

# CIVIL TECH AND TRENDZ

MAGAZINE OF CIVIL ENGINEERING DEPARTMENT  
JULY - DEC 2019



**THERE'S  
A LOT  
INSIDE....**

**CHECK AND EXPLORE THE MARVELS**

Let me guide you along the way through this magazine.



DEPARTMENTAL EVENTS

ACHIEVEMENTS AND  
RESEARCH PUBLICATIONS

ARTICLES AND MARVELS

FAMOUS ENGINEER

TRICK ZONE

ARTS....

...THERE IS MUCH MORE.....





# DEPARTMENTAL EVENTS

**DR K.L. RAO BIRTHDAY CELEBRATIONS ON 15-07-2019**



Students Participating In Creative Writing Competition



Principal Dr .K. Appa Rao Awarding The Winners



# TWO-DAY WORKSHOP on SKETCHUP- PRO

30-08-19 to 31-08-19



Hod Dr .V. Ramakrishna Addressing The Students About Work Shop



Resource Person Interacting With Students



Students Getting Certificates From Resource Person And Hod



# TWO DAY WORKSHOP ON GISPROFESSIONAL TRAINING during 06.9.2019 to 07.9.2019



Dr K.B. Chari addressing the students



Section of Gathering



# Three-Day Faculty Development Program on "GIS Professional Training" during 06.11.2019 to 08.11.2019

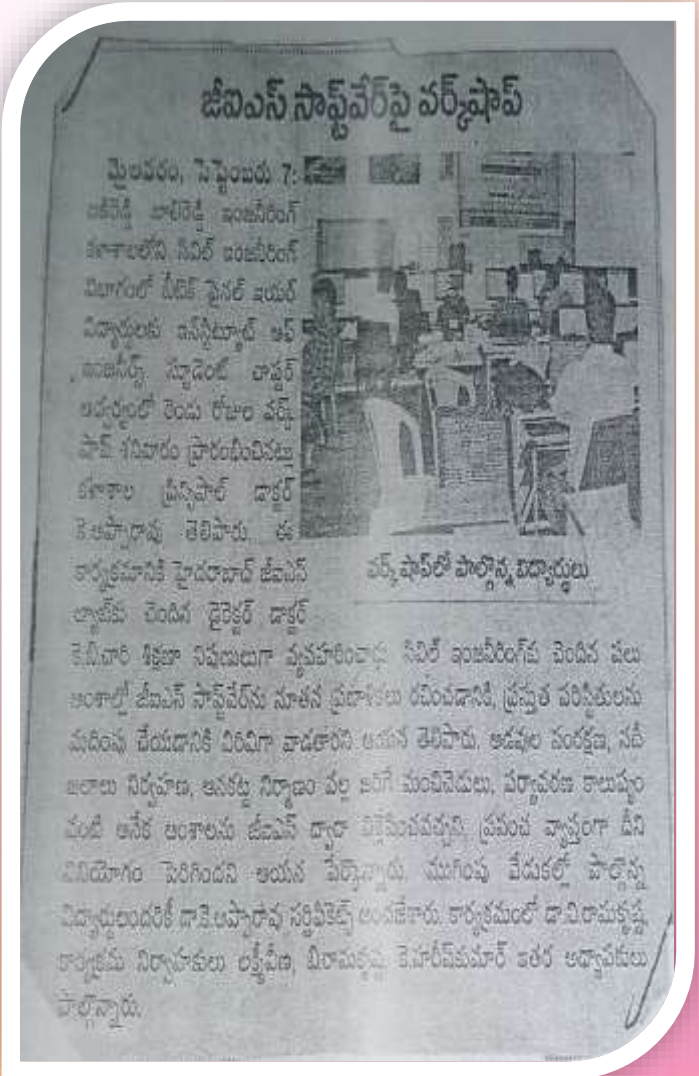


Resource Person DR. K. Chari Delivering Lecture





# NEWS ARTICLES



# ACHIEVEMENTS

## ACADEMIC ACHIEVERS

### **ACADEMIC MERIT ONGOING**

1. CHUNDURU GAYATHRI (15761A0114)
2. ADUSMALLI NAGARAJU (16761A0101)
3. PINGALA MOHAN SAI TEJA REDDY (17761A0141)
4. KOTA SIVA SATYANARAYANA (18761A0122)

## EXTRA-CURRICULAR ACHIEVEMENTS

### **CREATIVE WRITING (15-07-19 ) BY VARADHI STUDENT CLUB**

- 1.S. NAHEER(19765A0117)
- 2.G. RESHMA(17761A0117)

### **ELOCUTION (15-07-19) BY VARADHI STUDENT CLUB**

- 1.B. SOWJANYA(17761A0108)
2. P.PANI POORNIMA(18761A0130)

### **EXTEMPORE(09-10-19) BY SPOORTHI LITERARY CLUB**

1. G. RESHMA(17761A0117)

### **LAKSHYA 2K19 (21-12-19)**

- 1 .B.GURAVA REDDY(18761A0102 ) and K.SIVA SATYANARAYANA (18761A0122 ) in MEDHA .

**Scientists dream about doing great things. Engineers do them.**

**James A. Michener**



# RESEARCH PUBLICATIONS

- ❖ **G. Rambabu, P.Mohana Ganga Raju, J. Eeshwar Ram.** “Determining the Strength Properties of Concrete using Plastic Waste (Synthetic Polymers & Thermoplastic Polymer Resins”, International Journal Of Recent Technology And Engineering (IJRTE), ISSN: 2277-3878, Volume-8 Issue-2, July 2019, Page No: 1314-1316.
- ❖ **M.Manoj Kumar, S.Hari Prasanna Rao, B.Lalithya, P.Sai Bhargavi, A.Pavan kumar.** “Level of Service of Roads in Vijayawada”, International Journal Of Recent Technology And Engineering (IJRTE), ISSN: 2277-3878, Volume-8 Issue-2, July 2019, Page No: 1373-1378.
- ❖ **K. Harish Kumar, T. Sai Teja, B. Ramesh** “Quality Improvement On Properties Of Concrete By Using Lightweight Aggregates”, International Journal Of Recent Technology And Engineering (IJRTE), ISSN: 2277-3878, Volume-8 Issue-2, July 2019, Page No: 4550-4554.

# ARTICLES

## *PROTA STRUCTURE 2018*

Prota structure is an innovative solution for structural engineers and all in one package for multi material modeling with steel ,concrete and composite members and analyze and design buildings quickly

 <p><b>Achieve faster design times</b></p>	 <p><b>Manage changes easily</b></p>
 <p><b>Produce intelligent drawings quickly</b></p>	 <p><b>Deliver full design documentation effortlessly</b></p>
 <p><b>Supports International Design and Seismic codes</b></p>	 <p><b>First class support from Prota's experts</b></p>

From one central model we can easily compare different schemes and automate your steel and concrete design, reducing design time, detailing of building structures and increasing project profitability.



Use advanced integrated features including grouped member design, 3D FE analysis staged construction and seismic design foundations and punching shear checks to quickly produce results. Handle changes with ease and seamlessly coordinate projects with architects, owners and other stakeholder with intelligent integration.

Produce high quality drawings all design documentation from prota structure automatically using included prota details and prota steel. Save time and increase project profits with prota structure. It is designed with leading technology to provide you with competitive advantages over the competition .

Compiled By  
A.AMBICA TEJASWI  
16761A0102

***In Engineering , The Joints Are The Most Crucial. They Have To Be Both  
Firm And Flexible, Exactly Like The Joints In Our Body  
Haresh Sippy***

# ENGINEERING MARVELS

## *MILLAU VIADUCT*

Millau viaduct is a world largest cable -stayed bridge that spans the George valley of the tam near the Millau in southern France



Carries	4 lanes of the <a href="#">A75 autoroute</a>
Crosses	<a href="#">Gorge valley</a> of the river <a href="#">Tarn</a>
Locale	<a href="#">Millau-Creissels</a> , <a href="#">Aveyron</a> , <a href="#">France</a>
Official name	le Viaduc de Millau
Maintained by	<a href="#">Compagnie Eiffage du Viaduc de Millau</a>
<b>Characteristics</b>	
Design	Multiple-span <a href="#">cable-stayed viaduct</a> <a href="#">motorway bridge</a>
Material	<a href="#">Concrete</a> , <a href="#">steel</a>
Total length	2,460 m (8,070 ft)
Width	32.05 m (105.2 ft)
Height	343 m (1,125 ft)
Longest span	342 m (1,122 ft)



No. of spans	204 m (669 ft), 6×342 m (1,122 ft), 204 m (669 ft)
<u>Clearance below</u>	270 m (890 ft)
Design life	120 years
<b>History</b>	
Designer	<a href="#">Sir Norman Foster</a> , architect; <a href="#">Dr Michel Virlogeux</a> , structural engineer
Constructed by	<a href="#">Compagnie Eiffage du Viaduc de Millau</a>
Construction start	16 October 2001; 17 years ago
Construction cost	€ 394,000,000
Inaugurated	14 December 2004; 14 years ago
Opened	16 December 2004, at 09:00 hr
Specialities	It has the highest pylons in the world The highest bridge tower in the world The highest road bridge deck in Europe It was constructed in around 3 years with a cost of 394 millions

**COMPILED BY**  
**A.VISHNU VARDHAN REDDY**  
**16761A0158**

**Science is about knowing, engineering is about doing.**  
**Henry Petroski**

# Famous Engineer

## OLIVE DENNIS

**Birthday:** [November 20, 1885](#)

**Nationality:** [American](#)

**Famous:** [Civil Engineers](#) [American Women](#)

**Sun Sign:** [Scorpio](#)

**Born In:** United States Of America

**Famous As:** Civil Engineer

**Died On:** [November 5, 1957](#)

**Place Of Death:** Baltimore

**Died At Age:**71



### Childhood & Early Life

- Dennis was born on November 20, 1885, in Thurlow, Olive Wetzel Pennsylvania, and moved to Baltimore as a child. She developed an interest in engineering quite early on in life.
- When she was little, her parents gave her dolls to play with. Displaying her engineering aptitude, she built houses and designed furniture for the dolls instead of sewing clothes for them as expected from a young girl. She also built toys for her brother, including a model streetcar with trolley poles and reversible seats.
- She graduated from Western High School and enrolled at Goucher College from where she earned a bachelor's degree in 1908. She then went on to earn her master's degree in mathematics and astronomy from Columbia University.

### Career

- After completing her master's, Olive Dennis embarked on a teaching career and taught mathematics in a Washington vocational school for ten years. Even while working as a teacher she maintained her love for civil engineering and attended two summer sessions of engineering school at the University of Wisconsin. Then she spent a full year at Cornell University and in 1920, she became only the second woman to obtain a Civil Engineering degree from Cornell.
- Initially she faced problems in finding a job as employers were reluctant to appoint a woman engineer. Undaunted, the spirited woman kept trying and approached Daniel Willard, the President of the Baltimore and Ohio (B & O) Railroad and asked for a job.



- She found appointment as a draftsman in the engineering department of B & O Railroad in September 1920. Her initial duty was to design bridges. The following year, the president of the railroad observed that since half of the railway's passengers were women, it would be a practical move to appoint a woman for improving the passenger service.
- Thus Olive Dennis was promoted to the newly created position of "service engineer" in 1921. During her initial years, she travelled a lot in the trains, experiencing and observing the routine problems faced by the passengers.
- She worked with the railroad for three decades over which she invented and held the patent for the Dennis ventilator which allowed fresh air to enter without causing a draft. She also implemented many other innovations which helped to attract more people to travel on trains and was an advocate for air-conditioning in the coaches, dimmer overhead lights and stain-resistant upholstery.
- During World War II, she served as a consultant for the federal Office of Defence Transportation. She retired in 1951.

## **Major Works**

- Olive Dennis was a pioneering genius in the railroad industry, one of the most remarkable women engineers of her time. Over the course of her three decade long career she made rail travel more comfortable for passengers with her innovations and was the inventor of the Dennis ventilator, which was in the windows of passenger cars and could be controlled by passengers.

## **Awards & Achievements**

- One of the very few women of her era to embark on an engineering career, she became the first woman to be admitted to the American Railway Engineering Association.
- In 1940, Olive Dennis was named as one of the nation's 100 outstanding career women.

# TRICK ZONE

1. I am an odd number. Take away a letter and I become even. What number am I?
2. Can you arrange 9 numerals - 1, 2, 3, 4, 5, 6, 7, 8 and 9 - (using each numeral just once) above and below a division line, to create a fraction equaling to  $\frac{1}{3}$  (one third)?
3. Rectify the following equality  $101 - 102 = 1$  by moving just one digit
4. What mathematical symbol can be placed between 5 and 9, to get a number greater than 5 and smaller than 9?
5. What can travel around the world while staying in a corner?

## ANSWERS

1. Seven
2.  $\frac{5832}{17496} = \frac{1}{3}$
3.  $101 - 10^2 = 1$
4. decimal point - 5.9
5. stamp



STUDENT ART GALLERY



**ART BY  
NAGA SOWMYA  
18761A0105**



ARY BY  
JAHNAVI  
18761A0110