



**Sandip Foundation's  
Sandip Institute of Technology and Research Centre, Nashik  
Department of Computer Engineering**

## **Activity Report**

**On**

# **“Concept of Object Oriented Programming & C, C++ Language”**

**(12<sup>th</sup> Aug – 18<sup>th</sup> Aug 2014)**

**Organized by,**

**Sandip Foundation's  
Sandip Institute of Technology and Research Centre  
Department of Computer Engineering**



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**Sandip Institute of Technology and Reseach Centre, Nashik**  
**Department of Computer Engineering**

**Activity Report on “Concept of Object Oriented Programming  
& C, C++ Language”**

**Name of Resource Person :** Prof. M. B. Jhade, K K W College

**Date :** 12<sup>th</sup> Aug – 18<sup>th</sup> Aug 2014      **Duration :** 30 hrs

**Name of Coordinators:** Prof. Amit Palve, SITRC

**Class:** SE

**Venue:** Computer Design lab, Computer Engg Department, SITRC

**Aim:** To introduce you to the basics of Object Oriented Programming

**Objective:**

- Know the advantages of Object Oriented Programming.
- Know the disadvantages of Object Oriented Programming.
- Recognize attributes and methods for given objects.
- Use the dot notation to access attributes and methods of an object.
- Learn about several built in JavaScript objects.
- Use JavaScript objects to enhance your web pages.

**Outcomes :**

- Understand the features of C++ supporting object oriented programming
- Understand the relative merits of C++ as an object oriented programming language
- Understand how to produce object-oriented software using C++
- Understand how to apply the major object-oriented concepts to implement

object oriented programs in C++, encapsulation, inheritance and polymorphism

- Understand advanced features of C++ specifically stream I/O, templates and operator overloading

**Total No. Of Participants: 50**

## Course Structure:

Sr.No.	Topics	Duration
1	<b>Classes and Objects</b> <ul style="list-style-type: none"><li>• Need of Object-Oriented Programming (OOP)</li><li>• Object Oriented Programming Paradigm,</li><li>• Basic</li></ul> Concepts of Object-Oriented Programming, Benefits of OOP, C++ as object oriented <ul style="list-style-type: none"><li>• programming language.</li></ul>	5 hrs
2	<b>C++ Programming</b> <ul style="list-style-type: none"><li>• C++ programming Basics</li><li>• Data Types</li><li>• Structures</li><li>• Enumerations, control structures</li><li>• Arrays and Strings</li><li>• Class, Object, class and data abstraction</li><li>• class scope and accessing class members</li><li>• separating interface from implementation, controlling access to members.</li></ul>	4 hrs
3	<b>Functions-</b> <ul style="list-style-type: none"><li>• Function,</li><li>• function prototype,</li><li>• accessing function and utility function,</li><li>• Constructors and destructors,</li><li>• Copy Constructor,</li><li>• Objects and Memory requirements,</li></ul>	4 hrs

	<ul style="list-style-type: none"> <li>• Static Class members,</li> <li>• data</li> </ul> <p>abstraction and information hiding,</p> <ul style="list-style-type: none"> <li>• inline function</li> </ul>	
4	<p><b>Operator Overloading</b></p> <ul style="list-style-type: none"> <li>• concept of overloading,</li> <li>• operator overloading,</li> <li>• Overloading Unary Operators,</li> <li>• Overloading Binary Operators,</li> <li>• Data Conversion,</li> <li>• Type casting (implicit and explicit),</li> <li>• Pitfalls of Operator Overloading and Conversion, Keywords explicit and mutable.</li> </ul>	3 hrs
5	<p><b>Inheritance-</b></p> <ul style="list-style-type: none"> <li>• Base Class and derived Class,</li> <li>• protected members,</li> <li>• relationship between base Class and derived Class,</li> <li>• Constructor and destructor in Derived Class,</li> <li>• Overriding Member Functions,</li> <li>• Class Hierarchies,</li> <li>• Inheritance,</li> <li>• Public and Private Inheritance,</li> <li>• Levels of Inheritance, Multiple Inheritance,</li> <li>• Ambiguity in Multiple Inheritance,</li> <li>• Aggregation,</li> <li>• Classes Within Classes.</li> </ul>	5 hrs
6	<p><b>Polymorphism-</b></p> <ul style="list-style-type: none"> <li>• concept,</li> <li>• relationship among objects in inheritance hierarchy, abstract classes,</li> <li>• polymorphism.</li> </ul>	2 hrs
7	<ul style="list-style-type: none"> <li>• <b>Templates-</b></li> </ul>	7 hrs

	<ul style="list-style-type: none"> <li>• function templates,</li> <li>• Function overloading,</li> <li>• overloading Function templates,</li> <li>• class templates,</li> <li>• class template and Nontype parameters,</li> <li>• template and inheritance,</li> <li>• template and friends</li> </ul> <p>Generic Functions,</p> <ul style="list-style-type: none"> <li>• Applying Generic Function,</li> <li>• Generic Classes,</li> <li>• The typename and export keywords,</li> <li>• The Power of Templates.</li> </ul>	
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**List of Participants:**

Sr.No.	Name of Students		
1	PRIYANKA	PRABHAKAR	DHATRAK
2	SUMIT	KAILASH	KHAIRNAR
3	PRADNYA	DATTATRAY	NAGARE
4	NAYAN	DAGA	KAKULATE
5	CHAITALI	PRADIP	PATIL
6	AJINKYA	ANANT	KASTURE
7	DARSHANA	BALASAHEB	BACHHAV
8	SAURABH	SANJAY	KULKARNI

9	MAYURI	SURESH	KHARJUL
10	ANIKET	VIJAY	PAGARE
11	PRACHI	UMESH	PACHPATIL
12	ANKIT	BALU	GAWALI
13	SHREYAS	GOPALRAO	DESHMUKH
14	DIVYA	VASANT	MORE
15	CHANCHAL	SANJAY	BAGUL
16	BHAVIKA	SUNIL	JOSHI
17	AKSHAY	RAMESH	JADHAV
18	PRAGATI	PRASHANT	BACHCHHAV
19	SANA	ZAFAR	KHAN
20	SHRIPRAKASH	SHRIRAM	PANDEY
21	HARSHALI	PRASAD	PATIL

22	PARIMAL	PANKAJ	LOKHANDE
23	PALASH	SANDIP	DUSANE
24	ASHWINI	DAGU	AVHAD
25	DARSHANKUMAR	HARESHBHAI	HINGU
26	SNEHAL	KAILAS	BHOJ
27	SANDESH	RAJENDRA	DESHMUKH
28	PALASH	PRAKASH	KEKAN
29	AVINASH	BABASAHEB	CHAVAN
30	APURVA	ANIL	DHAKE
31	SONAL	VISHVANATH	JORWAR
32	GIRISHA	CHHABILDAS	JAWALE
33	PAVITRA	MUKUNDA	PATIL
34	PRIYANKA	BHIKA	NER
35	POOJA	PUNDLIK	PATIL

36	SHUBHAM	SEVASINGH	PARIHAR
37	NEHA	BHAGWAT	CHOPADE
38	SWATI		JAIN
39	SHREYA	VINAY	DONGRE
40	NEHA	ASHOK	KHADKE
41	CHETAN	BALU	MALI
42	CHIRANGI	RAMESHBHAI	PARMAR
43	GANESH	SANJAY	GUJAR
44	POOJA	SUNIL	BIRAR
45	URMILA	MOHANRAO	DINGORE
46	MANJIREE	PRADIP	ARVIKAR
47	VISHNUSINGH	VIJAYSINGH	CHUNDAWAT
48	MADHURA	JAYWANT	JADHAV
49	PRANAV	SADANAND	AMLEKAR



50	VIRESH	RAJIV	CHIBBER
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**Event Photos:**



**Prof. Amit Palve**  
**Coordinator**

**Prof. A. D. Potangwar**  
**HOD**