

**VALUE ADDED COURSES ON  
ANALYSIS of BASIC INSTRUMENTATION SKILLS (09-02-2021 to 22-02-2021 )**



**COURSE CODE : VAC-P-003)**

**The objective of the program**

The main objective of this course is to create awareness among students about the new technologies arising day to day. It updates the required knowledge and improve the applicability. The Practical work related with data interpretations therefore energy skill plays a pivotal role in increasing their employability.

**ANALYSIS of BASIC INSTRUMENTATION SKILLS :**

The **objective** of this kind of **energy** is to replace the use of fossil fuels which are mainly made of hydro-carbons and hence result in pollution. ... We all need to shift to these **resources** of **energy** and try to avoid usage of fossil fuels. Reusable or **BASIC INSTRUMENTATION SKILLS** is greener and keeps our planet clean

**COURSE COORDINATOR : DR. N K SINGH**

**(Associate Professor**

Department of Physics KVSCOS)

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**Phone no. 9897228480**

Value Added Course I

|  |                |
|--|----------------|
| Course Name: Analysis of Basic Instrumental skills | CODE VAC-P-003 |
|--|----------------|

**Objectives:** To acquire basic knowledge about Basic of Measurement, Electronic Voltmeter, Oscilloscope and Signal and pulse Generators.

**Unit I: Basic of Analysis:** Instruments accuracy, precision, sensitivity, resolution range etc. Errors in measurements and loading effects. **Multimeter:** Principles of measurement of dc voltage and dc current, ac voltage, ac current and resistance. Specifications of a multimeter and their significance.

**Unit II: Voltmeter:** Advantage over conventional multimeter for voltage measurement with respect to input impedance and sensitivity. Principles of voltage, measurement (block diagram only). Specifications of an electronic Voltmeter/ Multimeter and their significance. **AC mill voltmeter:** Type of AC millivoltmeters. Block diagram ac millivoltmeter, specifications and their significance.

**Unit III: Oscilloscope:** Block diagram of basic CRO. CRT, electrostatic focusing and acceleration (Explanation only– no mathematical treatment), brief discussion on screen phosphor, visual persistence. Time base operation, synchronization. Front panel controls. Specifications of CRO and their significance.

**Unit IV: Signal and pulse Generators:** Block diagram, explanation and specifications of low frequency signal generator and pulse generator. Brief idea for testing, specifications. Distortion factor meter, wave analysis.

**Unit V :Digital Instruments and Multimeter:** Comparison of analog & digital instruments. Characteristics of a digital meter. Working principles of digital voltmeter. Block diagram and working of a digital multimeter.

  
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Subharti University  
MEERUT



DEPARTMENT OF PHYSICS  
KERAL VERMA SUBHARTI COLLEGE OF SCIENCE, SWAMI VIVEKANAND  
SUBHARTI UNIVERSITY  
Subhartipuram, NH-58 Delhi-Haridwar-Meerut Bypass Road, Meerut -250005

Ref No - KVSOS/Physics/2021/40

Student List of Value added Course 2020-2021

CODE VAC-P-003

COURSE: ANALYSIS OF BASIC INSTRUMENTATION SKILLS

| SN. | EN. NO.       | NAME                  |
|-----|---------------|-----------------------|
| 1   | 1906000001357 | NONGTHOMBAM BISHANKAR |
| 2   | 1906000001358 | NIKHIL TOMAR          |
| 3   | 1906000001359 | BANTI                 |
| 4   | 1906000001360 | VINAY KUMAR RANA      |
| 5   | 2006000001361 | SHALU                 |
| 6   | 1906000001363 | UDIT CHAUHAN          |
| 7   | 1906000001364 | AKSHAY KUMAR          |
| 8   | 1906000001365 | KM SWETA RANI         |
| 9   | 1906000001366 | SAHIL HASAN           |
| 10  | 1906000001367 | RADHIKA               |
| 11  | 1906000001368 | KM HIMANSHI           |
| 12  | 1906000001370 | SHIVAM                |
| 13  | 1906000002364 | HARSHIT CHOUDHARY     |
| 14  | 2006000002376 | SHIVANI               |
| 15  | 1906000002591 | SHIVAM GOSWAMI        |



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**Department of Physics**  
KERAL VERMA SUBHARTI COLLEGE OF SCIENCE  
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Subhartipuram, NH-58 Delhi-Haridwar-Meerut Bypass Road, Meerut -250005



Ref No. KVSCOS/Physics/2021/41

Dated- 23-02-2021

Report on Value added course ANALYSIS of BASIC INSTRUMENTATION SKILLS

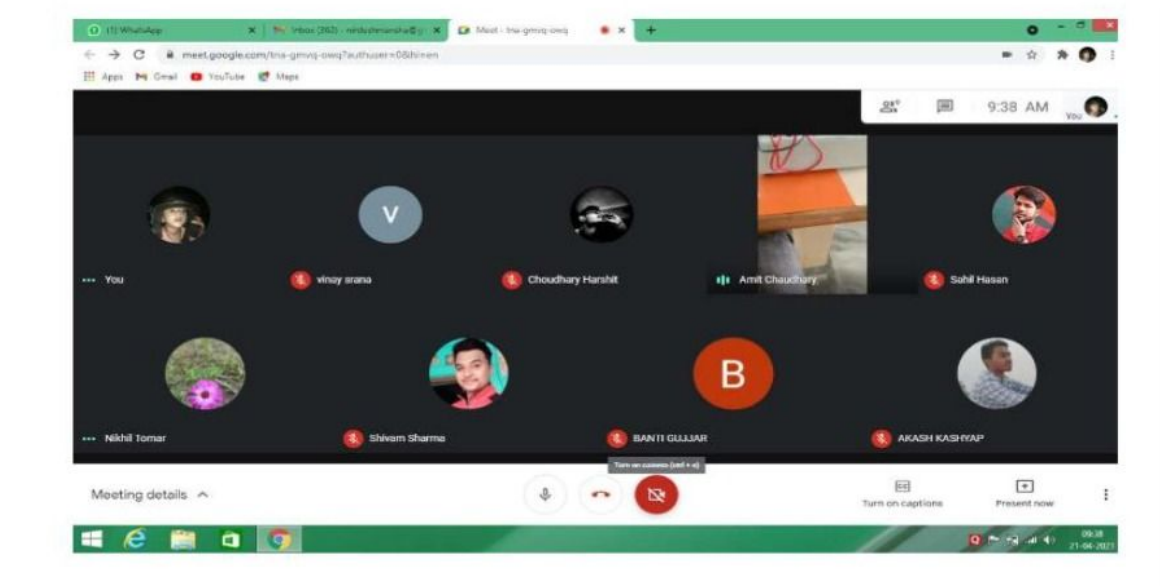
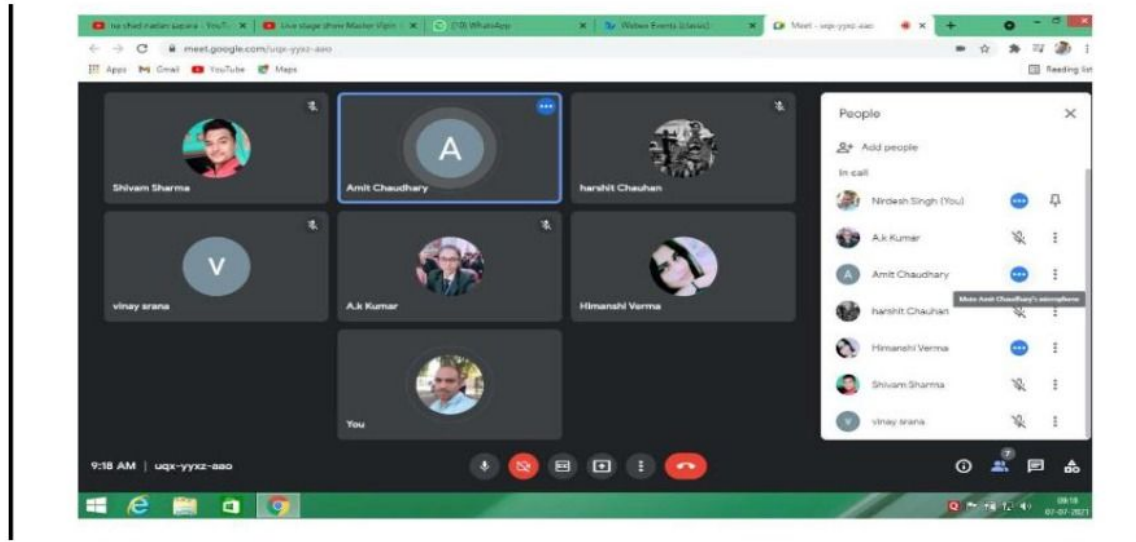
Value added course on ANALYSIS of BASIC INSTRUMENTATION SKILLS was organized from 09-02-2021 to 22-02-2021 in department of physics on Google meet , Keral Verma Subharti College Of Science, Swami Vivekanand Subharti University, Meerut. The speaker was Dr.N K Singh. A total number of 15 participate were present. The encompass topic **Analysis of Basic Instrumental skills**. The purpose of the course was the to give the holistic knowledge of Instrumental skills to the student.

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# PHOTOGRAPHS



VALUE ADDED COURSE

ON  
ANALYSIS OF BASIC INSTRUMENTATION  
SKILLS



Organized by

Department of Physics

K V SUBHARTY OF SCIENCE  
SWAMI VIVEKANAND SUBHARTI UNIVERSITY, MEERUT, U.P., INDIA

This is to certify that Mr./Ms. HARSHIT CHOUDHARY  
class B.Sc. PCM

has participated/completed the value added course of 30 hours on ANALYSIS of BASIC INSTRUMENTATION  
SKILLS

from 09-02-2021 to 22-02-2021 in department of physics faculty of Science.

Dr. N K Singh

Course Coordinator

Dr A K Sharma

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# VALUE ADDED COURSE

## ON ANALYSIS OF BASIC INSTRUMENTATION SKILLS



Organized by

**Department of Physics**

**K V SUBHARTY OF SCIENCE  
SWAMI VIVEKANAND SUBHARTI UNIVERSITY, MEERUT, U.P., INDIA**

This is to certify that Mr./Ms. SHIVAM GOSWAMI  
class B.Sc. PCM

has participated/completed the value added course of 30 hours on ANALYSIS of BASIC INSTRUMENTATION  
SKILLS

from 09-02-2021 to 22-02-2021 in department of physics faculty of Science

*Dr. N.K. Singh*

Course Coordinator

*Dr A K Sharma*

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SWAMI VIVEKANAND SUBHARTI UNIVERSITY, MEERUT, U.P., INDIA

This is to certify that Mr./Ms. UDIT CHAUHAN  
class B.Sc. PCM

has participated/completed the value added course of 30 hours on ANALYSIS of BASIC INSTRUMENTATION  
SKILLS

from 09-02-2021 to 23-02-2021 in department of physics faculty of Science.

~~Dr. N K Singh~~

Course Coordinator

  
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SWAMI VIVEKANAND SUBHARTI UNIVERSITY, MEERUT, U.P., INDIA

This is to certify that Mr./Ms. NIKHIL TOMAR  
class B.Sc. PCM

has participated/completed the value added course of 30 hours on ANALYSIS of BASIC INSTRUMENTATION  
SKILLS

from 09-02-2021 to 23-02-2021 in department of physics faculty of Science.

  
Dr. N V Singh

Course Coordinator

  
Dr A K Sharma

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