



SATHYABAMA

INSTITUTE OF SCIENCE AND TECHNOLOGY
(DEEMED TO BE UNIVERSITY)

Accredited "A" Grade by NAAC | 12B Status by UGC | Approved by AICTE

www.sathyabama.ac.in

SCHOOL OF BUILDING AND ENVIRONMENT

DEPARTMENT OF CIVIL ENGINEERING

BOARD OF STUDIES MEETING - Academic year 2019-2020

The periodic Board of studies meeting, for the Department of Civil Engineering, School of Building and Environment will be held on 10.12.2019 at 10.00 Am

Internal members

1. Dr.Devyani Gangopadhyay, Dean, School of Building and Environment
2. Dr.S.Packialakshmi, Associate Professor, Department of Civil Engineering
3. Dr.R.Padmapriya, Associate Professor, Department of Civil Engineering
4. Dr.V.Sampathkumar, Professor, Department of Civil Engineering
5. Dr.S.Nandhakumar, Assistant Professor, Department of Civil Engineering

External members

1. Dr.R.Santhakumar, Professor, Department of Civil Engineering, NITTTR, Chennai
2. Dr.R.Saravanan, Associate Professor, CWR, Anna University, Chennai

Agenda:

1. Review of Curriculum for the upcoming semester courses for both UG and PG programmes
2. Implementation of Disaster Management for UG Programmes

Convenor/Dean

HOD

Expert member



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Minutes of the BOS Meeting - Academic year 2020-2021

The Board of Studies Meeting for both UG and PG programme is held on 10th December, 2019 at 10.00 AM.

Members Present

- | | |
|--|---------------|
| 1. Dr.Devyani Gangopadhyay
Dean , School of Building and Environment | Convenor |
| 2. Dr.R.Santhakumar
Professor, Department of Civil Engineering, NITTTR, Chennai | Expert Member |
| 3. Dr.R..Saravanan
Associate Professor, CWR, Anna University, Chennai | Expert Member |
| 4. Dr.R.Padmapriya
Associate Professor, Department of Civil Engineering | Member |
| 5. Dr.S.Packialakshmi,
Associate Professor, Department of Civil Engineering | Member |
| 6. Dr.V.Sampathkumar,
Professor, Department of Civil Engineering | Member |
| 7. Dr.S.Nandhakumar
Assistant Professor, Department of Civil Engineering | Member |



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After a detailed discussion on the review of curriculum, the agenda were taken up for discussion and as per the suggestions given by Dr. R. Santhakumar, Professor, Department of Civil Engineering, NITTTR, Chennai and Dr. R. Saravanan, Associate Professor, CWR, Anna University, Chennai, the following points were taken up into considerations;

- Implementation of Disaster Management as per the guidelines of AICTE regulations and also to acquire knowledge on handling the disaster keeping in mind the standard operating procedures of various types of disasters
- The students must acquire knowledge on skill development courses in relation with industry and additional credits can also be given for the same.
- The Curriculum for the courses in the upcoming semester is reviewed and met out the requirements of skill development / Employability / Entrepreneurship liability for the students.

Convenor/Dean

HOD

Expert member

SCIA4001	DISASTER MANAGEMENT	L	T	P	Credits	Total Marks
		3	0	0	3	100

COURSE OBJECTIVE

- To create an awareness towards natural and man-made disasters, disaster preparedness and disaster management

UNIT 1 INTRODUCTION TO DISASTERS**12 Hrs.**

Natural resources and its importance - understanding on fragile eco-system - characteristics and types of Disasters, Geological and Mountain Area Disasters: Earthquakes, Volcanic eruption, landslides - Wind and Water Related Natural Disaster: Floods, Droughts, Cyclones, Tsunamis - Man Made Disasters: Forest fires, Nuclear, Biological and Chemical disaster - Causes and effects - Disaster Profile of India - Disaster Management cycle.

UNIT 2 DISASTER PREPAREDNESS**8 Hrs.**

Disaster management, mitigation and preparedness: Disaster Preparedness for People and Infrastructure, Community based Disaster Preparedness Plan - Roles & Responsibilities of Different Agencies and Government: Education, Communication & Training, Central, State, District and local administration, Armed Forces, Police, Para Military Forces, International Agencies, and NGO's - Disaster Mitigation: Strategies, Emerging Trends, Mitigation management and Role of Team and Coordination.

UNIT 3 REHABILITATION, RECONSTRUCTION AND RECOVERY**10 Hrs.**

Damage assessment – Development of Physical and Economic Infrastructure - Nature of Damage to Houses and Infrastructure due to Disasters - Funding Arrangements for Reconstruction - Monitoring and Evaluation of Rehabilitation Work: Training, Rescue and planning the rescue activities and rehabilitations - Role of Government and NGO's - Participative Rehabilitation Process: Case Studies

UNIT 4 DISASTER RESPONSE AND DISASTER MANAGEMENT**8 Hrs.**

Disaster Response Plan: Communication, Participation and Activation of Emergency Preparedness Plans, Search, Rescue, Evacuation and other logistic management - Human Behaviour and Response Management: Psychological Response and Psychological Rehabilitation, Trauma and Stress Management, rumour and Panic Management, Medical and Health Response to Different Disasters - Relief Measures: Minimum Standard of Relief, essential components of Relief Management, and funding.

UNIT 5 RISK ASSESSMENT AND VULNERABILITY ANALYSIS**7 Hrs.**

Hazard, Risk and Vulnerability: Concept and Relationship: Disaster Risk Reduction, People Participation in Risk Assessment - Vulnerability Analysis, Vulnerability Identification - Vulnerability profile of India - Strategies for Survival - Social Infrastructure for Vulnerability Reduction.

Max. 45 Hrs.**COURSE OUTCOMES**

On completion of the course, student will be able to

- CO1 - Know the fragile ecosystem and the types of the disasters
- CO2 - Acquire the preparedness and the responsibilities of different agencies on Disaster
- CO3 - Understand the rescue, rehabilitation and reconstruction process of disaster management
- CO4 - Understand the disaster response and relief measures
- CO5 - Understand the concepts of disaster risk
- CO6 - Understand the concepts of vulnerability reduction

TEXT / REFERENCE BOOKS

1. Bryant Edwards, "Natural Hazards", Cambridge University Press, U.K, 2005
2. Carter, W. Nick, "Disaster Management, Asian Development Bank", Manila, 1991.
3. Government of India, "Vulnerability Atlas of India", New Delhi, 1997.
4. Sahni, Pardeep et.al. (eds.), "Disaster Mitigation Experiences and Reflections", Prentice Hall of India, New Delhi, 2002
5. Sahni, Pardeep and Ariyabandu, "Disaster risk reduction in South Asia", Phi learning pvt. Ltd., New Delhi, 2012.
6. Sharma, R.K. & Sharma, G.,(ed), "Natural Disaster", APH Publishing Corporation, New Delhi, 2005.
7. Taori, K, "Disaster Management through Panchayati Raj", Concept Publishing Company, New Delhi, 2005.
8. NOAA Coastal Services Center, "Linking People Information and Technology",

END SEMESTER EXAMINATION QUESTION PAPER PATTERN**Max. Marks: 100****Exam Duration: 3Hrs.****PART A:** 10 Questions of 2 marks each – No choice**20 Marks****PART B:** 2 Questions from each unit of internal choice each carrying 16 marks**80 Marks**