

PAVIATH INTEGRATED SOLUTION DEMAND

CIVIL ENGG

Paviath ONLINE

CIVIL POLY

SURVEYING - II

◆ CIVIL POLY ◆ II YEAR IV SEM ◆ CODE CEM43

OBJECTIVES

ON COMPLETION OF THE COURSE, THE STUDENT WILL POSSES KNOWLEDGE ABOUT

- THEODOLITE SURVEYING
- TACHEOMETRIC SURVEYING TRIGNOMETRIC SURVEYING
- CURVE SETTING
- BASICS OF REMOTE SENSING
- PHOTOGRAMMETRIC SURVEYING
- HYDROGRAPHIC SURVEYING
- TOTAL STATION
- GEOGRAPHICAL INFORMATION SYSTEM

INTRODUCTION - TYPES OF THEODOLITES : TRANSIT AND NON-TRANSIT INTRODUCTION - TYPES OF THEODOLIES - TRANSIT AND NUM-TRANSIT THEODOLIE VERNIER AND MICROMETER THEODOLIES - ELECTRONIC THEODOLIE (PRINCIPLES AND DESCRIPTION DNLY) - COMPONENT PARTS OF ATRANSIT THEODOLIE - FUNCTIONS - TECHNICAL TERMS USED IN THEODOLIE SURVEYING - TEMPORARY ADJUSTMENTS -FUNDAMENTAL LINES AND RELATIONSHIP BETWEEN THEM -NEUNDERLEIGE EUROPENNAM. MEASUREMENT OF HORIZONTAL ANGLE BY METHOD OF REPETITION AND REITERATION - MEASUREMENT OF VERTICAL ANGLE AND AND RETERATION - MEASUREMENT OF VERTICAL ANGLE AND DEFLECTION ANGLE - READING BEARING OF A LINE - THEODOLITE TRAKERSING - METHODS - FIELO CHECKS IN CLISED TRAVERSE LATITUDE AND DEPARTURE - CONSECUTIVE EDOREDINATES -INDEPENDENT COLORDINATES - PROBLEMS ON COMPUTATION OF AREAD E LUISED TRAVERSE - BALANCING THE TRAVERSE TRAVERSESTIMENTATION

TACHEDMETRIC SURVEYING Introduction – instruments used in tachedmetry – systems OF TACHEDMETRY : STADIA AND TANGENTIAL TACHEDMETRY -Principles - Fixed hair method of tachedmetry - Distance PRINCIPUES - FALE) HARE METHOD OF HALPEOMETHY - DISTANCE And Elevation Formulae - Anallactic Lens (no prodp) : Advantars and Disse - Simple Problems - Distomats (description only) - Direct Reading Tachedmeters -Determination of Constants of A Tachedmeter : Problems -Tachedmetric Traverse - Errors in Tachedmeter : Surveying

TOTAL STATION AND GEOGRAPHICAL INFORMATION

5.1 TOTAL STATION

9.1 TOTAL STATUM INTRODUCTION - APPLICATION OF TOTAL STATION - COMPONENT PARTS OF A TOTAL STATION - ACCESSORIES USED - SUMMARY OF TOTAL STATION CHARACTERISTICS - FEATURES OF TOTAL STATION -TUDIE STATUM CHARAELERSTILS - FEATURES OF TUDIE STATUM – Electronic display and data reading – instrument Preparation, setting and measurement (distance, angle, Bearing etc.) – field procedure for CC-ordinate Measurement – field procedure to run a traverse survey -Linking data filesfor various applications.

EINANG DATA FILESTEN VANDES AFFELGANIONS. 5.2 GEOBRAPHICAL INFORMATION SYSTEM (GIS) INTRODUCTION – GEOBRAPHICAL INFORMATION – DEVELOPMENT OF GIS – COMPONENTS OF GIS –STEPS IN GIS MAPPING – DRDINARY MAPPING TO GIS – COMPARISON OF GIS WITH CAD AND OTHER SYSTEM – FIELDS OF APPLICATIONS. NATURAL RESOURCES. AGRICULTURE, SDIL, WATER RESDURCES, WASTELAND MANAGEMENT AND SOCIAL RESDURCES – CADASTRAL SURVEY AND CADASTRAL RECORDS - LAND INFORMATION SYSTEM(LIS)

3.1 TRIGONOMETRICAL LEVELLING

INTRODUCTION - FINDING ELEVATION OF OBJECTS -BASE ACCESSIBLE - BASE INACCESSIBLE: SINGLE PLANE AND DOUBLE PLANE METHODS - PROBLEMS ON Determination of elevation of objects. **3.2 REMOTE SENSING, PHOTOGRAMMETRIC** SURVEYING

AND HYDROGRAPHIC SURVEYING

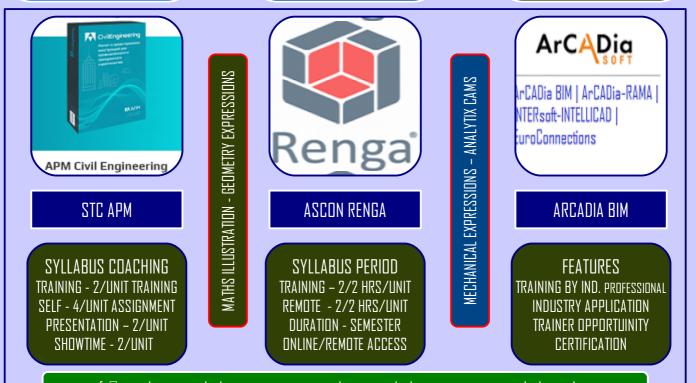
AND HYDROBURT HID CONVENTION - BASIC PROCESS -METHODS OF REMOTE SENSING - APPLICATIONS -PHOTOGRAMMETRIC SURVEYING - DEFINITION -TERRESTRIAL AND AERIAL PHOTOGRAPHS -APPLICATIONS - HYDROGRAPHIC SURVEYING -Definition- USES - Sounding: Definition, Purpose, INSTRUMENTS NEEDED – STEPS IN HYDROGRAPHIC SURVEYING

TEXT BOOK

1. KANETKAR. T. P. AND S.V. KULKARNI, " SURVEYING AND LEVELLING PART I AND 2" , PUNE VIDYARTHI GRIHA, Prakashan, 23rd Edition, Reprint 2008. 2. PUNMIA. B.C. ASHOK K. JAIN AND ARUN K. JAIN, " SURVEYING VOLUME I", LAXMI PUBLICATIONS PRIVATE LIMITED, 16TH EDITION 2011. REFERENCE BOOKS

1. PUNMIA. B.C. ASHOK K. JAIN AND ARUN K. JAIN, " SURVEYING VOLUME I & III" , LAXMI PUBLICATIONS PRIVATE LIMITED, 15TH EDITION 2011 2. MIMI DAS SAIKIA, BHARGAB MOHAN DAS AND MADAN MOHAN DAS, " SURVEYING", PHI LEARNING PRIVATE

LIMITED, EDITION 2010. 3. S.K. RDY, "FUNDAMENTALS OF SURVEYING", PHI Learning private limited, edition 2010 4. SATHESH GOPI, R. SATHIKUMAR AND N. MADHU, Advanced Surveying, Pearson Education, Chennai.



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CURVES

INTRODUCTION - TYPES OF CURVES -DESIGNATION OF CURVES – ELEMENTS OF SIMPLE CIRCULAR CURVE - SETTING OUT SIMPLE CIRCULAR CURVE BY: OFFSETS FROM LONG CHORDS, OFFSETS FROM TANGENTS, OFFSETS FROM CHORDS PRODUCED AND RANKINE'S METHOD OF DEFLECTION ANGLES - SIMPLE PROBLEMS - TRANSITION CURVES - OBJECTIVES - VERTICAL CURVES : DEFINITION AND TYPES.