



Ideal Education Society's

Nutan Adarsh Arts, Comm. & Smt. M. H. Wegad Science college

Manglwari peth, Umred, Dist. Nagpur (M.S.) Pin. 441203
(Affiliated to R.T.M. Nagpur University, Nagpur)

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NAAC REACCREDITED 'B++' GRADE

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Ref.No. _____ /NAMHWMU/20

Date :

Report on the Visit and Instrument Analysis in Substation at MSEB Office, Umred (Field Project of B.Sc. Physics Students)

The Department of Physics at Nutan Adarsh Arts, Commerce, and Smt. M. H. Wegad Science College, Umred, successfully organized a field project visit and instrument analysis at the Maharashtra State Electricity Board (MSEB) Sub-Divisional Office, Umred, on September 19, 2025. The objective of this visit was to provide students with practical exposure to the power distribution system, substation operations, and technical instruments used in electricity management, as well as to understand real-world challenges and their possible solutions. During the visit, students gained valuable insights into the functioning of the substation and the practical aspects of electricity distribution.

Mr. Honade, Deputy Executive Engineer, MSEB Sub-division, Umred, played a key role in making this field project a grand success. He arranged the appointment of other officers and technical staff to assist and guide the students, ensuring that they received a comprehensive and practical learning experience. His support and coordination were instrumental in making the project both successful and highly educational for the students.

Mr. N. M. S. Gaikwad, Assistant Engineer, Maharashtra State Electricity Distribution Co. Ltd., provided excellent guidance to the students during the field project and ensured that they had full access to the facilities within the substation. In addition, Mr. N. M. S. Gaikwad (Assistant Engineer, Maharashtra State Electricity Distribution Co. Ltd.) provided useful guidance to the students regarding substation operations and technical aspects.

Mr. L. T. Meshram (Principal Operator) and Mr. S. B. Bele (Operator) provided excellent guidance and valuable information to the students during the field project. They



Practically demonstrated the technical processes of the power distribution system and explained the functioning of various equipment and instruments used in the substation. Their clear and detailed explanations helped students understand the operational aspects of the substation and the real-time workflow of electricity distribution. By sharing their practical knowledge and experiences, they greatly enhanced the students' understanding of substation management and technical operations.

Mr. R. P. Dhande (Senior Technician) handled the technical aspects of the substation during the visit. He provided guidance on the operation and maintenance of various instruments and equipment, explained the technical challenges that can occur, and demonstrated the solutions. His support helped the students understand how technical issues are managed in real-world power distribution systems.

Mr. M. S. Gaudi (Security Guard) ensured the safety of the students during their visit to the substation and also guided them on essential electrical safety measures. He explained the importance of following safety protocols while working near high-voltage equipment, provided instructions to prevent accidents, and made the students aware of safe practices to be followed in a substation environment. His supervision and guidance helped the students feel secure while learning about the technical operations of the substation.

During this project, Dr. Chandrahasya Nandanwar (Assistant Professor), Ms. Pranali Hinge (Assistant Professor), and Mr. Nilesh Chaple (Assistant Professor), who acted as the supervisors of this field project, were present on-site with the students. They accompanied the students throughout the visit, provided guidance, clarified doubts, and supported them in performing the practical activities. Their supervision ensured that the students gained hands-on experience and a deeper understanding of substation operations, making the field project more effective and impactful.

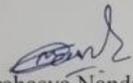
The Principal of the college, Dr. Archana Chaudhari, highly appreciated this initiative, emphasizing that the field project is not only an academic activity but also a crucial step towards the holistic development of students. She pointed out that such practical experiences allow students to apply their theoretical knowledge in real-life situations, thereby deepening their understanding of complex systems like power distribution and substation operations. She further highlighted that the project enhances confidence, technical



competence, problem-solving ability, and professional outlook, which are essential for shaping future careers.

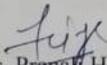
Overall, the visit and field project at MSEB Umred proved to be a valuable experience for the B.Sc. Physics students. It helped them gain first-hand knowledge of substation operations and technical instruments while also developing a sense of responsibility, self-reliance, and professional competence that will contribute significantly to their academic growth and future career development.

The field project was attended by more than 15 students, whose enthusiastic participation contributed significantly to the success of the project. The active involvement and curiosity of the students made this field project a grand success, providing them with valuable practical learning and hands-on experience in substation operations.



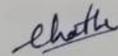
Dr. Chandrahasya Nandanwar

Assistant Professor



Ms. Pranali Hinge

Assistant Professor



Mr. Nilesh Chaphale

Assistant Professor



IQAC Coordinator

Coordinator

Internal Quality Assurance Cell (IQAC)
Nutan Adarsh Arts, Comm., & Smt. M. H.
Wegad Science College, Umred (Dist. Nagpur)



Principal **PRINCIPAL**
Nutan Adarsh Art's Com. & Smt.
M. H. Wegad Science College,
Umred Dist. Nagpur 441203



GPS Map
Camera Lite

33, नारायण सिटी, Umred, Maharashtra 441203, India

Latitude
20.83675996°

Longitude
79.31681136°

Local 12:57:51 PM
GMT 07:27:51 AM

Altitude 291 meters
Friday, 19.09.2025

Note : seminar



GPS Map
Camera Lite

33 के व्ही सब स्टेशन, नारायण सिटी, Umred, Maharashtra 441203, India

Latitude
20.83681425°

Longitude
79.31690662°

Local 12:41:04 PM
GMT 07:11:04 AM

Altitude 291 meters
Friday, 19.09.2025

Note : seminar



GPS Map
Camera Lite

33 के व्ही सब स्टेशन, नारायण सिटी, Umred, Maharashtra 441203, India

Latitude
20.83682674°

Longitude
79.31690454°

Local 12:40:22 PM
GMT 07:10:22 AM

Altitude 291 meters
Friday, 19.09.2025

Note : seminar



GPS Map
Camera Lite

33, नारायण सिटी, Umred, Maharashtra 441203, India

Latitude
20.8367857°

Longitude
79.31672431°

Local 12:16:14 PM
GMT 06:46:14 AM

Altitude 291 meters
Friday, 19.09.2025

Note : seminar



33 के व्ही सब स्टेशन, नारायण सिटी, Umred, Maharashtra 441203, India

Latitude 20.83664066° Longitude 79.31672128°

Local 11:59:58 AM Altitude 289 meters
GMT 06:29:58 AM Friday, 19.09.2025

Note : seminar



33 के व्ही सब स्टेशन, नारायण सिटी, Umred, Maharashtra 441203, India

Latitude 20.83664066° Longitude 79.31672128°

Local 11:59:58 AM Altitude 289 meters
GMT 06:29:58 AM Friday, 19.09.2025

Note : seminar

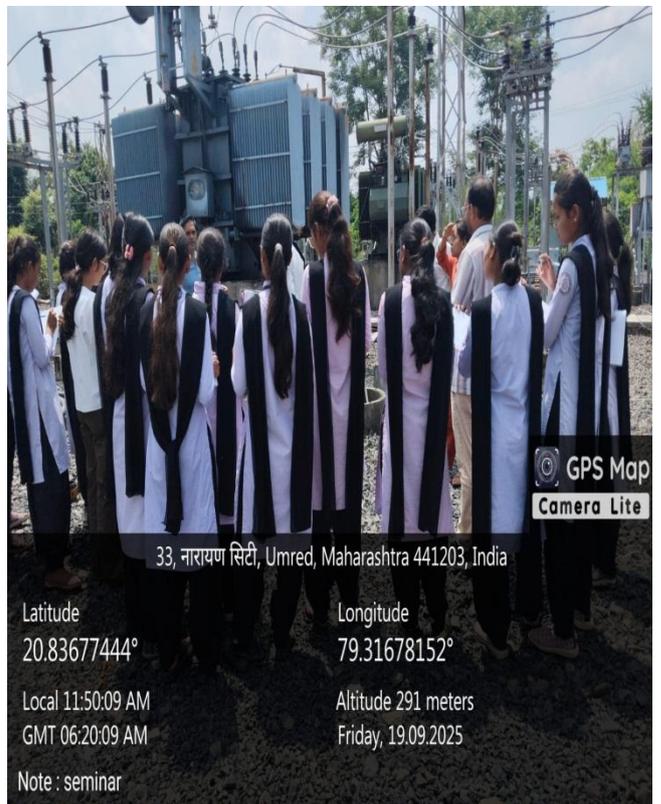


33 के व्ही सब स्टेशन, नारायण सिटी, Umred, Maharashtra 441203, India

Latitude 20.83666094° Longitude 79.31675983°

Local 12:00:55 PM Altitude 289 meters
GMT 06:30:55 AM Friday, 19.09.2025

Note : seminar



33, नारायण सिटी, Umred, Maharashtra 441203, India

Latitude 20.83677444° Longitude 79.31678152°

Local 11:50:09 AM Altitude 291 meters
GMT 06:20:09 AM Friday, 19.09.2025

Note : seminar



एमएसईबी कार्यालय में फील्ड प्रोजेक्ट सफलतापूर्वक पूरा किया

नूतन आदर्श महाविद्यालय के विद्यार्थियों ने अर्जित किया नया ज्ञान

संवाददाता उमरेड। नूतन आदर्श महाविद्यालय उमरेड के भौतिकशास्त्र विभाग के विद्यार्थियों ने महाराष्ट्र राज्य विद्युत मंडल उपविभागीय कार्यालय उमरेड में फील्ड प्रोजेक्ट सफलतापूर्वक पूरा किया। इस प्रकल्प के माध्यम से विद्यार्थियों को बिजली वितरण प्रणाली, सबस्टेशन के तकनीकी कार्य, बिजली व्यवस्थापन एवं प्रत्यक्ष क्षेत्र में आनेवाली अड़चनें व उस पर किए जाने वाली उपाययोजना के बारे में सखोल जानकारी प्राप्त करने का मौका प्राप्त हुआ। इस उपक्रम के लिए डेप्युटी एंक्विक्वटिव्ह इंजीनियर होनाडे का विशेष मार्गदर्शन प्राप्त हुआ। साथ ही सहायक अभियंता एन. एम. एस. गायकवाड ने विद्यार्थियों को सबस्टेशन का कामकाज व तकनीकी के बारे में उपयुक्त मार्गदर्शन किया। प्रिंसिपल ऑपरटर एल. टी. मेश्राम व ऑपरटर एस. बी. बेले ने बिजली वितरण प्रणाली अंतर्गत प्रक्रिया प्रत्यक्ष दिखाकर विद्यार्थियों को समझाकर बताया। वरिष्ठ तकनीशियन आर. पी. घांडे ने तकनीकी अडचण व उस पर



किए जाने वाले उपाययोजना के बारे में जानकारी दी। सुरक्षा रक्षक एम. एस. गडडी ने विद्युत सुरक्षा विषयक महत्वपूर्ण सूचना देकर विद्यार्थियों को जागरूक किया। इस प्रकल्प के दरम्यान सहायक प्राध्यापक डॉ. चंद्रहास नंदनवार, सहायक प्राध्यापिका प्रणाली हिंगे, सहायक प्राध्यापक नीलेश चाफले विद्यार्थियों के साथ उपस्थित थे। उन्होंने विद्यार्थियों को मार्गदर्शन कर प्रकल्प के प्रत्यक्ष अनुभव अधिक परिणामकारक करने में सहकार्य किया। महाविद्यालय की प्राचार्या डॉ. अर्चना चौधरी ने इस प्रकल्प की सराहना की। उन्होंने कहा कि विद्यार्थियों के लिए फील्ड प्रोजेक्ट यह केवल शैक्षणिक उपक्रम न होकर

उनके सर्वांगण विकास की महत्वपूर्ण सीढ़ी है। कक्षा में मिलने वाला सैद्धांतिक ज्ञान प्रत्यक्ष क्षेत्र में उपयोग में लाने का मौका ऐसे उपक्रम से मिलता है। बिजली वितरण प्रणाली, सबस्टेशन के कार्य व उसमें आने वाली अड़चनें विद्यार्थियों को प्रत्यक्ष अनुभव से समझती हैं जिससे उनका आत्मविश्वास बढ़ता है और शैक्षणिक ज्ञान अधिक गहरा होता है। साथ ही विद्यार्थियों में समस्याएं सुलझाने की क्षमता, तकनीकी ज्ञान एवं व्यावहारिक दृष्टिकोण विकसित होता है। भविष्य में करियर बनाने में ऐसे अनुभव अत्यंत उपयुक्त होते हैं। फील्ड प्रोजेक्ट से विद्यार्थी अधिक जिम्मेदार, आत्मनिर्भर एवं सक्षम व्यावसायिक बन सकते हैं।