# 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 $>=2 \overline{5} / 50$.
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
Thakral Hagar, Ruben Road
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 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-ar facilities and competent faculties provide an excellent climate for the all found devopment of the students. It has we 1 qualified, combhe motivated faculty members, Having specamation i various streams. The CS Departmentof Course in Computer Science Engineeringalong with

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

## ABOUT THE COURSE

Computer Science Engineering plays prominent role inevery domain and vital role in development of Nation. "C and C++"is Value Added course which will provide benefits to the participants in understanding many concepts in the field of programming and comprehending the algorithms behind technologies and their working

## OB.JECTIVES\& CONTENTS

C is a middle level programming language developed by Dennis Ritchie during the early 1970s while working at AT\&T Bell Labs in USA. The objective of its development was in the context of the redesign of the UNIX operating system to enable it to be used on multiple computers.

The origin of $\mathrm{C}++$ dates back to 1979 when Bjarne Stroustrup, also an employee of Bell AT \&T, started working on language C with classes. He borrowed desirable features from many other languages like Simula, Ada, ML, CLU and ALGOL 68. Thus, in addition to features of C language, $\mathrm{C}++$ also included classes, strong type checking, default function argument and basic inheritance. Till 1983, it was called C with classes, and in 1983 it was named C++. During 1998, a joint ANSI-ISO committee released the specification for $\mathrm{C}++$ language standards
$\checkmark$ To learn the basics of programming in C and $\mathrm{C}++$.

To know the concept of OOPM.
$\checkmark$ Hands on session of programming in C and $\mathrm{C}++$.

## ELIGIBILITY

The Second yearStudentsof Computer Science Engineering branch are eligible to attend the C and $\mathrm{C}+$ +programmingcourse.

REGISTRATION
No Registration fees.

## SPEAKERS

Mr. Kuldeep Chaurasia
Assistant Professor, Dept CSE, OCT Bhopal


Oriental College of Technology, Bhopal

## Department of Computer Science and Engineering

## $C \& C++$ Syllabus (CSE 20001)

## Module 1-

Introduction and First Program, Variables and Data type, Console 10 Operations Operators and Expressions

## Móule 2-

Control Flow Statements, Working with Functions, Working with Arrays

## Module 3

Pointers, String Handling
Module 4
Structures and Unions, File Handling

## Module 5

Pre-Processor Directives, Command Line Arguments and Variable Arguments
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| SCHEDLLE- Value Added Course on C and $\mathrm{C}+$ (CSE 20001) |  |  |
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|  |  |  |
| 195002015 bay |  |  |
| Tima | Sexaton | Teacher |
| 4.30.10.101 AM | Inaiugural Programme |  |
| 11:10. $10.12 .12: 31519$ | Intraduction to $C^{\text {a and }} \mathrm{C}$ + + | Me. Yudtepp Caurat |
| 12:30-1010 M | LIIIICH |  |
| D1:12-3:17PM |  | Mr. Wuldep Wharata |
| $3: 10 \cdot 3: 31019 \mathrm{M}$ | Break |  |
| 18:3015:3019 M | Introduction to flow of control | Me. Yudeep Chauraia |
|  |  |  |
| Time | Session | Teacher |
| 9:IOU-1120AM | Practice Session on Flow of Cantrol | Mr. Sourabt dain |
| \|1:D0. $1: 303 \mathrm{AM}$ | Break |  |
| 11:30-01:00PM | Introducing the working with functions and arraja | Mr. Yuldeep Chanraza |
| D1:101/40PM | L.IIICH |  |
| [1:40-4:30PM | Practice Session on Functions and Arraya | Mr. Kadreep Chaurazio |
| $2158572080.08 y-3$ |  |  |
| Time | Session | Teacher |
| 9:10-11:00AM | Warking with Pointers and String handling | Mr.Pradeep Michra |
| \|1:D0-1:30AM | Break |  |
| \|1:30]-DI:00PM | Practice session on programming with pointers | Mr. Sourabh Jain |
| 11:101:140PM | LUICH |  |
| 01:40-4:30PM | Practice session on String Handling | Mr. Kuldeep Chaurasia |
|  |  |  |
| Time | Session | Teacher |
| 9:00-11:00AM | Structures, Unionsand File handling | Mr. Kuldeep Chaurasia |
| 11:00-11:30AM | Break |  |
| 11:30-DI:D0PM | Class Room Assessment | Mr. Saurabh Jain |
| 11:00-1:40PM | LUNCH | Mr. Pradeep Mishra |
| [1:40-4:30PM | Practice session on File Handling |  |
| 23Sep 2015-0ar-5 |  |  |
| Time | Session | Teacher |
| 9:00-11:ODAM | Introducing Pre-processor Directives, Command line and Variable Arguments | Mr. Pradeep Mishra |
| 11:00-11:30AM | Break |  |
|  | Aissessment | Mr. Suurabh Jain |
|  | 1 UUNCH | Mr. Kuldeep Chaurasia |
| \%/ | $14 \frac{\text { Practice of overall session }}{6 / 6 / 15 \text { Eedback from students }}$ |  |
|  |  | Mr. Kuldeep Chaurasia |
| - |  | Mr. Kuldeep Chabrasia, |

Oriental College of Technology, Bhopal Department of Computer Science and Engineering
$\qquad$ Enrollment No: $\qquad$

A-A user defined header file is included by following statement in general.
A - \#include "file.h"
B- \#include <files>
C- \#include <file>
D-\#include file.h
2 A protected member of the class in accessible in
A - Only same class
B - Same class and derived class
-Outside the class
D-None of the above.
3 - Choose the Object oriented programming language from below.
A-C++
B- Small talk
C-Simula
D - All the above.
What is the full form of RTTI.
A -Runtime type identification
B -Runtime template identification
C -Robust Template Type Inheritance
2 - None of the above.
5-Identify the C++ compiler of Linux
A- cp
B - g++
C-Borland
D -vc++
6 The operator used for dereferencing or indirection is $\qquad$


Ab/6/10

3037
7. Choose the right option. String * $x, y$;
a) $x$ is a pointer to a string, $y$ is a string
b) $y$ is a pointer to a string, $x$ is a string
c) both $x$ and $y$ are pointers to string types
d) $y$ is a pointer to a string
8. Which one of the following is not a possible state for a pointer.
a) hold the address of the specific object
b) point one past the end of an object

- zero
d) point to a type

9 What happens if the following line is executed in C and $\mathrm{C}++$ ? - Cost int a ;
Error in both C and $\mathrm{C}++$
b) Warning in both C and $\mathrm{C}++$

Error in C and successful execution in $\mathrm{C}++$
${ }^{-1}$ Error in $\mathrm{C}_{+}+$and successful execution in C
10 What is a function template?
a) creating a function without having to specify the exact type
b) creating a function with having an exact type
c) creating a function without having blank spaces
d) creating a function without class

11 Which is used to describe the function using placeholder types?
a) template parameters
b) template type parameters
c) template type
d) type parameters

12 Pick out the correct statement.
a) you only need to write one function, and it will work with many different types
j) it will take a long time to execute
c) duplicate code is increased
d) it will take a long time to execute \& duplicate code is increased

13 Is boo a fundamental data type in $\mathrm{C}++$ ?
a) Yes
b) No, it is a typedef of unsigned char
c) No, it is an enum of \{false, true\}
d) No, it is expanded from macros

14 Find the odd one out.
a) std::vecton<tint?
b) std::vgletrazstorth

c) std:: ct cradandota
d) std: : ceetor<tiobily

15 For what values of the expression is an if-statement block not executed?
a) 0 and all negative values
b) 0 and -1
c) 0
d) 0 , all negative values, all positive values except 1

16 Which of the two operators ++ and - work for the bool data type in $\mathrm{C}++$ ?
a) None
b) ++
c) -
d) ++ \& -
$\therefore 7$ This set of $C++$ Programming Multiple Choice Questions \& Answers (MCQs) focuses on "Inheritance -1 ".

1. What is Inheritance in $\mathrm{C}++$ ?

6' Wrapping of data into a single class
D) Deriving new classes from existing classes
c) Overloading of classes
d) Classes with same names

18 How many specifiers are used to derive a class?
a) 1
b) 2
c) 3
d) 4

19How many specifiers are used to derive a class?
a) 1
b) 2
c) 3
d) 4

20-What is a copy constructor?
a) A constructor that allows a user to move data from one object to another
b) A constructor to initialize an object with the values of another object
-) A constructor to check the whether to objects are equal or not
d) A constructor to kill other copies of a given object.

21-Why constructors are efficient instead of a function init() defined by the user to initialize the data members of an
object?
a) Because user may forget to call init() using that object leading segmentation fault
b) Because user may call init() more than once which leads to overwriting values
c) Because user may forget to define init() function
d) All of the mentioned


## $C \& C++$ Syllabus (CSE 20001) Answers

1. A
2. $B$
3. D
4. A
5. A
6. A
7. A
8. D
9. D
10.A
11.B
10. A
11. A
14.D
12. C
16.B
17.B
18.C
19.C
20.B
21.D
13. C
23.D
24.C
25.d



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Oriental College of Technology, Bhoppal


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## Feedback Form

| Value Added Course | C and C++(CSE 20001) |
| :---: | :--- |
| Date: | $19-23$ Sep 2015 |
| Program Location: | CSE Dept Oriental College of Technology, Bhopal |
|  | Mr. Kuldeep Chaurasia |

Please respond to the following statements by using the 4-point rating scale to indicate the extent to which you agree or d-aree 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. | $4(3) 21$ |
| :---: | :---: |
| 2. The Course was well organized. | व 321 |
| 3. The information and/or skills presented were relevant and useful | $4-3 / 1$ |
| 4. The presenter(s) provided adequate time for questions and answered them effectively. | $4^{4} 321$ |
| The presenter(s) allowed me to work with and learn from others. | $43 / 21$ |
| 6. The materials provided were sufficient \& appropriate for the program. | $4,3 \quad 21$ |
| 7. The physical arrangements were adequate. | 2 321 |




Deparment of Computer Science \& Eugineering
This is to certify that Mr./Ms. AAKASH SHUKLA of CS-Mi Sem, OCT, Bhopal, has Successfully Completed the "Value Added Course" on "C and C++" during 1923 Sep 2016 , organized by Computer Science and Engineering Department of Oriental College of Technology, Bhopal.


Co-Ordinator, CS, OCT


Value Added Course C and C++(CSE 20001)


## DEPARTMENT OF COMPUTER SCIENCE AND ENGINEERING

## REPORT ON VALUE ADDED COURSE ON "CAND $C++"$

DATE AND TLME: 19-23, SEPTEMBER, 2016 ORGANIZED BY: CSE, OCT, BHOPAL
NAME OF THE SPEAKERS: MR. KULDEEP CHAURASIA ASSISTANTT PROFESSOR, MR. SAURABH JAIN, ASSOCIATE PROFESSOR, \& MR. PRADEEP MISHRA, ASSOCIATE PROFESSOR .
PARTICIPANTS DETAILS: FOR II -YEAR STUDENTS
YENUE: CSE, OCT CAMPUS

SUMMARY OF THE EYENT
COMPUTER SCIENCE ENGINEERING PLAYS PROMINENT ROLE IN EVERY DOMAIN AND VITAL ROLE IN DEVELOPMENT OF NATION. "C AND C++"IS VALUE ADDED COURSE WHICH WILL PROVIDE BENEFITS TO THE PARTICIPANTS IN UNDERSTANDING MANY CONCEPTS IN THE FIELD OF PROGRAMMING AND COMPREHENDING THE ALGORITHMS BEHIND TECHNOLOGIES AND THEIR WORKING.

THE DEPARTMENT OF COMPUTER SCIENCE AND ENGINEERING ORIENTAL COLLEGE OF TECHNOLOGY ORGANIZED, "HALUE ADDED COURSE ON "C AND C+ ${ }^{\prime \prime}$ "FROM 19 SEPTEMBER, 2016 TO 23 SEPTEMBER, 2016 FOR THE STUDENTS OF SECOND YEAR.

THIS COURSE SYLLABUS WAS COVERED BY MR. KULDEEP CHAURASIA ASSISTANT PROFESSOR, MR. SAURABH JAIN AND MR. PRADEEP. MISHRA, ASSOCIATE PROFESSOR CSE, OCT IN 30 HRS. OF 5-DAY PROGRAM.

INAUGURAL CEREMONY STARTED BY DIRECTOR SPEECH ON 19 TH SEPTEMBER, 2016 AND THIS COURSE IS CONDUCTED AS PER SCHEDULE AND ON 23 RD SEPTEMBER, 2016 VALEDICTORY FUNCTION WAS CONDUCTED.


PROF. KULDEEP CHAURASIA
COURSE COORDINATOR
CSE, OCT



Director Oriental College of Technology Thakral Nagar, Raisen Road Bhopal

# ORIENTAL COLLEGE OF TECHNOLOGY, BHOPAL 

Apround by AlCTE, New Dethi, © Gowt. of MI' Amiliated to Rajiv Gandhi Proodyogiki Vishwavidyalaya, Dhopal Oriental Campus, Raisen Road, Ithopal-462021 (MI') INDIA

Date: 17 June 2014

## Policy for Value Added Course

1. The minimum duration of each Value Added Course will be of 30 hrs.
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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 Committec -
2. All HoD's , OCT


Thakral Nagar, Raisen Road Bhopal
Value Added Course

## 08/08/2016-12/08/2016 <br> $2^{\text {nd }}$-Year Students

CHIEF PATRONS

Founder Chairman, Oriental Group of Institutes and Chancellor,
Oriental University, Indore
PATRONS
Shri. Praveen Thakral Chairman, Oriental Group of Institutes
Mrs. Niraj Ghei
ADVISORY COMMITTEE
Dr.Ranjecta Khare
Director, Oct, Bhopal
$\frac{\text { CONVENOR }}{\text { Dr.Uma Bhawsar }}$
octhodce@oriental.ac.in
COURSE COORDINATOR
ABOET THF DFPARTMENT
The Department of Civil Enginecring 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.
On

## "AUTOCAD"

## Кя poz!̣ues...

Department of Civil Engincering
Oriental College of Technology,
Thakral Nagar, Raisen Road. Bhopal 462021
Phone:: 2529026, 2529057, Fax: 07552529472

# ORINETAL OF COLLEGE OF TECHNOLOGY, BHOPAL. 

# AUTO CAD <br> <br> Value added courso 

 <br> <br> Value added courso}

Syllabus

## CE-20001

## Time Durations - $\mathbf{3 0} \mathrm{Hrs}$

Course coordinator -Mrs.Vasundhra Dubey

## Day 1

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

## Day 2

1. Introduction
2. Computer Hardware and Software Concepts
3. Introduction of Personal Computer and Operating Systems WINDOWS-XP, Windows-7, File Management

## Day 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


Oriental College of Technology Thakral Nagar, Raisen Road Bhopal
15. Arc. Circle and Ellipso
16. Polygon, Spline

## Day 4

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

## f

## Day 5

1. Individual Project \& Team Project



Oriental College of Technoin, Thakral Nagar, Raisen Road Bhopal

## Oriental College of Technology, Bhopal

## Department of Civil Engineering

 Value Added Course - AUTOCAD. Course ScheduleDate - 08/08/2016 to 12/08/2016

| 08/08/2016 |
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| Time |
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| 01:10-3.10PM |
| 3,10-3.0PM |
| 03:30.5.30PM |


| Modules | F |
| :--- | :--- |
| Inaugurations Ceremony |  |
| Introduction to AUTOCAD soflware | M |
| Lunch time | M |
| Leaning basics of AUTO CAD |  |
| Break | M |
| Introduction to 2D \& 3D Drawings |  |

Faculties

Mr. Manish Kumar Sharma

Mrs. Vasundhra Dubey

Mr. Manish Kumar Sharma

| $09 / 08 / 2016$ |
| :--- |
| Time |
| $9: 00-11: 00 \mathrm{AM}$ |
| $11: 00-11: 30 \mathrm{AM}$ |
| $11: 30-01: 00 \mathrm{PM}$ |
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| $01: 40-4: 30 \mathrm{PM}$ |
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| $11: 30-01: 00 \mathrm{PM}$ |
| $01: 00-1: 40 \mathrm{PM}$ |
| $01: 40-4: 30 \mathrm{PM}$ |
| $1108 / 2016$ |


| Session |
| :--- |
| Introductions to principle of projection |
| Break |
| Arc, circle and ellipse |
| Lunch |
| Introductions to Plan |

Teacher
Mr. Manish Kumar Sharma

Mrs. Vasundhra Dubey

Mrs. Vasundhra Dubey

Teacher
Mrs. Vasundhra Dubey

Mr. Manish Kumar Sharma

Mrs. Vasundhra Dubey

| Teacher |  |
| :--- | :--- |
| Mrs. Vasundhra Dubey |  |
|  | Mr. Manish Kumar Sharma |
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## ORIENTAL COLLEGE OF TECIINOLOGY, BHOPAL

Depatment of Civil Embincerime

| AUTU CAD |  |  |  |
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| Multinle Chalce Test |  |  |  |
| Date: 12/08/2016, |  |  |  |
| Branch: | CNil Ingineering |  |  |
| Semester: | Thind Semester |  | Max. Marks-50 <br> Minimum Marks:25 |
| subject | AVTO CAD | Subject Code: CE 20001 | Time: 1:301trs |
| Note | All questions are compulsory. Each Question is of 5 Marks. |  |  |

## Multiple Choice Questions

1. What is the purpose of the set variable MIRRTEXT:
(a) To ensure that text is mirrored correctly
(b) To enable text to be mirrored with a drawing, when the Mirror tool is in use
(c) To make cure that text is deleted from drawings when acted upon by the Mirror tool
(d) To show text clearly in drawings acted upon by the Mirror tool.
2. When using the Rotate tool the angle of rotation is in the following direction:
(a) Cloch wise
(b) Anticlock wise
(c) The direction in which the cursor is moved
(d) There is no fixed rotation direction.
3. When using the Stretch tool:
(a) Circles can be stretched into ellipses
(b) The toot has no effect upon circles
(c) Be careful because circles can be erased
(d) Treat circles like any other part of the drawing being stretched.
4. When using the Break tool on circles and/or ares:
(a) Breaks can be made in any direction
(b) Breaks can only be made in a clockwise direction
(c) Breaks can only be made in an anticlockwise direction
(d) Break cannot be made in circles or arcs.
5. The Join tool can be used for joining:
(a) Any two arcs
(b) Only arcs or lines in line with each other
(c) Any two lines or plines
(d) Any objects can be joined to each other.
6. In first angle orthographic projection an end view is:
(a) Always placed to the right of the front view
(b) Viewed from the one side and placed on the other side of the front view
(c) Always placed to the left of the front view

(d) Placed either side of the finnt view inrespective of the viewing position
7. In thind angle orthographic projection a plan is:
(a) Placed either above or below the from view depending upon whether the viewing is from above or below
(b) Away placed above the from siew
(c) Alway placed below the fron view
(d) Pland either above or below no matter which viewing direction is chosen.
S. Isometric drawing is:
(a) A true : D (thre-dimensional) pictorial view of the object being drawn
(b) A 21 (two-dimensional) pictorial view of the objeet
(c) An acourate propective drawing of the object
(d) None of the items a, b or c .
8. It a laner is loched
(a) 1-tail con le added to a locked layer
(b) Detaik con be erased from a locked layer
(c) Detall cannot be added or crased from a locked layer
(d) Details can be added to a locked layer but they disappear when the drawing file is saved.
9. When a layer is turned off:
(a) File space is saved when saving the file
(b) It makes no real difference. Details can still be added to the layer
(c) Details cannot be erased from the layer
(d) Details on the layer cannot be seen.


# Oriental College of Technology，Bhopal 

| Department of Civil Engineering |  |  |  |  |  |  |  |
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Oriental College of Technology,Bhopal




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Directer
Oriental Coraye ai Tish .....
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# Oriental College of Technology, Bhopal 

## Department of Clvil Engineering

## AUTO CAD (Value Added Course)

Course Code: CE 20001
Date - 08/08/2016 to 12/08/2016

## 0


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Dírector
Oriental College of Technopligy Thakral Nagar, Raisen RCOd Bhodal



## ORIENTAL COLLEGE OF TECHNOLOGY <br> BHOPAL



## Department of Civil Engineering Report on Value Added Course on "AUTOCAD"

Date and Time: $08 / 08 / 2016$ to 12/08/2016. Venue: CE, OCT Campus. Organized by: CE, OCT, Bhopal. Name of the Speakers: Dr.Uma Bhawsar (HOD CE). Mrs. Vasundhra Dubey (Asst. Prof) \& Mr. Manish Kumar Sharma (Asst. Prof), 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 08/08/2016 to 12/08/2016. for the students of second year.

This Course syllabus was covered by Dr.Uma Bhawsar (HOD CE), Mrs.Vasundhra Dubey \& Mr. Manish Kumar Sharma CE, OCT in 30 Hrs. of 5-Day program.

On 08/08/2016, 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 08/08/2016, Mrs. Vasundhra Dubey, make students Learned Introduction to AUTO CAD Software \& Mr. Manish Kumar Sharma make students Learned Introduction to 2D \& 3D drawings. On 09/08/2016, Mr. Manish Kumarshifinanake students Learned Introductions to principle of

projection. Are circles and eclipse. On 10/08/2016. Mrs. Vasundhra Dubey \& Dr.Subrato Khan. make students learned 3D Drawing \& Drawing various structural elements of a building \& Footings. On 11/08/2016, Mr. Danish Kumar Sharma \& Mrs. Vasundhra Dubey, Conducted Practice Session on Various commands of $\triangle U T O C A D$ such as saving and plotting commands. On 12/08/2016, Dr.Subrato Khan \& Mrs. Vasundhra Dubey, assigned to draw Designing of 1 BHK plan followed by Value added course assessment test. At last, Dr.Uma Bhawsar (HOD CE) Convenor of Course gave away the vote of thank. She also thanked Mr. Danish Kumar Sharma \& Mrs. Vasundhra Dubey 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.

Dr.Uma Bhawsar
Course Convenor
CE, OCT



Director
Oriental College of Technology Thakral Nagar, Raisen Road Bhopal

# ORIENTAL COLLEGE OF TECFNOLOGY, BHOPAL <br> Approved by Alcte, New Delhi \& Govth of M.P. Ambilinted to Rajlv Gandhi Proudyogiki Yishwavidyalaya; Bhoppal : 

Oriental Campus, Raisen Road, Bliopai-462021 (MP) 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 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, Bliopal
5. Citeria 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 fọt. 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 Committec
2. All HOD's, OCT


## Registration Form

Name:

Enrollment No

Branch:

Semester: $\qquad$

Address $\qquad$

City \& Pin

E-mail id

Contact No: $\qquad$

Place:

Signature

Date:


Head of the Department

## CHIEF PATRONS

Dr. K. L. Thakral
Founder Chairman, Orientas Groceporthetitumand Chancellor, Oriental 1haiversity, Prabor

## PATRONS

Shri. Praveen Thakral
Chairman, Oriental Groep of hasitusts

## Mrs. Niraj Ghei

Chair Person, Oriental College of Fethorloggs, Bhopal

## ADVISORY COMMITTEE

Dr. N.K Agrawal
Director, OCT, Bbops
CONVENOR
Mrs. Roopalis SOni
octhodit@oriental.ac.in
Mobile:+919827042079

## COURSE COORDINATOR

Mr. Avinash Sharma
Mobile: +917415249228
Mr. Imran Khan
Mobile: +917987787253
ORGANISING COMMITTEE MEMBERS
Mr. Avinash Sharma
Mrs. Alka Tripathi

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

Mrs. Alka Tripathi
Mobile: +917879772184

## Oriental College of Technolog



Value Added Course
on
"JAVA"
[16-20 January, 2017]
For III -Year Students

Organized By
Department of Information Techno

Oriental College of Technolog. Thakral Nagar, Raisen Road, Bhopal Phone:: 2529026, 2529057, Fax: 0755-25


## 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 Research. The state-of-art
facilities excellent clinat gripngl that round development of the studehis Mathasaz falłascayel
Shepar-46252: ${ }^{2}$ lified, committed and motivated factulty mepoers/raving 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.

## OB.JECTIVES \& 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
Mr. Imran Khan
[Assistant Professor, Oriental College of Technology, Bhopal] Mr. Avinash Sharma
[Assistant Professor, Oriental College of Technology, Bhopal] \&
[Assistant Professor, Oriental College Technology, Bhopal]


## Director

Oriental College of Tecfinology Thakral Nager, Raisen Rnad Ghopal.

Mrs. Sapna Kıshwah

# Oriental College of Technology, Bhopal 

## Department of Information Technology

Syllabus of Value Added Course on
JAVA

## Module - 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


## Module -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

- Packnge 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 menus
- Using the adapter classes
and OutputStream classes


Writer classes

- 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 $\neg$
- Servlet Interaction \& Advanced Servlets


## Module -5

- Life cycle of Servlet
- Java Servlet Development Kit
- Javax.servlet package
- Reading Servlet Parameters
- Reading Initialization Parameters
- The javax.servlet.http Package
- Handling HTTP



ORIENTAL COLLEGE OF TECHNOLOGY, D

| Objective type test on JAVA | Dated 20-JAN-2017 |  |  |
| :--- | :--- | :--- | :--- |
| 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. Java programs are
A) Faster than others
B) Platform independent
C) Not reusable
D) Not scalable
2. Java has its origin in
A) C programming language
B) PERRL
C) COBOL
3. Which one of the following is true for Java
A) Java is object oriented and interpreted
B) Java is efficient and faster than C
C) Java is the choice of everyone.
D) Java is not robust.
4. The command javac is used to
A) debug a java program
B) compile a java program
C) interpret a java program
D) execute a java program
5. Java servlets are an efficient and powerful solution for creating $\qquad$ for the web.
A) Dynamic content
B.) Static content
C) Hardware
D) Both $a$ and b
6. Filters were officially introduced in the Servlet specification.
A) 2.1
B) 2.3
C) 2.2
D) 2.4
7. Which is the root class of all AWT events
A) java.awt.ActionEvent
B) java.awt.AWTEvent
C) java.awt.event.AWTEvent
D)java. awt.event.Event
break statement is used to
i) get out of method end aprogram
iii) get out of a loop
get out of the system
A) $1 \& 2$
B) $1,2 \& 3$
C) $1 \& 3$
D) 3

9 What is the order of variables in Enum?
a) Ascending order
b) Descending order
c) Random order
d) Depends on the order() method

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

Native - protocol pure Java converts $\qquad$ into the used by DBMSs directly.
A) JDBC calls, network protocol
B) ODBC class, network protocol
C) ODBC class, user call
D) JDBC calls, user call

12 If we try to add Enum constants to a TreeSet, what sorting order will it use?
a) Sorted in the order of declaration of Enums
b) Sorted in alphabetical order of Enums
c) Sorted based on order() method
d) Sorted in descending order of names of Enums

13Which method returns the elements of Enum class?
a) getEnums()
b) getEnumConstants()
c) getEnumList()
d) getEnum()

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

Which of the following is true about Java.
A) Java does not support overloading.
B) Java has replaced the destructor function of C++
C) There are no header files in Java.
D) All of the abowe.

16Whish of these is long data type literal?
a)
b)


## 671246

Which of these can be returned by the operator \& ?
Integer

1) Boolean
c) Character
d) Integer or Boolean
$\qquad$ are not machine instructions and therefore, Java interpreter generates machine
code that can be directly executed by the machine that is running the Java program.
A) Compiled Instructions
B) Compiled code
C) byte code
D) Java mid code

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

20 Java Servlet
i) is key component of server side java development
ii) is a small pluggable extension to a server that enhances functionality
iii) runs only in Windows Operating System
iv) allows developers to customize any java enabled server
A) i, ii \& iii are ture
B) i, iii \& iv are true
C) ii, iii \& iv are true
D) i, ii \& iv are tru

How many times does the following code segment execute
int $x=1, y=10, z=1$;
do $\{y-; x++; y=2 ; y=z ; z++\}$ while $(y>1 \& \& z<10)$;
A) 1
B) 10
C) 5
D) infinite

22Which of these operators is used to allocate memory to array variable in Java?
a) malloc
b) alloc
c) new
d) new malloc

23Which of these is an incorrect array declaration?
a) int arr[] = new int[5].
b) int [] arr = new int[5]
c) int arr[] = new int[5]
d) int arr[] = int [5] new

EJB supports transaction processing
A) 1-tre 2. trien 3. true
B) 10 osine $2.7 a 1 s e$, B. true



# ORIENTAL COLLEGE OF TECHNOLOGY DEPARTMENT OF INFORMATION TECHNOLOGY 



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| 67 |  | 0126IT141075 | RICA SIKDAR | Eivelers | C(R)kdon | Ceader | CPiudar | Prudas |
| 68 |  | 0126IT141076 | RICHA SRIVASTAVA | ciohor | cricha | tida | ticla | Tidan |
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| 70 |  | $0126 \mathrm{IT141080}$ | RITIKA SINGH | Ritika | Setikg | Cilibas. | retika | bitire |
| 71 |  | $01261 T 141081$ | ROHAN SINHA | Raha | Rohan | Rohra | Rohan | Yous |
| 72 |  | 0126IT141082 | ROSHI KHOSLA | pochi. - | Foshi.. | CRoshi. | ¢0, ${ }^{\text {y }}$. |  |
| 73 |  | 0126 IT141084 | SACHIN ARTANI | Sachin | achin | Sachin | achui | Saoh |
| 74 |  | 0126IT141085 | SAKSHI GUPTA | (5) | (83) |  | 8 |  |
| 75 |  | 126IT141086 | SANJEEV RAGHUWANSHI | Sanjeen | Panjer | Samieen | Sanjer | saniees |
| 76 |  | 126IT141087 | SARITA RAI | Carita | Sarita | Sarita | Sarieg | ¢ Gatita |
| 77 |  | 126IT141089 | SHANU SHIKHAR | Shanes | Shown | Shane | Sharu | Shakle |
| 78 |  | 126IT141090 | SHARIM RAZA | Sharim faza | Shoxin Po.20, | Lanile | chara |  |




## ORIENTAL COLLEGE OF TECHNOLOGY DEPARTMENT OF INFORMATION TECHNOLOGY






## 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]


## DEPARTMENT OF INFORMATION TECHNOLOGY <br> SESSION-2016-17

## CERTIFICATE

This is to certify that Mr./Ms Raj Nilayam of IT VI Semester, OCT; Bhopal, has Successfully Completed the "Value Added Course" on "JAVA Programming" during 10: Orientale


Head af Department, IT पCT

Director/6
Oriental College of Teonnology
Thakral Nagar, Raisen Road Nagar, Raisen Road
Bhopal


Course Evaluation/ Feedback Form

| lue Added Course | JAVA |
| :--- | :--- |
| ate: | 16 TO 20 January 2017 |
| rogram Location: | Oriental College of Technology, Bhopal |
| Mr Imran Khan, Mr Avinash Sharma, Mrs Sapna Kushwah |  |
| - |  |

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


## ORIENTAL COLLEGE OF TECHNOLOGY, BHOPAL

## Department of Information Technology



## Report on Value Added Course on JAVA

Date and Time: 16 January, to 20 Januray, 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 Imran Khan, Mr Avinash Sharma, Mrs Sapna Kushwah. 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 January $16^{\text {th }}$, 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 staff and student volunteers for their unconditional support in organizingthis Course.

Prof. Roopali Soni Course Convenor IT, OCT



## ORIENTAL COLLEGE OF TECHNOLOGY, BHOPAL <br> ORLE 1 Approved by AICTE, New Delhi \& Govt. of M.P. Affiliated to Rajiv Gandhi. Proudyogiki Vishwavidyalaya, Bhopal ADP

 Oriental Campus, Raisen Road, Bhopal-462021 (MP) INDIADate: 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 $(a, b)$ 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:

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Director, OCT
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

# Value Added Course <br> On <br> <br> "EMBEDDED SYSTEM" 

 <br> <br> "EMBEDDED SYSTEM"}

## [13-17 February, 2017]

 For III - Year StudentsABOUT 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.

## COMMITTEE MEMBERS

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<br>Dr. N. K. Agrawal Director, OCT, Bhopal

## CONVENOR

Dr. Rahul Dubey, 7987186230

## COURSE COORDINATOR

Mr. Arvind Sahu, 9131599475

## ORGANISING COMMITTEE MEMBER

Mr. Arvind Sahu, 9131599475
Mr. Kapil Gupta, 7869317894
Mr. Amish Jha, 9098715184

## CONTACT

Dr. Rahul Dubey, octhodec@oriental.ac.in 7987186230


ABOUT THE COLRSE
Electrónics \& Communication Engineering plays prominent role in every domain. "EMBEDDED SYSTEM" is Value Added course through which participants to know latest technologies. An embedded system is a small computer that forms part of a larger system, device or machine. Its purpose is to control the device ănd to allow a user to interact with it. They tend to have one, or a limited number of tasks that they can perform.
functions within a larger systen
$\checkmark$ Introduction to the Embedded system
$\checkmark$ Simple Hardware design
$\checkmark$ Software Application
$\checkmark$ Software Debugging
$\checkmark$ Raspberry Pi and Open CV applications

The Third year Students of Embedded System course.

## ELIGIBILITY

## No Registration fees.

## REGISTRATION

## Oriental College of Technology, Bhopal <br>  <br> Organised By Department of Electronics \& Communication Engineering



## Registration Form

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

| City \& Pin E-mail id.. Contact No |  |
| :---: | :---: |
|  |  |
|  |  |

Place:
Date:


Signature with Seal Head of the Department

## Oriental College of Technology,Bhopal <br> Department of Electronics \& Communication

Syllabus for Value Added Course: Embedded Systems
Course Code: EC 30001

## Module 1: C and Embedded C

Foundations of $C$ programming Types, declarations and expressions, control flow, functions and program structure Arrays, pointers, structures, Input and output handling dynamic memory management linked lists, command-line argument handling, Stacks and queues Program design.

## Module 2: Introduction to Embedded Systems

What is Embedded System? Standard component of Embedded Systems - Processor, memory, I/O, peripherals, software, algorithms, Processor types - Microcontrollers, Microprocessors, DSP, FPGA Memory types - RAM, SRAM, DRAM, DDRAM, EPROM, EEPROM, OTP Peripherals - Parallel and Serial Ports, UART, timers, Real time clocks, I2C bus, DMA controllers, Analogue Interfaces - A to $D$ and $D$ to $A$ conversion, CODECs Interrupts and Interrupt handling.

Module 3: 8051 Architecture and C51 Assembly Language Programming
8051 Architecture - Oscillator, Clock, Internal memory and RAM, SFRs, Internal ROM, I/O pins and ports, external memory, counters and timers, serial data I/O, Interrupts, assembly language instructions, data operations, logical operations, arithmetic operations, program control, configuration and programming of 8051 Ports, timers and interrupts, Interfacing 8051 with LEDs, Keypad and 7-Segment Display and programming Interfacing with LCD and programming, Interfacing with ADC and programming, Serial Data communication programming.

## Module 4: Embedded C

Embedded Software development using C Porting 8051 Assembly code to C Cross compilation, Downloading, Testing, Debugging.

Module 5: Design of Embedded Systems
Problem definition, requirements and specifications, Software planning - Hardware design and software design.

## Module 6: Project :Density Based Traffic Signal System

This system uses IR sensors to measure the traffic density. In which, arrange one IR sensor for each road; these sensors always sense the traffic on that particular road. All these sensors are interfaced to the microcontroller. Based on these sensors, controller detects the traffic and controls the traffic system.
Components Required : ATmega8 controller, PCB board, IR sensors - 4 units, LED's-12(4-red 4-green; 4 -yellow), 12 V Battery or adáptor, Serial cable, Connecting wires.


## COURSE SCHEDULE

30 Hrs./ 5 Days Value Added Course on Embedded System
13-17 Feb, 2017
13 Feb 2017
Session
Inaugural Programme
Introduction to Foundations of C programming Types
LUNCH
Introduction to Embedded Systems Break
8051 Architecture and C51 Assembly
Teacher / Instructor
Mr. Arvind Sahu
Mr. Arvind Sahu
:15-09:30 AM
09:30 AM-12:30PM

|  | Session |
| :---: | :---: |
|  | Introduction to Foundations of C <br> programming Types |
|  | LUNCH |
|  | Introduction to Embedded Systems |
| Break |  |
|  | Language Programming |


| Teacher / Instructor |
| :---: | :---: |
| Mr. Arvind Sahu |
| Mr. Arvind Sahu |
| Mr. Kapil Gupta |

14 Feb 2017

| 14 Feb 2017 |  | Teacher / Instructor |
| :---: | :---: | :---: |
| Time | Session | Mr. Amish Jha |
| $9: 00-11: 00$ AM | Practice Session on assigned kit |  |
| $11: 00-11: 30 \mathrm{AM}$ | Break | Mr. Arvind Sahu |
| $11: 30-01: 00 \mathrm{PM}$ | Practice Session on assigned kit |  |
| $01: 00-2: 00 \mathrm{PM}$ | LUNCH | Mr. Arvind Sahu |
| $02: 00-4: 30 \mathrm{PM}$ | Practice Session on assigned kit |  |
| 15 Feb 2017 |  |  |

Time
11:00-11:30AM
11:30-01:00PM
01:00-2:00PM
02:00-4:30PM

| Smbedded Software development using |
| :---: | :---: |
| C Porting 8051 |$|$

Teacher / Instructor
Mr. Kapil Gupta

| $9: 00-11: 00 \mathrm{AM}$ | Em |
| :---: | :---: |
| $11: 00-11: 30 \mathrm{AM}$ |  |
| $11: 30-01: 00 \mathrm{PM}$ |  |
| $01: 00-2: 00 \mathrm{PM}$ |  |
| $02: 00-4: 30 \mathrm{PM}$ | S |

ORIENTAL COLLEGE OF TECHNOLOGY, BHOPAL

| Value Added course on Embedded System <br> Objective Test (MCQ), Date: 13-17 Feb 2017 |  |  |  |
| :--- | :--- | :--- | :--- |
| Branch: | Electronics \& Communication Engineering | Max. Marks-50 |  |
| Semester: | Sixth Semester | Minimum Marks:25 |  |
| Subject: | Embedded System | Subject Code: EC 30001 | Time :1:30 Hrs |

Note: 1.The question from 1 to 30 is of 1 marks each.
2. The question from 31 to 40 is of 2 marks each.

1. Which of the following is a coprocessor of 80386 ?
a) 80387
b) 8087
c) 8089
d) 8088
2. Name the processor which helps in floating point calculations.
a) Microprocessor
b) microcontroller
c) Coprocessor
d) controller
3. Which is the coprocessor of 8086 ?
a) 8087
b) 8088
c) 8086
d) 8080
4. Which of the following is a coprocessor of Motorola 68000 family?
a) 68001
b) 68011
c) 68881
d) 68010
5. Which of the following processors can perform exponential, logarithmic and trigonometric functions?
a) 8086
b) 8087
c) 8080
d) 8088
6. How many stack register does an 8087 have?
a) 4
b) 8
c) 16
d) 32
7. Which of the following processor can handle infinity values?
a) 8080
b) 8086
c) 8087
d) 8088
8. Which coprocessor supports affine closure?
a) 80187
b) 80287
c) 80387
d) 8088
9. Which one is the floating point coprocessor of 80286 ?
a) 8087
b) 80187
c) 80287
d) 80387

View Answer Answer: c Explanation: 80286 supports 80287 as its floating point coprocessor which helps in floating point calculations.
10. How many pins does 8087 have?
a) 40 pin DIP
b) 20 pin DIP
c) 40 pins
d) 20 pins

11. Which of the


a) Delays b) error
12. How are negative numbers stored in a coprocessor?
a) I's complement
b) 2's complement
c) decimal
d) gray
13. How many bits are used for storing signed integers?
a) 2
b) 4
c) 8
d) 16
14. Which of the processor has an internal coprocessor?
a) 8087
b) 80287
c) 80387
d) 80486 DX
15. What are the two major sections in a coprocessor?
a) control unit and numeric control unit
b) integer unit and control unit
c) floating point unit and coprocessor unit
d) coprocessor unit and numeric control unit
16. What is $80 / 20$ rule?
a) $80 \%$ instruction is generated and $20 \%$ instruction is executed
b) $80 \%$ instruction is executed and $20 \%$ instruction is generated
c) $80 \%$ instruction is executed and $20 \%$ instruction is not executed
d) $80 \%$ instruction is generated and $20 \%$ instructions are not generated
17. Which of the architecture is more complex?
a) SPARC b) MC68030 c) MC68030 d) 8086
18. Which is the first company who defined RISC architecture?
a) Intel b) IBM c) Motorola d) MIPS
19. Which of the following processors execute its instruction in a single cycle?
a) 8086 b) 8088 c) 8087 d) MIPS R2000
20. How is memory accessed in RISC architecture?
a) load and store instruction b) opcode instruction c) memory instruction d) bus instruction
21. Which of the following has a Harvard architecture
a) EDSAC b) SSEM c) PIC d) CSIRAC
22. Which of the following statements are true for von Neumann architecture?
a) shared bus between the program memory and data memory
b) separate bus between the program memory and data memory
c) external bus for program memory and data memory
d) external bus for data memory only
23. What is CAM stands for?
a) content-addressable memory b) complex addressable memory
c) computing addressable memory d) concurrently addressable memory
24. Which of the following processors uses Harvard architecture?
a) TEXAS TMS 320 b) 80386 c) 80286 d) 8086
25. Which company furtherdeyeloped the study of RISC architecture?
a) Intel b) Motorola c) university of Berkeley d) MIPS
26. Princeton architecture also known as
a) von Neumann architecture b) Harvard c) RISC d) CISC
27. Who coined the term RISC?
a) David Patterson b) von Neumann c) Michael J Flynn d) Harvard
28. Which of the following is an 8-bit RISC Harvard architecture?
a) AVR b) Zilog80 c) 8051 d) Motorola 6800
29. Which of the following processors has CISC architecture?
a) AVR b) Atmel c) Blackfin d) Zilog Z80
30. Which is the most basic non-volatile memory?
a) Flash memory b) PROM c) EPROM d) ROM
31. Who has invented flash memory?
a) Dr.FujioMasuoka b) John Ellis c) Josh Fisher d) John Ruttenberg
32. Which of the following is serial access memory?
a) RAM b) Flash memory c) Shifters d) ROM
33. Which is the early form of non-volatile memory?
a) magnetic core memory b) ferrimagnetic memory
c) anti-magnetic memory d) anti-ferromagnetic
34. Which of the following memories has more speed in accessing data?
a) SRAM b) DRAM c) EPROM d) EEPROM
35. In which memory, the signals are multiplexed?
a) DRAM
b) SRAM
c) EPROM
d) EEPROM
36. How many main signals are used with memory chips?
a) 2 b) 4 c) 6 d) 8
37. What is the purpose of address bus?
a) to provide data to and from the chip b) to select a specified chip
c) to select a location within the memory chip d) to select a read/write cycle
38. Which are the two main types of processor connection to the motherboard?
a) sockets and slots b) sockets and pins c) slots and pins d) pins and ports
39. Which of the following has programmable hardware?
a) microcontroller b) microprocessor c) coprocessor d) FPGA
40. Who invented TriMedia processor?
a) Intel b)


Class Room Assessment
Passing Marks: 25
Total Marks: 50

## Q:Design density based traffic signal system.

## ORIENTAL COLLEGE OF TECHNOLOGY, BHOPAL

DEPARTMENT OF ELECTRONICS \& COMMUNICATION ENGINEERING Value Added Course: Embedded fystem Course Code :
Students Attendance Sheet, 13-17 Feb 2017


## ORIENTAL COLLEGE OF TECHNOLOGY, BHOPAL

department of electronics \& communication engineering Value Added Course: Embeteleal Lystem
Course Code:
Students Attendance Sheet, 13-17 Feb 2017


## ORIENTAL COLLEGE OF TECHNOLOGY, BHOPAL

## department of electronics \& communication engineering Value Added Course: Embedeled System Course Code :

Students Attendance Sheet, 13-17 Feb 2017

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## ORIENTAL COLLEGE OF TECHNOLOGY, BHOPAL

department of electronics \& communication engineering
Value Added Course:Embedded System
Course Code :EC 30001
Students Assessment Sheet, 13-17 Feb 2017

| S.NO. | ENROLL NO | NAME OF STUDENT | Class Room Assessment Score (Marks/50) | Objective Test Score (Marks/50) | Total Score | Eligible for Certificate or not |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| 1 | $0126 E C 141001$ | AARADHANA RAJPUT | 32 | 30 | 62 | Eligible |
| 2 | $0126 E C 141002$ | ABHA KUMARI | 28 | 26 | 54 | Eligible |
| 3 | 0126 EC 141003 | ABHIJEET KUMAR | 47 | 47 | 94 | Eligible |
| 4 | $0126 E C 141004$ | ACHYUTANAND MISHRA | 25 | 30 | 55 | Eligible |
| 5 | $0126 E C 141005$ | ADITYA PRAKASH | 35 | 40 | 75 | Eligible |
| 6 | 0126EC141006 | AJAY KUMAR | 38 | 34 | 72 | Eligible |
| 7 | $0126 E C 141007$ | AKANSHA JAIN | 26 | 32 | 58 | Eligible |
| 8 | 0126EC141008 | AKHIL DIXIT | 28 | 30 | 58 | Eligible |
| 9 | 0126EC141009 | AKSHAT SHRIVASTAVA | 35 | 38 | 73 | Eligible |
| 10 | $0126 E C 141010$ | AKSHAY BHESOTA | 32 | 30 | 62 | Eligible |
| (11 | $0126 E C 141011$ | AMAN JAIN | 28 | 26 | 54 | Eligible |
| -12 | 0126 EC141012 | AMAN RAJ | 26 | 30 | 56 | Eligible |
| 13 | $0126 E C 141013$ | AMAN RAJ | 25 | 30 | 55 | Eligible |
| 14 | $0126 E C 141015$ | ANAND KUMAR | 35 | 40 | 75 | Eligible |
| 15 | $0126 E C 141016$ | ANAND PACHORI | 38 | 34 | 72 | Eligible |
| 16 | $0126 E C 141017$ | ANIKET PUROHIT | 24 | 30 | 54 | Eligible |
| 17 | $0126 E C 141018$ | ANIKET SHARMA | 28 | 30 | 58 | Eligible |
| 18 | 0126 EC141019 | ANISHA KUMARI | 35 | 38 | 73 | Eligible |
| 19 | 0126EC141020 | ANJALI KUMARI | 32 | 30 | 62 | Eligible |
| 20 | $0126 E C 141021$ | ANKESH KUMAR | 28 | 26 | 54 | Eligible |
| 21 | $0126 E C 141022$ | ANKITA SHUKLA | 26 | 30 | 56 | Eligible |
| 22 | 0126 EC 141023 | ANSHU KUMAR | 30 | 30 | 60 | Eligible |
| 23 | $0126 E C 141024$ | ANUJ MOHAN SRIVASTAV | 47 | 47 | 94 | Eligible |
| 24 | 0126EC141026 | ANUSHEEL PANDEY | 30 | 30 | 60 | Eligible |
| 25 | $0126 E C 141027$ | APOORVA VAIDH | 47 | 47 | 94 | Eligible |
| 26 | 0126EC141028 | APURVA SHRIVASTAVA | 25 | 27 | 52 | Eligible |
| - 27 | $0126 \mathrm{EC141030}$ | ARPAN GAHOI | A | A | 0 | Not Eligible |
| -898 | 0126EC141031 | ASHUTOSH KUMAR | 28 | 26 | 54 | Eligible |
| 30 | 0126EC141032 | ASTHA GUPTA | 26 | 30 | 56 | Eligible |
| 31 | 0126 EC141033 | AVINASH KUMAR GUPTA | 30 | 30 | 60 | Eligible |
| 32 | 0126EC141034 | AYUSH TIWARI | A | A | 0 | Not Eligible |
| 33 | 0126 EC141036 | BALRAM VERMA | 30 | 30 | 60 | Eligible |
| 34 | 0126EC141037 | CHANDAN KUMAR | 42 | 30 | 56 | Eligible |
| 35 | 0126EC141039 ${ }^{\text {D }}$ | DEEKSHA AGRAWAL | 47 |  | 72 | Eligible |
| 36 | 0126EC141040 | CHHATRE | 25 | 47 | 94 | Eligible |
| 37 | 0126EC141041 | DHARMENDRA | 35 | 40 | 55 | Eligible |
| 38 | 0126EC141042 D | DIKSHA GAUTAM | 38 | 34 | 75 | Eligible |
| 39 | $0126 \mathrm{EC141043}$ D | DINESH RATHOUR | 24 | 30 | 72 | Eligible |
| 40 | 0126 EC 141044 H | HARI OM MEENA | 28 |  | 54 | Eligible |
| 41 | $0126 \mathrm{EC141045}$ | HARSH DIXIT | 35 | 30 | 58 | Eligible |
| 42 | 0126 EC 141046 | HARSH JAIN | 32 | 38 | 73 | Eligible |
| 43 | 0126EC141048 | HARSHIKA TIWARI | 28 | 26 | 62 | Eligible |
| 44 | 0126EC141049 | HIMANSHKb呂VPTA | 26 | 36 | $56$ | Eligible |
| 45 | 0126EC141050 | MANANUU YASWAL | 25 | 27 |  | - Eligible |
| 46 | 0126EC141054 |  | 32 | 37 | 52 | 1 Eligible |
| 47 | 0126EC141055 K |  |  | $\begin{array}{r} 30 \\ \hline 26 \end{array}$ |  | age 5tigible gar, Fixiseat Bhopal |

## ORIENTAL COLLEGE OF TECHNOLOGY, BHOPAL

department of electronics \& communication engineering Value Added Course:Embedded System

Course Code :EC 30001
Students Assessment Sheet, 13-17 Feb 2017

## ORIENTAL COLLEGE OF TECHNOLOGY, BHOPAL

DEPARTMENT OF ELECTRONICS \& COMMUNICATION ENGINEERING Value Added Course:Embedded System Course Code :EC 30001
Students Assessment Sheet, 13-17 Feb 2017


## Course Evaluation/ Feedback Form

| Value A'dded Course | Embedded System |
| :--- | :--- |
| Duration | $13-17$ Feb 2017 |
| Venue | Oriental College of Technology, Bhopal |
| Presenter(s): | Mr. Arvind Sahu |

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.

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

$\left.\begin{array}{|l|llllll}\hline \text { 1. The instructor is well prepared for class session. } & \mathbf{5} & 4 & 3 & 2 & 1 \\ \hline \text { 2. The instructor answered all question carefully and completely. } & 5 & 4 & 3 & 2 & 1\end{array}\right]$


Oriental College of Technology 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]

## CERTIFICATE

## EC ORIENTAL

This is to certify that Mr./Ms. Nivedita Kumari of EC-VI Sem, OCT, Bhopal, has Successfully Completed the "Value Added Course" on "Embedded System" during 13-17 Feb 2017, organized by Department of Electronics \& Communication Engineering, Oriental College of Technology, Bhopal.

HOD, EC
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Dillege of 2020 lege of Technoln-
Thakral Nagar, Rai


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

## Embedded System (Value Added Course)

Date and Time: 13-17 February, 2017, Venue: ECE, OCT
Organized by: ECE, OCT, Bhopal.
Name of the Speakers: Mr. Arvind Sahu, Assistant Professor, EC, OCT, Mr. Kapil Gupta, Assistant Professor, EC, OCT, \& Mr.
Amish Ku. Jha, Assistant Professor, EC, OCT
Participants Details: $3^{\text {nd }}$ year students of ECE

## Summary of the program

According to the need of institute-industry collaboration, importance of the value-added course is growing day by day. Oriental college of technology provides a large variety of short duration certificate courses for preparing the students according to industrial demands. These courses are conducted to help students stand apart from the rest in the job market by adding further value to their carriers.
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 timestudents neglect the aim and the need of education. In view of this changing pattern and condition of youth educationain fridia
he defined academic syllabus, the Electronics \& Communication Engineering Department of Oriental College of Technology had organized "Value Added Course on Embedded System" from 13-17 Feb, 2017 for the students of third year. This Course syllabus was covered by Mr. Arvind Sahu, Assistant Professor; EC, OCT, Mr. Amish Ku. Jha, Assistant Professor, EC, OCT \& Mr. Kapil Gupta, Assistant Professor, EC, OCT

|  |  | Title of speech |
| :---: | :---: | :---: |
| Day | Instructor Name | ctor, Oriental College of |
| 13-02-2017 | Mr. Arvind Sahu, Assistant Professor, EC, OCT | Inaugural speech of Dr. N.K Agrawal, Director, |
|  |  | Technology |
|  | Mr. Arvind Sahu, Assistant Professor, EC, OCT | Introduction to 8051 architecture and C51 assembly language programming |
|  | Mr.Amish Jha, Assistant Professor, EC, OCT | Practice session on assigned kit |
| 14-02-2017 |  | Embedded software development using C porting 8051 |
| 15-02-2017 | Mr. Kapil Gupta, Assistant Professor, EC, OCT | Embedded software development using C porting 0051 |
| 16-02-2017 | Mr. Arvind Sahu, Assistant Professor, EC, OCT | Introduction to biometric attendance system design |
|  | Mr. Kapil Gupta, Assistant Professor, EC, OCT | Knowing components for biometric attendance system design |
| 17-02-2017 | Mr. Arvind Sahu, Assistant Professor, EC, OCT | Designing of biometric attendance system |
|  | Mr. Kapil Gupta, Assistant Professor, EC, OCT | Objective Test |
|  | Mr. Arvind Sahu, Assistant Professor, EC, OCT | Testing of Project |

At last, Dr. Rahul Dubey, Head EC, Course Convenor given the vote of thanks to course instructors Mr. Arvind Sahu, Mr. Amish Ku. Jha \& Mr. Kapil Gupta for addressing the students. At the end he thanked all the faculties and student for making this event a grant success.


Director

Dr. Rahul Dubey Course Convenor

Head, EC, OCT

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
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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 Enginecring, 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 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 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

MATLAB is a widely used software environment for scientific computing produced by The MathWorks Inc. For technical programming and coding, MATLAB is considered to be the fastest and high-performing tool. In MATLAB environmen CHNO problems are expressed in the form of mathen schemes.

## OBSECTIVES

Our objective for providing MATLAB training course is to promote high productivity research and equip students to conduct analysis and development in a mathematical based environment. In this training workshop we are offering students a technical environment with hands-on teaching and facilitation.

The basic data element of MATLAB is matrix.
can perform different functions, image, video processing and test your algorithms using MATLAB, helping you to interact with your data for better record keeping.

## ELIGIBILITY

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

REGISTRATION
No Registration fees.

SPEAKFRS

Mrs. Preeti Gupta
HOD, EX Deptt. OCT Bhopal
Mr. Kaushal Sen
Assistant Prof. EX Deprr. OCT Bhopal


# ORIENTAL COLLEGE OF TECHNOLOGY, BHOPAL 

Department of Electrical \& Electronics Engineering<br>Value Added Course: MATLAB \& Its Applications<br>Course Code: EX 30001

## Module 1:

## Fundamentals of MATLAB

Fundamental of MATLAB, Variables Creation, Arithmetic Operations, Math \& Trigonometric Functions, Predefined Variables, Strings, Arrays \& Cell Arrays, Vector and matrix data, 3D matrix visualization, 2D matrix visualization, Matlab Scripts \& m-functions, Conditional Statements,

## Module 2:

## Introduction to Toolboxes \& Technologies

Symbolic Math Toolbox, Fuzzy Logic Toolbox, Global Optimization Toolbox - Genetic Algorithm, Neural Network Toolbox, Curve Fitting Toolbox, Instrumentation Control Toolbox.

## Module 3:

## Simulink

Introduction to Block-Sets, Simulation Properties, Commonly Used Block Sets, Inports \& Outports, Subsystem, Sinks \& Sources, Scope Properties, Importing \& Exporting data,
Connecting Blocks \& Properties, Working with Mux \& Demux, Creating Bus, Logic \& Math Operations, Look-up Tables, Circuit Designing, Circuit Simulation, Waveform
Analysis, Encryption \& Decryption of Waveform

## Module 4.

## Control System Toolbox

Introduction to Control Systems \& its application, Linear System Modeling, Designing SISO \& MIMO Models, Frequency Domain \& Time Domain Analysis.PID Controller Design, Using SISO Design Tool \& LTI Viewer.

## Module 5:

## Fuzzy Logic Toolbox

Introduction to Fuzzy Logic \& its Fundamental, Designing Logic \& Membership Functions, Building System with Fuzzy Logic Toolbox GUI Tool, Fuzzy logic Working in command Line, Fuzzy logic working in Simulink


## SCHEDULE

5 Days Value Added Course on MATLAB \& Its Applications [6-10 Feb. 2017]

| 6 ${ }^{\text {IU }}$ Feb 2017 |  |  |
| :---: | :---: | :---: |
| Time | Session | Teacher |
| 9:30-10:00 AM | Inaugural Programme |  |
| 10:00 AM-12:30PM | Fundamentals of MATLAB | Mrs. Preeti Gupta |
| 12:30-1:10PM | LUNCH |  |
| 01:10-3:10PM | Practice Session on Matrix | Mrs. Preeti Gupta |
| 3:10-3:30PM | Break |  |
| 03:30-5:30PM | Matlab Scripts \& m-functions | Mrs. Preeti Gupta |
| $7^{\text {II }}$ Feb 2017 |  |  |
| Time | Session | Teacher |
| 9:00-11:00AM | Introduction to Toolboxes \& Technologies | Mrs. Preeti Gupta |
| 11:00-11:30AM | Break |  |
| 11:30-01:00PM | Global Optimization Toolbox | Mrs. Preeti Gupta |
| 01:00-1:40PM | LUNCH |  |
| 01:40-4:30PM | Neural Network Toolbox | Mrs. Preeti Gupta |
| $8^{\text {s/ }}$ Feb 2017 |  |  |
| Time | Session | Teacher |
| 9:00-11:00AM | Introduction to Simulink | Mr. Aditya Pratap Singh |
|  |  |  |
| 11:00-11:30AM | Break |  |
| 11:30-01:00PM | Connecting Blocks \& Properties | Mr. Aditya Pratap Singh |
| 01:00-1:40PM | LUNCH |  |
| 01:40-4:30PM | Circuit Designing | Mr. Aditya Pratap Singh |
| $9^{1 / 1}$ Feb 2017 |  |  |
| Time | Session | Teacher |
| 9:00-11:00AM | Assignment | Mr. Hemant Mahala |
| 11:00-11:30AM | Break |  |
| 11:30-01:00PM | Class Room Assessment | Mr. Hemant Mahala |
| 01:00-1:40PM | LUNCH |  |
| 01:40-4:30PM | Control System Toolbox | Mr. Hemant Mahala |
| $10^{\text {ih }}$ Feb 2017 |  |  |
| Time | Session | Teacher |
| 9:00-11:00AM | Assignment | Mrs. Preeti Gupta |
| 11:00.11:30AM | Break |  |
| 11:30-01.00PM | Objective Test | Mrs. Preeti Gupta |
| 01:00-1:40PM | LUNCH |  |
| 01:40-2:30PM | Fuzay Logic Toolbor | Mis. Preeti Gupta |
| 2:30-3:30PM | Feedback Tery lusands. | Mrs. Preeti Gupta |
| 3:30-4:30 PM | Valedictory \& Cerrbitionspidutionnoto | Mrs. Preeti Gupta |


| ORIENTAL COLLEGE OF TECHNOLOGY, BHOPAL |  |  |
| :--- | :--- | :--- | :--- |
|  |  |  |
| Value Added Course On Matlab \& its Applications |  |  |
| Objective Test, Date:10Feb 2017 |  |  |

1. How would you start a debugger in MATLAB?
a) There is no M-file in MATLAB
b) Type edit in MATLAB and press Enter
c) Type dehug in MATLAB and press Enter
d) Type M-file in MATLAB and press Enter
2. What is the extension of script files?
a). $m$
b) .mat
c) .script
d) There is a nothing called script file
3. What is the basic difference between M-files and MAT-files?
a) There is no difference
b) MAT files are binary data files while m-files are ASCII text tiles
c) $M$ files are binary data files while MAT-files are ASCII text files
d) There is no such thing as MAT files


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4. What does the echo command do?
a) It echoes
b) It shows the comments present in script bites
c) It shows the commands and comment in MN 1 bile.
d) It shows the commands and the comment in N1-like
5. How do you create a function file in MATLAB?
a) Begin m-file with function delimtion
b) Begin script file with function definition
c) There is no such thing called function lite:
d) An m-file is only a function file
6. MEX files work on JAVA.
a) True
b) False
7. Which command is used to clear a command window?
a) clear
b) close all
c) els
d) clear all
8. To determine whether an input is MATLAB keyword, command is?
a) iskeyword
b) hey word
c) inputword
d) is tamale
9. Command is used to save command window text to file.
a) savers
b) tevitofile
c) diary
d) topiary
10. To stop the execution of MATLAB comping , wins"?
a) $\mathrm{Crl}+\mathrm{C}$
b) $\mathrm{CHI}+\mathrm{s}$

c) $\mathrm{ctrl}+\mathrm{b}$
d) ctrl+enter
11. Which is the invalid variable name in MATI, AB?
a) $x 6$
b) last
c) $6 x$
d) $z_{\text {, }}$
12. The error in the above model is the absence of a $\qquad$ ground
a) Simulink
b) HDL coder
c) Simscape
d) A.C.
13. What is the name of a primary function?
a) Name of M-file
b) Name of Script File
c) Name of Help file
d) Name of Private-File
14. Predominantly, what are the two kinds of errors in MATLAB programs?
a) Syntax and runtime
b) Syntax and logic
c) Logic and runtime
d) Syntax and algorithmic
15. If the program demands evaluation of multiple, only decimal, values of the same function, what is the better way amongst the following?
a) Using anonymous functions or mine functions
b) Using strifunc
c) Using private functions
d) Using any function
16. What are persistent variables?
a) Variables which retain values between caln (1) lus Antion
b) Variables which help in calling a function
c) Variables which deal with functions
d) Variables global to the function
17. Which command can be used for single step evecution in debugging mode?
a) dbstep
b) dbostepin
c) dbstatus
d) dbcont
18. We can generate the summation of a series, formed with a character, using $\qquad$
a) symsum
b) sum
c) symssum
d) int
19. If the result of our summation is Infinity, what will MATLAB show?
a) Infinity
b) Nan
c) $\operatorname{Inf}$
d) Error
20. How does MATLAB get the symbolic character in the function, if it is not mentioned in symsum() command?
a) It cannot
b) It uses symvar()
c) It uses symsvar()
d) It uses symbvar()



Oriental College of Technology, Bhopal
Department of Electrical \& Electronics Engineering MATLAB and Its Application

06-10 Feb 2017


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## Oriental College Of Technology, Bhopal

Electrical \& Electronics Engineering Department
Value Added Course: Matlab \& its Applications, 6-10 Feb 2017
Course Code: EX 30001
ASSESSMENT SHEET

| Sno | Enrollment No. | Name of students | Class room assessment score(mark $\mathrm{s} / 50$ ) | $\begin{aligned} & \text { Objective } \\ & \text { test } \\ & \text { score(mar } \\ & \text { ks/50) } \\ & \hline \end{aligned}$ | Total score | Eligible to receive certificate or not |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| 1 | $0126 E \times 141001$ | Abhishek Jain | 40 | 40 | 80 | Eligible |
| 2 | 0126EX141002 | Abhishek Raikwar | 37 | 40 | 77 | Eligible |
| 3 | 0126EX141004 | Abnish Ranjan | 45 | 47.5 | 92.5 | Eligible |
| 4 | 0126EX141006 | Aditya Sony | 35 | 45 | 80 | Eligible |
| 5 | 0126 EX141007 | Ajit Kumar | 45 | 40 | 85 | Eligible |
| 6 | 0126EX141008 | Akash Singh Thakur | 30 | 30 | 60 | Eligible |
| 7 | $0126 \mathrm{EX141010}$ | Akshay Marmat | 35 | 45 | 80 | Eligible |
| 8 | $0126 \mathrm{EX141013}$ | Aman Verma | 45.5 | 30 | 75.5 | Eligible |
| 9 | 0126EX141015 | Amit Kumar Chaudhary | 32 | 42 | 74 | Eligible |
| 10 | 0126 EX141016 | Anshuman Singh | 42 | 40 | 82 | Eligible |
| 11 | 0126 EX141017 | Anuj Richhariya | 30 | 30 | 60 | Eligible |
| 12 | $0126 \mathrm{EX141018}$ | Arif Akhatar | A | A | 0 | Not Eligible |
| 13 | 0126EX141020 | Ashutosh Singh Sikarwar | 45.5 | 30 | 75.5 | Eligible |
| 14 | 0126EX141021 | Bharat Kishore | 32 | 42 | 74 | Eligible |
| 15 | 0126 EX141022 | Bhawana Kumari | 42 | 40 | 82 | Eligible |
| 16 | 0126 Ex141023 | Bikramjeet Paul | 30 | 30 | 60 | Eligible |
| 17 | 0126 EX141024 | Bipin Modi | 35 | 45 | 80 | Eligible |

## Director

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| 18 | 0126EX141025 | Chandresh Pandey | 26 | 32 | 58 | Eligible |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| 19 | 0126EX141026 | Chunnu Kumar | 30 | 30 | 60 | Eligible |
| 20 | 0126EX141027 | Debashish Rabidas | A | A | 0 | Not Eligible |
| 21 | 0126EX141029 | Dharambir Prasad | 35 | 35 | 70 | Eligible |
| 22 | 0126EX141030 | Divya Bharti | 36 | 35 | 71 | Eligible |
| 23 | 0126EX141031 | Gautam Kumar | A | A | 0 | Not Eligible |
| 24 | 0126EX141034 | Harshit Malviya | 29 | 40 | 69 | Eligible |
| 25 | 0126EX141035 | Himanshu Yadav | 30 | 42 | 72 | Eligible |
| 26 | 0126 EX141036 | Ishwardas Kurmi | 28 | 35 | 63 | Eligible |
| 27 | $0126 \mathrm{EX141037}$ | Jay Yadav | 40 | 47.5 | 87.5 | Eligible |
| 28 | 0126EX141038 | Juhi Kumari | 36 | 27 | 63 | Eligible |
| 29 | 0126EX141039 | Jyoti Kumari | 48 | 35 | 83 | Eligible |
| 30 | 0126EX141040 | Karan Sahu | 30 | 45 | 75 | Eligible |
| 31 | 0126EX141041 | Kistu Kumar | A | A | 0 | Not Eligible |
| 32 | 0126EX141042 | Komal Singh Baghel | 30 | 45 | 75 | Eligible |
| 33 | 0126EX141044 | Kumar Shubham | 30 | 30 | 60 | Eligible |
| 34 | 0126EX141045 | Kunal Kumar | 35 | 45 | 80 | Eligible |
| 35 | 0126EX141046 | Manoj Kumar Dubey | 45.5 | 30 | 75.5 | Eligible |
| 36 | 0126EX141047 | Md Hasan Jahangir | 30 | 30 | 60 | Eligible |
| 37 | 0126EX141048 | Md Mujtaba Siddiqui | A | A | 0 | Not Eligible |
| 38 | 0126EX141049 | Md. Akbar Ansari | 38 | 40 | 78 | Eligible |
| 39 | $0126 \mathrm{EX141050}$ | Meenakshi Sharma | 29 | 40 | 69 | Eligible |
| 40 | 0126EX141051 | Megha Mangalnath Thakur | 30 | 42 | 72 | Eligible |
| 41 | 0126 EX141052 | Milan Kumari |  |  | 63 | Eligible |


| 42 | 0126EX141053 | Mitali Sisodiya | 40 | 47.5 | 87.5 | Eligible |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| 43 | 0126 EX141054 | Mohit Bajpai | 36 | 27 | 63 | Eligible |
| 44 | 0126EX141055 | Mritunzay Singh | 48 | 35 | 83 | Eligible |
| 45 | 0126EX141056 | N.Vignesh Reddy | 30 | 45 | 75 | Eligible |
| 46 | $0126 \mathrm{EX141057}$ | Nayan Dubey | 30 | 30 | 60 | Eligible |
| 47 | 0126EX141059 | Neha Dubey | 35 | 45 | 80 | Eligible |
| 48 | 0126EX141061 | Nishi Singh | 45.5 | 30 | 75.5 | Eligible |
| 49 | $0126 \mathrm{EX141063}$ | Ojashwi Singh | 32 | 42 | 74 | Eligible |
| 50 | 0126EX141064 | Palash Sharma | 42 | 40 | 82 | Eligible |
| 51 | 0126EX141065 | Pankaj Pal | 45.5 | 30 | 75.5 | Eligible |
| 52 | 0126 EX141066 | Paritosh Bhise | 27 | 45 | 72 | Eligible |
| 53 | $0126 \mathrm{EX141067}$ | Prashant Srivastava | 40 | 40 | 80 | Eligible |
| 54 | $0126 \mathrm{EX141068}$ | Prateek Kumar Agrawal | 28 | 30 | 58 | Eligible |
| 55 | 0126EX141071 | Prince Srivastav | A | A | 0 | Not Eligible |
| 56 | 0126 EX141072 | Priyanshu | 29 | 40 | 69 | Eligible |
| 57 | 0126EX141073 | Rachna Mishra | 30 | 42 | 72 | Eligible |
| 58 | 0126 EX141074 | Rahul Kumar | 40 | 40 | 80 | Eligible |
| 59 | 0126EX141076 | Rahul Kunghadkar | A | A | 0 | Eligible |
| 60 | 0126 EX141077 | Rajeev Ranjan Kumar | 40 | 40 | 80 | Eligible |
| 61 | 0126 EX 141081 | Ravi Khare | A | A | 0 | Not Eligible |
| 62 | 0126 EX141082 | Ravi Kumar Aadityan | 45 | 47.5 | 92.5 | Eligible |
| 63 | 0126 EX 141083 | Ray Sahab Maurya | 40 | 40 | 80 | Eligible |
| 64 | 0126EX141084 | Rhijuta Namdeo | 42 | 40 | 82 | Eligible |
| 65 | 0126EX141085 | Rishabh Nayak | A | A | 0 | Not Eligible |
|  |  |  | Orient Thak |  |  |  |



| 87 | 0126 EX 141110 | Suraj Saurabh Mishra | 45 | 45 | 90 | Eligible |
| :--- | :--- | :--- | :--- | :--- | :--- | :--- |
| 88 | 0126 EX141111 | Sushmita Kumari | 45 | 40 | 85 | Eligible |
| 89 | 0126 EX141112 | Suyash Mishra | A | A | 0 | Not Eligible |
| 90 | 0126 EX141113 | Taha Zafar Ali | A | A | 0 | Not Eligible |
| 91 | 0126 EX141114 | Tripti Raj | 35 | 35 | 70 | Eligible |
| 92 | 0126 EX141115 | Vaibhav Singh | 35 | 34 | 69 | Eligible |
| 93 | 0126 EX141116 | Vaibhav Singh Umath | 42 | 45 | 87 | Eligible |
| 94 | 0126 EX141117 | Vinay Kumar Singh | 27 | 40 | 67 | Eligible |
| 95 | 0126 EX141119 | Vinay Tiwari | 35 | 35 | 70 | Eligible |
| 96 | 0126 EX141120 | Vishakha | 35 | 34 | 69 | Eligible |
| 97 | 0126 EX141122 | Vivek Kumar Dwivedi | A | A | 0 | Not Eligible |
| 98 | $01261 T 141060$ | Prabhat Prashun | 25 | 30 | 55 | Eligible |

Course Evaluation/ Feedback Form

| Value Added Course | Matlab \& its Applications |
| :--- | :--- |
| Date: | $6-10 \mathrm{Feb} 2017$ |
| Program Location: | Oriental College of Technology, Bhopal |
| Presenter(s): | Mrs. Preeti Gupta |

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 quality of the course contents compared with your expectations. | (4) 321 |
| :---: | :---: |
| 2.The presenter(s) inspires you by his/her knowledge in the course. | $\left[\begin{array}{lll}7 & 3 & 21\end{array}\right.$ |
| 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. | (4)3 21 |
| 5. The course contents handed out was useful | $4321$ |
| 6. The materials provided were sufficient \& appropriate for the program. | (4) 321 |
| 7. The presenter(s) encouraged interaction and were helpful.. | 4 (3) 21 |



I

## 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: 2016-17
DEPARTMENT OF ELECTRICAL \& ELECTRONICS ENGINEERING CERTIFICATE

THIS IS TO CERTIFY THAT MR. /MS. PANKAJ PAL OF EX-VI SEM, OCT, BHOPAL, HAS COMPLETED THE "VALUE ADDED COU RSES" ON "MATLAB AND ITS APPLICATIONS" DURING 6 FEB TO 10 FEB 2017, ORGANIZED BY DEPARTMENT OF ELECTRICAL \& ELECTRONICS ENGINEEREDGGRRIENTAL COLLEGE OF TECHNOLOGY, BHOPAL. K


Director, OCT

# ORIENTAL COLLEGE OF TECHNOLOGY, BHOPAL 

## Department of Electrical \& Electronics Engineering



Report on Value Added Course on MATLAB \& Its Applications Date and Time: February 06, to February 10, 2017. Venue: EX,OCT Campus. Organized

By: EX,OCT, , Bhopal. Name of the Speakers: Prof. Preeti Gupta., Assistant,, Prof. EX Deptt. OCT Bhopal, Mr. Kaushal Sen, Assistant Prof. EX Deprt. OCT Bhopal,

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

## Summary of the Event

During the course students Basic topics should every engineer to be able to pass, advanced topics depend on study program specialization and other topics are suitable for the research or student thesis. Evaluation of student's performance is a difficult process. In the most cases students are evaluated few times a term. With our proposed evaluation student are forced to study before every practice.
"Value Added Course on MATLAB \& Its Applications" February 06, to February 10, 2017 for the students of third year.
On January 15, the course started with the inaugural and presidential speech of Dr. N.K. Agrawal , 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 15, the Course coordinator, Mr. Praveen Choudhary, guided all students on the topic "MATLAB \& Its Applications". 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. Kaushal and all the faculties, office staff and student volunteers for their unconditional support in organizing this Course.


[^0]

# 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 College of Technology Thakral Nagar, Raisen Road Bhopal

ORIENTAL COLLEGE OF TECHNOLOGY, BHOPAL


## $\checkmark$ alue Added Course



114-19 Novenber 2016]

For III-Yetr Students

## Organised By

Department of Mechanical Engineering


Thakral Nagar, Raisen Road, Bhopal - 462021
Phone:: 2529026, 2529057. Fax: 0755-2529472

## CHIEF PATRONS

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

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Mrs. Niraj Ghei
Chair Person. Oriental College of Technology, Bhopal
ADVISORY COMMITTEE
Dr. N. K. Agrawal
Director, OCT, Bhopal

## CONVENOR

Mr. Girish Kumar Khare
octhodme@oriental.ac.in

## COURSE COORDINATOR

Mr. Saumitra Kumar Sharma
Mobile: +919589455704 saumitra204@gmail.com

## ORGANISING COMMITTEE MEMBERS

Mr. Ashish Kumar Chaturvedi
Mr. Ravishankar Maurya
Mr. Shahnawaz Ansari

## CONTACT

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

## Registration Form

Name:
Enrollment No.
Branch:

Semester:..
Address.
= $\qquad$

City \& Pin.
E-mail id.

Contact No: . $\qquad$

Place:


# Oriental College of Technology, Bhopal <br> Mechanical Engineering <br> Value added course-CNC <br> Time Durations - 30Hrs <br> Course code - ME-30001 <br> Syllabus 

## Module-1

Introduction to Computer Numerical Control (CNC)
Numerical control, Functions of a machine tool, Concept of numerical control, Historical Development, Definition, Advantages of CNC machine tools, Evolution of CNC, Advantages of CNC, Limitations of CNC, Features of CNC, Machine Control Unit (MCU) for CNC, Classification of CNC Machine Tools, CNC MACHINING CENTERS, Classification, Features Of CNC Machining Centers

## Module-2

Blue print reading
Reading the machining sketches, Different Geometrical Tolerance symbols, Reading Dimensional Tolerances, Understanding the Views, Concept of First angle \& Third angle projection.

## Module-3

Auto CAD basic (ACAD-01)
Sketching Points line, Circles \& Arcs, Simple exercises based on above, Isometric Views, Splines \& poly lines, Identifying the points in given drawing.

## Module-4

## Conventional milling Awareness

Introduction to milling machine \& its parts, Different operations of milling, Plain milling, Step milling, Slot milling, Pocket milling, Co-ordinate drilling, Job setting in vice by dialing, Job setting on bed with clamps, Knowledge of different cutting tool materials used, Selecting speed feeds \& depth of cut, Indexing(simple \& compounding)

## Module-5

CNC Milling- Basic
Fundamentals of CNC milling, Familiarization of control panel, Fundamentals of CNC programming, Part programming techniques, Machining practice on CNC Milling, Practice session at CNC Lab

## Module-6

## CNC Turning.

Work piece setting methods, Tool setting methods, Practice on CNC Turning, Exercises on machine \& Practice .



| ORIENTAL COLLEGE OF TECHNOLOGY, BHOPAL |  |  |  |
| :--- | :--- | :--- | :---: |
| Value Added Course on CNC <br> Objective Test, Date: 19 Nov-2016 |  |  |  |
| Branch: | Mechanical Engineering | Max. Marks-50 <br> Minimum Marks:25 |  |
| Semester: | v Semester | Time: 1:30Hrs |  |
| Subject: | CNC | All questions are compulsory. Each Question is of 2.5 Marks. |  |
| Note |  |  |  |

1- Several machine tools can be controlled by a central computer in
A) DNC (Direct Numerical Control) machine tool
B) CCNC (Central-Computer Numerical Control) machine tool
C) NC (Numerical Control) machine tool
D) CNC (Computer Numerical Control) machine tool

2 -In CNC machine tool, the part program entered into the computer memory
A) Can be used only once
B) Can be used again but it has to be modified every time
C) Cannot say
D) Can be used again and again

3- Which of the following options is correct for the control unit and panel of NC (Numerical Control) and CNC (Computer Numerical Control) machine tools?
A) The control unit of NC machine tool works in ON-line mode and the control unit of CNC machine tool works in batch processing mode
B) The control unit of NC machine tool works in batch processing mode and the control unit of CNC machine tool works in ON-line mode
C) The control units of both NC and CNC machines work in ON -line mode
D) The control units of both NC and CNC machines work in batch processing mode

4- In NC (Numerical Control) machine tool, the position feedback package is connected between
A) Control unit and programmer
B) Programmer and machine tool
C) Control unit and machine tool
D) None of the above

5- In machining of a workpiece, the material is removed by $\qquad$
A) Shearing acting
B) Using brittleness of the material
C) Drilling action
D) Melting action

6- The depth that the tool is plunged into the surface is called as $\qquad$
A) Depth of cut
B) Working depth
C) Depth of tool
D) Feed

7- Feed is measured in units of
A) Velocity
B) Length
C) Length/revolution
D) Degree/revolution

8- CNC machining centres do not include operations like $\qquad$
A) Welding
B) Tapping
C) Milling
D) Boring


9- In CNC systems multiple microprocessors and programmable logic controllers work

## A) In series

C) For $80 \%$ of the total machining time
B) In parallel
D) One after the other
10- Which of the following is not the advantage of CNC machines?
A) Reduced scrap rate
B) Improved strength of the components
D) Improved quality

11- In how many ways CNC machine tool systems can be classified?
A) 3
B) 5
C) 4
D) 2

12- Which machine tools are basically handled and controlled by Computer Numerical
Control (CNC) machine especially at the manufacturing sector?
A) Mills \& Grinders
B) Routers
C) Lathes
D) All of the above

13- The device, fed to the control unit of NC machine tool which sends the position
command signals to sideway transmission elements of the machine, is called as
$\begin{array}{llll}\text { A) Tape } & \text { B) Controller } & \text { C) Feedback unit } & \text { D) }\end{array}$
B) Controller
C) Feedback unit
D) None of the above

14- In part programming, interpolation is used for obtaining
$\qquad$ trajectory.
A) Helicoidal
B) Zig-zag
C) Pentagonal
D) Triangular

15- Which kind of switches examine or detect the presence of an item or object without making contact with them?
A) Proximity Switches
B) Reed Switches
C) Photo-electric Switches
D) Mechanical Switches

16- Which bus forms an intermediate communication path between input/output ports and
input/output units? input/output units?
A) Address Bus
B) System Bus
C) Data Bus
D) Control Bus

17- Which unit of PIC undergo the process of converting mains ac voltage to low dc voltage required for the circuits and the input-output interfacing modules?
A) Power Supply Unit
B) Input/Output Unit
C) Memory Unit
D) Processing Unit

18- Which machine tool reduces the number of set-ups in machining operation, time spent in
setting machine tools and transportation between sections of machines?
A) Machining centre
C) Direct Numerical Control machine tool
B) Adaptive Control Systems
D) Computer Numerical Control machine tool

19- The machine tool, in which calculation and setting of the operating conditions like depth
of cut, feed, speed are done during the machining by the control system itself, is called
A) Adaptive Control System
B) Machining Centre System
C) Computer Numerical Control System
D) Direct Numerical Control System

20- Part-programming mistakes can be avoided in
A) CNC (Computer Numerical Control) machine tool
B) NC (Numerical Control) machine tool
C) Both a. and b.

D) None of the above

## Oriental College of Technology Bhopal <br> Department of Mechanical Engineering

Attendance sheet for value added cource on CNC


## Oriental College of Technology Bhopal <br> Department of Mechanical Engineering



## Oriental College of Technology Bhopal

## Department of Mechanical Engineering

Attendance sheet for value added cource on CNC

| $\begin{aligned} & \text { S. } \\ & \text { No. } \end{aligned}$ | ENROLLMENT No | NAME | $\begin{aligned} & 0 \\ & \stackrel{7}{7} \\ & \underset{7}{7} \end{aligned}$ | - | $\xrightarrow{0}$ |  | - | $\xrightarrow{\circ}$ |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| 85 | 0126ME141091 | ROHIT SHARMA | $p$ | , | P | $p$ | , | P |
| 86 | 0126ME141092 | SATEESH YADAV | $p$ | , | , | $p$ | $p$ | P |
| 87 | 0126ME141093 | SATYAM SHARMA | $p$ | $P$ | , |  |  | $\rho$ |
| 88 | 0126ME141094 | SAURABH YADAV | , | P | . | $p$, |  | p |
| 89 | 0126ME141096 | SHASHANK | P |  | $P$ | . $P$ |  | p |
| 90 | 0126ME141097 | SHIVAM MANJHI | , | P | . | $p$ | , | $p$ |
| 91 | 0126ME141098 | SHOBHIT SAHU | P | $p$ | - | $P$ | , | $p$ |
| 92 | 0126ME141099 | SHUBHAM AGRAWAL | $p$ | P. | $p$ |  | $\rho$ | f |
| 93 | 0126ME141100 | SHUBHAM BAHAD | P |  | $T$ | ' | $p$ |  |
| 94 | 0126ME141101 | SHUBHAM GUPTA |  | P | . | $p$ | , | $p$ |
| 95 | 0126ME141102 | SHUBHAM TIWARI | , | $p$ |  | P | $p$ | $\rho$ |
| -96 | 0126ME141103 | SHUBHAM VISHWAKARMA | $p$ | $p$ | $p$ | $p$ | $p$ | $P$ |
| 97 | 0126ME141104 | SHUBHAM WASNIK | p | $p$ | P | , | $P$ | Q |
| 98 | 0126ME141105 | SOURABH TOMAR | $\cdots$ | P |  | , | P | D |
| 99 | 0126ME141106 | SUBARNO SINHA |  |  | P |  |  | , |
| 100 | 0126ME141107 | SUDHANSHU NARTAM | , | $p$ | - | P | , | P |
| 101 | 0126ME141108 | SUMESH YADAV | , |  | P |  | P. |  |
| 102 | 0126ME141110 | SUYASH CHANDRA | 1 | P |  | P | . | p |
| 103 | 0126ME141111 | TAPAS DAS |  | $p$ |  | $P$ | , | 1 |
| 104 | 0126ME141112 | UMAKANT MAHAJAN | F |  | P | , |  | $p$ |
| 105 | 0126ME141113 | VARUN CHITALE | . | $p$ | . | $p$ | $P$ | , |
| 106 | 0126ME141114 | VIJAY PRATAP BHADORIYA | $p$ | $\rho$ | - | $\Gamma$ | , | $p$ |
| 107 | 0126ME141115 | VIJIT KUMAR CHOUDHARY | $P$ | " | $\cdot$ | , | $\rho$ | , |
| 108 | 0126ME141116 | VIKALP SHARMA | $\Gamma$ | $P$ | $p$ |  | $P$ | ' ${ }^{\circ}$ |
| 109 | 0126ME141117 | VIKAS NAGAR |  | P | , |  | $p$ | P |
| $-^{110}$ | 0126ME141118 | VIRENDRA SINGH PARMAR | , | $P$ | $p$ | ' | $p$ | , $P$ |
| - 111 | 0126ME141119 | VIVEK MASIH | 1 | $p$ | P | $p$ | P | 1 |
| 112 | 0126ME141120 | YASH GUPTA | $P$ | 1. | P | , | $p$ | $P$ |
| 113 | 0126ME153D01 | ABHISHEK SAH | P | $P$ | $p$ | P | , | $P$ |
| 114 | 0126ME153D03 | VIYOGEE HARI PANDEY | P | - | $\rho$ | 1 P | $\cdot \mathrm{P}$ | $p$ |

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Director
Oriental College of Technology Thakral Nagar, Raisen fied Bhopal


| Value Added Course | CNS |
| :--- | :--- |
| Date: | $14-19$, Nov-2016 |
| Program Location: | Oriental College of Technology, Bhopal |
| Presenters): | Mr. Saumitra Kumar 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.

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





## 14-19 November 2016



Director
Oriental College of Technology 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: 2016-17

## Department of Mechanical Engineering CERTIFICATE

This is to certify that Mr./Ms. ABHISHEK KUMAR student Of $3^{\text {rd }}$ YEAR, OCT, Bhopal, has Completed the "Value Added Course" on "CNC" during 14-19,Nov2016, organized by Department of Mechanical Engineering, Oriental College of Technology, Bhopal.

Oriental Dilrector
Thakral Nagar, Raisen Rology Ehopal


Director, OCT

# ORIENTAL COLLEGE OF TMEHNOLOGY, BHOPAL 

Department of Mechanical Engineering

## Report on Value Added Course on "CNC Programming"

Date and Time: 14-19 November 2016
Organized by: ME,OCT Bhopal.


## Name of the Speakers

- Mr. Ashish Kumar Chaturvedi, Assistant Professor, ME, OCT
- Mr. Ravishankar Maurya, Assistant Professor, ME, OCT
- Mr. Saumitra Sharma, Assistant Professor, ME, OCT

Participants Details: FOR III-Year Students of Mechanical Engineering Dept.

## 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 Department of Mechanical Engineering, Oriental College of Technology in had organized "Value Added Course MATLAB" from 14-19 November 2016 for the students of third year. This Course syllabus was covered by Mr. Ashish Kumar Chaturvedi along with Mr. Ravishankar Maurya \& Mr. Saumitra Sharma in 30 Hrs. of 6-Day program.

On November 14, the course started with the inaugural and presidential speech of Dr. N.K.AGARWAL, Director, Oriental College of Technology,Bhopal . In his presidential speech he emphasized on the need to collaborate the academic and the non academic education.
Course coordinator Mr. Saumitra Sharma has given Introduction to Computer Numerical HNOCOntrol (CNC) With Machine Control Unit (MCU) for CNC

On November 15, the Course coordinator, Mr. Saumitra Sharma, guided all students on the topic Blue print reading and post understanding the Views explained by Mr. Ravishankar Maurya.

On November 16, Mr. Ravishankar Maurya, explained, Conventional milling Awareness. Coordinate drilling explained by Mr. Ashish Kumar Chaturvedi and Cutting tool materials explained by Mr. Saumitra Sharma.

On November 17, Mr. Saumitra Sharma taught Fundamentals of CNC milling, after that assessment of class done. And Fundamentals of CNC programming and Practice session at CNC Lab explained by Mr. Ashish Chaturvedi .

On November 18, Practice Session I, Practice Session II Practice Session III taken by Mr. Ravishankar Maurya.

On November 19, Mr. Ashish Kumar Chaturvedi has given assignment Assignment submission, and case studies done. Feedback from students collected by Mr. Ravishankar Maurya. Valedictory \& Certificate distribution done by Mr. Saumitra Sharma and Mr. Ravishankar Maurya.

At last, Prof. Girish Kumar Khare, Head ME, Convenor of Course gave away the vote of thank. He thanked Mr. Saumitra Sharma for providing his valuable time for successful conduction of this course for our students. He also thanked Mr. Ashish Kumar Chaturvedi and Mr. Ravishankar Maurya 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.

Prof. Girish Kumar Khare<br>Course Convenor<br>ME, OCT



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Oriental College of Technolo $y$ y
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:

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



## ABOUT THE ORIENTAL GROUP

7) 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 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 facuftes ciproyite an excellent climate for the all the students. It has well quilisfecseminited and motivated faculty members hambspexization/in various streams. The CS Departme pitibizeth in. Tech Course in Computer Science Engineeringalong with

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

## ABOUT THE COURSE

Computer Science Engineering plays prominent role inevery domain and vital role in development ofNation. "Software Testing" is a Value Added course which will provide benefits to the participants in understanding many concepts in the field of testing and determining bugs in a program or software as well as verifying and validating them.

## OBJECTIVES\& CONTENTS

SOFTWARE TESTING is defined as an activity to check whether the actual results match the expected results and to ensure that the software system is Defect free. It involves execution of a software component or system component to evaluate one or more properties of interest.Software testing also helps to identify errors, gaps or missing requirements in contrary to the actual requirements. It can be either done manually or using automated tools. Some prefer saying Software testing as a White Box and Black Box Testing.

## ELIGIBILITY

The Fourth year Students of Computer Science Engineering branch is eligible to attend the Software Testing course.

## REGISTRATION

No Registration fees.

## SPEAKERS

Mr. Pradeep Mishra
Associate Professor, Dept CSE, OCT Bhopal

$\checkmark$ To know about Software Testing.
$\checkmark$ To know about different methods of Software testing:
$\checkmark$ To know about the projects related to SE and

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## Oriental College of Technology, Bhopal

## Department of Computer Science and Engineering

## Software Testing Syllabus (CSE 40001)

## Module I

Overview of the Software-What is Software?, Software Technologies, What is Web Application, Web Application 'Technologies ,Software Testing Life Cycle - (STLC) Understand Requirement, Create Test Cases, Manual Testing, Automation Testing, Test Report.

## Module II

Software requirements specification - (SRS) What is SRS, Finding gap in SRS, How to Write a Test Plan from SRS Document, How to test software requirements specification (SRS)?, Review SRS Document and Create Test Scenarios.

## Module III

Bug Tracking Tool Use of bug tracking tool, Bug Gennie, Bug Zilla, Jira, Summary Manual Testing-Writing test scenarios, Test planning, Test case design, Test data identification, Reviewing and Execution of Test cases/scripts, Summary, Automation Testing Selenium, QTP

## Module IV

Functional Testing-Unit Testing, Integration Testing, System Testing, Regression Testing, Acceptance Testing, S. -mary Non-Functional Testing Performance Testing, Load Testing, Usability Testing, Security Testing, Portability Testing

## Module V

Getting customer's requirements, Creating SRS, Creating Test Plan, Test Plan Execution, Reports, Summary



Head of Department


## Oriental College of Technology, Bhopal

## Department of Computer Science and Engineering

Max Marks: 50

Name of Student: $\qquad$ Enrollment No: $\qquad$

1) Which of the following is/are not a characteristic/s of Alpha Testing?
a. Simulated environment is created at developer's site and user tests the system.
b. System is installed at user organization and user tests the system.
c. Alpha testing is also called as factory acceptance testing.
d. Alpha testing is also called as site acceptance testing.
e. both $b$ and $d$
2) Which of the following statements is not true?
a. Acceptance Testing determines if system is ready for release
b. Acceptance Testing checks whether system meets needs and expectations
c. Acceptance Testing helps to find defects in system
d. Acceptance Testing is responsibility of user
3) A shopping website gives discount based on prices of total purchased items. Suppose ;ustomer purchases are below 2000 Rs. then no discount,for purchases till 20000, it gives $10 \%$ discount and above 20000 it gives $15 \%$ discount. Which of the following sets of values lie in 3 different equivalence classes?
a. $1800,2000,8000$
b. 2001, 10000, 20002
c. $1800,2003,58000$
d. $100,1800,20001$
4) In final examination, student can get 0 to 3000 marks. Student has to get $50 \%$ in order to pass the examination. If he gets 2000 or below that he will be given C grade, if he gets 2000-2500 then he will get B grade and above that he is eligible for A grade. Using boundary value analysistidnat will be the values for testing if we are testing for C grade?
a. $1500,1501,1999$,

c. $1500,1501,2000,2001$
d. 1499,1500,2000,2001
5) Choose the correct option according to the given statements.

Statement 1: A proactive risk strategy begins long before technical work is initiated. Statement 2: In reactive risk strategy software team does nothing about risks until something goes wrong.
Statement 3: A proactive risk strategy begins after technical work is initiated.
Statement 4: In reactive risk strategy you plan ahead to avoid or manage problems.
a. Only statement 1 is correct.
b. Statement 2 and 3 are correct.
c. Statement 1 and 4 are correct.
d. Statement 1 and 2 are correct.
6) Effective Risk management plan needs to address which of these issues?

Risk avoidance
b. Risk monitoring
c. Risk management and contingency planning
d. All of the above
7) Before handing over the software to the client, which testing is to be done in-house?
a. Alpha
b. Beta
c. Gamma
d. Theta
?) Who performs the Acceptance Testing?
a. Software Developer
b. End users
c. Testing team
d. Systems engineers
9) For retail shopping software which table would be example of Decision Table?
a. A table containing rules of discount.
b. A table containing rules for interfaces between components.
c. A table containing rule of employee behaviour.

ㄱ. A table containing rules for combination of input.
10) Agile Development Testing is treated as a separate phase.
a. True
b. False
11) Agile is

a. Sequential
b. Iterative
c. Incremental
d. Both b \& c
12) Error guessing can have more fruitful results when $\qquad$ .
a. System has been deployed
b. When testing with inexperience tester
c. As a first approach of testing
N. As a additional technique after applying more formal techniques
13) In which of the following techniques, experience of tester is beneficial?
a. Error guessing
b. exploratory testing
c. Both $a$ and $b$
d. None as there is any relationship between techniques applied \& experience of a tester.
.4) Controller Output window displays $\qquad$ .
a. Debug information
b. Controller information
c. Contain full information about Vuser
d. All of these
15) The Correlation Statement instructs VuGen to save the first occurrence of this data to a parameter called $\qquad$ .
a. Web_reg_save_param
b. WCSParam_Diff1
c. WCSParam_Reg
d. WebParam_Diff1
16) Cyclomatic Complexity cannot be applied in $\qquad$ .
a. Re-engineering
b. Risk Management
c. Test Planning
d. Reverse engineering
17) Which coupling should be avoided in software?
a. Data coupling
b. Content coupling
c. Control coupling
d. Stamp coupling.
18) $\qquad$ is used to replace field values in the requirements tree.
a. Replace
b. Replace All
c. Find and Rep
d. All of these.

19) Solid Blue line indicates that $\qquad$ .
a. Test to be executed after the previous test, with no condition.
b. Test to be executed only if the previous test has finished.
c. Test to be executed only if the previous test has status passed.
d. All of these.
20) RGB and Pixel Tolerance are related to $\qquad$ .
a. Bitmap checkpoint
b. Image checkpoint
c. All of these
d. None of these
21) Which is treated as Regular Expression?
a. []
b. 1
i. \$
d. \{\}
22) Which of the following is true regarding Incremental backup?
a. Uses more tapes
b. Done every month
c. Saves only files that have changed recently
d. Saves all files
23) Which of the following is used in high level of testing?
a. Functional testing
b. Structural testing
c. Glass box testing
d. All of these
24) Which regular expression sequence loosely translates to "anything or nothing?"
a. . * (dot star)
b. *. (star dot)
c. "?
d. *+
25) In Selenium variables are stored in $\qquad$ .
a. storedVars
3. stored Variables
c. VariablesStore
d. All of the above


Answers:

1. $E$
2. C
3. D
4. D
5. D
6. $A$
7. B
8. $A$
9. $A$
10.D
11.D
10. C
11. A
14.B
15.D
16.B
17.A
18.B
19.B
20.A
12. C
22.a
23.a
24.a


Il 6

| Attendance Sheet |  |  |  |  |  |  | $\square$ |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| sno | ENROLL No | nume |  |  |  |  |  |
| 1 | Opecsialos: | abhaher raut | Arout | (B) |  | Nruel $=$ |  |
| 2 | Ontcsiztoms | MAILR SWARNKAR | (1).4u" | Maydr | (4) | May4. |  |
| 3 | 012608121086 | Naveet shukla | Nete | vadet | VNCL |  |  |
| 4 | $0126 \mathrm{CS121057}$ | Nembarimachanhatyar | $\frac{\text { VNect }}{(4)}$ | Neera | Netur | Nepha. | $\mathrm{Ne}$ |
| 5 | 0126 CS 121062 | PALASH CURESH | Palash | Galash | ( | Palash |  |
| 6 | 012 csistom | Abhisher kumar mishra | strusio | akmon | dhmish | (2) | Thme |
| 7 | 02608131002 | AKarsh khare | ARharci | 1) hare |  | Walc | (1) |
| § | 0126 Cst31003 | AKash agramal | Akouh | (4) |  | drash | $\stackrel{4}{2}$ |
| $\bigcirc$ | 0126 cs 131004 |  |  |  | - ${ }^{0}$ | onmash | flash |
| 10 | 0126 CS151006 | akashomar vishmakarma | Nkash | Akosh | 4 | (4) | s)kas |
| 11 | - | AKSHAY PIPRE | (i) | Appuc | Aiput | (4) | Nepre |
|  | $0126 C 8131007$ | amit ranan | Anct | (1) | H Luter | Anct | (t) |
| 12 | 0126CS13100s | amrata chaurasa | (4) | Inchau | (achau | dichau. | (i) |
| 3 | 0126 CS 131010 | anubhav belwal | Blaud | (1) | Buelual | (4) | Euallu |
| 14 | $0126 \mathrm{CS131011}$ | ANUS SHARMA | Sharme | (4) | Ol hasmer | (4) | (4arm |
| 15 | $0126 \mathrm{CS131012}$ | anurag timari | Hrimuis | Imiayi' | (f) | rivachi | ( + |
| 16 | $0126 \mathrm{CS131013}$ | anushree tivari | Achuce | (a) | 1shue | A Shuce. | (1) |
| 17 | 0126 CSI 131014 | archisahu | 0 | $\bigcirc$ | Derfue | Gorcher | Abh. |
| 18 | 0126 CS 131015 | ARPITA.TANDON | dsinit | H/spisi | ( ${ }^{2}$ | Arpika. | (1) |
| 19 | $0126 \mathrm{CS131016}$ | ARSALAN Ahmed ansari | Aluma | Ahmed | (A) | Ahmed | (4) |
| 21 | $0126 \mathrm{CS131017}$ | ARUNima mirs | Aruni | (1) | A Muni | Aruni | (A) |
| 21 | 0126 CSI 131018 | AYUSH SONI | (a) | (1) | (1) | (4) | (4) |
| 2 | $0126 \mathrm{CS131020}$. | brajendra baghel | ( ${ }^{1}$ | (A) | (4) | (8) | (1) |
| 23 | 0126 CSI 131021 | Carol jasmine mendonza | Carol | (4) | Cay0l | caud) | ( |
| 24 | 0126 CS 131022 | CHARU UPADHYAY | chara | (10) | TOuas | Chare. |  |
| 25 | $0126 \mathrm{CS131023}$ | DEEKSHA NeEkhra | Cober | (4) |  | (8) | (*) |
| 26 | 0126 CS 131024 | dev sharma | Mev | Dev |  | $\frac{0}{\text { anev }}$ | Bex |
| 27 | 0126CS131025 | DIKSHA RAJ | $x-14$ |  |  | ORev |  |
| 28 | $0126 \mathrm{CS131026}$ | DIKSHA SINGH | Noy | Dipsha | Mry |  | Nuras |
| 29 | $0126 \mathrm{CS131027}$ |  | Didesha | Diksta | Diksha | Dikgha | (f) |
|  |  | divya kripalani | DD | D | (4) | DK | (A) |
| 30 | $0126 \mathrm{CS131028}$ | DRISHTY SHARMA | (4) | (4) | (1) | (1) | (6) |
| 31 | 0126CS131030 | Garima choudhary | Grauma | 1 | Catama | Crabua | Ctasin |
| 32 | 0126 CSI 131031 | GEETIKA KHARE | yratike | Heatike | trebition | (4) | treetkt |
| 33 | $0126 \mathrm{CS131032}$ | HARSHA SONI | Hing | (Her) | (A) | (u)w | (7) |
| 34 | 0126CS131033 | harshita agrawal | HAgar | (A) | HAgar | (4) |  |
| 35 | $0126 \mathrm{CS} 131034{ }^{\text {a }}$ | Himll mehandiratta | 1. | (4) | - (1) | (4) |  |
| 36 | 0466585635 | FindinRal | $\mathrm{Nrai}$ | (4) | Wral | (rrou | $\frac{1(4)}{(4)}$ |
| 37 |  | Ashysturari | (1ishors) | 209 | Soshi | '1.shi | (4) |
| 38 |  | İAGRÁI LISHNANI | Duen | (4) | Jey. |  | Tu |
| 39 | $026 \mathrm{Cs} 11040^{\circ} \%$ | annikg nema Ofiental |  | Tech | X aruta | Kawlv | (9) |
| 40 | $01260 \$ 131041 \lambda$ | komal khare inatimi |  |  | KRay | $K_{k w}$ | 4 |
| 41 | 0126 CS 131042 | KOPAL SADAPHAL | A0pa | (A) | Kopal | (A) $\times$ | Kopor |

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## Feedback Form

| Value Added Course | Software Tessting (CSE 40001) |
| :--- | :---: |
| Date: | $8-12$ Aug 2016 |
| 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 laree 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. | 4321 |
| :---: | :---: |
| 2. The Course was well organized. | $4 \times 31$ |
| 3. The information and/or skills presented were relevant and useful | -4 3121 |
| 4. The presenter(s) provided adequate time for questions and answered them effectively. | $43^{\prime} 21$ |
| 5. The presenter(s) allowed me to work with and learn from others. | $\checkmark 321$ |
| 6. The materials provided were sufficient \& appropriate for the program. | 4321 |
| 7. The physical arrangements were adequate. | 4/3 21 |

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Thakal Magar, Relen Ruad
Ehopal

## ORIENTAL COLLEGE OF TECHNOLOGY, BHOPHL

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


Department of Computer Science \& Engineering
This is to certify that Mr./Ms. AKASH AGRAWAL of CS-VII Sem, OCT, Bhopal, has Successfully Completed the "Value Added Course" on "Software Testing" during 08-12 Aug 2016, organized by Computer Science and Engineering Department of Oriental College of Technology, Bhopal


Co-Ordinator, CS, OCT



## ORIENTAL COLLEGE OF TECHNOLOGY, BHOPAL

## DEPARTMENT OF COMPUTER SCIENCE AND ENGINEERING

REPORT ON VALUE ADDED COURSE ON "SOFTWARE TESTING"
DATE AND TIME: 8-12, AUGUST, 2016
ORGANIZED BY: CSE, OCT, BHOPAL.
NAME OF THE SPEAKERS: MR. PRADEEP MISHRA, ASSOCIATE PROFESSOR, MR. SAURABH JAIN, ASSOCLATE PROFESSOR \& MR, KULDEEP CHAMURASIA ASSISTANT PROFESSOR.
PARTICIPANTS DETAILS: FOR IV-YEAR STUDENTS
YeNUE: CSE, OCT CAMPUS

## SUMMARY OF THE EYENT

COMPUTER SCIENCE ENGINEERING PLAYS PROMINENT ROLE IN EVERY DOMAIN AND VITAL ROLE IN DEVELOPMENT OF NATION. "SOFTWARE TESTING" IS A VALUE ADDED COURSE WHICH WILL PROVIDE BENEFITS TO THE PARTICIPANTS IN UNDERSTANDING MANY CONCEPTS IN THE FIELD OF TESTING AND DETERMINING BUGS IN A PROGRAM OR SOFTWARE AS WELL AS VERIFYING AND VALIDATING THEM.

THE DEPARTMENT OF COMPUTER SCIENCE AND ENGINEERING ORIENTAL COLLEGE OF TECHNOLOGY ORGANIZED "YALUE ADDED COURSE ON "SOFTWARE TESTING" FROM 8 AUGUST, 2016 TO 12 AUGUST, 2016 FOR THE STUDENTS OF FOURTH YEAR.
THIS COURSE SYLLABUS WAS COVERED BY MR. PRADEEP MISHRA, ASSOCIATE PROFESSOR, MR. SAURABH JAIN AND MR. KULDEEP CHAURASLA ASSISTANT PROFESSOR CSE, OCT IN 30 HRS. OF 5-DAY PRROGRAM.
INAUGURAL CEREMONY STARTED BY DIRECTOR SPEECH ON 8 TH AUGUST, 2016 AND THIS COURSE IS CONDUCTED AS PER SCHEDULE AND ON 12 TH AUGUST, 2016 VALEDICTORY FUNCTION WAS CONDUCTED.
 COURSE COORDINATOR CSE, OCT


Director
Oriental College of Technology Thakral Nagar, Raisen Road Bhopal

## ORIENT LL

## 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 foot 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:



Director
Oriental College of Technology:
Thakral Naga, Risen Road Bhopal

## 1. Academic Committee

2. All HoD's, OCT


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& \text { Oriental College of Technology } \\
& \text { Thakral Nagari, Ralson Road } \\
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## Repistration Form

Name:
Enrollment No. $\qquad$
Branch:

Semester: $\qquad$
Address. $\qquad$
$\qquad$
$\qquad$
$\qquad$
City \& Pin $\qquad$
E-mail id. $\qquad$
Contact No: $\qquad$

## CIIEF PATRONS

Dr. K. I.. Thakral
Pounder 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. N.K Agrawal
Director, OCT, Bhopal

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

## COURSE COORDINATOR

Miss. Ankita Singh
Mobile: +919589080841
Mr. Sujeet Lumar
Mobile: +918602659579
ORGANISING COMMITTEE MEMBERS
Miss Alka Tripathi
Mr. Vishal Thakur
Place:

Dater ament
d of ocearment natlon Tom Temonojy, 3hopal


Signature with Seal
Head of the Department

## contcr

Mrs. Roopali SOni Director a Technology
octhodit@oriental.ac. Inlieg of Tech. Road
Mobile: +9fastanatingagar, Rals
Miss. Ankita Singh
Mobile: +919589080841


## Value Added Course

on
"Full Stack Development"
[23-27, January, 2017]
For IV-Year Students

## Organized By

Department of Information Technology

Oriental College of Technology,
Thakral Nagar, Raisen Road,Bhopal - 4620
Phone:: 2529026, 2529057, Fax: 0755-2529472

## 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 $n$ excellent group of faculty with experience in aetrig Industry and Research. The state-of-art $\stackrel{C}{C}$ competent faculties provide an for the all round development of Th has well qualified, committed and tivated fatuity members having specialization in $\lambda 00$ of fou 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. FULL 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

## ELIGIBILITY

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

REGISTRATION
No Registration fees.
SPEAKERS
Miss Ankita Singh
[Assistant Professor, Oriental College of Technology, Bhopal]
Mr. Sujeet Kumar
[Assistant Professor, Oriental College of
Technology, Bhopal]


Director
Oriental College of Tochnolo
Thakral Nagar, Raiser RO

## Oriental College of Technology, Bhopal

## Department of Information Technology

$\therefore \quad$ Syllabus of Value Added Course on
Full Stack Devclopment

## Module - 1

- Web Fundamentals
- The Command Line
- Using Git to Collaborate

Module - 2

- The Design Process
- Introduction to Product Design
- Introduction to User Experience (UX)
- Elements of Visual Design
- Building and Using Mockups


## Module-3

- Principles of Software Engineering
- Agile Web Development
- Pseudocoding
- SOLID Design Principles


## Module-4

- HTML5
- CSS3
- Developer Tools
- Debugging Markup
- SASS preprocessing
- Twitter Bootstrap

Module - 5

- The Fundamentals of Code
- Data Types, Flow Control, Looping
- Intermediate JavaScript
- Object-Oriented Programming
- Functional Programming
- 'This', Scope and Closures
- Objects and Prototypes
- jQuery Events and Eects
- The Module Pattern
- Error Handling
- Refactoring and Debugging
- Namespacing



| Branch: | Information Technology |  |  |
| :--- | :--- | :--- | :--- |
| Semester: | VII Semester | Subject Code: IT 40001 | Time: 1 Hour |
| Subject: | Value added course on FULL <br> Stack Development | All questions are compulsory |  |
| Note |  |  |  |

Max Marks 50

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, nim installs any dependency in the global mode.
A - true
B - false
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 ts 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 ifs 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 - ifs module
C - net module
D - None of the above.
8 net.isIP(input) returns 4 for IP version 4 addresses.

> A - true
> B - false

9 Which of the following is true about fork meth of child _process module.
A - The fork() method method is - -special case of the spawn() to create Node processes.
B - The fork method returns object with a builtin communication channel in addition to OLLEG having all the methods in a normal Co'faprocess instance.

D - None of the above.
10 Child processes always have three streams child.stdin, child.stdout, and child.stderr
which 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. npm --version
B. npm --ver
C. npm 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
B. Print
C. Loop
D. All of these




## B. http <br> C. node-resource <br> D. static

21 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. $\$ \mathrm{npm}$ 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\#

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




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ASESSMENT SHEET


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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]


## DEPARTMENT OF INFORMATION TECHNOLOGY

SESSION: 2017l17

## CERTIFICATE

This is to certify that Mr./Ms Aman Sahu of IT VIII Semester, OCT, Bhopal, has Successfully Completed the "Value Added Course" on "Full Stack Development" during 23-27 Jan 2017, organized by Department of Information Technology, Oriental College of Technolog


Head of Department, IT ICT


Directar, ICT

## Course Evaluation/ Feedback Form

| Value Added Course <br> Special course | FULL STACK DEVELOPMENT |
| :--- | :--- |
| Duration | 23 To 27 January 2017 |
| Venue | Oriental College of Technology, Bhopal |
| Presenter(s): | Miss Ankita Singh, Mr Sujeet Kumar |

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

| Content |
| :--- |
| 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: |

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:
Instructor's interest in student's progress was:
Amount you learned was:
Clarity of student requirements was: Intéllectual Challenge was:


## ORIENTAL COLLEGE OF TECHNOLOGY, BHOPAL

Department of Information Technology


## Report on Value Added Course on FULL STACK DEVELOPMENT

Date and Time: 23 January , to 27 January , 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 Ankita Singh and Mr Sujeet Kumar. 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 $23^{\text {rd }}$ of January, 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 staff and student volunteers for their urganditional support in organizing this Course.

Prof. Roopali Soni
Course Convenor
IT, OCT



Director
Orlental College of Technology Thakral Nagar, Raisen Road Ehoval



Oriental College of Technology
Thakral Nagar, Raisen Road Ehopal

# ORIENTAL COLLEGE OF TECHNOLOGY, BHOPAL <br> 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 .
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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 Hagar, Raisen Road
Bhopal

## - tue Added Course on <br> "Advanced Arduino" [20-24 Mar, 2017] <br> For IV -Year Students

## 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 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.

## REGISTRATION

No Registration fees.

## COMMITTEE MEMBERS

 CHIEF PATRONSDr. 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. N.K. Agrawal, Director, OCT, Bhopal

## CONVENOR

Dr. Rahul Dubey, 7987186230

## COURSE COORDINATOR

Mr. Arvind Sahu, 9131599475
ORGANISING COMMITTEE MEMBER
Mr. Kapil Gupta, 7869317894 Mr. Amish Kumar Sha, 9098715184 CONTACT
Dr. Rahul Dubey, 7987186230,octhodec@oriental.ac.in

## OBJECTIVES \& CONTENTS

Arduino boards are able to read analog or digital input signals from different sensors and turn it into an output such as activating a motor, turning LED on/off, connect to the cloud and many other actions.
$\checkmark$ Learn the Arduino programming language and IDE $\checkmark$ Program basic Arduino examples
$\checkmark$ Prototype circuits and connect them to the Arduino $\checkmark$ Program the Arduino microcontroller to wipe the circuits work

The Fourth year Students of Electronics
Communication Engineering branch are eligible to attend the Advanced Arduino designing course.


## Registration Form

## Name:

Enrollment No.
Branch:.
Semester:.
Address.

City \& Pin.
E-mail id.
Contact No:

Place:
Signature
Date:


# Oriental College of Technology, Bhopal 

Electronics \& Communication Engineering Value Added Course: Advanced Arduino Course Code: EC 40001

An Advanced Approach to Arduino \& AVR Programming Module 1: Materials Needed :
a) An Arduino(Uno Rev3)
b) ATMEGA328P or ATMEGA8A.
c) FTDI 5V breakout(recommend to use original FTDI chips)
d) USBasp programmer.(If you have arduino, then you don't need this).
e) 16 MHz crystal.
f) Capacitors: 22 pf $\times 2,100 \mathrm{nF} \times 1$
g) Resistors: $10 \mathrm{~K} 1 / 4 \mathrm{w} \times 1,150 \mathrm{R} \times 1$
h) Breadboard.
.i) jumper wires

Module 2: Programming the Arduino UNO Rev3 From WinAVR Environment
This step is needed to make an Arduino on a breadboard using nominal components and still can get benefit of the Arduino libraries.

## Module 3: Burning Arduino Bootloader Into Atmega328P

This step is for those who want to make an Arduino on a breadboard using nominal components and still can get benefit of the Arduino libraries.

## Module 4: Burning Bootloader to Atmega8

If you want to use Atmega8A as Arduino, then this step is for you. This step is a little bit difficult as compared to burning bootloader to Atmega328.

## Module 5: Burning the Bootloader Via USBasp:

If you don't have an arduino and instead have a USBasp AVR programmer, then the bootloader can be uploaded to either Atmega328P/Atmega8A.



| ORIENTAL COLLEGE OF TECHNOLOGY, BHOPAL |  |  |  |
| :--- | :--- | :--- | :---: |
| Value Added course on Advanced Aurduino <br> Objective Test (MCQ), Date: 20-24 Mar, 2017 |  |  |  |
| Branch: | Electronics \& Communication Engineering | Max. Marks-50 <br> Minimum Marks:25 |  |
| Semester: | $8^{\text {th }}$ | Time :1:30 Hrs |  |

1. Identify this component.

a. Speaker b. Temperature sensor c. Wind sensor d.Ultrasonic sensor
2. When writing a sketch, how do you decide which features belong in the setup function and which belong in the loop function?
a. Features that need to be initialized go in setup correct
b. Features that need to be initialized go in loop
c. Features that need to run continuously go in setup
d. Features that need to run continuously go in loop
3. If we use the Arduino Uno or the Ethernet shield to write data to an SD card, this data can be read by any computer.
a. True correct
b.False
4. The Arduino Uno can keep track of the real-time date and time right out of the box.
a. True
b. False correct
5. The HTTP response code that indicates successful transmission of the message request is $\qquad$ .
a. 300
b. 302
c. 200 correct
d. 401
6. How can you hook up multiple Ardnnodivy yin local network?
a. Give them a unique MAC
b. Give them a unique IP address
c. Give them a unique MAC address 4 de a aigitue IP address
d. Give them a unique MAC address anim minter your router's IP address

Each device on your local network is a unique node and needs its own unique identifiers.

a. Gas detector b.UV detector c.Sound detector correct d.Proximity sensor
8. An Arduino sketch does not have the traditional main() function that's generally present in C programs.
a. True b.False correct

Whenever you build a sketch the process creates an intermediate file and executes that first. This intermediate file has functions that call the stuff that you have written in your loop. This is the intermediate code:

```
int main(void)
{ init(); //initializes the hardware
setup(); //calls the sețup function
for (;;)
loop();// calls the infinite loop function
return 0; }
```

Essentially, under the covers, the main() function does exist.
9. What is the differentiating aspect between the two numeric types: char and byte?
a. Range correct b.No. of bytes/Size c. char is used in highly specific applications
d. byte is used to save memory char can represent signed value too. byte can only represent unsigned value. Thus the range of char is from -128 to 127. The range of byte is from 0 to 255 .
10. The numeric type double is the same as float
a. True correct
b. False

In Arduino, this is true. Might not be true for other platforms.
11. The outputs of the following two pieces of codes will be:

```
int integer=12;
integer +=1;
string str="12";
str +=1;
```

a. 13,13
b. 13,12
c. 13,112
d. 13, 121 correct

The + operator is used with both, number types as well as strings. However, it performs the functions of incrementing in numbers, whereas in strings it performs the function of concatenation.
12. Any code that's written inside the if block shown below will: if (1)
1
\}

- Show an error
- Show a warning but not an error
- execute infinitely correct
- print ' 1 '


The if statement checks for a condition within the pair of parenthesis. For example, if $(a=1)$ checks if the value of a is equal to 1 . If it is, the operation returns a 1 (logic HIGH), this causes the if
statements to execute. If the value of a is not equal to 1 , it returns a 1 (logic LOW) and the if statements do not execute. To summarize, $\mathrm{if}(1)$ executes until the 1 converts to 0 .
13. Which function executes first when a sketch is built?
a. loop() b.setup()
c.init()
d. main() correct

Even if you don't write the main() function in Arduino programming, the Arduino IDE executes it first in the background.
14. The following code will evaluate to $\qquad$ .

```
strncmp("left", "leftright", 4) == 0)
```

a.True correct b.False

The ' 4 ' indicates that only the first four characters of the two strings will be compared.
15. Select the function that you can use to detect a button press on the Arduino
a. buttonRead() b.buttonPress() c.analogRead() d.digitalRead() correct digitalRead() can be used to read the status of a switch.
16. An Arduino Uno is most suited for $\qquad$ .
a. Controlling peripherals correct b.Powering peripherals
c.Controlling and powering peripherals

Ideally, the Arduino Uno is perfect for controlling only. It is a poor power source for peripherals. It would rather have you power the peripherals via some other source and just control them. However, you can power some low-powered peripherals using the Arduino Uno. But that's not its primary purpose.
17. The core processor of the Arduino Uno (Atmega328p) has a 16 MHz crystal oscillator for the processor clock.
a. True b.False correct

The Atmega328p has a 16 MHz ceramic resonator and not a crystal oscillator. The Atmega16u2 chip, the one responsible for the serial-USB conversion, is the one that has a 16 MHz crystal oscillator.
18. The 3.3 V regulator on the Arduino Uno has an output current of $\qquad$ .
a. 50 mA
b. 100 mA
c. 150 mA correct
d. 200 mA

This is an upgrade over the older versions of the Arduino Uno which had only 50 mA current output via the 3.3 V pins.
19. An LED driver is an example of $\qquad$ .
a. Input b. Output correct
20. delay (100000) results in a delay of $\qquad$ .
a. 100000 seconds b. 100 seconds correct c .1 second d .10 seconds
21. Select the correct statement(s)
a. PWM pins mimic analog signats corrects
b. Sensors generate analog readings that oriental College of Technolog by the analog pinscorreatral Nagar, Raisen Road
c. Analog signals are converted using an analogte-digital converter by analog pins correct
d. Analog signals are converted using a digital-to-analog converter by analog pins
22. An Arduino sketch undergoes pre-processing to turn into a $\qquad$ program a.C/C++ correct b.Java c.Assembly d.Arduino
23. It's impossible to store a higher number of characters in an array than the declared size of the array.
a.True b.False correct

You can store more characters in an array. But you will overflow it. This will cause the characters to be written into memory locations that might be in use by other programs. This could potentially derail the functioning of those programs.
24. Select the true statements
a. You can store multiple values in an array and use a loop to iterate through each of the values correct
b. A variable that was previously used to store an integer can be repurposed to store a float value instead
c. You can convert a variable from one data type to another correct
d. You can store a single value in two different data types using a single variable correct

1. Every element of an array is accessible because it gets assigned an individual index number that depends on its position. You can use a loop to access each of these values.
2. Typecasting is a concept in C programming that can be used to convert between variable data types.
3. Unions are variables that allow you to store single values in a choice of your data type.
4. Select the correct ways of defining a function
a. def myfunction() b.int myfunction (float) correct c.void myfunction ()
d.fun myfunction () e. void myfunction (int,int,int)
returntype functioname (argument 1 , argument $2, \ldots$ )
5. What does IDE stand for?
a.In Deep Environment b.Integrated Development Environment correct
c.Internal Deep Escape d.IDE
6. To use the I2C communication protocol, you can use the $\qquad$ library in your sketch.
a.Serial b.SPI c.Wire correct d.ComI2C
7. Select the sensor that measures pressure relative to atmospheric pressure.
a. Vacuum pressure sensor b.Absolute pressure sensor
c. Gauge pressure sensor correct d.Differential pressure sensor
8. Select the type of temperature sensor that you are most likely to find in an Integrated Circuit.
a.Thermistor b.Semiconductor based sensor correct
c.Resistance Thermometer d.Thermocouple

Semiconductor temperature sensors are linear and have low accuracy.
30. A hygrometer is a $\qquad$ sensor.
a. Humidity correct b. Water content e, 4feness dir pressure

A hygrometer is an instrument used to masure that ampunt of humidity and water vapor in freechnom... atmosphere, in soil, or in confined spaees.
31. What does GPIO stand for?
a. General Purpose Inner Outer Propeller b:General Purpose Input Output Pins correct c.General Purpose Interested Old People d.General Purpose Input Output Processor
33. $\qquad$ sensors measure moisture using humidity.
a.Sesimoscope b.Capacitive correct c.Resistive d.Both Resistive and Capacitive

Capacitive sensors are industrially used to measure moisture levels using ambient humidity. They have a good RH range.
34. Select the types of proximity sensors that currently exist.
a.RADAR proximity sensor b.LiDAR proximity sensor correct
c.Thermal proximity sensor - d.Laser proximity sensor
35. This proximity sensor can sense metals as well as the levels of liquids.
a.Inductive proximity sensor b.Capacitive proximity sensor correct
c.Ultrasonic proximity sensor d.Magnetic proximity sensor

Capacitive proximity sensors can detect metals as well as non-metals like liquids, pastes, resins and powders.
36. Select the communication protocol(s) that allows multiple Masters instead of just one. a.SPI b.I2C correct c.CAN correct d.I2C and CAN are multi-Masters protocols.
37. Select the communication protocol(s) that allow the Master and Slaves to communicate with each other simultaneously.
a.CAN correct b.SPI correct c.I2C

CAN and SPI are fully duplex communication protocols. Whereas I2C is half-duplex, meaning the Master and Slave can communicate with each other, just not simultaneously.
38. If you are optimizing for performance, and have no shortage of pins, which communication protocol/hardware would you choose?
a.UART b.SPI correct c.I2C d.CAN

SPi is faster, has less overhead and has less noise. If you have no limitations and are purely optimizing for performance it seems to be the best option.
39. This is the communication protocol used by SD (Secure Digital) cards.
a. I2C
b.UART
c.SPI correct
d.USART
40. A tactile sensor is also known as a $\qquad$ sensor.
a.Temperature b.Humidity c.Pressure d.Touch correct

## Class Room Assessment Max Marks:50 Min Marks:25

## Q: Describe the approach to arduino \& AVR P rogramming,



Diremor


ORIENTAL COLLEGE OF TECHNOLOGY (UC I), Bitural
ELECTR OIICS \& COMMUNICATION ENGINEERING DEPARTMENT Wh)
Value Added Course: Advanced Arduino
Course Code :EC-40001, Attendance Sheet



ORIENTAL COLLGூE OF TECHNOLOGY (OGT), BHOPAL
ELECTRONICS \& COMMUNICATION ENGINEERING DEPARTMENT
Value Added Course: Advanced Arduino
Course Code : EC-40001, Attendance Sheet


## OPIENTAL COLLEGE OF TECHNOLOGY (OGT), BHOPAL

electronics \& communication engineering department
Value Added Course: Advanced Arduino
Course Code :EC-40001, Attendance Sheet

| S.NO. | ENROLL NO | NAME OF STUDENT | 2013 | 2.13 | $22 / 3$ | 23/3 | 243 |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| 109 | 0126 EC 131119 | Vijay Sanodiya | 08 | Q8 | Q8 | Q8 | Q8 |
| 110 | 0126EC131120 | Vinay Kumar Tiwari | ymay | $7 \mathrm{Am-4}$ | , -may | $V \mathrm{man}$ | Tancy |
| 111 | 0126EC131121 | Vivek Agarwal | Wuthera | Whuprer | Naymer | Where | huxtere |
| 112 | 0126EC131122 | Vivek Tiwari | Varite | $\sqrt{4+7}$ | $\sqrt{\text { reves }}$ | $\checkmark$ mexiz | Niarte |
| 113 | 0126EC131123 | Yashi Jain | - \% | Y | F/ | 类 | Y/u. |
| 114 | 0126EC131124 | Yuvraj Khadka | $7_{\text {chaka }}$ | Prava | Yeendia | Yehoden. | Ylestites |




Oriental College of Technology Thakral Nagar, Raisen Road

Bhopal

## ORIENTAL COLLE ${ }^{\text {G }}$ E OF TECHNOLOGY（OC\％），BHOPAL

electronics \＆communication engineering department
Value Added Course：Advanced Arduino
Course Code ：EC－40001，Assessment sheèt，20－24－Mar－2017

| S．NO． | ENROLL NO | NAME OF STUDENT | Class Room Assessment Score （Obtained Marks／50） | Objective Test Score （Obtained Marks／50） | Total Score | Eligible for Certificate or not |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| 1 | 0126EC131001 | Aafreen Khan | 30 | 40 | 70 | Eligiole |
| 2 | 0126 EC 131002 | Aakanksha Tiwari | 40 | 30 | 70 | Eligiole |
| 3 | 0126EC131004 | Aayushi Chandel | 35 | 25 | 60 | Eligitre |
| 4 | 0126EC131005 | Abhay Kumar | 25 | 35 | 60 | Eligible |
| 5 | 0126EC，131006 | Adiba Khan． | $30^{\circ}$ | 40 | 70 | Eligible |
| 6 | 0126 EC 131007 | Adiba Qazi， | 40 | 30 | 70 | Elijible |
| 7 | 0126EC131008 | Aditi Upadhyaya | 45 | 25 | 70 | Eligiole |
| 8 | 0126EC131009 | Aishwary Namdev | 40 | 30 | 70 | Eligibie |
| 9 | 0126 EC 131010 | Akash Jain， | 45 | 25 | $7{ }^{\circ}$ | Eligible |
| 10 | 0126EC131011 | Akash Kampoowale | $A B S(0)$ | ABS（0） | 0 | Not Eligible |
| 11 | 0126EC131012 | Aman Gangil | 30 | 30 | 60 | Eligile |
| 12 | 0126EC131013 | Aman Kumar Verma | us | 35 | 80 | Eligione |
| 13 | 0126EC131014 | Aman Saxena | 40 | 30 | 70 | Erigite |
| 14 | 0126EC131016 | ANAMIKA THAKRE | 30 | 40 | 70 | Eligite |
| 15 | 0126 EC 131017 | Anand Patel | 25 | 35 | 60 | Eligitle |
| 16 | 0126EC131019 | Ankit Rajput， | 30 | 40 | 70 | Eligite |
| 17 | 0126EC131020 | Ankita Singh Baghel | 25 | 35 | 60 | Eligitle |
| 18 | 0126EC131021 | Anshu Lalwani | 35 | 30 | 65 | Eligitle |
| 19 | 0126EC131022 | Anshul Raghuvanshi | 45 | 35 | 80 | Eligible |
| 20 | 0126EC131023 | Antim Jain， | 40 | 35 | 75 | Eligible |
| 21 | 0126EC131024 | Aradhana Singh | 45 | 40 | 85 | Eligible |
| 22 | 0126EC131025 | Asra Iqbal | 30 | 35 | 65 | Eligible |
| 23 | 0126EC131026 | Astha Malviya | 25 | 25 | 50 | cliyible |
| 24 | 0126EC131027 | Atul Mishra | 30 | 30 | 60 | Eligible |
| 25 | 0126EC131028 | A ${ }^{\text {A }}$ anish Kumar Mishra | 20 l | 20 | 40 | Not Fliaible |
| 26 | 0126EC131029 ${ }^{\text {a }}$ |  | 25 | 025 | 50 | Eligible |
| 27 | 0126 EC 131030 |  | को5 ${ }^{\text {¢ }}$ | gy 30 | 60 | Eligible |
| 28 | 0126EC13 薂言容 | Batựusain | riental Coliege ur reen | ad 30 | 55 | Eligible |
| 29 | 0126EC13 $103{ }^{\circ}$ |  | Thakral Nagnar，Raisen | － 35 | 6S | Eligible |

## ORIENTAL COLLE (QE OF TECHNOLOGY (OCT), BHOPAL <br> ELECTRONICS \& COMMUNICATION ENGINEERING DEPARTMENT

Value Added Course: Advanced Arduino
Course Code :EC-40001, Assessment sheet, 20-24-Mar-2017

| S.NO. | ENROLL NO | NAME OF STUDENT | Class Room Assessment Score (Obtained Marks/50) | Objective Test Score <br> (Obtained Marks/50) | Total Score | Eligible for Certificate or not |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  |  |  |  | 40 | 65 | Eligible |
| 30 | 0126 EC 131033 | Chanchal Gupta | 25 | 35 | 70 | Eligible |
| 31 | 0126 EC 131034 | Deeksha Jain, | 35 | 35 | 75 | Eligiole |
| 32 | 0126EC131035 | Deepak Kumar Singh | 40 | 35 | 65 | Elijule |
| 33 | 0126 EC 131036 | Deependra Jain | . 25 | 40 | 70 | Eligible |
| 34 | 01.26 EC 131037 | Garima Bahare ${ }_{-}^{1}$ | $\cdots 35$ | 35 | 70 20 | Not Eliaible |
| 35 | 0126EC131038 | Garima Yadav | 10 | 10 | 65 | Eligible |
| 36 | 0126EC131039 | GOURAV DONGRE | 30 | 35 | 70 | Eligible |
| 37 | 0126EC131040 | Himanshu Badgaiyan | 35 | 35 | 75 | Elinible |
| 38 | 0126EC131041 | Jayant Kishor | 40 | 35 | 50 | Eligible |
| 39 | 0126EC131042 | Jyoti Kumari | 25 | 25 | 60 |  |
| 40 | 0126EC131043 | Kanchan Gangil | 35 | 30 | 65 | Eligibe |
| 41 | 0126EC131044 | Kanchan Rajpal | 40 | 35 |  | Cligi |
| 42 | 0126EC131045 | Karn Kartik | 35 | 40 | 75 | Eligible |
| 43 | 0126EC131046 | Keshavi Jha | 40 | 35 | 75 | Eligible |
| 44 | 0126EC131047 | Ketan Gupta | ABs(0) | $A B S(0)$ | 0 | Not Eligihle |
| 45 | 0126EC131048 | Kratika Pandey | 30 | 40 | 70 | Eligible |
| 46 | 0126EC131049 | Lucky Rai | 35 | 35 | 76 | Eligible |
| 47 | 0126EC131052 | Maneesha Chansauriya | 25 | 40 | 65 | Elivible |
| 48 | 0126 EC 131053 | Manish Kumar Meena | 10 | 10 | 20 | Not Eligible |
| 49 | 0126EC131054 | Mayuri Shrivastava | 35 | 30 | 65 | Eligible |
| 50 | 0126EC131055 | Megha Deshmukh | 40 | 35 | 75 | Eligible |
| 51 | 0126 EC 131056 | Mitul Awadhiya, | 45 | 25 | 70 | Eligibe |
| 52 | 0126EC131057 | Mohammad Saif | 40 | 30 | 70 | Eligible |
| - 53 | 0126EC131058 | Mohd Adil | 45 | 35 | 80 | Eligible |
| 54 | 0126EC131059, | Moshin ikhan | 252 | 45 | 70 | Eligible |
| 55 | $0126 \mathrm{EC} 131060{ }^{\circ}$ | Mridulindongsare |  | 35 | 65 | Eligibre |
| 56 | 0126EC1310610, | Nayandaypta | $25^{5}$ Uज 70 | 25 | 60 | Eligible |
| 57 | 0126EC131062 > | Nidhfík a shyap | Oriental ujege raio | 25 | 65 | Eligitle |
| 58 | 0126EC13-1063 | Nidhi' Suri' | Thakraly | 30 | 75 | t-ligible |


| Course Code :EC-40001, Assessment sheet, 20-24-Mar-2017 |  |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| S.NO. | ENROLL NO | NAME OF STUDENT | Class Room Assessment Score (Obtained Markes/50) | Objective Test Score <br> (Obtained Marks/50) | Total Score | Eligible for Certificate or not |
| 59 | 0126 EC 131064 | Niranjan Kumar | 25 | 45 | 70 | E/gible |
| 60 | 0126 EC131065 | NISHANT SONI | 30 | 40 | 70 | Eligible |
| 61 | 0126 EC 131066 | Nishicarsh Jain | 25 | 40 | 65 | Eligible |
| 62 | 0126 EC 131067 | Payal Bisen | 35 | 35 | 70 | Eligiole |
| 63 | 0126EC131068 | Phalgưi Varyani | 45. | , 30 | 75 | Eliziole |
| 64 | $0126 \mathrm{EC131069}$ | Piyush Namdey | bo | 40 | 80 | Eliziblo |
| 65 | 0126EC131070 | Pooja Sahu | 45 | 35 | 80 | Eligible |
| 66 | 0126 EC 131071 | Prabhat Gupta | Das (c) | ABC(0) | 0 | Nat Eligible |
| 67 | 0126 EC 131072 | Pragati Sinha | 40 | 25 | 65 | elkible |
| 68 | 0126 ECl 131073 | Pratik Jain | 35 | 25 | 60 | Eligible |
| 69 | 0126EC131074 | Pratyush Upadhyay | 3. | 30 | 60 | Flyible |
| 70 | 0126 EC 131075 | Priya Gupta | 25 | 25 | 50 | Erjible |
| 71 | 0126 EC 131076 | Priyansh Raghuwanshi | 30 | 30 | 60 | Eligibe |
| 72 | 0126 EC 131077 | Priyanshi Khandelwal | 35 | 35 | 70 | Eligite |
| 73 | 0126 EC 131079 | Rajat Chouksey | 35 | 30 | 65 | Eligible |
| 74 | 0126 EC 131080 | Rakesh Jaisinghani | $A B C(0)$ | $A Q 5$ (0) | $0 Q$ | Not Elyblale |
| 75 | 0126 EC 131081 | Ravi Agrawal | 40 | 35 | 75 | Eligible |
| 76 | $0126 E C 131084$ | Rohan Vishnoi | 45 | 35 | 80 | Eligible |
| 77 | 0126 EC 131085 | Rohit Ochani | 30 | 40 | 70 | Eligitle |
| 78 | 0126 EC131086 | Rohit Rajput | 35 | 35 | 70 | - Eligible |
| 79 | 0126 EC 131087 | Samridhi Soni | 35 | 30 | 65 | Elyible |
| 80 | 0126 EC 131088 | Sana Shekh | 25 | 25 | 50 | Eligible |
| 81 | 0126 EC 131089 | Sarvesi Saurav | ABS (0) | $A B S$ (0) | 05 | Not Elibihle |
| 82 | 0126 EC 131090 | Satyam Chandel | 30 | 25 | 55 | Eligible |
| 83 | 0126 ECl 131091 | Saurav Kumar | 30 | 25 | 55 | Eligible |
| 84 | $0126 \mathrm{ECl131092}$ | Sawal SKarma As Per A | $10 \times 1$ | 40 | 50 | Not Eliqubl |
| 85 | 0126 EC 131093 | Shail \%hivani Khatri | D2sctor ! | 30 | 55 | Eliatle |
| 86 | $0126 \mathrm{EC1} 131094$ | Shailee Tiwari | antal Col 30 of Tech | Ele 30 | 60 | Elighle |
| 87 | 0126EC131095 | Shalini Rathod | akral Nas 3 Ramotil | 025 | 60 | Eligisle |


| Course Code :EC-40001, Assessment sheet, 20-24-Mari-2017 |  |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| S.NO. | ENROLL NO | NAME OF STUDENT | Class Room Assessment Score (Obtained Marks/50) | Objective Test Score <br> (Obtained Marks/50) | Total Score | Eligible for Certificate or not |
| 88 | 0126EC131097 | Shivalika Tiwari | 25 | 40 | 65 | Eligible |
| 89 | 0126 EC 131098 | Shivam Lakshakar | 30 | 3.5 | 65 | Eligible |
| 90 | 0126 EC 131099 | Shivam Soni | 40 | 40 | $8{ }^{\circ}$ | Eligible |
| 91 | 0126 EC 131100 | Shivani Kaurav | 40 | 35 | 75 | Eligible |
| 92 | 0126EC131101 | Shlesha Dubey ${ }^{\text {² }}$ | 1.25 | $25^{\prime}$ | So | Eligible |
| 93 | 0126 EC 131102 | Shravan Kumar | 10 | 30 | 40 | Nat Eligihle |
| 94 | 0126EC131103 | Shrishti Chaubey | 35 | 30 | 65 | Eligible |
| 95 | 0126EC131104 | Shubham Pandey | 35 | 35 | 70 | Evigibe |
| 96 | 0126EC131106 | Sneh Rahul | 30 | 40 | 70 | Elifiole |
| 97 | 0126EC131107 | Sneha Laddha | 25 | 3,5 | 60 | Elijule |
| 98 | 0126EC131108 | Sonal Sharma | 25 | 35 | 60 | Eligible |
| 99 | 0126EC131109 | Sonali Guin | 30 | 30 | 60 | Eligible |
| 100 | 0126 EC 131110 | Srishti Sinha | 35 | 25 | 60 | Eligible: |
| 101 | 0126 EC 131111 | Suchit Jain | 20 | 25 | 45 | Not Eliginle |
| 102 | 0126 EC 131112 | Sudha Uppaluri | 40 | 35 | 75 | Eligible |
| 103 | 0126EC131113 | Suyash Shrivastava | 45 | 35 | 80 | Elinible |
| 104 | 0126 EC 131114 | Swapnil Wagadre | 25 | 20 | 45 | Not Eligible |
| 105 | 0126 EC 131115 | Swarna Pandey | 30 | 40 | 70 | Eligitue |
| 106 | 0126EC131116 | Swarnim Agrawal | 35 | 35 | 70 | Eligiole |
| 107 | 0126 EC 131117 | Trisha Singh | 30 | 3s | 65 | Eligible |
| 108 | 0126EC131118 | Vijay Raj Singh Rathore | 25 | 30 | 55 | Eligible |
| 109 | 0126EC131119 | Vijay Sanodiya | 30 | 20 | 60 | Eliyible |
| 110 | 0126EC131120 | Vinay Kumar Tiwari | 35 | 25 | 60 | Elinible |
| 111 | 0126EC131121 | Vivek Agarwal | 40 ! 1 | 20 | 70 | Erivible |
| 112 | 0126EC131122 | Viver ctiwation | 45 Nan | $\Rightarrow \quad 40$ | 85 | Eligive |
| 113 | 0126EC131123 | Yashy | 30 7 ${ }^{2}$ | 35 | 65 | Eliyible |
| 114 | 0126EC131124 | YRyfat Ghadka | 250 rator | hantmo 35 | 60 | Fligitle |
|  |  |  | Oriental College of Thakral Nagar, Rai Bhopal | n Road tahue |  | 2JMble |

Course Evaluation/ Feedback Form

| Value Added Course | ADV. ARDUINO |
| :--- | :--- |
| Date: | 20-24 March 2017 |
| Program Location: | Oriental College of Technology, Bhopal |
| Presenter(s): | Mr. Arvind Sahu, Mr. Amish Sha, 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.

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

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


# 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]

## CERTIFICATE <br> 

This is to certify that Mr./Ms. Priyanshi Khandelwal of EC-VIII Sem , OCT, Bhopal, has Successfully Completed the "Value Added Course" on "Advanced Arduino" during 20-24 Mar 2017, organized by Department of Electronics \& Communication Engineering, Oriental College of Technology, Bhopal.

Coordinator


Director, OCT

## Advanced Arduino

20-24 mar 2017


ORIENTAL COLLEGE OF TECHNOLOGY, BHOPAL

## Electronics \& Communication Engineering Department Report on Advanced Arduino (Value Added Course)

Date and Time: 20-24 Mar,2017, Venue: ECE, OCT
Organized by: ECE, OCT, Bhopal. Name of the Speakers: Mr. Arvind Sahu, Assistant Professor, EC, OCT \& Mr. Kapil Gupta, Assistant Professor, EC, OCT, Mr. Amish Ku. Jha , Assistant Professor, EC, OCT,

Participants Details: $4^{\text {th }}$ year students of ECE

## Summary of Course

According to the need of institute-industry collaboration, importance of the value-added course is growing day by day. Oriental college of technology provides a large variety of short duration certificate courses for preparing the students according to industrial demands. These courses are conducted to help students stand apart from the rest in the job market by adding further value to their carriers.
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 gurie students on different topics which are not covered under the defined academic syllabus, the Electronics \& Communication Engineering Department of Oriental College of Technology had Arduino" from 20-24Mar, 2017 for the students of fourth yearal Nagar, Raisen Road Bhopal

This Course syllabus was covered by Mr. Arvind Sahu, Assistant Professor, EC, OCT, Mr. Amish Ku. Jha, Assistant Professor, EC, OCT \& Mr. Kapil Gupta, Assistant Professor, EC, OCT in 30 Hrs .


At last, Dr. Rahul Dubey, Head EC, Course Convenor given the vote of thanks to course instructors Mr. Arvind Sahu, Mr. Kapil Gupta and Mr. Amish Jha for addressing the students. At the end, he thanked all the faculties and student volunteers for their support in organizing this program successfully.


Oriental College of Technology Thakral Nagar, Raisen Road Bhopal

Dr. Rahul Dubey Course Convenor
Head, EC, OCT

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

Name:

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

Semester: $\qquad$

Address. $\qquad$
$\qquad$
Contact No: $\qquad$
City \& Pin $\qquad$
E-mail id. $\qquad$

Place:

Signature


Signature with Seal
Head of the Department

## CHIEF PATRONS

Dr. K. L. Thakral

ORGANISING COMMITTEE MEMBERS
Mr. Proven Choudhary
Oriental College of Technology,
Bhopal
Founder Chairman, Oriental Group of Institutes and Chancellor, Oriental University, Indore

## PATRONS

Shri. Praveen Thakral
Chairman, Oriental Group of Institutes
Mrs. Niraj Ghee
Chair Person, Oriental College of Technology, Bhopal
ADVISORY COMMITTEE
Dr. N. K. Agrawal
Director, OCT, Bhopal

CONVENOR
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COURSE COORDINATOR
Mr. Praveen Choudhary
Mobile: +918770913910

Mr. Kaushal Sen 20 Le ${ }^{2}$
CONTACT Director? technology
Mrs. Preeti Gupta l College of Tech in Road
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Mobile: +917024997955 Bhopal
Mr. Praveen Choudhary
Mobile: +918770913910


Value Added Course
On
"Arduino"
[16-20, Jan. 2017,]

In Association with
$\therefore$


IndEyes
Organised By
Department of Electrical \& Electronics
Engineering

## 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 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 $\checkmark$ No Registration fees. 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 TIIF COURSE

Arduino is an open source platform used for building electronics projects. Arduino consists of both a physical programmable circuit board or microcontroller and a software, IDE (Integrated Development Environment) that runs on the computer. It is used to write and upload compursy $4 \mathrm{NOLO}_{6}$, code to the physical board.

## OB.IECTIVES

In this course you the Arduino platform works will learm hoim board and libraries and Director (Integrated Development En offehtal'College wh Trichiho odgy cover programmingThakatiNipgaņifigisen Road Bhopal

# ORIENTAL COLLEGE OF TECHNOLOGY, BHOPAL 

# Department of Electrical \& Electronics Engineering 

Value Added Course: Arduino
Course Code: EX 40001

## Module I:

Introduction to Arduino- What is ARDUINO? What is Open Source Microcontroller Platform? Arduino GPIO Pins, Basics of Electronics., Sensors and Actuators. Hands-on with Arduino- Fundamentals of C programming, About Arduino IDE (Your First Arduino Sketch), Digital Output as LED glow, Digital Input Using Switch, Control Output using Digital Input, Sensors Interfacing- Serial Input \& Serial Output, Analog Input \& Analog Output, What is Sensor \& Actuator?, Sensor Feature.Types of sensors, Interfacing Sensor With Arduino, Reading From Sensors

## Module II:

Wifi Module- Introduction to Esp8266, Interfacing of Arduino with ESP8266, Introduction to Attention Commands for internet access, Connect with WiFi network, Access the IP address assigned to ESP8266 and arduino, Implementaion of IOT- Create a local server using arduino, What are cloud Servers, Cloud computing and IOT, Popular Cloud Servers, Cloud platform introduction, Creating Channel for live data feed, Program arduino to read and update sensor data over cloud, Thingspeak apps- Connect temperature and humidity sensor, Continuously monitor sensor reading through internet, Link your Twitter account with Cloud Server, Generate API and program arduino, How to tweet using Arduino, Get sensor data over twitter

## Module III:

Bluetooth Module, MIT app inventor, Connections for Home Automation, Arduino Programing for Bluetooth(Program Arduino to read command transferred from app using Bluetooth, Home automation using Bluetooth, arduino and relay, Develop the module as voice controlled home automation)

## Module IV:

Industrial and Home Automation, Introduction to Raspberry Pi, Hands-on with Raspberry Pi and Python, GPIO Access, Pi using SSH, Linux.

## Module V:

Sensors \& Actuators, Implementation of IOT


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Oriental College of Technology Thakral Nagar, Ralsen Road Bhopal

## SCHEDULE

5 Days Value Added Course on Arduino [16 to 20 Jan 2017]

| $16^{\text {ih }}$ Jan 2017 |  |  |
| :---: | :---: | :---: |
| Time | Session | Teacher |
| 9:30-10:00 AM | Inaugural Programme |  |
| 10:00 AM-12:30PM | Introduction to Arduino | Mr. Lalit Jain |
| 12:30-1:10PM | LUNCH |  |
| 01:10-3:10PM | Hands-on with Arduino | Mr. Lalit Jain |
| 3:10-3:30PM | Break |  |
| 03:30-5:30PM | Sensors Interfacing | Mr. Lalit Jain |
| 17 ${ }^{\text {th }}$ Jan 2017 |  |  |
| Time | Session | Teacher |
| 9:00-11:00AM | Wifi Module | Mr. Lalit Jain |
| 11:00-11:30AM | Break |  |
| 11:30-01:00PM | Implementaion of IOT | Mr. Lalit Jain |
| 01:00-1:40PM | LUNCH |  |
| 01:40-4:30PM | Thingspeak apps | Mr. Lalit Jain |
| $18^{\text {th }}$ Jan 2017 |  |  |
| Time | Session | Teacher |
| 9:00-11:00AM | Bluetooth Module | Mr. Ashish Bohre |
|  |  |  |
| 11:00-11:30AM | Break |  |
| 11:30-01:00PM | Connections for Home Automation | Mr. Ashish Bohre |
| 01:00-1:40PM | LUNCH |  |
| 01:40-4:30PM | Arduino Programing for Bluetooth | Mr. Ashish Bohre |
| $19^{\text {th }}$ Jan 2017 |  |  |
| Time | Session | Teacher |
| 9:00-11:00AM | Industrial and Home Automation | 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 Raspberry Pi | Mr. Lalit Jain |
| $20^{\text {th }}$ Jan 2017 |  |  |
| Time | Session | Teacher |
| 9:00-11:00AM | Sensors \& Actuators | Mr. Ashish Bohre |
| 11:00-11:30AM | Break |  |
| 11:30-01:00PM | Objective Test | Mr. Ashish Bohre |
| $01.00 \cdot 1: 40 \mathrm{PM}$ | LUNCH |  |
| 01.40-2:30PM | Implementation of IOT | Mr. Ashish Bohre |
| 2:30-3:30PM | Feedback from students | Mr. Ashish Bohre |
| 3:30-4:30 PM | Valedictory \& Certificaje distribution | Mr. Ashish Bohre |



| ORIENTAL COLLEGE OF TECHNOLOGY, BHOPAL |  |  |  |
| :---: | :---: | :---: | :---: |
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| Value Added Course On Aurdino Objective Test, Date: 20 Jan 2017 |  |  |  |
| Branch: | Electrical \& Electronics Engineering |  |  |
| Semester | 8 Sem |  | Max. marks-50 Minimum marks- 25 |
| Subject | Aurdino | Subject Code: EX 40001 | Time: 1:30 Hrs |
| Note | All questions are compulsory. Each Question is of 2.5 Marks. |  |  |

1. How many types of arduino do we have?
a) 5
b) 6
c) 8
d) 6
2. What is the microcontroller used in Arduino UNO?
a) ATmega328p
b) ATmega 2560
c) ATmega 32114
d) AT91SAM $3 \times 8 \mathrm{E}$
3. What does $p$ refer to in ATmega328p?
a) Production
b) Pico-Power
c) Power-Pico
d) Programmable on chip
4. Arduino shields are also called as $\qquad$
a) Extra peripherals
b) Add on modules



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c) Connectivity modules
d) Another Arduinos
5. What is the default bootloader of the Arduino UNO?
a) Optiboot bootloader
b) AIR-boot
c) Bare box
d) GAG
6. Does the level shifter converts the voltage levels between RS-232 and transistor-transistor logic.
a) True
b) False
7. Which is the software or a programming language used for controlling of Arduino?
a) Assembly Language
b) C Languages
c) JAVA
d) Any Language
8. Do Arduino provides IDE Environment?
a) True
b) False
9. A program written with the IDE for Arduino is called $\qquad$
a) IDE source
b) Sketch
c) Cryptography
d) Source code
10. Arduino IDE consists of 2 functions. What are they?
a) Build() and loop()
b) Setup() and build()
c) Setup() and loop()
d) Loop() and build() and setup()
11. How many digital pins are there on the UNO board?
a) 14
b) 12
c) 16
d) 20
12. $\qquad$ board allows sewn into clothing.
a) UNO
b) RedBoard



c) LilyPad
d) Mega
13. How many analog pins are used in Arduino Mega board?
a) 16
b) 14
c) 12
d) 8
14. Which board is first to use microcontroller within build USB?
a) LilyPad i
b) UNO
c) RedBoard
d) Leonardo
15. $\qquad$ are pre built circuit boards that fit on top of Android.
a) Sensor
b) Data types
c) Breadboard
d) Sheilds
16. What does GPIO stand for?
a) General Purpose Inner Outer Propeller
b) General Purpose Input Output Pins
c) General Purpose Interested Old People
d). General Purpose Input Output Processor
17. $\qquad$ are pre built circuit boards that fit on top of Android.
a). Sensor
b). Data types
c). Breadboard
d). Sheilds
18. What license is Ardulno distributed under?


19. What does IDE stand for?
A. In Deep Environment
B. Integrated Development Environment
C. Internal Deep Escape
D. IDE
20. Which board is first to use microcontroller with in build USB?
A. LilyPad
B. ONO
C. RedBoard

DD. Leonardo

oriental College of Technology Thakral Hagar, Ralson frond

## Oriental College of Technology, Bhopal

Department of Electrical \& Electronics Engineering
Value Added Course-Aurduino
16-20 Jan 2017

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| Oriental College Of Technology, Bhopal Electrical \& Electronics Engineering Department Value Added Course: Aurdino, 16-20 Jan 2017 Course Code: EX 40001 ASSESSMENT SHEET |  |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Sno | Enrolment No. | Name of students | Class room assessment score(marks/5 $0)$ | Objective <br> test <br> score(mark <br> s/50) | Total score | Eligible to receive certificate or not |
| 1 | 0126 EX131001 | Abhishek Sahu | 40 | 40 | 80 | Eligible |
| 2 | 0126EX131003 | Aditya Vishwakarma | 37 | 40 | 77 | Eligible |
| 3 | 0126EX131004 | Ajay Kumar | 45 | 47.5 | 92.5 | Eligible |
| 4 | 0126EX131005 | Ajeet Kumar Tiwari | 35 | 45 | 80 | Eligible |
| 5 | $0126 \mathrm{EX131006}$ | Ajeet Bhartiya | 28 | 39 | 67 | Eligible |
| 6 | $0126 \mathrm{EX131007}$ | Akanksha Dhote | A | A | 0 | Not Eligible |
| 7 | 0126 EX 131008 | Akash Anand | 45 | 42 | 87 | Eligible |
| 8 | 0126EX131009 | Akshey Girdonia | A | A | 0 | Not Eligible |
| 9 | 0126EX131010 | Aman Kumar <br> Tiwari | 42 | 45.5 | 87.5 | Eligible |
| 10 | $0126 \mathrm{EX131011}$ | Aman Mangal | 38 | 40 | 78 | Eligible |
| 11 | $0126 E \times 131012$ | Amit Tiwari | 36 | 41 | 77 | Eligible |
| 12 | 0126EX131014 | Ankit Chouhan | A | A | 0 | Eligible |
| 13 | $0126 \mathrm{EX131015}$ | Ankit Dixit | 30 | 45 | 75 | Eligible |
| 14 | $0126 \mathrm{EX131016}$ | Ankit Kumar Kothari | 30 | 30 | 60 | Eligible |
| 15 | 0126 EX131017 | Ankit Kumar Vishwakarma | 35 | $\begin{array}{r} 45 \\ \hline \end{array}$ | 80 | Eligible |
|  |  |  | Orienta Thakr |  <br> Director College of Nagar, Ra Bhopal |  |  |



| 36 | 0126EX131045 | Karun Sharma | 29 | 30 | 59 | Eligible |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| 37 | 0126EX131046 | Kinshuk Trivedi | 45 | 45 | 90 | Eligible |
| 38 | $0126 E \times 131047$ | Kishan Kumar Jha | 28 | 30 | 58 | Eligible |
| 39 | 0126EX131048 | Lovmit Singh | A | A | 0 | Not Eligible |
| 40 | 0126EX131050 | Mahika Saxena | 42 | 45 | 87 | Eligible |
| 41 | 0126EX131051 | Manish Kumar Gupta | 43 | 43 | 86 | Eligible |
| 42 | $0126 \mathrm{EX131052}$ | Manjeet Raj | 45 | 40 | 85 | Eligible |
| 43 | 0126EX131053 | Mayank Gour | A | A | 0 | Not Eligible |
| 44 | 0126EX131054 | Megha Sharma | 28 | 39 | 67 | Eligible |
| 45 | 0126EX131055 | Mohit Kumar | A | A | 0 | Eligible |
| 46 | 0126EX131056 | Mohit Kumar Tanwar | 45 | 42 | 87 | Eligible |
| 47 | 0126EX131057 | Mradul Yadav | A | A | 0 | Eligible |
| 48 | 0126EX131058 | Naman Baghel | 42 | 45.5 | 87.5 | Eligible |
| 49 | 0126EX131060 | Neha Prabha | 38 | 40 | 78 | Eligible |
| 50 | 0126EX131061 | Nihal Kumar | 36 | 41 | 77 | Eligible |
| 51 | 0126EX131062 | Niharika Shrivastava | A | A | 0 | Eligible |
| 52 | 0126 EX 131063 | Nirupam Bisen | 30 | 45 | 75 | Eligible |
| 53 | 0126 EX131064 | Pawan Jat | 30 | 30 | 60 | Eligible |
| 54 | 0126 EX131066 | Prashant Deshpandey | 35 | 45 | 80 | Eligible |
| 55 | $0126 \mathrm{EX131067}$ | Priya Nama | 28 | 39 | 67 | Eligible |
| 56 | 0126EX131068 | Priya Singh |  |  |  | Eligible |
| Director <br> Oriental College of Technology Thakral Nagar, Raisen Road Bhopal |  |  |  |  |  |  |



|  |  | Shekar Pandey |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| 78 | 0126EX131094 | Shatakshi Dubey | A | A | 0 | Not Eligible |
| 79 | 0126EX131095 | Shilpi Tiwari | 29 | 40 | 69 | Eligible |
| 80 | 0126EX131096 | Shiv Ram Singh | 30 | 42 | 72 | Eligible |
| 81 | 0126EX131097 | Shraddha Mishra | 28 | 35 | 63 | Eligible |
| 82 | 0126EX131098 | Shreya Khare | 40 | 47.5 | 87.5 | Eligible |
| 83 | 0126EX131099 | Shreya <br> Mahalwar | 36 | 27 | 63 | Eligible |
| 84 | 0126EX131100 | Shubham Kr. Yashu | 48 | 35 | 83 | Eligible |
| 85 | 0126EX131101 | Shubham Raghuwanshi | 30 | 45 | 75 | Eligible |
| 86 | 0126EX131103 | Siddhath Singh | 30 | 30 | 60 | Eligible |
| 87 | 0126EX131105 | Sonu Kr. Singh | 35 | 45 | 80 | Eligible |
| 88 | 0126EX131106 | Subhash Sharma | 45.5 | 30 | 75.5 | Eligible |
| 89 | 0126EX131107 | Subhuti Subhuti Soni | 32 | 42 | 74 | Eligible |
| 90 | 0126EX131108 | Subrat Mohan | 42 | 40 | 82 | Eligible |
| 91 | 0126EX131109 | Sudeep Rai Shrichandani | 45.5 | 30 | 75.5 | Eligible |
| 92 | 0126EX131110 | Surendra Parmar | 27 | 45 | 72 | Eligible |
| 93 | 0126 EX 131112 | Umesh Kr. Gupta | 40 | 40 | 80 | Eligible |
| 94 | 0126 EX131113 | Utkarsh Bajpai | 29 | 40 | 69 | Eligible |
| 95 | 0126EX131114 | Varsha <br> Khadelwal | $30$ | 42 | 72 | Eligible |


| 96 | 0126 EX131115 | Vishal Bisen | 26 | 30 | 56 | Eligible |
| :--- | :--- | :--- | :--- | :--- | :--- | :--- |
| 97 | 0126 EX131116 | Vishal Darokar | A | A | 0 | Not Eligible |
| 98 | 0126 EX131117 | Vishal Gedam | 42 | 42 | 84 | Eligible |
| 99 | 0126 EX131118 | Vishnu Kr. Patel | 35 | 35 | 75 | Eligible |
| 100 | 0126 EX131119 | Vivek Kumar | 45 | 45 | 90 | Eligible |
| 101 | 0126 EX131121 | Vivek Sahani | 44 | 30 | 74 | Eligible |
| 102 | 0126 EX131120 | Vivek Kumar <br> Thakur | 30 | 30 | 60 | Eligible |
| 103 | 0126 EX131123 | Yadvendra Singh | 35 | 30 | 65 | Eligible |




Course Evaluation/ Feedback Form

| Value Added Course | Aurdino |
| :--- | :--- |
| Date: | $16-20^{\text {th }}$ Jan 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 contents met with your expectations.
(4) $3 \quad 21$
2. Were objective of the course clear to you.
(4) 321
3. The information and/or skills presented were relevant and useful
4. The presenter(s) provided adequate time for questions and answered them effectively.
5. The course exposed to you to new knowledge and practices.
6. The materials provided were sufficient \& appropriate for the program.
(4) $3 \quad 21$
(4) 321

The physical arrangements were adequate.

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## 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: 2016-17

## Department of Electrical \& Electronics Engineering

## CERTIFICATE

This is to certify that Mr. /Ms Abhishek Sahu of EX-VIII Sem , OCT, Bhopal, has Completed the "Value Added Courses" on "Arduino" during 16-20, Jan. 2017, organized by Department of Electrical \& Electronics Engineering, Oriental College of Technology, Bhopal.

HOD, EX, OCT

Director, OCT

## ORIENTAL COLLEGE OF TECHNOLOGY, BHOPAL

Department of Electrical $\mathcal{\&}$ Electronics Engineering


## Report on Value Added Course on Arduino

Date and Time: 16 January to 20 January 2017. Venue: EX,OCT Campus. Organized By: EX,OCT, , Bhopal. Name of the Speakers: Mr. Lalit jain. Preeti Gupta., Assistant,, Prof. EX Deptt. OCT Bhopal, Mr. Ashish Bohre, Assistant Prof. EX Deptt. OCT Bhopal,
Participants Details: IV year students of Electrical \& Electronics Engineering.

## Summary of the Event

In this course students will learn how the Arduino platform works in terms of the physical board and libraries and the IDE (integrated development environment). The course will also cover programming the Arduino using $C$ code and accessing the pins on the board via the sottware to control external devices.
'Value Added Course on Arduino' 16 January to 20 January 2017 for the students of IV year.
On January 15, the course started with the inaugural and presidential speech of Dr. N.K. Agrawal , 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 15, the Course coordinator, Praveen Choudhary, guided all students on the topic "Arduino 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 volunteers for their unconditional support in organizing this Course.

## Prof. Preeti Gupta

## Course Convenor

EX, OCT



# 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.

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

Director, OCT

$$
\begin{aligned}
& \text { Oriental College of Technology } \\
& \text { Thakral Nagar, Raisen Road } \\
& \text { Bhopal }
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ORIENTAL COLLEGE OF TECHNOLOGY, BHOPAL


Value Added Course On
"BD PRINTING \& BD SCANNING"

114-19 November 20161

For IV -Year Students

## Organised By

Department of Mechanical Engineering


Oriental College of Technology,
Thakral Nagar, Risen Road Bhopal - 462021 Phone: 2529026, 2529057. Fax: 0755-2529472

## CHIEF PATRONS

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

## PATRONS

Shri. Praveen Thakral
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> Mrs. Niraj Ghei

Chair Person, Oriental College of Technology, Bhopal
ADVISORY COMMITTEE
Dr. N. K. Agarwal
Director, OCT, Bhopal

## CONVENOR

Mr. Girish Kumar Khare octhodme@oriental.ac.in

COURSE COORDINATOR
Mr. Shahnawaz Ansari
Mobile: +918253033270
Shahnawaz91@gmail.com
ORGANISING COMMITTEE MEMBERS
Mr. Adarsh Sachdeva
Mr. Proven Mishra
Mr. Saumitra Kumar Sharma

## CONTACT

Mr. Shahnawaz Ansari
Mobile: +918253033270
Shahnawaz91@gmail.com
Mr. Saumitra Kumar Sharma
Mobile: +919589455704
saumitra204@gmail.com

## Registration Form

Name:

Enrollment No. $\qquad$
$\qquad$

Semester:.
.Address..



City \& Pin

E-mail id.

Contact No: $\qquad$
Place:



Signature with Seal Head of the Department Head -

# Oriental College of Technology, Bhopal 

Mechanical Engineering

Value added course - 3D PRINTING \& 3D SCANNING<br>Time Durations - 30 Hrs<br>Course code - ME- 40001<br>Syllabus

## Unit l- Introduction to 3D Printing \& 3D Scanning

Using the Command Widow to execute simple programming tasks, advantage of the Introduction, Prototyping fundamentals, Historical development, Advantages of AMT, Commonly used terms, process chain, 3D modelling, Data Conversion, and transmission, Checking and preparing, Building, Post processing, RP data formats, Classification of AMT process, Applications to various fields

Unit-II Liquid based systems: Stereo lithography apparatus (SLA): Models and specifications, process, working principle, photopolymers, photo polymerization, layering technology, laser and laser scanning, applications, advantages and disadvantages, case studies, Solid ground curing (SGC): Models and specifications, process, working .principle, applications, advantages and disadvantages, case studies.

UNIT III. Solid based systems: Laminated object manufacturing(LOM): Models and specifications, Process, Working principle, Applications, Advantages and disadvantages. Case studies.Fused Deposition Modelling (FDM): Models and specifications, Process. Working principle, Applications, Advantages and disadvantages, Case studies, practical demonstration

Unit-IV Powder Based Systems: Selective laser sintering (SLS): Models and specifications, process, working principle, applications, advantages and disadvantages, case studies. Three dimensional printing (3DP): Models and specification, process, working principle. applications, advantages and disadvantages, case studies.



| ORIENTAL COLLEGE OF TECHNOLOGY, BHOPAL |  |  |
| :---: | :---: | :---: |
| Value Added Course on 3D PRINTING \& 3D SCANNING Objective Test, Date: 19,Nov-2016 |  |  |
| Branch: | Mechanical Engineering |  |
| Semester: | VII Semester | Max. Marks-50 <br> Minimum Marks:25 |
| Subject: | 3D PRINTING \& 3D SCANNING | Time: 1:30Hrs |
| Note | All questions are compulsory. Each Question is of 2.5 Marks. |  |

1. What is the most important thing you should consider when making something in 3 d ?
a) Size
b) Gravity
c) Functionality
d) Quality
2. . What is the first thing you should consider when making something in 3d?
a) quality
b) functionality
c) quality
d) size
3. What is the file format we export to print?
a) obj
b) $s t j$
c) stl
d) slt

4 .what does 3 d mean?
a) movies
b) 3 dimensions
c) stereoscopic
d) computer graphics
5. . What can be 3 d ?
a) computer graphics
b) movies
c) sculptures
d) all of the above
.6. Who creates 123D Design?

a) Alias
b) Makerware
c) Autodesk
d) Shapeways
7. Do you have to use 123D Design to 3d print?
a) Yes
b) no
8. What menu do I go to merge objects together?
a) Group
b) Combine
c) Translate
d) Scale
9. What button on the keyboard do we hold to move the camera?
a) shift
b) command
c) control
d) alt/option
10. What program did we draw in and import into 123D Design?
a) Google Draw
b) Google
c) Google Drive
d) Sketchup
11. The inner flat planes of a model are called:
a) faces
b) planes
c) shapes
d) banana
12. The lines of a model are called:
a) lines
b) points
c) edges
d) spaces
13. What is one tool we use to fix sharp edges?
a) chamfer
b) smooth
c) part
d) fix
14. If I have a model with hands that stand out for the sides what do I have to turn on to print it?
a) Raft
b) Structure
c) Supports
d) Fixtures
15. What tool do we use to cut a hole into a shape?
a) Combine
b) Scale
c) Extrude
d) Translate

16 What is the shortcut to resize a model?
a) command $r$
b) command $s$

c) $r$
d)

17. The view cube always rotates things in 3 dimensions except when I turn on:
a) orthographic views
b) flat views
c) architect views
d) camera views
18. What is the file format we would save from Google Drawing?
a) stl
b) svg
c) jpg
d) gif
19. What is a website we could use to post our models and buy prints from?
a) Models R Us
b) Google Drawing
c) Yeggi
d) Shapeways
20. Who is the best 3d print teacher? : P
a) Ms. Mandy
b) Ms. Mandy
c) Ms. Mandy
d) Ms. Mandy


## Oriental College of Technology Bhopal

Department of Mechanical Engineering
Attendance sheet for value added cource on 3D printing and 3D scanning
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## Oriental College of Technology Bhopal

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

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|  | 54 | $0126 \mathrm{MEI31067}$ | MAYANK SONI | $P^{\prime \prime}$ | $\rho$ | P | P |  | P |
|  | 55 | 0126ME131068 | mayur ladd | $p$ | 14 | P | $p^{\prime}$ | P | $p$ |
|  | 56 | 0126ME131069 | MAYUR LIKHITKAR | P | $p^{\prime}$ | $p$ | P | P | P |
|  | 57 | 0126ME131070 | MOHAMMAD ARIF RIZVI | p | P | Q | P | \＄ | p |
|  | 58 | 0126ME131071 | MOHAMMAD GULZAR KHAN | P | P | p | $\rho^{\prime}$ | P | P |
|  | 59 | 0126ME131072 | MOHAMMAD YOUSUF KHAN | P | p | P | $p$ | $\stackrel{\square}{p}$ | $\delta$ |
|  | 60 | $0126 \mathrm{ME131073}$ | NAIVEDHYA TIWARI | P | P $p$ | $p$ | ${ }^{p}$ | －${ }^{\text {D }}$ | 1p |
|  | 61 | $0126 \mathrm{ME131074}$ | NAUSHAD AKHTAR | $p$ | p | 1 | （1） | ${ }^{\text {P }}$ | P |
|  | 62 | $0126 \mathrm{ME131076}$ | NITIN SAHU | ه | ${ }^{P}$ | ， | $\checkmark$ | P | vp |
|  | 63 | 0126ME131077 | PaNKAJ DIXIT |  |  | ， |  |  |  |
|  | 64 | 0126ME131080 | PRANAV CHATURVEDI | P | D | P | P | 4 |  |
|  | 65 | $0126 \mathrm{ME131081}$ | PRANJAL SHRIVASTAVA |  | d | P | $p$ | $\bigcirc$ | P |
|  | 66 | $0126 \mathrm{ME131082}$ | PRASHANT TAGDE | P | 13 | \％ | $0^{1}$ | त | \％ |
|  | 67 | $0126 \mathrm{ME131083}$ | PRATEEK SINGH | P | 0 | $V$ | 18 | 1 ¢ | $1 p$ |
|  | 68 | 0126ME131084 | PRIYANKA KUMARI | 1 | 10 | p | ， | b） | $\beta$ |
|  | 69 | 0126ME131085 | PUSHPENDRA KUMAR GAUTAM | $p$ | ${ }^{\prime}$ |  | D | 10 | $1 p$ |
|  | 70 | 0126ME131086 | RAHUL Sharma－ | p | （1） | D | 雨 | 1 p | ${ }^{\text {D }}$ |
|  | 71 | 0126ME131087 | Rajat unithan | $p$ | $p^{0}$ | d | （1） | $0^{\prime}$ | $p$ |
|  | 72 | 0126 MEI 131091 | RANJEET SINGH | $p$ | P | ， | 1P | $1 p$ | $p$ |
| c | 73 | 0126 MEI 31093 | ROHIT KOCHE | P | $p$ | D | $p$ | P | $p$ |
|  | 74 | 0126 MEI 31094 | Rohit Yadav | $p$ | P | A | $b$ | $p$ | B |
|  | 75 | $0126 \mathrm{ME131095}$ | RUPESH PATIL |  |  | ， |  | $\stackrel{ }{1}$ |  |
|  | 76 | $0126 \mathrm{MEI31096}$ | SAJAL JOSHI | P | $p$ | $p$ | $p$ | $p$ | P |
|  | 77 | 0126 MEI 11097 | Sandeep kumar | p | $p$ | 8 | p | P | P |
|  | 78 | $0126 \mathrm{ME131098}$ | SANJAY Chouhan | $\rho$ | P | p | $p$ | $p$ | P |
|  | 79 | $0126 \mathrm{MEI31099}$ | Sanjeev Prakash | p | p 1 | $\rho$ | $p$ | $p$ | p |
|  | 80 | 0126 ME 1311100 | SANYAM Jain |  | $p$ | p | P | p | $p$ |
|  | 81 | $0126 \mathrm{MEl31101}$ | SARSII SONI | $p$ | $p$ | p | （1） | ip | \％ |
|  | 82 | 0126 MEI 131102 | SATYAM SONI | p |  | p | p | $p$ | $p$ |
|  | 83 | 0126 ME 131104 | SHIVENDRA KUMAR PANDEY | P | $p$ |  | $p$ | $\phi$ | P |
|  | 84 | 0126 MEI 131105 | Shubliam bardiya | p | P | $p$ | p | $p$ | $p$ |
|  | 85 | 0126 MEI 131106 | SHUBHAM PANDEY | $1 p$ |  | p | p | A | $\beta$ |
|  | －86 | 0126 MEI 131107 | Shubbim Patel |  | $p$ | p | 8 | op | P1 |
|  | －87 | 0126 MEI 131108 | Sourabh Sing li patel | $p$ | $p$ | P | Q | P | $p$ |
|  | 88 | $0126 \mathrm{ME1311} 09$ | SRajan jain ${ }^{\text {a }}$ | $p$ | P | $p$ | $p$ | p | $p$ |
|  | －89－ | 0126ME131110 | Subodi kumar | p | $\beta$ | p | 9 | 中 | $p$ |
|  |  |  | SUmIT VYAS | $\checkmark$ |  |  |  |  | － |
|  |  |  | Suraj kumar | 0 | $p$ | $p$ | P |  | P |
|  |  |  | SURAJ KUSHWAH | P | $p$ | p | oriental College flecin Thakral Nagar，Raisen Bhopal |  |  |
|  |  |  |  |  |  |  |  |  |  |

## Oriental College of Technology Bhopal

Department of Mechanical Engineering
Attendance sheet for value added course on 3D printing and 3D scanning






COURSE EVALUATION/ FEEDBACK FORM

| Value Added Course | 3D PRINTING \& 3D SCANNING |
| :--- | :--- |
| Date: | 14-19,Nov-2016 |
| Program Location: | Oriental College of Technology, Bhopal |
| Presenter(s): | Mr. Shahnawaz Ansari |

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. | 43121 |
| :---: | :---: |
| 2. The Course was well organized. | 4321 |
| 3. The information and/or skills presented were relevant and useful | 43121 |
| 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. | 4321 |
| 6. The materials provided were sufficient \& appropriate for the program. | 4321 |
| 7. The physical arrangements were adequate. | 4321 |
| $y$ <br> Oriental Coillege Thakral Nagar, sho | chnology en Road |

## 3D Printing \& 3D Scanning"

November 14, to November 19, 2016.



Oriental College vi u.i. 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<br>Oriental Campus, Raisen Road, Bhopal-462021 (MP) [INDIA]



Session: 2016-17

## Department of Mechanical Engineering

## CERTIFICATE

This is to certify that Mr./Ms. SANJAY CHOUHAN student Of $4^{\text {th }}$ YEAR, OCT, Bhopal, has Completed the "Value Added Course" on "3D printing \& 3D scanning" during 14-19,Nov-2016, organized by Department of Mechanical Engineering, Oriental College of Technology, Bhopal.
Oriental College of Technology
Thakral Nagar, Risen Road Bhopal


Director, OCT

# ORIENTAL COLLEGE OF TMEHNOLOGY, BHOPAL 

Department of Mechanical Engineering


## Report on Value Added Course on "3D Printing \& 3D Scanning"

Date and Time: November 14, to November 19, 2016.
Venue: ME,OCT Campus.
Organized by: ME,OCT,Bhopal.

## Name of the Speakers

- Mr. Shahnawaz Ansari, Assistant Professor, ME, OCT
- Mr. Abdul Hamid Khan, Assistant Professor, ME, OCT
- Mr. Adarsh Sachdeva, Assistant Professor, ME, OCT

Participants Details: Final year students of Mechanical Engineering Dept.

## 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 Mechanical Engineering Department of Oriental College of Technology in had organized "Value Added Course 3D Printing \& 3D Scanning" from November 14, to November 19, 2016 for the students of final year .

This Course syllabus was covered by Mr. Shahnawaz Ansari, Assistant Professor, ME, OCT Mr. Abdul Hamid Khan, Assistant Professor, ME, OCT \& Mr. Adarsh Sachdeva, Assistant Professor, ME, OCT in 30 Hrs. of 6 -Day program.

Director


On November 14, the course started with the inaugural and presidential speech of Dr. N h Agarwal, Director, Oriental College of Technology. In his presidential speech he emphasized on the need to collaborate the academic and the non academic education.
On November 14, Mr. Shahnawaz Ansari, Course coordinator has given Introduction to 3D Printing \& 3D Scanning with Simple Programming Task. Mr. Adarsh Sachdeva, guided all students on the topic of Commonly used terms. Post processing, RP data formats, Classification of AMT process, Applications to various fields explained by Mr. Abdul Hamid Khan. He had explained the need for every student to have skills to get a job.
On November 15, Mr. Adarsh Sachdeva, explained, Stereo lithography apparatus (SLA): Models and specifications post photopolymers, polymerization, layering technology, laser and laser scanning explained by Mr. Abdul Hamid Khan. Later Models and specifications explained by Mr. Shahnawaz Ansari.

On November 16, Mr. Abdul Hamid Khan taught Laminated object manufacturing. Fused Deposition Modeling (FDM) explained by Mr. Adarsh Sachdeva and Case studies, practical demonstration explained by Mr. Shahnawaz Ansari.

On November 17, Mr. Adarsh Sachdeva explained, selective laser sintering (SLS) and case studies.Mr. Abdul Hamid Khan guided, students for Three dimensional printing (3DP). Models and specification, explained by Mr. Shahnawaz Ansari.

On November 18, practice sessions taken by the all speakers also given assignment to students on the same,

On November 19, Mr. Shahnawaz Ansari, has given assignment to students on Fused Deposition Modeling (FDM) \& Selective laser sintering (SLS) after that assessment of class done. Valedictory \& Certificate distribution done by . Mr. Adarsh Sachdeva and Mr. Abdul Hamid Khan.

At last, Prof. Girish kumar Khare, Head ME, Convenor of Course gave away the vote of thank. He thanked Mr. Shahnawaz Ansari for providing his valuable time for successful conduction of this course for our students. He also thanked Mr. Adarsh Sachdeva \& Mr. Abdul Hamid Khan 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.



Director
Oriental College of Technology Thakral Nagar, Raisen Road Bhopal


[^0]:    Director
    Orlental College of Tecina Thakral Nagar, Raisen fiows Bhooal

