



# Civil Info

Civil Engineering

News Letter Volume-IV Issue-III October-November(2019-2020)



**"NO MATTER HOW LONG YOU HAVE TRAVELED IN THE WRONG DIRECTION  
YOU CAN ALWAYS TURN AROUND "**

A NIKHIL SATYA SAI (178T1A0101) and K SAI SRINIVASA MANIKANTA (178T1A0123) students of third year were selected for JNTUK Cricket Team. They played south zone inter university tournament which was held in Mysore. The team reached up to pre quarters Finals. Nikhil took 9 wickets and Manikanta 7 wickets in the overall tournament



P.SURESH KUMAR (188T5A0136) student of third year , won bronze medal in Power Lifting and Body Lifting championship which was held at Priyadarshini Institute of Technology & Science , Tenali.



Name : P. Suresh Kumar

Game : JNTUK intercollegiate Weightlifting ,  
Powerlifting & Bodybuilding Championship  
2019-20

Lifting Load : Total load 145kgs in Weightlifting

Medal : Bronze 🏅 in Weightlifting

College : Priyadarshini Institute of Technology &  
Science, Chintalapudi, Tenali.



# Technical Topics



## BOLLARDS

A bollard is a short post used to create a protective or architectural perimeter. They come in a wide variety of shapes and styles to accentuate or visually stand out in their settings. Bollards can be made from almost any material, depending on their needed function, but the most common bollards are metal, stone, cement, or plastic.

### APPLICATIONS OF BOLLARDS

Bollards have become a ubiquitous part of the modern landscape. Planners and architects use them to manage both pedestrian and vehicle traffic enhances landscape and architecture, light pedestrian pathways, secure and protect buildings and people, and provide bike parking. Bollards are also now being used indoors, in warehouses, for asset protection.

### TYPES OF BOLLARDS

- Traffic Line or Street Bollards
- Pedestrian Bollards
- Construction Bollards
- Security Bollards
- Ram-Raid Bollards
- Bicycle Parking Bollards



### INSTALLATION OF BOLLARDS

1. Layout the desired location for the bollard placement and mark the center point.
2. Dig a hole using a post hole digger. The diameter of the hole should be the diameter of the bollard plus 6 inches and it should be 18 to 24 inches deep.
3. Mix the concrete following the manufacturer's printed directions on the bag label. Add an extra 1/2-gallon of water to make the mix slightly wetter. This will help the concrete flow to fully pack the post hole.
4. Insert the bollard into the hole and use a level to hold it plumb.
5. Shovel the concrete mix into the hole opening around the perimeter of the bollard. Gently tap the bollard's side with a rubber mallet or hammer while inserting the concrete mix to help pack the mix and fill the mix up to the ground level.
6. Allow the concrete mix to cure for a minimum of 48 hours to complete the bollard installation.

--M.VINEELA

Assistant Professor

## GLOW STONE AGGREGATES

Designed for indoor and outdoor applications, AGT's glow aggregates absorb and store natural and artificial light energy, from both the sun and artificial lighting. Once the light source is no longer present, AGT's glow pigments begin releasing their stored energy.

They utilize a proprietary formulation of powerful, patented photo-luminescent pigments, so they will emit their glow for 12 hours or longer to provide a self-generating ambient light source.

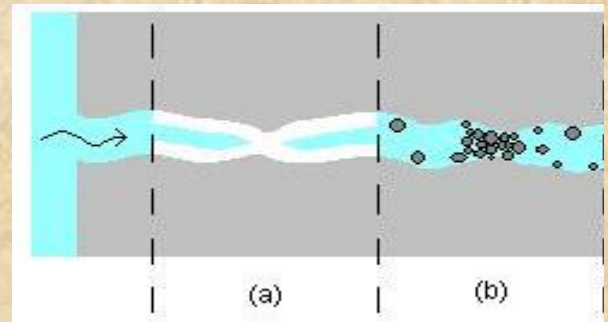
The aggregates can be seeded decoratively in a variety of ways, ranging from pool decks, patios and outdoor entertainment areas to kitchen countertops and bathroom vanities. They can also serve as an effective, self-emitting way-finding system in low-light areas such as stairways and hallways.



By  
CH HEMA SINDUSHA  
Assistant Professor

## BACTERIAL CONCRETE

Self-healing materials are a class of smart materials that have the structurally incorporated ability to repair damage caused by mechanical usage over time. The inspiration comes from biological systems, which have the ability to heal after being wounded. Initiation of cracks and other types of damage on a microscopic level has been shown to change thermal, electrical, and acoustical properties, and eventually lead to whole scale failure of the material. Usually, cracks are mended by hand, which is unsatisfactory because cracks are often hard to detect.



This bacterial concrete is also known as bio concrete. Hedrick jonkers is a Dutch scientist invented the bacterial concrete in the year of 2006. Over the years, scientists and engineers around the globe have experimented with various healing agents to perfect self healing concrete. Some of these healing agents have been bacteria, sodium silicate, and even fungus.

The bacterial concrete is importantly made to increase the durability and the life span of the structure. The cracks less than 2mm can be auto filed by the concrete; if the crack is more than 2mm then we have to pass the chemical and other mixtures to fill the face of the object or to repair the structure.

**IF THE WATER IS ADDED TO THE CRACK SURFACE WHEN THE WALL IS OF BACTERIAL CONCRETE THE WALL GET HEAL BY THE METABOLIC ACTIVITY AND THE CRACK WILL FILL ITSELF.**

By: -  
N.Mohith Datta {188T5A0131}

R.VenuMadhav {188T5A0137}



# संस्कृत इलमइक्रुथि



**Classical Dance Folk Dance and M<sup>3</sup> Talentia (Mime , Mimicry, Mono Action )** Competitions were held for all the B.Tech Students by **DhaneKula Samskruthi** for the occasion of **Dussera Festival** on **October 4<sup>TH</sup> 2019**. Total 9 students participated in the **M<sup>3</sup> Talentia** from Civil Department in that 2 students have won won the 2<sup>nd</sup> and 3<sup>rd</sup> Prize in the institute level .

S. No	Event Description	Type Of Event	Student Details			Award
			Reg.No	Name	Year & Branch	
1	M <sup>3</sup> Talentia	Solo	178T1A0149	P.N.Unnath Kumar	III CE-A	II
2	M <sup>3</sup> Talentia	Solo	178T1A0161	V.Giridhar	III CE-B	III

**EDITORIAL FACULTY**  
**MS. K SRIMUKHA, ASST PROF.**

**DESIGN TEAM**

**P.N. UNNATH KUMAR III YEAR**  
**V GIRIDHAR III YEAR**

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