



Civil Info

Civil Engineering

News Letter Volume-V Issue-V February-March (2018-2019)



"THE MIND IS EVERYTHING. WHAT YOU THINK YOU BECOME"

The Department of Civil Engineering had conducted a PARENTS MEET on 02-02-2019 for 2nd, 3rd and 4th year students of CE. The Parents meet was conducted at the CE department seminar hall which is started at 02:00 Pm and completed by 04:30 PM evening. Head of the Institution Dr. K. Ravi garu, addressed the parents for an hour addressing different activities, policies and procedures following in the department and later parents interacted with the respective class in charges, counselors and the subject teachers and collected suggestions and feedback forms from parents.



ROAD SAFETY AWARENESS

On 9th February 2019, College NSS unit have organized Road Safety Awareness at college Premises and Ganguru center. This session have received encouraging response from student volunteers of NSS and Society

Almost 100 above Students have participated along with NSS Program officer and staff coordinators have participated in this and made the session fruitful. The session was headed by All Department Head's which was a special attraction.

At the end of session student volunteers have shared the Knowledge on Traffic Rules with Public, Student volunteers have performed a flash Mob in the center which was a special attention.



DRUG FREE INDIA-CAMPAIGN

On 19-02-19 DIET- National Service Scheme (NSS) in association with ART OF LIVING have Conducted Awareness Program on Drug Free India (DFI) This was initiated by Gurudev Sri Sri Ravi Shankar in the state of Haryana which was relay in the Auditorium for 2 Hours After completion of Program, Representatives from ART OF LIVING Smt D.Durga Sakthiamma ,Sri. Raju and Dr.K.Vinod Kumar also shared their views with students



Maha Siva Ratri Festival

The National Service Scheme (NSS), in association with Sri Rama Lingeswara Swamy Temple Yalamalakuduru have served the Pilgrims Visiting the Temple During Maha Siva Ratri on 04-03-2019. All the NSS Student Volunteers have served food for pilgrims, helped in traffic control, Guided people.



JNTUK C -ZONE INTER COLLEGIATE

JNTUK C-Zone Inter Collegiate men tournament 2018-19 was organized by Dhanekula Institute of Engineering and Technology during February 15th and 16th 2019. Dr. N. Srinivasa Rao Garu Secretary, University Sports council, Krishna University was the chief guest, Dr. G. Syam Kumar Garu Secretary, University Sports council, JNTUK was the Guest of Honour

More than 900 students from 26 Engineering Colleges affiliated by JNTUK, participated in various team events such as Kabbadi, Kho-Kho, Volley Ball, Basket Ball, Tabel tennis and badminton.



JNTUK C-Zone Inter Collegiate men tournament has held from 15.02.2019 to 16.02.2019 at DIET college, our college won runners in kho-kho under the captaincy Satish. Congratulations to all the members of kho-kho team



Farewell Day Celebrations:

Civil Engineering department III year students organized Farewell party “NEVER SAY GOODBYE” on 8th March 2019 in the civil seminar hall where students of III-year bid farewell to the outgoing students of IV year with great enthusiasm and off course nostalgia.

The function began with the welcoming Head of Department, staff and IV-year students. Later they played a video clip for IV-year students in which all the memories of students have been recalled.

Many events were conducted on that all the seniors and juniors has joined and enjoyed the event well. Also, students shared their views and experience about the department.



We the people, With the people at Dhanekula Institute of Engineering and Technology. Wall painting was made about fuel conservation on 15.2.2019.



Art by II year student Kolli Harsha Vardhan Chowdary (178T1A0131)



Annual Day Celebrations

The Annual Day was celebrated in our college on 2nd March of 2019 At 6:00pm in the open auditorium. The chief guest's for the annual day is **Mr. K. V. S. Baba Chairman & Managing Director(POSOCO) and Dr.Arja Sri kanth Commissioner Andhra Pradesh Bhavan, New Delhi**. Many events were conducted on that event and prizes were distributed to the winners in the sports and cultural competitions on that occasion and medals were distributed to the toppers in the academics.

Academic Awardees

CHIMATA DIVYA(158T1A0118)
SECURED GOLD MEDAL



PARVATANENI SHESHIDHAR (158T1A01A6)
SECURED SILVER MEDAL



Samskruthi Prize Winners

S.NO	ACTIVITY	NAMES		SECURED PRIZE
1	Rangoli	158T1A01A2-IV CE	T.Vimala Priya	I Prize
		158T1A0162-IVCE	R.Charishma	
		158T1A0171-IV CE	D.Samardha Lakshmi	
		158T1A0192-IV CE	J.V.Lahari	
2	Kite flying	178T1A0112-II CE	D.G.K.Varma	I Prize
		178T1A0121-II CE	G.Phanendra	
		178T5A0107-III CE	G.Leela Ganesh	II Prize
		178T5A0119-III CE	M.Venkata sai Teja	
3	Painting	178T1A0131-II CE	K.Harsha Vardhan	I Prize
4	Dance Solo	168T1A0172-III CE	S.Uma Maheswarao	I Prize
5	Dance Group	158T1A0166-IV CE	T.Sai Pranav Keerthan	I Prize
		168T5A0124-IV CE	Sourav Roy	
		168T5A0125-IVCE	S.Upendra	

Annual Day Celebrations

Sports Prize Winners

S.NO	ACTIVITY	NAMES		SECURED PRIZE
1	TABLE TENNIS	178T1A0101	A Nikhil Satya Sai	RUNNER
		178T1A0123	K S S Manikanta	
2	CRICKET	178T1A0101	A Nikhil Satya Sai	WINNER
		178T1A0123	K S S Manikanta	
		168T5A0108	G Naveen	
		158T5A0130	R Vamsi	
		168T1A0163	P Sai Vamsi	
		168T1A0121	E Barghav	
		178T1A0120	G N V Sai Pavan	
		188T1A0120	K Sai Charan	
		188T1A0145	A Jetendra Bhaskar	
		178T1A0134	S Harsha	
		168T1A0165	P Jagadish Varma	
		178T1A0153	Sk Aman	
		168T1A0168	P Jagadish	

Glimpse of Annual Day



Green Roofs Could Reduce Indoor Air Pollution

Green roofs -- roofs that are planted with vegetation -- may improve the indoor air quality of commercial buildings by cutting the amount of ozone coming into the buildings from the outside, according to new research from Portland State University.

The findings add to the already known environmental benefits of green roofs, including reducing carbon dioxide, decreasing storm water runoff and cutting down on urban heat, according to PSU researchers.

The researchers from PSU's departments of Mechanical and Materials Engineering, Biology and the university's Honors College, set up measuring devices on the roof of a big-box retail store in North Portland that was split between a green roof and a more conventional white membrane roof.

They measured the air coming into the building from outdoor intake vents, and found that the air coming in from the green roof area had modestly lower ozone levels than the air coming in from the unplanted area. They found that the vegetation trapped and filtered the ozone in the outdoor air.

The trapping effect is a process known as dry deposition, in which airborne particles collect or deposit themselves on solid surfaces. It's a natural process that is key to removing pollutants from the atmosphere.

The study was conducted over a two-day period. The authors said the findings warrant a longer-term study -- one that could include measuring other pollutants as well as ozone.

By
G Naga Venkata Ravi Teja(168T5A0107)

Ternary Blends

Ternary blends of mineral admixtures are now recommended for improving the durability of important concrete structures. An outstanding example is the Reconstruction of the New I-35 W St. Anthony Falls Bridge crossing the Mississippi River in Minneapolis, US. The new bridge has been opened to traffic in September 2008, less than 14 months after the collapse. HPC has been used for reconstruction with a target 100 year life span. High Performance Concrete containing silica fume and fly ash was used for low permeability.

Two gleaming white concrete sculptures tower 9 m high at each end of the bridge. The sculptures were pre-cast using an SCC mix that included photo-catalytic cement with self cleaning and pollution reducing characteristics. The photo-catalytic cement is one of the new developments in the construction materials industry. The SCC concrete resulted in a marble-like, smooth white finish to the concrete surface. With a low water cementitious material ratio (w/cm), air entrainment and a rapid chloride permeability test (RCPT) value of less than 1500 coulombs at 28 days, the monument will also be a durable feature in the severe environment adjacent to the I-35 W Roadway.

For the drilled shaft foundations of the I-35 Bridge, SCC was used. To control temperature during curing, fly ash and slag were incorporated as the majority of the cementitious material. This reduced the heat of hydration by approximately 50%. The concrete mixes for the footings and piers were proportioned for mass concrete and durability through the use of fly ash and slag. As the components were massive in size, concrete mixes were modified by cementitious materials, chilled water and cooled aggregates, use of form insulation and internal cooling pipes.

By
K Naga Samhitha(158T1A0144)

TECHNICAL TOPICS

Green Concrete

What is Green Concrete?

A concrete that uses less energy in its production and produces less carbon dioxide than normal concrete is green concrete. Green Concrete is taken to mean environment-friendly concrete.

Why Green Concrete?

The main ingredient in concrete is cement and it consists of Limestone (Calcium Carbonate CaCO_3). During manufacture of cement, its ingredients are heated to about 800 – 10000 C. During this process the Carbon Dioxide is driven off. Approximately 1 kg of cement releases about 900 gms of Carbon Dioxide into the atmosphere. Therefore, green concrete came into existence to reduce the emission of carbon dioxide.

Materials for Green Concrete

- 1- Locally available: Construction materials, components, and systems found locally or regionally, saving energy and resources in transportation to the project site.
- 2- Salvaged, re-furnished, or re-manufactured: Includes saving a material from disposal and renovating, repairing, restoring, or generally improving the appearance, performance, quality, functionality, or value of a product.
- 3- Reusable or recyclable: Select materials that can be easily dismantled and reused or recycled at the end of their useful life.
- 4- Recycled Demolition Waste Aggregate
- 5- Recycled Concrete Aggregate
- 6- Blast furnace Slag
- 7- Manufactured Sand
- 8- Glass Aggregate
- 9- Fly ash

Mix Design

- 1- Optimizes void space between aggregates by optimizing particle proportions and packing of materials. This makes more effective use of the cement binder.
- 2- Aggregates replace excess cement paste to give improved stability, less shrinkage and increase in strength and durability.
- 3- Less cement also generates less heat of hydration.
- 4- The slump of the concrete and its flow are a function of the shape and the quantity of the predominant size of the aggregate in the mix.
- 5- Use of more fine aggregate gives higher slump and flow. So the optimum proportions of coarse and fine aggregate must be critically found to have the best and dense concrete in both fresh and hardened stage of concrete.

Improved Properties

- 1- Mix can result in a reduced paste volume within the concrete structure resulting in a higher level of protection against concrete deterioration.
- 2- Higher strength per kilogram of cement
- 3- Increased durability and lower permeability
- 4- More aggregates typically mean higher Modulus of elasticity.

Advantages

- 1- User-friendly
- 2- Optimized mix designs mean easier handling, better consistency and easier finishing
- 3- Reduction in shrinkage and creep
- 4- Green Concrete uses local and recycled materials in concrete.
- 5- The heat of hydration of green concrete is significantly lower than traditional concrete
- 6- This result in a lower temperature rise in large concrete pours which is a distinct advantage for green concrete.



By
Mrs. T Rajini Devi
Asst.Prof

Innovation Day:

Entrepreneurship Development Cell of Dhanekula Institute of Engineering and Technology (DIET), in association with Global Business Incubator (GBI), celebrated Innovation Day, Innovate Dhanekula2k19 in the institution campus at Ganguru village, in the Krishna district on 9th March 2019.

Young engineers of various streams discussed on creativity and on how to work on innovative ideas and projects to be successful as good entrepreneurs in the global market.

The Chief guest was Mr. Tomoyuki Yamato, Director World1 solutions from Japan. The team interacted with the students about entrepreneurship along with sharing their life experiences.

Principal Kadiyala Ravi advised students to take up field visits, acquaint themselves with modern technology which is the need of the hour.

“Students who come up with innovative ideas can only sustain in the market. The new projects should help to find out a solution for the challenges being faced by common man in the society,” said Mr. Ravi. Student ideas are presented in the afternoon session.

DIET faculty others participated in the programme.



Art by II year student Kolli Harsha Vardhan Chowdary (178T1A0131)



PLACEMENTS

Jaswanth. Vellanki (158T1A0130) has placed in **TALENTIO** as a Training Specialist(Verbal trainer) with a package of 3LPA .



Abdul rashid Khan (158T1A0102) has placed in **Aliens Space Station** as a Procurement Engineer with a package of 2LPA and also placed in nouveau medicament as a Medical representative with a package of 2.4LPA



Nabeel.Ahmed (158T1A0142) has placed in **Amazon** as a CRM with a package of 2.6LPA and also placed in Aliens Space Station as a Procurement Engineer with a package of 2LPA and also placed in Techmahindra as a Technical support associate with a package of 2.6LPA



S.Sai Supraja (158T1A0168) has placed in Aliens Space Station as a Procurement Engineer with a package of 2LPA



Saurav Roy (168T5A0124) has placed in Aliens Space Station as a Procurement Engineer with a package of 2LPA



PLACEMENTS

T.Sai Pranav Keerthan (158T1A0166) has placed in **Aliens Space Station** as a Procurement Engineer with a package of 2LPA and also placed in **nouveau medicament** as a Medical representative with a package of 2.4LPA.



R.Sai Charishma (158T1A0162) has placed in **Aliens Space Station** as a Procurement Engineer with a package of 2LPA



V.Divya Sai (168T5A0127) has placed in **Aliens Space Station** as a Procurement Engineer with a package of 2LPA.



B.Reshma (158T1A0161) has placed in **Aliens Space Station** as a Procurement Engineer with a package of 2LPA.



K.Naga Poojitha (158T1A0108) has placed in **Aliens Space Station** as a Procurement Engineer with a package of 2LPA



T.Vimala Priya (158T1A01A2) has placed in **Aliens Space Station** as a Procurement Engineer with a package of 2LPA



PLACEMENTS

Jetty.Venkata Lahari (158T5A0192) has placed in **Aliens Space Station** as a Procurement Engineer with a package of 2LPA.



Samardha Lakshmi.D (158T1A0171) has placed in **Aliens Space Station** as a Procurement Engineer with a package of 2LPA



Ganta Ravi Teja (168T5A0107) has placed in **Aliens Space Station** as a Procurement Engineer with a package of 2LPA.



K.Krishna mohan (158T1A0131) has placed in **nouveau medicament** as a Medical representative with a package of 2.4LPA



Gopili Naveen (158T1A0108) has placed in **Aliens Space Station** as a Procurement Engineer with a package of 2LPA and also placed in **Election** as a CAE Trainee with a package of 2.4LPA



Hari prasad (158T1A0125) has placed in **nouveau medicament** as a Medical representative with a package of 2.4LPA



Consulting

Devise and implement civil engineering design solutions for a wide variety of projects and an array of clients.

Consulting offers a multitude of career opportunities in firms ranging in size from less than 10 people to more than 1,000. At smaller firms, civil engineers have the opportunity to work on numerous varied projects, design challenges, and management-related activities. At larger firms, they can focus on specific projects, design expertise, and business management, depending on the core competence of the firm. Whether at a small or large firm, civil engineers in consulting generally start with basic engineering evaluations, computations, and design, which opens the door to many career paths and flexibility to change paths if they so choose.

Industry

Use civil engineering to bring innovation to industry for more successful and cost-effective operations, processes, and products.

In industry, civil engineers work in diverse settings including manufacturing, technology, pharmaceuticals, public facilities and utilities, and many others providing goods and services to the public. They manage large plants, oversee the design/construction of facilities, and obtain critical environmental, construction, and operating permits. Civil engineers are instrumental in new ventures requiring environmental site assessments and feasibility studies. They make significant contributions to decrease costs, increase profits, and produce smaller environmental footprints by developing more efficient processes, implementing waste minimization programs, and finding creative solutions to a wide range of issues.

Construction

Build a sustainable future—ensuring safety and excellence in the built environment.

In construction, civil engineers may work for a contractor to create the built environment, transforming engineering and architectural design drawings from paper to reality. They are involved in projects of every size and complexity from airports, bridges, and tunnels to local roads and the water and wastewater lines to our homes. The core civil engineering curriculum provides an excellent foundation for the critical thinking necessary to work in the construction sector. Additional classes in project management, safety, scheduling, estimating, and risk management are recommended. As construction is hands on, early field experience is essential to building your career. Civil engineers in the construction sector are instrumental in building and maintaining the world we live in.

*All the best for
the upcoming
semester end
exams*

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