

PSN ENGINEERING COLLEGE

Melathedyoor, Palayamkottai Taluk, Tirunelveli District, Pin - 627 152.

(Approved by AICTE and Affiliated to Anna University)

An ISO 9001 : 2015 Certified Institution

Website : www.psnec.ac.in Email : principal@psnec.ac.in

☎ 04634-279078, 279079 Fax : 04634-279078



Ref No-PSNEC/2018-2019/CIVIL-III, IV/SEM/PL-01

Date: 06-05-2019

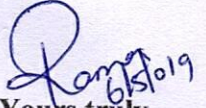
Permission Letter

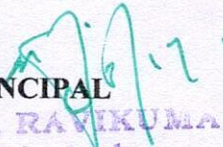
Sub: Seeking Permission to conduct seminar on Plastic Analysis of Frames-reg.

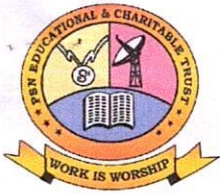
The Civil Engineering department is planned to conduct Seminar on **Plastic Analysis of Frames** for II year Civil Students in this academic year 2018-2019 on **15th May 2019** at Civil Lecturer Hall, PSN Engineering College.

Hence, we are seeking permission to conduct the above stated seminar.

Thanking you,


Yours truly
HOD / Civil


PRINCIPAL
Dr. M.S. RAVIKUMAR
Principal
PSN ENGINEERING COLLEGE
Melathedyoor, Palayamkottai
Tirunelveli - 627 152



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Ref No-PSNEC/2018-2019/CIVIL-III,IV/SEM/CR-02

Date: 06-05-2019

Circular

The Department of Civil Engineering is organizing Seminar in **Plastic Analysis of Frames** for IV year Civil Engineering students for Academic Year 2018-2019.

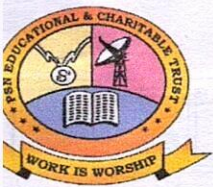
The date is scheduled for **15th May 2019** at Civil Lecturer Hall, PSN Engineering College

Thanking You,


HOD / Civil

Copy to

1. Director (Academic)
2. Director IQAC
3. All HOD's
4. PD
5. Warden
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7. Department Notice Board
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DEPARTMENT OF CIVIL ENGINEERING

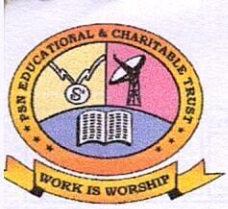
SEMINAR ON PLASTIC ANALYSIS OF FRAMES

Name of the Course/Program	SEMINAR ON PLASTIC ANALYSIS OF FRAMES
Conducted on	15 MAY2019 (one Day)
Duration (Minimum 30 hrs)	1.30hrs
Venue	PSNEC Civil Department Seminar hall
Number of Participants	18
Dept/Year/Semester	Civil/III,IV/VI,VIII SEM
Resource Person (s) Details	Mrs.Thenmozhi AP/CIVIL PSNEC
Objective of the Course / Program	1. To decide the reserve strength of structure after attaining first yields point. 2. To determine the shape factor of various cross section, decide the collapse load of the structure by statical method and mechanism method, and design the beam frame using plastic method of analysis.

REPORT ON PLASTIC ANALYSIS OF FRAMES:

PSN Engineering College Civil Department organized a seminar on “**PLASTIC ANALYSIS OF FRAMES**” on **MAY15th, 2019** in PSNEC Civil Department Seminar hall.

The Program started at **1:30 pm** with the welcome address given by respected IQAC Director, followed by Inaugural address given by **Dr.M.S.Ravikumar** (Principal PSNEC), Felicitation Address given by **Dr.N.Prabhu** (Director PSNEC). This means that although the outer parts of the beam may well have yielded and are behaving plastically, the inner parts may still be behaving elastically and resisting load. If the bending moment continues to increase, the plastic portion will move further into the Beam leaving a smaller elasticity.



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ISO 9001 : 2015

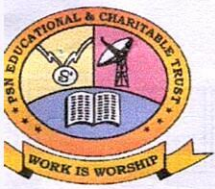


Seminar presentation by Mrs. Theinmozhion MAY 15th, 2019 at PSNEC Civil department Seminar hall



Students Interactions with Seminar presenter Mrs. Theinmozhion 15th MAY 2019 at PSNEC Civil department Seminar hall

Take a specimen beam and measure the cross section, calculate the second moment of area for the specimen. Ensure the clamp plates are removed and place the specimen beam across the chucks of the unit. Push the roller mechanism outwards to its stop. Put the pin through the load cell fork and wind the load cell down until the pin just touches the specimen beam; zero both the load cell and the indicator. Wind the load cell down to cause a measured deflection of 3mm and take a reading of the force required. Continue to wind the load cell down in 3mm step until there is no or very little increase in load for



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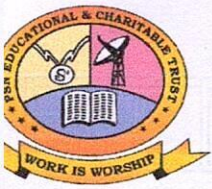
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each increment of defection. This **PLASTIC ANALYSIS OF FRAMES** topic is very useful and Students project in related to concrete.

SUMMARY:

- A one day seminar on **PLASTIC ANALYSIS OF FRAMES** was conducted in Department of Civil Engineering. The seminar starts on **15thMAY 2019** at **1:30pm**. The seminar was handled by B.Krishna Rama On that Session the students learn about focused on network system.
- This tells us that when the load reaches 1.6875 times the working load (i.e. 54 kN) a hinge will form underneath the load, at point C, 0.5 m from support A. It also tells us that it would take more than 54 kN for a hinge to form at any other place, assuming it hadn't already formed at C.
- Thus the actual collapse load factor is the smallest of all the possible load factors. Hence we can see that in analyzing proposed collapse mechanisms, we are either correct ($C\lambda=1.6875$) or we are unsafe. This is why plastic analysis is an upper bound method.



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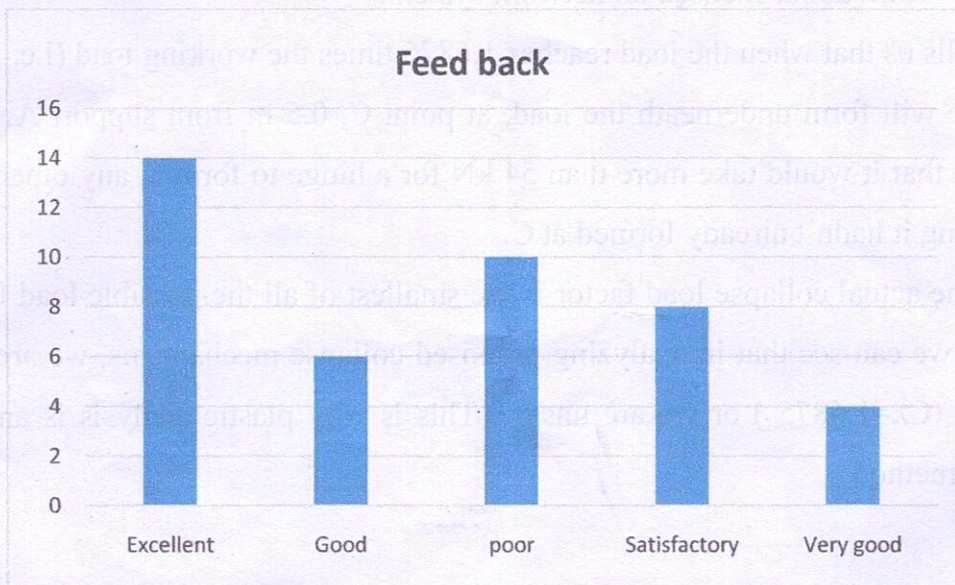
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DEPARTMENT OF CIVIL ENGINEERING

FEEDBACK ANALYSIS SEMINAR ON PLASTIC ANALYSIS OF FRAMES



Thenmozhi
In-Charge

(Mrs. Thenmozhi)

Rama
HOD/CIVIL

(Mrs.B.KrishnaRama)

Dr. M.S. Ravikumar
DIRECTOR / IQAC

**DIRECTOR
IQAC**

Dr. M.S. Ravikumar
PRINCIPAL

(Dr.M.S.Ravikumar)

Dr. M.S. RAVIKUMAR

Principal

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