

**DEMAND****PAVIATH INTEGRATED SOLUTION****CIVIL ENGG****CIVIL UNIV****SURVEYING****Paviath ONLINE**

◆ CIVIL UNIVERSITY ◆ SECOND YEAR ◆ CODE A30108

**UNIT - I**

INTRODUCTION: OVERVIEW OF PLANE SURVEYING (CHAIN, COMPASS AND PLANE TABLE), OBJECTIVES, PRINCIPLES AND CLASSIFICATIONS, SCALES, CONVENTIONAL SYMBOLS, SIGNALS DISTANCES AND DIRECTION: DISTANCE MEASUREMENT METHODS: USE OF CHAIN, TAPE AND ELECTRONIC DISTANCE MEASUREMENTS, MERIDIANS, AZIMUTHS AND BEARINGS, DECLINATION, COMPUTATION OF ANGLE.

**UNIT - II**

LEVELING AND CONTOURING: CONCEPT AND TERMINOLOGY, TEMPORARY ADJUSTMENTS- METHOD OF LEVELING, CHARACTERISTICS AND USES OF CONTOURS- METHODS OF CONDUCTING CONTOUR SURVEYS AND THEIR PLOTTING.

**UNIT - III**

COMPUTATION OF AREAS AND VOLUMES: AREA FROM FIELD NOTES, COMPUTATION OF AREAS ALONG IRREGULAR BOUNDARIES AND AREA CONSISTING OF REGULAR BOUNDARIES, EMBANKMENTS AND CUTTING FOR A LEVEL SECTION AND TWO LEVEL SECTIONS WITH AND WITHOUT TRANSVERSE SLOPES, DETERMINATION OF THE CAPACITY OF RESERVOIR, VOLUME OF BARROW PITS.

**UNIT - IV**

THEODOLITE: THEODOLITE, DESCRIPTION, USES AND ADJUSTMENTS - TEMPORARY AND PERMANENT, MEASUREMENT OF HORIZONTAL AND VERTICAL ANGLES, PRINCIPLES OF ELECTRONIC THEODOLITE, TRIGONOMETRICAL LEVELING, TRAVERSING.

**UNIT - V**

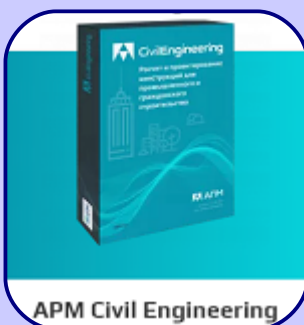
TACHEOMETRIC SURVEYING: STADIA AND TANGENTIAL METHODS OF TACHEOMETRY, DISTANCE AND ELEVATION FORMULAE FOR STAFF VERTICAL POSITION, CURVES: TYPES OF CURVES, DESIGN AND SETTING OUT - SIMPLE AND COMPOUND CURVES, INTRODUCTION TO ADVANCED SURVEYING : TOTAL STATION AND GLOBAL POSITIONING SYSTEM, INTRODUCTION TO GEOGRAPHIC INFORMATION SYSTEM (GIS).

**TEXT BOOKS:**

1. CHANDRA A M, "PLANE SURVEYING" AND "HIGHER SURVEYING" NEW AGE INTERNATIONAL PVT. LTD., PUBLISHERS, NEW DELHI, 2002
2. DUGGAL S K, "SURVEYING (VOL - I & 2), TATA MC.GRAW HILL PUBLISHING CO. LTD. NEW DELHI, 2004.
3. TEXT BOOK OF SURVEYING BY C.VENKATARAMAIAH, UNIVERSITIES PRESS

**REFERENCES:**

1. SURVEYING AND LEVELING BY R. SUBRAMANIAN, SECOND EDITION OXFORD UNIVERSITY PRESS - 2012
2. SURVEYING THEORY AND PRACTICE SEVENTH EDITION BY JAMES M. AND ANDERSON EDWARD M. MIKHAIL TATA MCGRAW HILL
3. ARTHUR R BENTON AND PHILIP J TAETY, ELEMENTS OF PLANE SURVING, MCGRAW HILL - 2000
- 4 "ADVANCED SURVEYING TOTAL STATION GIS AND REMOTE SENSING BY SATHEESH GOPI, R. SATHI KUMAR AND N. MADHU.

**APM Civil Engineering****STC APM**

**SYLLABUS COACHING**  
TRAINING - 2/UNIT TRAINING  
SELF - 4/UNIT ASSIGNMENT  
PRESENTATION - 2/UNIT  
SHOWTIME - 2/UNIT

**ASCON RENG**

**SYLLABUS PERIOD**  
TRAINING - 2/2 HRS/UNIT  
REMOTE - 2/2 HRS/UNIT  
DURATION - SEMESTER  
ONLINE/REMOTE ACCESS

**ARCADIA BIM**

**FEATURES**  
TRAINING BY IND. PROFESSIONAL  
INDUSTRY APPLICATION  
TRAINER OPPORTUNITY  
CERTIFICATION