNOLOGY, BHOPAL

[Approved by AICTE, New Delhi \& Govt. of M.P. Affiliated to Rajiv Gandhi Proudyogiki Vishwavidyalaya, Bhopal Oriental Campus, Risen Road, Bhopal-462021 (MP) INDIA]


Session: 2017-2018
Department of Electrical \& Electronics Engineering

## CERTIFICATE

This is to certify that Mr./Ms. Abhishek Jain of EX-VIII Sem, OCT, Bhopal, has Completed the "Value Added Course" on "PLC SCADA" during 06-10 Feb. 2018, organized by Department of Electrical \& Electronics Engineering, Oriental College
fr of Technology, Bhopal.


Oriental College tor
Thakral Hagar, Ralsen Road
E nodal
Coordinator, EX, OCT
HOD, EX, OCT

# ORIENTAL COLLEGE OF TECHNOLOGY, BHOPAL 

## Department of Electrical \& Electronics Engineering



# Report on Value Added Course on PLC \& SCADA 

Date and Time: February 06, to February 10, 2018. Venue: EX,OCT Campus. Organized
By: EX.OCT, , Bhopal. Name of the Speakers: Mr. Abhijeet Singh, Assistant,, Prof. EX Deptt. OCT Bhopal, Mr. Praveen Choudhary, Assistant Prof. EX Deptt. OCT Bhopal, Mr. Rishabh Shukla, Assistant

Participants Details: Final year students of Electrical \& Electronics Engineering.

## Summary of the Event

During the course students collect Information regarding different types of PLC is acquired in Industrial Automation training so that the variations of the circuits can be learnt. And then the connection about PC and PLC and vice versa is learnt during PLC Training. Finally the different types of programmable logic controller, the concepts of ladder logic, and RLD (Relay Logic Diagram) is learnt during SCADA Training.
"Value Added Course on PLC \& SCADA" February 06, to February 10, 2018 for the students of Final year .
On January 06, the course started with the inaugural and presidential speech of Dr. Ranjeeta Khare . Director, Oriental College of Technology. In his presidential speech she emphasized on the need to collaborate the academic and the non academic education.
On February 06, the Course coordinator, Mr. Raveendra Soni guided all students on the topic "PLC \& SCADA". In his speech, he had explained the need for every student to have skills to get a job.

On February 06, Mr. Abhiject Singh, detail study of PLC \& SCADA.




On February 07, Mr. Rishabh Shukla, Practice Session on Allen Bradley Micrologix 1000 PLC (Digital PLC)

On February 08, Mr. Abhijeet Singh, explained SCADA Programming- Basic \& Advanced .
On February 09, Mr. Praveen Choudhary, given Room Assessment
On February 10, Mr. Abhijeet Singh, conduct test and assignment.
At last, Prof. Preeti Gupta, Head EX, Convenor of Course gave away the vote of thank. He thanked Mr. Abhijeet Singh, Mr. Praveen Choudhary and Mr. Rishabh Shukla Jain for providing his valuable time for successful conduction of this course for our students. He also thanked all the faculties, office staff and student volunteers for their unconditional support in organizing this Course.

## Prof. Preeti Gupta

Course Convenor
EX, OCT



## ORIEN'TAL COLLEGE OF TECHNOLOGY, BHOPAL

Appoud by ACIE:, New Dethis Govt, of AIP'. Amiliated io Rajiv Gandhi Proodyogikl Vishwavidyalaya, Bhopal
Oriental Campus, Insisen Road, Ilhopal-462021 (MI) INDIA
Date: 17 Junc 2014

## Policy for Value Added Course

1. The minimum duration of each Value Added Course will be of 30 hrs.
2. Only students who are registered for the semester will be allowed to attend the course.
3. The assessment procedure will be based on the Class Room Assessment, Objective test \& attendance.
4. The course is free to enroll and learn from. But if student want a certificate, then they have to register and write the proctored exam conducted by us in person at Oriental College of Technology, Bhopal
5. Criteria to get a Certificate: Final score $=$ Class Room Assessment Score + Objective Test Score, with minimum of $60 \%$ attendance during the course.
6. Student will be eligible for a certificate only if:
a. Class Room Assessment $>=25 / 50$
b. Objective Test Score $>=25 / 50$.
c. If one of the two clause $(a, b)$ is not met, student will not get the certificate even if the Final score $>=50 / 100$.
7. Students will be issued with a certificate consisting of student name, semester, course name, Course duration.

8. Academic Committee
9. All HoD's , OCT



Oriental College of Technology Thakral Nagar, Raisen fiosd Bhopal


CHIEF PATRONS

$$
\text { Dr. K. L. Thakral }
$$

Founder Chairman, Oriental Group of Institutes and Chancellor,
Oriental University, Indore
PATRONS
Shri. Praveen Thakral
Chairman, Oriental Group of institutes
Mrs. Niraj Ghei
Chair Person, Oriental College of Technology, Bhopal
ADVISORY COMMITTEE
Dr.Ranjeeta Khare
Director, oct, Bhopal
CONVENOR
Emerys deunx ysiuew ${ }^{\circ} \mathrm{JW}=$
octhodce@oriental.ac.in
Mobile: +919425672395
COURSE COORDINATOR
Mr. Alok Goyal

## ORIENTAL COLLEGE OF TECHNOLOGY, BHOPAL

PRIME AVERA (CE-40001)
Value added courso
Time Durations - 30Hrs
Course coordinator - Mr.Alok Goyal


Day 2 Project Resource management

- Types of Resources
- Units of Measures
- Creating Resource
- Default \& Maximum units per time
- Resource Price revisions
- Resource Shiff Creation
- Assigning resource to activities
- Creating Roles
- Assigning roles to resources
- Assigning roles to activities
- Resource Loading


Oriental College of Technology Thakral Nagar, Raisen Road Bhopal


Day 3

- Project Funding Sources
- Activity Costing
- Expenses
- Estimating Budgeted and Actual cost tor Activities
- Establishing budgets for Work Packages
- Estimating Project Budgets
- Preparing Project Cash Flow
- Cost Comparison Analysis
- Cost Monitoring \& Revisions
- Project Budget revisions
- Identifying Project Risk

Categorizing Risk

- Risk Status

Analysing Pre-Risk Impact
Setting Risk control plan

- Post Risk Impact Analysis
- Finding Risk Cost
- Cause and Effect Analysis
- Setting up $\&$ Assigning Baselines
- Apply Actual
- Progress Update
- Look Ahead Schedule

Delay Impact Analysis
Earned Value Analysis
S-Curve Analysis
Setting up Project Thresholds

- Project Issue Register

Working in Project Issues

- Levelling Project Resources
- Project Tracking
- Template Reporting
- Manual Reporting
- Report Batches
- Procurement Report
- Project Progress Report
- Schedule Comparison Report

Weekly Report
Project Cost Report

- Project Closing Report
- Client Report
- Project Portfolio Management
- Managing Multiple Projects
- Project Work Products \& Documents
- Creating Layouts
- User Defined Fields
- Global Change
- Store Period Performances
- Recalculate Assignment Cost
- Import \& Export the project data
- Project Management Concepts


Director
Oriental College of Technology
Thakral Nagar, Raisen Road
Bhopal

| Department of Civil Eingineering |  |  |
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| Value Added Course - PRIMEAVEBA |  |  |
| Schedule |  |  |
| Date - 19/09/2017 to 23/09/2017 |  |  |
|  |  | Faculties |
|  |  | Facilics |
| 0.30-10:00 A11 | Inaugurations Ceremony | Manish Kumar Sharma |
| 1000. NM-12:301M | Introduction to Project Management | . Manish Kumar Shan |
| 12: 00.110 PM | I unch time | Mr Alok Goy |
| $01 \cdot 10-3.10 \mathrm{PM}$ | Project Phases \& Life Cycle | Mr. Mok Goy. |
| 3:10-3:3019 | Break | Mr. Dharmendra Singh Dangi |
| 03:30-5:30PM | Setting up Enterprise Project Structure (EPS | Mr. Dharmendra Sigh |
| 20/09/2017 |  |  |
| Time | Session | Teacher |
| 9:00-11:00 AM | Introductions to principle of projection | Mr. Manish Kumar Sham. |
| 11:00-11:30^M | Break |  |
| 11:30-01:001M | Setting up Organisational Breakdown Structure (OBS) | Mr. Alok Goyal |
| 01:00-1:40PM | Lunch |  |
| 01:40-4:30PM | Setting up Work Breakdown Structure (WBS) | Mr. Alok Goyal |
| 21/09/2017 |  |  |
| Time | Session | Teacher |
| 9:00-11:00AM | Defining \& Creating Project Activities | Mr. Manish Kumar Shan |
| 11:00-11:30AM | Break |  |
| 11:30-01:00PM | Applying activities relationships (Logical connection) | Mr. Manish Kumar Sharma |
| 01:00-1:40PM | Lunch time |  |
| 01:40-4:30PM | Assigning resource to activities | Mr. Alok Goyal |
| 22/09/2017 |  |  |
| Time | Session | Teacher |
| 9:00-11:00AM | Project Funding Sources | Mr. Alok Goyal |
| 11:00-11:30AM | Break |  |
| 11:30-01:00PM | Estimating Budgeted and Actual cost for Activities | Mr. Manish Kumar Sharma |
| 01:00-1:40PM | Lunch time |  |
| 01:40-4:30PM | Preparing Project Cash Flow | Mr. Alok Goyal |
| 23/09/2017 |  |  |
| Time | Session | Teacher |
| 9:00-11:00AM | Categorizing Risk | Mr. Alok Goyal |
| 11:00-11:30AM | Break |  |
| 11:30-01:00PM | Objective Test | Mr. Manish Kumar Sharma |
| 01:00-1:40PM | Lunch time |  |
| 01:40-2:30PM | Assignment submission | Mr. Alok Goyal |
| 2:30-3:30PM | Feedback from students | Mr. Alok Goyal |
| 3:30-4:30 PM | Eertificate distribution, | Mr. Alok Goyal |

# ORIENTAL COLLEGE OF TECIINOLOGY, BHOPAL 

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| Value Added Course on PIINEE AVERA |  |  |  |
| Multiple Choice Test |  |  |  |
| Date: 23/09/2017 |  |  |  |
| Branch | Owil Engineering |  |  |
| Semester: | Seventh Semester |  | Minimum Marks:25 |
| Subject: | PRIMEAVERA | Subject Code: CE 40001 | Time: 1:30Hrs |
| Note | All questions are compulsory. Each Question is of 5 Marks. |  |  |

## Multiple Choice Questions

1. The finish of the successor activity depends on the finish of the predecessor activity is referred as
A) finish to finish
B) start to finish
C) finish to start
D) start to start

A hierarchical structure that identifies the company-wide projects and enables organizing and management of those projects by means or subdivision or level is:Marks 1
A) W.B.S
B) O.B.S
C) Resource Table
D) E.P.S
3.Primavera can be represented graphically reports in two ways: Histogram. Man power, Scurve. Cumulative cost
A) true
B) false
4.A $\qquad$ is a complete copy of a project plan that you can compare to the current schedule to evaluate progress.
A) Group
B) Baseline
C) Status
D) Relationship
5. What are the Project Personal job titles or skills, such as Mechanical Engineer, Inspector or Carpenter called?
A) Resource


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(3) Role
() Project Cider
b) Nome of them
C. Shave hey of Schedule is.
A) 11
(1) 13
C) 15
(D) 1)
7. How many types of reports we have in Primavera
A) 3
B) 2
() 5
D) 4
S. The $\qquad$ usually reflects the management structure of your Organization:
A) E.P.S
B) $0 . B . S$
C) W.B.S
D) Resource codes
9. Deleting a document will delete a Document's physical file.
A) tu
B) false
10. To apply constraints, select an activity and select the:
A) Activity tab
B) Relationship tab
C) status tab
D) codes tab


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# Oriental College of Technology,Bhopal 

Department of Civil Engineering PRIMAVIIIA
Course Code: CE 40001
Date - 19/09/2017 to 23/09/2017
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1. The Course objectives were stated cleanly mind mel.
2. The Course was well orgmizol.
3. The information and/or skills presented were relevant and useful
$1 \sqrt[3]{2} 1$
4. The expert provided adequate time for questions and answered them effectively.
5. The materials provided were sufficient \& appropriate for the program.



## Oriental College of Tochnninijy Thakral Nagari, Ralson Rood Bhopal

# Oriental College of Technology, Bhopal 

## Department of Civil Engineering PRIMAVERA <br> Course Code: CE 40001 <br> Date - 19/09/2017 to 23/09/2017

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Oriental College of Technology
Thakral Nagar, Raisen Rioad Bhopal

ORIENTAL COLLEGE OF TECHNOLOGY, BHOPAL [Approved by AICTE, New Delhi \& Govt. of M.P. Affiliated, Bhopal-462021 (MP) INDIA] Department of Civil Engineering Session: 2017-18 CERTIFICATE
This is to certify that Mr.Ms AAYUSH KUMAR NEMA of CE VII Semester, OCT, Bhopal, has Successfully Completed the "Value Added Course" on "Primavera" Oriental gineering,

 of Civil En

## ORIENTAL COLLEGE OF TECHNOLOGY

## BHOPAL



## Department of Civil Engineering

## Report on Value Added Course on "PRIMAVERA"

Date and Time: $19 / 09 / 2017$ to 23/09/2017. Venue: CE, OCT Campus. Organized by: CE, OCT, Bhopal. Name of the Speakers: Mr. Manish Kumar Sharma (HOD CE), Mr.Alok Goyal \& Mr. Dharmendra Singh Dangi, Participants Details: Fourth year students of Department of Civil Engineering.

## Summary of the Event

The Value added course plays an important role in strengthening the technical skills of undergraduates. In the race of making good and bright career in short span of time, most of the time students neglect the aim and the need of education. In view of this changing pattern and condition of youth education in India, and to guide students on different topics which are not covered under the defined academic syllabus, the Civil Engineering Department of Oriental College of Technology had organized "Value Added Course on Primavera" from 19/09/2017 to 23/09/2017 for the students of second year.
This Course syllabus was covered by Mr. Manish Kumar Sharma (HOD CE), Mr.Alok Goyal \& Mr. Dharmendra Singh Dangi CE, OCT in 30 Hrs. of 5-Day program.
On 19/09/2017, the course started with the inaugural and presidential speech of Dr. Ranjeeta Khare, Director, Oriental College of Technology. In his presidential speech she emphasized on the need to collaborate the academic and the non academic education.



Oriental College of Techno : Thakral Nagar, Raisen Road Bhopal
in) 19 09/2017. Mr. Mannish Kuinar Sharma (IIOD) CEF), Mr. Alk Goral, make students Learned mituduction to Project Management \& Setting up Enterprise Project Smucture (EPS)
On 2000/2017, Mr. Mannish Kumar Shanna, make students Setting up Organisational Breakdown Structure (OBS).
On 21/09/2017, Mr.Alok Goya \& Mr. Dharmendan Singh Dangi, make students learned Defining © Crating Project Activities.
On 220972017, Mr. Mannish Kumar Shanna (HOD CE), Mr.Alok Goyal make student learned Project Funding Sources 7 Estimating Budgeted and Actual cost for Activities.
On 23/09/2017. Mr.Alok Goyal, make student learned Categorizing Risk followed by Value added nt test. At last Mr. Manish Kumar Sharma (HOD CE) Convenor of Course gave
 addressing the student audience on the said topic. At the end he thanked all the faculties, office staff and student volunteers for their unconditional support in organizing this Course.

Mr. Manish Kumar Sharma
Course Convenor
CE, OCT



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