1.2.1 .Number of Certificate/Value added courses offered and online courses of MOOCs, SWAYAM, NPTEL etc. (where the students of the institution have enrolled and successfully completed during the last five years)

#### Findings of DVV

Remark: [VACs of same nature/ingredient offered more than once in the AYs have been merged as one. VACs with duration less tha 30 hours, such as

- i. Mobile Application Development
- ii. Statistical Tool -R Programming needs to be excluded, HEI is requested to revise the figures],

HEI needs to provide the certificates of students, who have completed, along with the syllabus. highlighting the duration, the following VACs in AY2022-23:

- i. Cloud Computing
- ii. Problem Solving through Programming in C
- iii. VLSI Design Flow: RTL to GDS
- iv. Introduction to Internet of Things
- v. Embedded System Design
- vi. The Joy of Computing Using Python
- vii. Machine Learning
- viii. Developing Soft Skills and Personality

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#### Clarifications regarding the following VACs conducted during AY2022-23:

#### i. Mobile Application Development

The Program was conducted by the department of Computer science and engineering during 2<sup>nd</sup> to 8<sup>th</sup> June 2023. The syllabus was framed to help students improve their applications and implementation skills. The program was beneficial for the students and they were trained to develop application. The program was conducted all the five days from 8.30am to 5.30pm according the syllabus framed.

The students were made to work on sample application programs and were made to get benefited by the program to its fullest, also to gain the knowledge beyond the academic curriculum.

The program was successfully completed with duration of 5 days by covering the syllabus framed as per the program specification. At the end of the course the certificates were issued to all the participants.

The certificates of top ten students who have completed, along with the syllabus, highlighting the duration, of the above-mentioned value added course is attached as a supporting document.

#### ii. Statistical Tool -R Programming

The Program was conducted by the department of Computer science and engineering during 25<sup>th</sup> to 29<sup>th</sup> July. The Statistical Tool -R Programming was a ability enhancement course conducted to improve knowledge towards statistical tools. The syllabus was framed to learn to develop skills in analysis of tools using programming. The students were benefited by the program also they were trained to develop programming skills. The program was conducted all the five days from 8.30am to 5.30pm according the syllabus framed.

Students were required to work on different kinds of programs in order to get skill from R-programming and to acquire expertise outside of the classroom.

The program was successfully completed in 5 days by covering the syllabus framed according to the program specification. At the end of the course the certificates were issued to all the participants.

The supporting document contains the certificates of the top ten students who have completed the value-added course, as well as the syllabus, that highlights the duration.

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1.2.2.1. Number of students enrolled in Certificate/ Value added courses and also completed online courses of MOOCs, SWAYAM, NPTEL etc. as against the total number of students during the last five years.

HEI: 31

2022-23	2021-22	2020-21	2019-20	2018-19
251	433	168	603	368

#### Findings of DVV

VACs with duration less than 30 hours, such as

- i. Mobile Application Development
- ii. Statistical Tool -R Programming needs to be excluded,

HEI is requested to revise the figures.

HEI needs to provide the certificates of top ten students who have completed, along with the syllabus, highlighting the duration, of the above-mentioned two VACs.

#### **Revised Table:**

#### **HEI:29**

2022-23	2021-22	2020-21	2019-20	2018-19
19	433	168	603	368

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#### KeyIndicator-1.2 Academic Flexibility (30) Revised Table

1.2.1 Number of Certificate/Value added courses offered and online courses of MOOCs, SWAYAM, and NPTEL etc., where the students of the institution have enrolled and successfully completed during the last five years)

1.2.2Number of Certificate/Value added courses offered and online courses of MOOCs, SWAYAM,NPTEL etc.,where the students of the institution have enrolled and successfully completed during the last five years:

Sl.No	Year	No. of Add-On courses	No. of Students Attended
1	2022-23	08	19
2	2021-22	06	433
3	2020-21	04	168
4	2019-20	08	603
5	2018-19	04	368
Total		30	1591
Total number of students enrolled in such students during the last five years		1591	
Total number of students during the last five years		3570	
Percentage		44.56%	









#### Department of Computer Science and Engineering

#### REPORT ON

#### MOBILE APPLICATION DEVELOPMENT

#### 2022-2023

This Course Provides an overview of the Mobile Application Development Program conducted in our department over a period of five days. The program aimed to equip participants with the necessary skills and knowledge to develop mobile applications.

#### I Objectives:

The program aimed to:

- Hands-on Learning: Provide practical experience in mobile Application Development for Android and IOS platforms.
- Skill Building: Enhance Student Skills through guided exercises and coding practice.
- Interactive Sessions: Foster a dynamic learning environment through interactive Sessions.

#### II Schedule

#### Day1 Introduction to mobile application development

7Hours

- Basics of Mobile App Development
- Overview of the significance of mobile apps in today's technological landscapes.
- Setting up Development Environments.
- Evolution of mobile Platforms.
- Key concepts in MAD

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#### **Day 2 Android Basics**

7Hours

- · Introduction to Android Studio
- User Interface Development in Android

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#### **Day 3 IOS Basics**

7Hours

- · Overview of Xcode and Swift
- · Creating User Interfaces in iOS.

#### Day 4 Advanced Topics

7Hours

- Working with APIs and Web Services
- Basic Mobile App Testing.

#### **Day 5 Practical Sessions**

7Hours

- · Guided hands-on activities and exercises
- Q&A and interactive discussions.
- Certificates of Participation will be awarded to all students, recognizing their successful completion of the Mobile Application Development workshop.

#### **III Conclusion**

The program successfully met its objectives by focusing on hands-on learning without the formal requirement of project development. Participants engaged in practical exercises to reinforce their understanding of mobile app development concepts. The emphasis on interactive sessions contributed to a collaborative and dynamic learning environment.

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# Five-Days Hands-on Workshop on "MOBILE APPLICATION DEVELOPMENT"

2<sup>nd</sup>June8<sup>th</sup>June 2023

## Certificate of Participation

This is to Certify that Mr. /Ms. ABHI K R [1VK20CS002] of computer science and engineering

Has participated in Five-Days Hands-on Workshop on "Mobile Application Development" organized by the Department of Computer Science and Engineering, VKIT, Bangalore-74.

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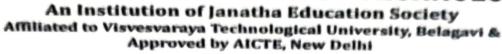
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2<sup>nd</sup>June8<sup>th</sup>June 2023

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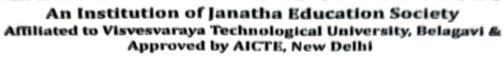
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# Five-Days Hands-on Workshop on "MOBILE APPLICATION DEVELOPMENT"

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# Five-Days Hands-on Workshop on "MOBILE APPLICATION DEVELOPMENT"

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P. D.V CHANDRASHEKAR

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#### **VIVEKANANDA INSTITUTE OF TECHNOLOGY**





# Five-Days Hands-on Workshop on "MOBILE APPLICATION DEVELOPMENT"

2<sup>nd</sup>June8<sup>th</sup>June 2023

### Certificate of Participation

This is to certify that Mr./Ms. DEV BHUPENDRA THAKOR [1VK20IS011] of Information science and Engineering Has participated in Five days Hands-on Workshop on "Mobile Application Development" organized by the Department of Computer Science and Engineering, VKIT, Banglore-74.

DR. VIDYA A

PROF. & HEAD

Jan 26/12/19093

VIVEKANANDA INSTITUTE OF TECHNOLOGY

Bangalore - 560 074

DR. D.V CHANDRASHEKAR

PRINCIPAL

#### DEPARTMENT OF INFORMATION SCIENCE AND ENGINEERING

Certification Course on "Statistical Tool-R Programming" From 25th to 29th July 2023

**Syllabus** 

Module I 6 Hours

Introduction to R Programming R and R Studio, Logical Arguments, Missing Values, Characters, Factors and Numeric, Help in R, Vector to Matrix, Matrix Access, Data Frames, Data Frame Access, Basic Data Manipulation Techniques, Usage of various apply functions – apply, lapply, sapply and tapply, Outliers treatment.

Module II 6 Hours

Descriptive Statistics Types of Data, Nominal, Ordinal, Scale and Ratio, Measures of Central Tendency, Mean, Mode and Median, Bar Chart, Pie Chart and Box Plot, Measures of Variability, Range, Inter-Quartile Range, Standard Deviation, Skewness and Kurtosis, Histogram, Stem and Leaf Diagram, Standard Error of Mean and Confidence Intervals.

Module III 6 Hours

Probability, Probability& Sampling Distribution Experiment, Sample Space and Events, Classical Probability, General Rules Of Addition, Conditional Probability, General Rules For Multiplication, Independent Events, Bayes' Theorem, Discrete Probability Distributions: Binomial, Poisson, Continuous Probability Distribution, Normal Distribution & t-distribution, Sampling Distribution and Central Limit Theorem.

Module IV 6 Hours

Statistical Inference and Hypothesis Testing Population and Sample, Null and Alternate Hypothesis, Level of Significance, Type I and Type II Errors, One Sample t Test, Confidence Intervals, One Sample Proportion Test, Paired Sample t Test, Independent Samples t Test, Two Sample Proportion Tests, One Way Analysis of Variance and Chi Square Test.

Module V 6 Hours

Correlation and Regression Analysis of Relationship, Positive and Negative Correlation, Perfect Correlation, Correlation Matrix, Scatter Plots, Simple Linear Regression, R Square, Adjusted R Square, Testing of Slope, Standard Error of Estimate, Overall Model Fitness, Assumptions of Linear Regression, Multiple Regression, Coefficients of Partial Determination, Durbin Watson Statistics, Variance, Inflation Factor.

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# Certificate of Participation

to

#### ABHISHEK G (1VK21IS001)

Vivekananda Institute of Technology Bengaluru

For his/her participation in Certification Course on

"Statistical Tool-R Programming"

Organized by Department of Information Science & Engineering, Bengaluru, on 25th to 29th July 2023.

P. Vanajakshi Dr. P Vanajakshi HOD ISE

VKIT, Bangalore

Dr. D V Chandra

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