



DEMAND

PAVIATH INTEGRATED SOLUTION

CIVIL ENGG

CIVIL UNIV

REHABILITATION & RETROFITTING OF STRUCTURES

Paviath ONLINE

◆ CIVIL UNIVERSITY ◆ FOURTH YEAR I SEMESTER ◆ CODE A80151

UNIT - I  
INTRODUCTION - DETERIORATION OF STRUCTURES  
- DISTRESS IN STRUCTURES - CAUSES  
AND PREVENTION. MECHANISM OF DAMAGE -  
TYPES OF DAMAGE

UNIT - II  
CORROSION OF STEEL REINFORCEMENT - CAUSES  
- MECHANISM AND PREVENTION.  
DAMAGE OF STRUCTURES DUE TO FIRE - FIRE  
RATING OF STRUCTURES - PHENOMENA  
OF DESICCATION

UNIT - III  
INSPECTION AND TESTING - SYMPTOMS AND  
DIAGNOSIS OF DISTRESS - DAMAGE  
ASSESSMENT - NDT.

UNIT - IV  
REPAIR OF STRUCTURE - COMMON TYPES OF  
REPAIRS - REPAIR IN CONCRETE  
STRUCTURES - REPAIRS IN UNDER WATER  
STRUCTURES - GUNTING - SHOT CRETE -  
UNDERPINNING. STRENGTHENING OF STRUCTURES  
- STRENGTHENING METHODS -  
RETROFITTING - JACKETING.

UNIT - V  
HEALTH MONITORING OF STRUCTURES - USE OF  
SENSORS - BUILDING INSTRUMENTATION.

TEXT BOOKS:  
1. MAINTENANCE AND REPAIR OF CIVIL  
STRUCTURES, B.L. GUPTA AND AMIT  
GUPTA, STANDARD PUBLICATIONS.  
2. CONCRETE TECHNOLOGY BY A.R. SANTAKUMAR,  
OXFORD UNIVERSITY PRESS.  
REFERENCES  
1. DEFECTS AND DETERIORATION IN BUILDINGS, EF  
& N SPON, LONDON.  
2. NON-DESTRUCTIVE EVALUATION OF CONCRETE  
STRUCTURES BY BUNGEY -  
SURREY UNIVERSITY PRESS.  
3. CONCRETE REPAIR AND MAINTENANCE  
ILLUSTRATED, RS MEANS COMPANY  
INC W.H. RANSO, (1981).  
4. BUILDING FAILURES : DIAGNOSIS AND  
AVOIDANCE, EF & N SPON, LONDON,  
B.A. RICHARDSON, (1991).



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