



Milestone



Department of Civil Engineering
Monthly Newsletter

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For Internal Circulation

Department of Civil Engineering
Atria Institute of Technology
ASKB Campus, 1st main road, Anand
Nagar, Hebbal, RT Nagar Post,
Bengaluru 560024

ONE DAY INDUSTRIAL VISIT

A batch of 4 TH, 6 TH & 8 TH semester students of Department of civil engineering along with faculty Mr.Anandakumar and Mr.Bramendra kishore visited Mahatma Gandhi Institute of Rural Energy and Development (MGIRED) located in Bengaluru on 27TH MAY 2022.

The main objective was to have a unique Institution to carry out Capacity Building and Awareness Programmes in the areas of Rural Energy and Sustainable Rural Development

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DEPARTMENT OF CIVIL ENGINEERING
Organizing
Industrial Visit
To
Mahatma Gandhi Institute of Rural Energy and Development (MGIRED)
On
27th May 2022

This visit was mainly focused on to understand the procedures involved in the energy optimization and conservation of energy and the equipments used. Once we reached the MGIRED institute theoretical concepts were explained by MGIRED team of three sessions to give the awareness about the conservation of energy such as solar energy, wind energy ocean energy ,power plants, solar energy system and application of solar energy. etc.,



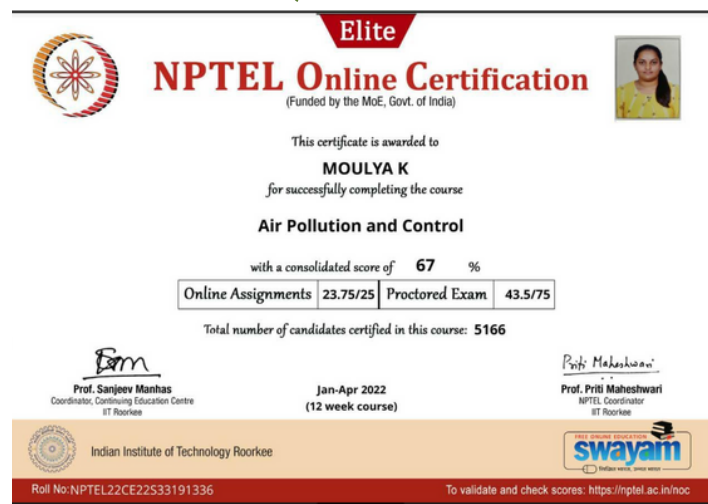
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Student Achievement



Students of 8th semester, Moulya K, Snaha M C, Kiran Gayakwad D N, received certificate of appreciation from IUCEE foundation for project presentation on project on waste management of perishable fruits and vegetables at the POPBL.

CONGRATULATIONS



Department is Congratulating Sneha M C, Mulya K 8th semester on Completing NPTEL course in Air pollution and Control.

Invitation for PROJECT EXPO 2022: Civil Department



ATRIA INSTITUTE OF TECHNOLOGY

DEPARTMENT OF CIVIL ENGINEERING

CADCENTER
Indian Educational Enterprises (P) Ltd.

CMTI
GAIN YOUR EXPERIENCE

We cordially invite you for the
"PROJECT EXPO : 2021-2022"
on 16th June, 2022
From 9:30 AM onwards

Theme : "Science and Technology to meet Sustainability"

Prof. Anusha M
Prof. Karthik J

Dr. Surendra H J

Dr. T N Sreenivasa

Project & Faculty
Coordinators
Atria IT

Professor & Head
Civil Dept.
Atria IT

Principal
Atria IT

Inaugural of Civil Engineering Project Expo 2022 scheduled tomorrow (16th June 2022). Our Principal sir will Inaugurate the session. The whole Event is sponsored by CMTI and Cadd Center.



The Department of Civil Engineering has organized Project Expo for the projects designed by students on innovative ideas and it was attracted to the visitors at the Project EXPO being organized by Department of Civil Engineering



The major objective of organizing this exhibition was to provide the platform and unleash the potential of the students by showcasing their innovative projects developed in the Final Year either focusing Industry Defined Problems or User Defined Problems and provide an opportunity for the students to demonstrate their learning experience. The outcome of the PROJECT EXPO was that students were able to show their project at higher level and the process boosted their confidence.



AICTE ACTIVITY POINT PROGRAM



The objectives of AICTE student activity is to expose students to real-time life challenges, to provide the opportunity to gather data, analyse data, propose solutions and implement solutions. Also, it paves the way for personal development and creative engineers who are proud volunteers with a sense of achievement and ready to take up projects having a social impact and creating digital awareness. Students of 4th sem, Conducting awareness program as a part of AICTE activity.

DEXTRIX 2022

“DEXTRIX” is an inter-Department Technical Fest is held every year.

Platform is provided for students of engineering colleges to exhibit their talents and organizing skills in different events. This event also promotes students to showcase their individual capabilities of mental skills and team work on group event. Around 30 different events will be conducted every year.





ABHIYANTHA – 2022 – CIVIL FEST

DEPARTMENT OF CIVIL ENGINEERING
 ATRIA INSTITUTE OF TECHNOLOGY, BENGALURU
 CORDIALLY INVITES YOU
Abhiyantaa-2022
Chaining Back To the Roots
 An Inter-college Fest
 Chief Guests:

Mr. Dharmender Kumar Historian Mysoorina Kathegalu	Dr. T.N.Sreenivasa Hon'ble Principal Atria Institute of Technology, Bengaluru
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Convener:
 Dr. Surendra .HJ
 Prof & Head Dept of Civil Engineering
 Atria Institute of Technology,
 Bengaluru

MAY
 WED-THUR 25-26 AT 09 AM
 2022

VENUE
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@abhiyantaa_2022



Speaker of the session, Mr. Dharmendra Kumar Arenalli was inaugurated the session as he gives out enriching tidbits about the city's rich past. A son of the soil of Mysore, Dharmendra spends hours going around the state and various archives to uncover hidden tales on his page 'Mysoorina Kathegalu'. History is always written through the victor's eyes.



In order to encourage and motivate the academic and extracurricular activities of the students, a Grand Fest was organized by the Department of civil engineering. This event provided an excellent opportunity to the participants where they had to bring out the best in them. This event was a huge success.

It is one of the most awaited events of the college. Students from various college from all over the country participate in this festival. It is a showcase of culture and features performances.

Faculty Achievement

Sustainable Water Resources Management (2022) 8:85
 https://doi.org/10.1007/s40899-022-00666-5

ORIGINAL ARTICLE

Sustainable integrated urban flood management strategies for planning of smart cities: a review

Archana K. Yerese¹ · H. J. Suresh² · Geetha Kuntaji³

Received: 5 February 2021 / Accepted: 8 April 2022
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Abstract

Accelerated urbanization, changes in climate and rapid increase in urban population have several impacts on the urban hydrological cycle. Severe water stress and urban flooding are evident in urban cities and hence, smart cities, which are water-sensitive are the need of the hour. Extreme climate events and frequent urban flash floods, effect the performance and development of smart cities. Sustainable integrated urban flood management strategies are considered to be crucial in planning and development of smart cities. High rainfall intensity—short duration flash floods occur frequently in high-density-core urban areas causing disruption of social life, economic activities and infrastructural damages. Urban floods have become disastrous, due to random and unplanned urbanization, inefficient drainage systems and lack of real-time monitoring technologies. Urban floods are also accompanied with huge flood runoff which can be routed, stored and used for other smart city applications. This study highlights the various sustainable integrated urban flood management strategies and technologies in development of water-smart city. Framework for managing urban floods and planning of smart cities using smart source control systems, digital automations, remote-sensing applications and real-time technologies are reviewed. As a part of case study, current urban flood management strategies in Indian smart cities are discussed.

Keywords Urban flood management · Climate change · Water sensitive city · Water-smart city · Water stress

Introduction

Urban development and climate change

Rapid urbanizations demand faster urban facilities and requirements, which have to cater to the exponentially growing population. Urban cities have become human centric zones, which have altered the regional climate of the urban area. Climate change and urban development go hand in

hand but in consequential directions. The phenomenon of climate change majority includes variation of temperature and rainfall. These variations affect the economic index of the urban city in terms of industrial production, city infrastructure and public services. Adaptation measures to the changing climate is a major challenge for conceptualizing a smart city. Amidst the advancement of technologies, smart cities have to be planned to make urban population—a secure and sustainable dwelling place. The planning should mandatorily include natural disasters such as urban flooding. The preparedness of smart city to such events always out stakes the consequences.

Urban flooding

Urban flooding is a form of climate change consequence which occurs usually at densely populated areas and causes submergence of built environment, infrastructures and arrests the urban life cycle. It is not just a natural flood phenomenon which occurs in urban areas, but aggravates due to insufficient drainage systems for prolonged duration of intense rainfall events. Urban flooding is different to rural

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Assessment of self-compacting concrete without super plasticizer in bridge construction

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Anna Institute of Technology, Civil Engineering Department, Bengaluru 560016, India

ARTICLE INFO

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 Available online xxx
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 Bridge engineering,
 Self-compacting concrete,
 Mineral admixtures,
 Workability,
 G10mm R21

ABSTRACT

Bridge design plays a vital role in the field of civil engineering. The materials to be considered, method of construction is an important factor along with the cost provisions. Self-compacting concrete (SCC) has been a popular choice for civil engineering projects due to its ability to create cohesive concrete. This article discussed the possibility of producing a SCC without employing a superplasticizer and just utilizing locally available mineral admixtures, with a well-graded coarse aggregate size of 25 mm, which is in compliance to IS 3842 standards. The mechanical properties of SCC without super plasticizer are compared with M25 Conventional Concrete. During the preliminary study, the mechanical characteristics of the SCC produced using the mentioned technique, followed by the evaluation of the flexural behaviour of the SCC for beam specimens. Based on the findings, finally it can be concluded that the kind of SCC is a potential and successful alternative to the conventional type of SCC produced using G10mm R21 products, as well as being cost effective. Copyright © 2022 Elsevier Ltd. All rights reserved.
 Introduction and peer-review under responsibility of the International Conference on Advances in Construction Materials and Structures.

1. Introduction

It is important that construction is of good standard and abiding all the codes provisions. Additionally, concrete bridge may be precast construction. This technique of building adds an advantage in the construction era. Additionally, this approach provides a higher level of quality control due to the methods created by "factory manufacturing". In this paper it is mainly focused on using self-compacting concrete without super plasticizer. The tests on self-compacting is done considering all factors of bridge design. The properties of self-compacting concrete are the latest trend in the field of civil engineering, usage of light weight aggregates in the development of self-compacting concrete is achieved by K.S. Elango et al. (2021) [1]. The strength and fresh properties of self-compacting concrete is varied until the desired and satisfactory strength is achieved in done by Chandia Mohi Darapanen et al. (2020) [2]. The preparation of self-compacting concrete using recycled concrete aggregate and mathematical model is used for the design O. Larsen et al. (2019) [3]. The properties of creep and

shrinkage is investigated for self-compacting concrete by Stefania Manzi et al. (2017) [4]. Fresh concrete that has better flow properties while retaining stability (i.e., no segregation) is known as self-compacting concrete (SCC). This concrete will compact itself without the need of External Support. A number of mineral admixtures were used experimentally by Venkatesaram Pai et al. (2014) [5] to study the advancements of self-compacting concrete (SCC). Superplasticizers and admixtures such as rice husk ash, and silica fume, fly ash, were used to achieve compaction properties. The compressive strength, flexural strength and split tensile strength of different SCC mixes were compared. Self-compacting concrete's fresh and hardened properties were studied by Shrivastava (2014) [6] to see how fly ash affected them, as well as the impact of superplasticizer (SP) on fly ash blended cement properties. Kucera et al. (2014) [7] investigated the setting time, heat of hydration and compressive strength of SCC. Concentric loaded restricted self-compacting reinforced concrete circular columns were investigated by Foad Khairallah [8] (2013).

The SCC mix concrete including GGBS has enhanced the strength due to the pozzolanic activity. Yousef et al. [9] (2013) studied the efficacy of easily accessible. In the process of preparing SCC, Chemical admixtures were used.

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Student Name :
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Ms. Indus S
Mr. Kiran Gayakwad D N


Guide: Dr Surendra H J

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Student Name :
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Ms. Meghana P
Mr. Mohammad Abdul Khaiezi
Mr. Jyothish Raju


Guide: Prof. Srinidhi S U
Assistant Professor

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Project Title :
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Student Name :
Mr. Mithilesh Yadav
Mr. Rahul Kumar Pandey
Ms. Supriya C S
Mr. Nikhil H. Shinde

Project Guide


Prof. Srinidhi S U
Assistant Professor


Prof. Bramendra Kishore
Assistant Professor

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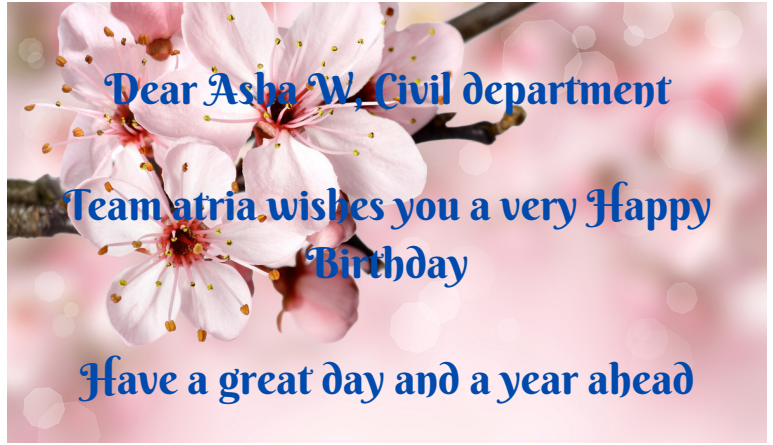
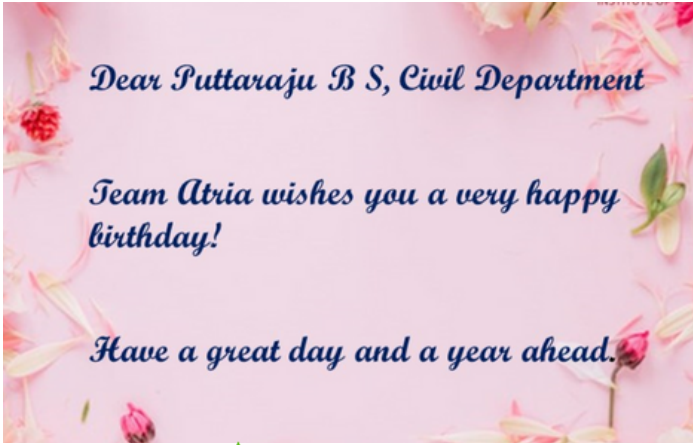
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Project Title :
Experimental Study on Recycled Fine Aggregate Concrete for Sustainability

Student Name :
Mr. Dharshith B K
Mr. Suprith Raju S
Mr. Shashank Gowda S
Ms. Arpitha B


Guide: Prof. Asha Waliitagi
Assistant Professor





HAPPY BIRTHDAY

