

Late G. N. Sapkal College of Engineering



Kalyani Hills, Anjaneri, Trimbakeshwar Road, Nashik – 422 213

Activity Report

Particulars	Description
Department	Civil Engineering
Activity	Academic Site Visit
Activity level	Department level
Title	Academic Site Visit to Kimaya Steel, Dindori Road, Nashik.
Organized by	Department of Civil Engineering and Civil Engineering Students Association (CESA) in association with IQAC of LGNSCOE,
Venue	Kimaya Steel, Manori, Dhakambe-Ashewadi link Road, Dindori Road (Nashik) 422004
Date	October 17, 2024
Time	10:00 PM to 05:00 PM
Objectives of the activity	 This course is designed to provide understanding of IS code provisions, fundamentals of structural steel design and its applications for design of various components. Students should be able to understand components of steel structures and its arrangements Student should be able to design beams, columns, column footings, roof trusses, gantry girder and plate girders
Outcomes of activity	 Understanding IS Code Provisions and Structural Steel Design Students demonstrated a solid understanding of the relevant IS code provisions related to structural steel design. They were able to identify and explain key guidelines that govern the design and safety of steel structures. This knowledge will enable them to apply these standards in their academic projects and future professional work, ensuring compliance with industry regulations. Knowledge of Steel Structure Components and Arrangements The visit enhanced students' familiarity with the various components of steel structures, such as beams, columns, trusses, and connections. They gained
	practical insights into how these components are arranged and integrated within a structure. Many students expressed increased confidence in visualizing and conceptualizing structural designs, which will aid in their future design coursework.
	3. Practical Design Skills for Steel Components Students acquired the foundational skills necessary to design key elements of steel structures, including beams, columns, column footings, roof trusses,



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	gantry girders, and plate girders. Through discussions and observations during the visit, they learned to consider factors such as load conditions, material properties, and structural stability in their designs. This practical knowledge will be invaluable as they progress in their engineering studies and take on more complex design challenges.
Targeted Participants	43
Total no. of Participants & % of students	43 (100 %)
Speaker	Mr. Sagar Sonar, Production Engineer Mr. Omkar Dabale, Quality Engineer Mr. Amol Kulkarni, HR Manager, 9011556516
Content of the activity	Academic site visit of Design of Steel Structures
Relevance to COs	CO 01 Demonstrate knowledge about the types of steel structures, steel code provisions and design of the adequate steel section subjected to tensile force.
	CO 02 Determine the adequate steel section subjected to compression load and design of built up columns along with lacing and battening.
	CO 03 Design eccentrically loaded column for section strength and column bases for axial load and uniaxial bending.
	CO 04 Design of laterally restrained and unrestrained beam with and without flange plate using rolled steel section.
	CO 05 Analyze the industrial truss for dead, live and wind load and design of gantry girder for moving load.
	CO 06 Understand the role of components of welded plate girder and design cross section for welded plate girder including stiffeners and its connections.
Relevance to POs	PO 01 Apply the knowledge of mathematics, science and civil engineering fundamentals for solving complex engineering problems.
	PO 05 Create, select, and apply appropriate techniques, resources, and modern civil engineering tools including prediction and modeling to complex civil engineering activities with an understanding of the constraints.
	PO 08 Apply ethical principles and commit to professional ethics, responsibilities and norms of the civil engineering practice.
	PO 09 Function effectively as an individual, and as a member or leader in diverse teams, and in multidisciplinary settings.



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	PO 11 Demonstrate knowledge and understanding of management principles and apply these to one's own work, as a member and leader in a team, to manage projects and in multidisciplinary environments.
Relevance to PSOs	PSO Analyze and design various civil engineering structures and roods.
Methodology used	Field visit
	Visit Details
Brief Description of the activity	On 17th October 2023, the third-year civil engineering students of Late G. N. Sapkal College of Engineering embarked on an academic site visit to Kimaya Steel, located on Dindori Road in Nashik. This visit aimed to provide students with practical insights into steel manufacturing processes and their applications in civil engineering.
	Welcome and Introduction Upon arrival, the students were greeted by Mr. Chetan Lomte, the Managing Director, who provided an overview of the company's vision and operations. He emphasized the importance of quality in steel production and its relevance to civil engineering projects.
	Guided Tour The students were divided into smaller groups for a more engaging experience during the guided tour of the facility. The following key personnel were instrumental in guiding the students: Mr. Chetan Lomte (Managing Director) Mr. Saket Lomte (Plant Head) Mr. Vishal Godbole (Project In Charge) Mr. Amol Kulkarni (Senior HR) Mr. Sagar Sonar, Production Engineer Mr. Omkar Dabale, Quality Engineer Each guide provided insights into their respective areas of expertise, discussing the various stages of steel production, quality control measures, and the importance of safety protocols in the plant.
	Key LearningsSteel Manufacturing Process: The students observed the entire productionline, from raw material handling to the final product.Quality Control: The importance of quality assurance was highlighted, withdemonstrations of testing methods used to ensure that the steel meetsindustry standards.Applications in Civil Engineering: Discussions revolved around the variousapplications of steel in construction, including structural frames,reinforcements, and other critical components.Environmental Considerations: The company's initiatives towardssustainability and reducing the carbon footprint of steel production were alsodiscussed, emphasizing the role of civil engineers in promoting



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	environmentally friendly practices.
	Conclusion The visit to Kimaya Steel was a valuable educational experience for the students, bridging the gap between theoretical knowledge and practical application in the field of civil engineering. The insights gained from industry experts will undoubtedly enhance their understanding of steel as a fundamental material in construction.
	On successful completion of the visit, the students have understood: Demonstrate knowledge about the types of steel structures, steel code provisions and design of the adequate steel section subjected to tensile force.
	Determine the adequate steel section subjected to compression load and design of built up columns along with lacing and battening.
	Design eccentrically loaded column for section strength and column bases
	Design of laterally restrained and unrestrained beam with and without flange
	Analyze the industrial truss for dead, live and wind load and design of gantry
	girder for moving load.
	Understand the role of components of welded plate girder and design cross
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Prof. K. M. Deore Coordinator

Cabelle

Prof. Dr. V. A. Kolhe IQAC coordinator

Prof. Dr. K. A. Salunke HoD

Prof. (Dr.) S. B. Bagal Principal