Department of Electrical Engineering

INDUSTRIAL VISIT TO KOTA SUPER THERMAL POWER STATION (KSTPS)

ON DECEMBER 6TH 2022

Kota Super Thermal Power Plant is Rajasthan first major coal-fire power plant. It is located in the west bank of the Chambal River in Kota. At present the total installed capacity of KSTPS is 1240MW.

Location

Kota Super Thermal Power Station is located on the left bank of river Chambal in Rajasthan's principal industrial city Kota. Infrastructural facilities like adequate water availability in Kota Barrage throughout the year.

Sanction of Schemes (STAGE-I to V)

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Stage	Unit No.	Capacity(MW)	commissioning Date	Cost(Rs.Crore)
I	1	110	17.1.1983	143
	2	110	13.7.1983	
II	3	210	25.9.1988	480
	4	210	1.5.1989	
III	5	210	26.3.1994	480
IV	6	195	30.7.2003	635
V	7	195	30.5 2009	880

(1)	Location	KOTA(RAJASTHAN)
(2)	Installed Capacity	1240MW
(3)	Land Details	
(a)	Plant Area	204 Hectare
(b)	Ash Dump Area	423 Hectare
(4)	Cooling Water	
(a)	Source Of Cooling Water	Kota Barrage (Chambal River)

(b)	Method Of Cooling:	
	i) Unit # 1 to 5	Once through Cooling System(Open Cycle)-1180 Cusecs
	i) Unit # 6 to 7	Re-circulating through Cooling Tower - 18 Cusecs (Including Consumptive use)
(5)	Coal	
(a)	Type	Bituminous Coal
(b)	Linked Coal Mines	SECL (Korea-Rewa & Korba) & NCL (Singrauli)
(c)	Average Ash Content	28-32%
(6)	Fuel Oil :	
(a)	Type	Furnace Oil / HSD
(b)	Available Storage Capacity	HSD - 3100 KL & FO - 18600 KL
(7)	Steam Generator	M/s. BHEL make
(8)	Turbo Generator	M/s. BHEL make
(9)	Coal Handling Plant	
(a)	Stock Yard Capacity	5,00,000 MT
(b)	Wagon Tipplers	5 Nos.
(c)	Coal Crushers	10 Nos
(d)	Conveyor System	1.595 Kms
(10)	Transmission Lines	Power evacuation through 9 Nos. 220 KV outgoing feeders. Further 2 Nos. of new 220 KV feeders are under construction

RECORDS OF EXCELLENCE

Kota Super Thermal Power Station is reckoned as one of the best, efficient and prestigious power station of the country. KSTPS has established a record of excellence and has earned meritorious productivity awards from the Ministry of Power, Govt. of India during 1984, 1987, 1989, 1991 and every year since 1992-93 onwards.

KSTPS has earned golden shield award from Union Ministry of Power for Consistent outstanding performance during 2000-01 to 2003-04. The Golden Shield was presented by Hon'ble President of India Dr. A.P.J. Abdul Kalam on 24.8.04.

Experience by All the Students

We embarked on a journey of 4hrs from Mewar University Gangrar to Kota, we were about 45 Students consisting of B.tech and Diploma Students accompanied by 5 departmental faculties. Among the students are Nigerians, Yemenis, Sudanese and Indians. The students are from their respective departments as follows:

1. Electrical and Electronics Engineering(EEE)
2. Electronics and Communication Engineering(ECE)
3. Mechatronics Engineering
4. Mechanical Engineering

The journey was a peaceful and swift one. On reaching to the Power station, we saw military men on duty they were searching every person before entering the station, we were search and our phones were collected then we sign on our names before we entered the station.

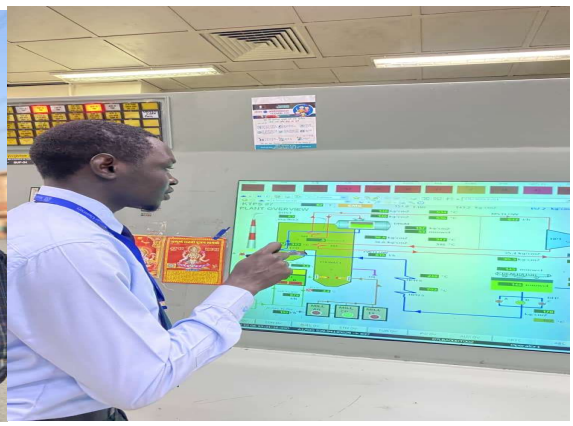
Two junior Engineers welcomed us and then took us around starting from the transportation of coal by train then the first step by human's i.e. the homogenous process of separating the coal from unwanted ones and also breaking them into smaller ones it was WOW. We were showed how power was generated through coal by means of heating then we proceed to see the condense water and also the chlorine tank. The water needs to be chlorinated before the coal heats it then reaching its condensed form by the rotating shafts of the turbines. The water needs to be chlorinated to avoid corrosion and damage to machine engines and part.

We were been taking to the Control System Room where all machines are been control by systems operated by humans from the computation of data, its analysis and documentation of accurate information of power generated daily in time frames and other important functions, we also saw the ongoing clip of the operations been carried out that very day through its architectural layout and view.

It was concluded with pictures with KSTPS Staff and Engineers, Faculties of Mewar University and other students. We journey back to the University campus though we stopped on the road and a warm reception was given to us by a restaurant where we all ate Chicken Biryani to our satisfaction with availability of bottle waters.

The journey was a beautiful experience. A very big thank you to the Management of Mewar University, department staff of Electrical and Electronics Engineering most especially Our HOD Mr. Deepak Joshi, the subject lecturer Ms. Nirma Kumar, Mr. Lone Faisal, Mr. Suraj Kumar and all other faculties who in one way or the other contributed to the success of this journey.

Photographs of Industrial Visit



Photographs of News Paper

विद्यार्थियों ने कोटा थर्मल पावर प्लान्ट का भ्रमण किया

गंगरार, 9 दिसम्बर (जसं.) । मेवाड़ विश्वविद्यालय के इलेक्ट्रीकल्स, इंजीनियरिंग, इलेक्ट्रॉनिक्स एण्ड कम्युनिकेशन विभाग के विद्यार्थियों ने कोटा सुपर थर्मल पावर प्लांट का औद्योगिक भ्रमण किया। औद्योगिक भ्रमण के दौरान सुपर थर्मल पावर प्लांट में विद्यार्थियों ने कोयले से बिजली उत्पादन के प्रक्रिया को जाना एवं बिजली के उत्पादन के उपयोग में आने वाले उपकरण जैसे राख उत्पादन, प्लांट, कोयल प्लांट, बॉयलर, इकोनाइजर, प्रोहीटर, सुपरहीटर, कूलिंग टॉवर, टरबाइन एवं जनरेटर के बारे में जानकारी प्राप्त की। इसके साथ ही विद्यार्थियों ने केएसटीपीएस के कन्ट्रोल पैनल रूम एवं रिपेयरिंग मैन्टेनस विभाग का भी अवलोकन किया और इलेक्ट्रिक उपकरणों की रिपेयरिंग के बारे में सीखा। इसी क्रम में सभी विद्यार्थियों ने केएसटीपीएस के ग्रिड सब स्टेशन का भ्रमण कर ग्रिड के उपकरण जैसे ट्रांसफॉर्मर इन्सुलेटर, आइसोलेटर, सर्किट ब्रेकर एवं लाइटनिंग एरेस्टर के बारे में जानकारी प्राप्त की।

मेवाड़ विश्वविद्यालय के विद्यार्थियों ने कोटा सुपर थर्मल पावर प्लान्ट का किया औद्योगिक भ्रमण

राजस्थान दर्शन

चित्तौड़गढ़ मेवाड़ विश्वविद्यालय के इलेक्ट्रीकल्स, इन्जिनियरिंग एवं इलेक्ट्रॉनिक्स एण्ड कम्युनिकेशन विभाग के विद्यार्थियों ने कोटा सुपर थर्मल पावर प्लांट (केएसटीपीएस) का औद्योगिक निरीक्षण किया। सुपर थर्मल पावर प्लांट में विद्यार्थियों ने कोयले से बिजली उत्पादन के प्रक्रिया को जाना एवं बिजली के उत्पादन के उपयोग में आने वाले उपकरण जैसे राख उत्पादन, प्लांट, कोयल प्लांट, बॉयलर, इकोनाइजर, प्रोहीटर, सुपरहीटर, कूलिंग टॉवर, टरबाईन एवं जनरेटर के बारे में जानकारी प्राप्त की। इसी के साथ विद्यार्थियों ने केएसटीपीएस के कन्ट्रोल पैनल रूम एवं रिपेयरिंग मैन्टेनस विभाग में भ्रमण किया। साथ ही इलेक्ट्रिक उपकरणों का रिपेयरिंग के बारे में सीखा। इसी क्रम में सभी विद्यार्थियों ने केएसटीपीएस के ग्रिड सब स्टेान का भ्रमण किया जिसके अन्तर्गत ग्रिड के उपकरण जैसे ट्रांसफार्मर इन्सुलेटर, आईसोलेटर, सर्किट ब्रेकर, एवं लाइटनिंग एरेस्टर के बारे में जानकारी प्राप्त की।

Photograh of Notice

MEWAR UNIVERSITY
CHITTORGARH (RAJ.)
OFFICE OF THE REGISTRAR

Ref. No.MU/RO/2022/4552 05th December, 2022

Office Order

Sub:-Industrial Visit of Students at KSTPS Kota.

It is hereby informed that a industrial visit will be organized at Kota Super Thermal Power Station, Kota (KSTPS) on 06th December, 2022 for the Students of Electrial Engineering and Electronics and Communication Engineering Department. Approximate 48 students of both departments will participate. Mr. Suraj Kumhar, Mr. Lone Faisal, Ms. Nirma Kumari Sharma, Mr. Ritesh Ojha, Assistant Professor and Mr. Nitish Kumar Jha, Teaching Assistant will coordinate the visit.

The following arrangements are required:

1. Transport facility (One Buses) - Mr. J.K. Rawal,
2. Water Can-3 - Mr. Kapil Chaturvedi,
3. Flex for Visit - Mr. Kapil Chaturvedi,
4. Food Packets (55) - Mr. Devendra Singh Yadav
5. Sound System - Mr. Ankit Navlakha

Buses will depart from University at 06.00 am and return to the University at 09.00 pm. Concerned Hostel wardern are advised to issue out passes accordingly.

Registrar
Registrar
Mewar University
Gangrar, (Chittorgarh)

Copy to:
1. PS to Hon'ble Chairman for kind information
2. PS to President for kind information.
3. PS to Pro President for kind information.
4. Deans/Directors/HoDs for information and circulation to all concerned
5. Accounts/Examination/Stores/Security/Library/Warden
6. Coordinator, IQAC Cell
7. All Staff/All Notice Boards.