S.V.A. Govt. College, Srikalahasti
Accredited by NAAC with B+ grade
Affiliated to S.V. University, Tirupati

Date: 20-11-2023

Srikalahasti

From

Dr. M. Parandamaiah
Lecturer incharge
Department of Physics
S.V.A. Govt. College
Srikalahasti

20/11/2023

To

The Principal
S.V.A. Govt. College
Srikalahasti

Madam,

Sub:– Dept. of Physics Field visit to 33kV operation subdivision substation – Request for permission – Regd.

I submit that, the department of Physics is organizing a field visit for II & III B.Sc. Physics students to the 33kV operating electrical substation in Srikalahasti. The field visit is arranged to enrich the curricular knowledge through practical demonstrations of working of transformers, electrical distribution systems, establishment of grid system and safety measures to be followed. Hence, I request you to kindly permit us to visit the substation.

Thanking you Madam,

Yours faithfully

(Dr. M. Parandamaiah)

LECTURER IN-CHARGE
DEPARTMENT OF PHYSICS
S. V. A. GOVT COLLEGE
SRIKALAHASTI, Chittoor Dist.

Encl:

1. List of Students and Staff

Copy to File

S.V.A. Govt. College, Srikalahasti
Accredited by NAAC with B+ grade
Affiliated to S.V. University, Tirupati

Date: 20-11-2023

Srikalahasti

From

Dr. M. Parandamaiah
Lecturer Incharge
Department of Physics
S.V.A. Govt. College
Srikalahasti

To

The Assistant Engineer
Operation Subdivision
APSPDCL
Srikalahasti

Madam,

Sub:– SVA Govt. College, Dept. of Physics Field visit to 33kV operation subdivision substation – Request for permission – Regd.

I submit that, the department of Physics is planning to organize a field visit for II & III B.Sc. Physics students to the 33kV operating division electrical substation in Srikalahasti. The field visit is planned to enrich the curricular knowledge through practical demonstrations of working of transformers, electrical distribution systems, establishment of grid system and safety measures to be followed. Hence, I request you to kindly permit us to visit your operation subdivision, APSPDCL 33kV substation at Srikalahasti. I also request you to kindly provide us a guide to explain various components of the unit.

Thanking you Sir,

Yours faithfully

(Dr. M. Parandamaiah)
LECTURER IN-CHARGE
DEPARTMENT OF PHYSICS
S. V. A. GOVT COLLEGE
SRIKALAHASTI. Chittoor Dist.

ASSISTANT ENGINEER
OPERATION SECTION
SRIKALAHASTI
A.P.S.P.D.C.L

Encl:

1. List of Students and Staff

Copy to

Deputy Executive Engineer, Operation Subdivision, Srikalahasti
File

Circular

Field Visit to 33 KV Operation Subdivision Substation, Srikalahasti

Date: 20-11-2023

This is to inform students of II, III MPC and MPCS that the department of Physics is organizing a field visit to **33 KV Operation Subdivision Substation**, Srikalahasti on 21-11-2023.

In this field visit, students will get

1. A practical insight into the principles and operations of electrical substations, complementing their theoretical knowledge gained in classrooms.
2. A deeper understanding of physics principles in the context of generation, transportation, operation, and distribution of electric power.

Hence, all students are hereby instructed to attend the field visit without fail.

Signature of In charge
Dept. of Physics

LECTURER IN-CHARGE
DEPARTMENT OF PHYSICS
S. V. A. GOVT COLLEGE
SRIKALAHASTI Chittoor Dist.

S.V.A. Govt. College (M), Srikalahasti
Accredited by NAAC with B+ grade
Affiliated to S.V. University, Tirupati

Field Visit to 33 KV Operation Subdivision Substation
List of Students

S. No.	Name of the candidate	Class	Signature
1	S.K. Mahamad Hussain	III MPC	
2	S.K. Ahamad Hussain	III MPC	
3	K. Uday Kiran	III MPC	
4	E. Mohana Krishna	III MPCS	
5	B. Venkatesh	III MPC	
6	T. Suresh	III MPC	
7	C. Siddulu	III MPC	
8	V. Harshavardhan	III MPCS	
9	R. Leela Prasad	III MPCS	
10	P. Pavan Kumar	III MPCS	
11	C. Venkatadri	III MPCS	
12	T. Pravallika	III MPCS	
13	C. Vinod Kumar	III MPCS	
14	P. Suresh Reddy	III MPCS	
15	P. Udaya Kumar	III MPCS	
16	K. Purna Chandra	III MPCS	
17	B. Dinesh	III MPCS	
18	T. Surendra Babu	III MPCS	
19	V. Prabhas	III MPCS	
20	K. Bhanu Prakash	II MPCS	
21	T. Gilchrist	II MPCS	
22	T. Leela Krishna	II MPCS	
23	N. Muni Prakash	II MPCS	
24	T. Surya	II MPCS	
25	M. Vamsi	II MPCS	
26	K. Venkatesh	II MPCS	

15/12/23

LECTURER IN-CHARGE
DEPARTMENT OF PHYSICS
S. V. A. GOVT COLLEGE
SRIKALAHASTI Chittoor Dist.

Field Visit to 33 KV Operation Subdivision Substation

List of Staff Members

S. No.	Name of the Staff Member	Designation	Signature
1	Dr. M. Parandamaiah	Lecturer in Physics	
2	Dr. C. Bapanayya	Lecturer in Physics	
3	Sri T. Rama Sunkanna	Lecturer in Physics	
4	Smt. B. R. Padma Priya	Store Keeper	
5	Sri SP. Masthan Vali	Record Assistant	

15/12/23

LECTURER IN-CHARGE
DEPARTMENT OF PHYSICS
S. V. A. GOVT. COLLEGE
SRIKALAHASTI Chittoor Dist.

Report on Field Visit

To

33kV Operation subdivision substation in Srikalahasti

Date: 22-11-2023

The undergraduate B.Sc MPC and MPCS students of SVA Govt. College embarked on an enlightening journey during their recent field visit to the 33kV Operation Subdivision Electrical Substation at Srikalahasti. The purpose of the visit was to provide students with a practical insight into the principles and operations of electrical substations, complementing their theoretical knowledge gained in classrooms.

Background:

Electrical substations play a crucial role in the distribution and transmission of electrical power. The Srikalahasti substation, being a 33kV operation subdivision, holds significance in the regional power grid. The students, under the guidance of their professors, delved into the intricacies of power generation, transmission, and distribution during this eye-opening experience.

Observations:

Transformer Operations: The students observed the functioning of transformers, pivotal components in power distribution. They learned about the conversion of voltage levels, an essential process for efficient long-distance power transmission.

Switchgear Systems: The visit provided an opportunity to witness the operation of various switchgear systems. Students gained insights into how these systems control the flow of electrical power, ensuring safety and reliability in the grid.

Protection Mechanisms: Understanding the importance of protecting the electrical grid, students observed the diverse protection mechanisms in place. This included relays, circuit breakers, and other devices designed to detect and respond to faults in the system.

Control Room Operations: The tour included a visit to the control room, where students observed real-time monitoring and control of the substation. This hands-on experience enhanced their understanding of the coordination required for seamless power distribution.

Safety Protocols: Emphasis was laid on safety measures, and students were briefed on the protocols followed in electrical substations. The significance of personal protective equipment (PPE) and adherence to safety guidelines became evident during the visit.

Grid Connectivity: The students were exposed to the intricacies of grid connectivity. They learned about the interconnection of substations and how a failure or maintenance activity in one part of the grid can affect the entire system.

Environmental Impact: A segment of the visit focused on the environmental impact of power generation and distribution. Students gained insights into measures taken to minimize the ecological footprint of electrical substations.

Learnings:

Practical Application of Theory: The field visit provided students with a bridge between theoretical knowledge and practical application. Concepts learned in classrooms were brought to life, fostering a deeper understanding of physics principles in the context of generation, transportation, operation, and distribution of electric power.

Interdisciplinary Connections: Students realized the interdisciplinary nature of power systems, recognizing the intersection of physics principles with engineering and technology. This holistic perspective broadened their appreciation for the interconnectedness of scientific disciplines.

Operational Challenges: The visit exposed students to the operational challenges faced by electrical substations. They gained insights into how professionals troubleshoot issues and ensure the continuous and reliable supply of electricity to end-users.

Teamwork and Coordination: Witnessing the coordination in the control room highlighted the importance of teamwork in managing a complex electrical grid. Students learned how professionals collaborate to respond swiftly to changes and challenges in the system.

Critical Thinking and Problem-Solving: The dynamic nature of the electrical grid necessitates quick thinking and effective problem-solving. Students were encouraged to analyze scenarios and propose solutions, enhancing their critical thinking skills.

Conclusion:

In conclusion, the field visit to the 33kV Operation Subdivision Electrical Substation at Srikalahasti proved to be a valuable experience for the undergraduate B.Sc Physics students of SVA Govt. College (M), Srikalahasti. The hands-on exposure provided a practical dimension to their academic learning, fostering a deeper appreciation for the complexities and importance of electrical substations in the power distribution network. This field visit not only enhanced their knowledge but also instilled a sense of curiosity and enthusiasm for further exploration in the field of applied physics and electrical engineering.

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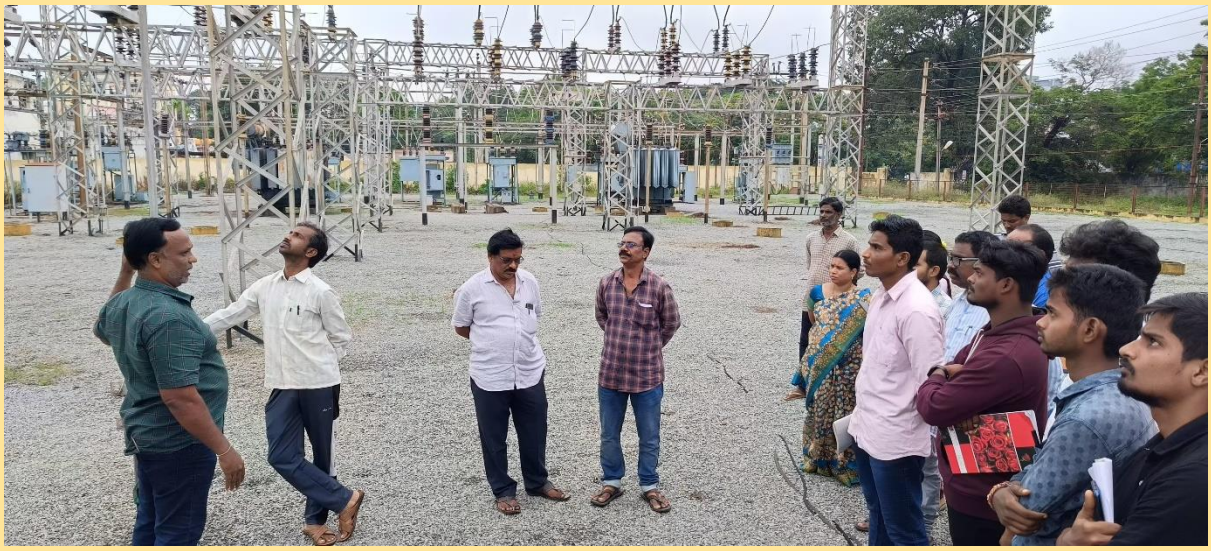
33 KV Sub Station – Sub Division – SRIKALAHASTI on 21/11/2023

Sub Station Technician Explained about the Technical things in the Power Supply.




132/33KV SUBSTATION
AP TRANSCO
SRI KALAHASTI

Date: 14-11-2023

The staff members of physics met in the department of physics staff room and made the following Resolutions.

1. Write a letter to E.E. Electricity department Srikalahasti Sub division for permission to field trip to 33/11 KV power station

2. write a letter to Director-ISRO from the department of physics for organising field visit on January/February months of 2024

3. write a letter to Director-NARL Gadanki from the department of physics for organising Educational Tour for the Academic year 2023-24 for in the month of February-2024

1. [illegible]

2. [illegible]

3. [illegible]

S.V.A. Govt. College (M), Srikalahasti

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Field Visit to 33 KV Operation Subdivision Substation

Feedback Form

S. No.	Name of the candidate	Class	Feedback	Signature
1	S.K. Mahamad Hussain	III MPC	Good Expesience	SK Mahamad Hussain
2	S.K. Ahamad Hussain	III MPC	I Gain some Experience	Sk Ahamad Hussain
3	K. Uday Kiran	III MPC	Wounderful experience	K Uday Kiran
4	E. Mohana Krishna	III MPCS	Good Expesience	E. Mohana Krishna
5	B. Venkatesh	III MPC	learn something new.	
6	T. Suresh	III MPC	Good experience	T Suresh
7	C. Siddulu	III MPC	Good Experience,	C Siddulu
8	V. Harshavardhan	III MPCS	Feeling good to get Experience	V Harshavardhan.
9	R. Leela Prasad	III MPCS	good experience, to know the power of civil	R. Leelaprasad
10	P. Pavan Kumar	III MPCS	Good experience	P Pavan Kumar
11	C. Venkatadri	III MPCS	Very nice experience	C. Venkatadri
12	T. Pravalika	III MPCS	It is very important	T. Pravalika
13	C. Vinod Kumar	III MPCS	Nice visit	C. Vinod Kumar
14	P. Suresh Reddy	III MPCS	good experience	P. Suresh Reddy
15	P. Udaya Kumar	III MPCS	Nice visit	P. Udaya Kumar
16	K. Purna Chandra	III MPCS	It's amazing Experience	K Purnachandra
17	B. Dinesh	III MPCS	It's very important	B Dinesh
18	T. Surendra Babu	III MPCS	It's useful Experience	T. Surendra Babu
19	V. Prabhas	III MPCS	Better than the Expectation	V Prabhas
20	K. Bhanu Prakash	II MPCS	Some knowledge gain in power station.	K Bhanu Prakash
21	T. Gilchrist	II MPCS	Good Experience	T. Gilchrist
22	T. Leela Krishna	II MPCS	Above Average	T Leelakrishna
23	N. Muni Prakash	II MPCS	Very good Experience	N. Muniprakash.
24	T. Surya	II MPCS	Nice visit	T Surya
25	M. Vamsi	II MPCS	M. Vamsi Good sir	M. Vamsi.
26	K. Venkatesh	II MPCS	Good experience	K. Venkatesh

LECTURER IN-CHARGE
DEPARTMENT OF PHYSICS
S. V. A. GOVT COLLEGE
SRIKALAHASTI Chittoor Dist.