

NANDHA COLLEGE OF TECHNOLOGY

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Pitchandampalayam(PO), Vaikkalmedu, Erode- Perundurai Road, Erode- 638052
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Academic Year 2018-19

**PRINCIPAL
NANDHA COLLEGE OF TECHNOLOGY
ERODE-52.**



Nandha College of Technology, Erode-52

Research and Development Cell

Academic Year 2018-19

Financial Support for Faculty Members

Year	Name of teachers	Name of conference/ workshop attended for which financial support provided	Name of the professional body for which membership fee is provided	Amount of support received (in INR)
2018-19	P.B.Narandiran	Scopus-Journal of Manufacture of Flyash Brick Using Steel Slag and Tapioca Powder	Scopus	1500
2018-19	T.Bragadeeswaran	Scopus-Journal of Manufacture of Flyash Brick Using Steel Slag and Tapioca Powder	Scopus	1500
2018-19	M.Kamalakkannan	Scopus-Journal of Manufacture of Flyash Brick Using Steel Slag and Tapioca Powder	Scopus	1000
2018-19	V.Aravind	Scopus-Journal of Manufacture of Flyash Brick Using Steel Slag and Tapioca Powder	Scopus	1000
2018-19	R.Girimurugan	Scopus-Journal of Mechanical Behaviour of Coconut Shell Powder Granule Reinforced Epoxy Resin Matrix Bio Composites	Scopus	2000
2018-19	N.Senniangiri	Scopus-Journal of Mechanical Behaviour of Coconut Shell Powder Granule Reinforced Epoxy Resin Matrix Bio Composites	Scopus	2000
2018-19	K.Adithya	Scopus-Journal of Mechanical Behaviour of Coconut Shell Powder Granule Reinforced Epoxy Resin Matrix Bio Composites	Scopus	1000



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R&D Coordinator

Principal

From

R.Jayanthi,
Head of the Department,
Dept. of Electrical and Electronics Engineering,
Nandha College of Technology,
Erode-52.

To

The Secretary,
Nandha College of Technology,
Erode-52.

Through,

The Principal,
Nandha College of Technology,
Erode-52.

Respected Sir,

SUBJECT: Seeking Financial Assistance for Scopus/WOS/UGC Care/SCI
AU Annexure Indexed Journal Publishing-Regarding.

In connection with Journal Publications (Indexed in Scopus/WOS/UGC Care/SCI/Anna University Annexure List), We are in need of financial support from our institution. Hence I request you to give the publication charges to the faculty members.

Number of Journal Papers published in 2018-2019: 02 nos.

Publication fees for 2 papers × Rs. 5000/-: Rs.10,000/-

Thank You



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Yours truly,

R. Jayanthi
20/6/19.
(R.Jayanthi)

Date: 26.06.2019

Place: Erode

Enclosed:

1. Faculty Journal Publication List.

26/6/19
Amr...

Manufacture of Flyash Brick Using Steel Slag and Tapioca Powder

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Abstract--- In the fast growing of today's world development new ziggurat materials, the processing and exertion of industrial ravage ossein important to be reduced for achieving safe environment and conservation of scarce resources and materials. Admitting, the exertion of fly ash has myriad leverage its lustration at primitive juncture antecedent the strength to be low. In view of this reverie, the speculative delving is consummate to dig up the peerless percentage of mixing of some other materials with fly ash bricks. However, the bricks specimen size of 230mm x 100mm x 80 mm are mixed in discrepant percentage to cast Fly ash (45%), Gypsum (5%), Lime (10%), M-Sand (20 to 30%) and SSTP Mix (10 to 20% (mix made of Steel Slag – 50% and Tapioca powder – 50%)). The bricks are produced in this project are about 12% lighter than clay bricks. Steel Slag and Tapioca powder mix have compressive strength are studied for discrepant mixed proportions. The result shows the mutation of compressive strength for discrepant mixed proportions of carnals quoted preceding at discrepant curing ages. From the sequel, it is inferred that, the maximal refine compressive strength is hoard for peerless mix percentage of Fly ash – 45%, Lime – 10%, Gypsum – 5%, M-Sand – 25% and SSTP Mix – 15%.

Keywords--- Fly Ash Bricks, Tapioca Powder, Clay.

I. Introduction

Fly ash ascribe to the ash originated during the process of tumult of scoria. It is in the fine pounce form from the vein corporeity in scoria, received consisting of the non-combustible matter in scoria plus a small seeds of carbon that remains from incomplete tumult.

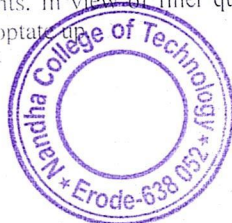
Fly ash ossein procured as ravage carnal in vast multitude proximal thermal power plants. As the power proviso of the patria goes up, the seeds of ravage produced will also accrual enormously which creates problems for its safe vending due to lack of requisite vending facilities.

It is used in manufacturing of bricks will be helpful in its vending and also help in stringsling fouling. It is supplied for the free of cost to backer.

The patria engross about 198 zillions tonnes bricks, fatiguing approximately 560 zillions tonnes of clay whole year and about 7580 manor of top soil sod is made effete for a lanky aeon.

Fly Ash bricks are made of mixing fly ash, lime, mucilage and sand. The sack copiously used in all ziggurat constructional activities agnate to that of habitual burnt clay bricks. The fly ash bricks are analogously lucent in weight and stout than habitual clay bricks.

Since fly ash ossein procure as ravage carnal in vast quantity near thermal power plants and concoct serious ecological fouling problems, its exertion as main raw carnal in the synthesize of bricks will not only create morsel stab for its proper and pragmatic vending but also help in ecological fouling strings to a greater ambit in the encompassing areas of power plants. In view of finer quality and eco- friendly nature, and averment support the arrogation for Fly Ash Bricks has optate up.



Mechanical Behaviour of Coconut Shell Powder Granule Reinforced Epoxy Resin Matrix Bio Composites

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Abstract--- In latest years research focus on bio-degradable composites are significantly increased to develop the pollution free green composites and the replacement of the polymer materials for commercial applications. Abundant research investigations are focus on the usage of natural resources as reinforcement materials to develop the various varieties of natural composites. This research work is focused on the mechanical behavior of epoxy Resin-coconut shell powder granule (CSPG) and also for dissimilar granular range of coconut shell powder granule. The hand lay-up method is used to prepare the green composite panel using coconut shell powder granule (CSPG) and epoxy Resin. The green composite panel was prepared with dispersed CSPG granule sizes of 0 - 600 μm with the different weight percentage of epoxy Resin 15%, 20%, 25%, 30%, 35% and 40% CSPG/Epoxy Resin respectively. The required specimen's with ASTM standard are taken over from the green composite panel using portable wood cutting machine. The mechanical properties of the well prepared green composites are evaluated under the standard testing methods and the test outcomes are reveals that the increasing weight percentages and smallest granule size of the coconut shell powder with the epoxy Resin is enhance the mechanical properties of the composites significantly.

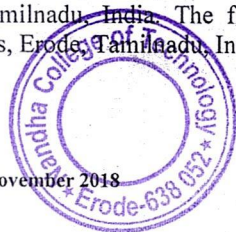
Keywords--- Coconut Shell Powder Granule (CSPG), Epoxy Resin, Mechanical Behavior, Experimental Studies.

I. Introduction

Recent years for manufacturing of bio-composites, natural fibers and powders obtained from the natural recourses are identified as the impending reinforcing materials and also a substitute for the make use of artificial fibers. Natural fibers offers the wide range of advantages such as less weight, less manufacturing cost, easy availability, recyclability, formability and reasonable mechanical properties [1]. Several researches have been completed to replace the glass fiber in the field of various non commercial fields. In recent year's natural fiber reinforced epoxy composites are being produced to make the some automotive components with the considerable eco-friendly concept [2-3]. The extensive practice of different coconut filler composites with high strength is able to use as materials for building, furniture's, and other household appliances. [4]. A typical coconut shell has water and core on its inside, after its consumption remaining part of shell is consider as waste. The waste coconut shell has natural fibers which are biodegradable, inexpensive and recyclable to the surroundings [5]. In this research work, effect of the different sizes of Coconut Shell Powder Granule (CSPG) with epoxy resin is investigated to obtain the mechanical properties. CSPG/Epoxy resin bio composites are manufactured by hand lay-up procedure with six different weight percentage of CSPG and epoxy resin respectively. The various mechanical tests are carried out on the CSPG/Epoxy resin bio composites in order to obtain the following mechanical properties like, percentage of elongation, tensile strength, Young's modulus, compressive strength, flexural strength, hardness and impact strength will be evaluated and compared with each other samples.

II. Materials

The matrix material i.e., epoxy resin (LY556) and hardener (HY951) were procured from Covai Seenu & Company limited, Coimbatore, Tamilnadu, India. The filler material i.e., coconut shells are obtained in raw condition from senthur velan oil mills, Erode, Tamilnadu, India.



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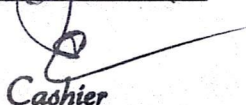
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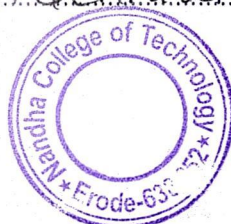
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