

# INSTITUTE OF AERONAUTICAL ENGINEERING

**(Autonomous)**

Dundigal - 500 043, Hyderabad, Telangana

## COURSE CONTENT

[illegible]

Exogenous hazards/ disasters, infrequent events, cumulative atmospheric hazards/ disasters; Infrequent events: Cyclones , lightning , hailstorms; Cyclones: Tropical cyclones and local storms, destruction by tropical cyclones and local storms (causes, distribution human adjustment, perception and mitigation); Cumulative atmospheric hazards/ disasters: Floods, droughts, cold waves, heat waves floods; Causes of floods, flood hazards India, flood control measures ( human adjustment, perception and mitigation); Droughts: Impacts of droughts, drought hazards in India, drought control measures, extra planetary hazards/ disasters, man induced hazards /disasters, physical hazards/ disasters, soil erosion, Soil erosion: Mechanics and forms of soil erosion, factors and causes of soil erosion, conservation measures of soil erosion; Chemical hazards/ disasters: Release of toxic chemicals, nuclear explosion, sedimentation processes; Sedimentation processes: Global sedimentation problems regional sedimentation problems, sedimentation and environmental problems, corrective measures of erosion and sedimentation, biological hazards/ disasters, population explosion.

#### **MODULE-V: EMERGING APPROACHES IN DISASTER MANAGEMENT (09)**

Emerging approaches in Disaster Management, Three Stages

1. Pre, disaster stage(preparedness)
2. Emergency Stage
3. Post Disaster stage, Rehabilitation.

#### **IV.TEXT BOOKS:**

1. Pardeep Sahni, “Disaster Mitigation: Experiences and Reflections”, PHI Learning Pvt. Ltd., 1<sup>st</sup> Edition, 2001.
2. J.Glynn,Gary W.HeinKe, “Environmental Science and Engineering”, Prentice Hall Publishers, 2<sup>nd</sup> Edition, 1996.

#### **V. REFERENCE BOOKS:**

1. B. C. Punmia, Ashok K Jain and Arun K Jain, “Mechanics of Materials”, Laxmi Publications Pvt. Ltd., New Delhi, 12<sup>th</sup> Edition, 2007.
2. R. Subramanian, “Strength of Materials”, Oxford University Press, 2<sup>nd</sup> Edition, 2010.
3. D. S. Prakash Rao, “Strength of Materials A Practical Approach Vol.1”, Universities Press (India) Pvt. Ltd., India, 3<sup>rd</sup> Edition, 2007.
4. J. M. Gere, S.P. Timoshenko, “Mechanics of Materials, SI units edition”, CL Engineering, USA, 5<sup>th</sup> Edition, 2000.

#### **VI. Web References:**

1. [https://www.google.co.in/?gfe\\_rd=cr&ei=iAwWLiDIazv8we8\\_5LADA#q=disater+mangement](https://www.google.co.in/?gfe_rd=cr&ei=iAwWLiDIazv8we8_5LADA#q=disater+mangement)
2. <http://ndma.gov.in/images/policyplan/dmplan/National%20Disaster%20Management%20Plan%20May%202016.pdf>
3. [http://www.eib.europa.eu/attachments/pipeline/20080021\\_eia\\_en.pdf](http://www.eib.europa.eu/attachments/pipeline/20080021_eia_en.pdf)
4. <http://www.ndmindia.nic.in/>

#### **VII. E-Text Books:**

1. <http://cbse.nic.in/natural%20hazards%20&%20disaster%20management.pdf>
2. [http://www.digitalbookindex.org/\\_search/search010emergencydisastera.asp](http://www.digitalbookindex.org/_search/search010emergencydisastera.asp)
3. <http://www.icbse.com/books/cbse,ebooks,download>