


Department of Civil Engineering
A Report on
Webinar on
“GIS Application in construction materials management”

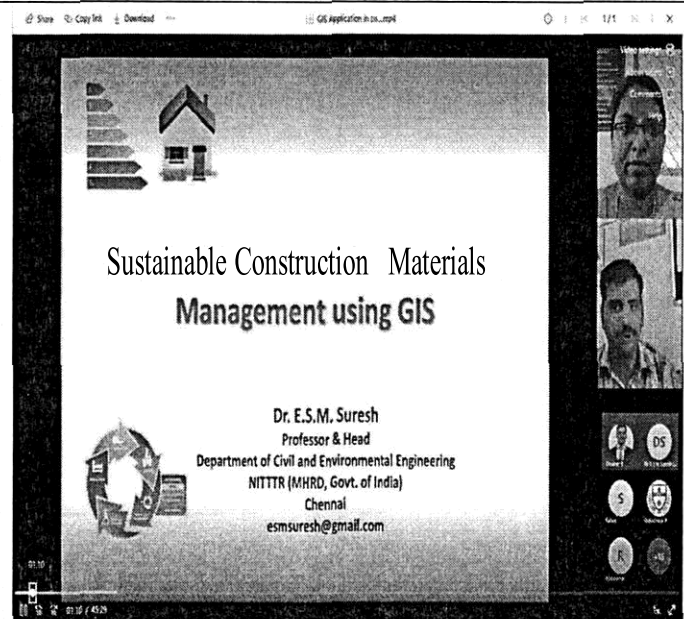
Date	03.06.2022
Organized by	Department of Civil Engineering
Convenor	Dr.G.Selvakumar (Principal)
Coordinator	Ms.Pa.Suriya (Assistant Professor - II)
Online mode through	MS Teams
Resource Person	Dr. ESM.Suresh, Prof and Head of Civil Engineering department, NITTTR - Chennai.



Department of Civil Engineering
 Cordially invites you all for the Seminar on
GIS Application in Construction Materials Management
 03rd June 2022 @ 11.30 a.m. | Platform : MS Teams

Chief Guest
Prof. Dr. E.S.M. Suresh
 Professor & Head
 Dept. of Civil and Environmental Engineering
 Centre for Academic Studies and Research
 National Institute of Technical Teachers Training & Research
 (Ministry of HRD, Govt. of India) Taramani, Chennai

In the presence of
Dr. G. Selvakumar (Principal), **Dr. S. P. Sangeetha** (VP (Academics)), **Dr. R. Divahar** (HoD, Civil Engg.)
Event Coordinator : Ms. Pa. Suriya, Assistant Professor | Gr-II, Civil Engg.



Sustainable Construction Materials Management using GIS

Dr. E.S.M. Suresh
 Professor & Head
 Department of Civil and Environmental Engineering
 NITTTR (MHRD, Govt. of India)
 Chennai
 esmsuresh@gmail.com

Invitation and Programme Introduction Slides

Department of Civil Engineering organized Webinar on "GIS Application in construction materials management " for 67 participants on 03th June 2022 through online via MS Teams.

MS Teams Link

https://teams.microsoft.com/l/meetup-join/19%3ameeting_YjVkYTRjYmYtNjBiOC00MmJhLWI3OTEtMzA5ZjE0Y2UyMzM0%40thread.v2/0?context=%7b%22Tid%22%3a%220e82ae81-b94c-436c-97c0-f780b3f20ab4%22%2c%22Oid%22%3a%221b565761-c35c-486e-b6d7-83941e34f603%22%7d

Programme Schedule in Brief

Dr.R.Divahar, Head of the Civil Department, delivered the welcome address and expressed his word of gratitude to the guests and briefed the gathering regarding significance and necessity of the program. The Guest speaker Dr. ESM.Suresh was introduced to the gathering by Ms.Pa.Suriya, Assistant Professor -II, Department of Civil Engineering.

The Guest speaker Dr. ESM.Suresh, Prof and Head of civil Engineering department, NITTTR - Chennai, gave a lecture on Introduction about Geographical Information system (GIS), Main objective of sustainable concept of construction material, Quality of river sand and M sand. He also presented about the Sustainability goals- Material efficiency as apart of sustainable construction in effective manner. The event was concluded with a questionnaire and feedback session among the participants and guest speaker. Ms.Pa.Suriya, Assistant Professor -II, Department of Civil Engineering. delivered the vote of thanks. The recorded interactive session is given in the below link.

Recorded Link

https://avitaciny.sharepoint.com/:v:/g/personal/suriya_avit_ac_in/EdZq03lXHoBIrdCPF8cra_EBXdH1Z9q2aFPy27tWpYidwg

Data source

Street data

Buildings data

Vegetation data

Integrated data

Data layers

Legend

Soil Profile of Cauvery Basin

Conclusion

The concrete test results by varying the composition the following conclusions are drawn:

- M – Sand can be used as a replacement material for river sand and up to 40% replacement will give an appreciable performance in strength and quality aspects.
- Also with increase in percentage of M sand up to 40% will lead to the improvement in properties related to durability & workability of concrete
- Literature survey says that nearly 30% increase in masonry strength is obtained with the use of manufactured sand.
- It requires lower water-cement ratio if mortar is mixed with manufactured sand, which also results in better characteristics in the hardened state. Manufacturing sand also eliminates environmental impact occurred due to lifting of natural sand from river bed.
- Improper crushing of manufacturing sand may lead to angular and flaky particles which are not suitable for concrete production both technically and economically. Also, adequate set up of crusher may not be available in some parts of the county, as it costs higher than river sand.
- The cost of manufactured sand totally depends on the location and availability. For high grade pump able concrete in high-rise buildings, requirement of cement is higher than river sand, which may not be cost effective.

Glimpses of Webinar Slides

DSV
Coordinator

I think
HOD/Civil

