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Report on Design to Reality: 5-Day Skill Development Workshop cum Internship Program on AutoCAD & Concrete Mix Design

Organized by

Department of Civil Engineering,

Dr. Sudhir Chandra Sur Institute of Technology and Sports Complex

In Collaboration with Gayeshpur Government Polytechnic Institute

Title: Design to Reality: 5-Day Skill Development Workshop cum Internship Program on AutoCAD & Concrete Mix Design

Trainers:

Prof. Baibaswata Das, Assistant Professor & TIC, Department of Civil Engineering

Prof. Sourav Kumar Singha, Assistant Professor, Department of Civil Engineering

Event Coordinators:

Coordinator: Prof. Souradeep Roy, Assistant Professor, Department of Civil Engineering

Co-Coordinators: Prof. Krishnendu Kundu and Prof. Souvik Chakraborty, Assistant Professor, Department of Civil Engineering

Date and Time: 24th, 25th, 26th November and 1st, 2nd December 2025**.**

Number of Participants: 38 students from Diploma 2nd and 3rd Year

Objective: The objective of this training program was to provide structured and application-oriented learning in AutoCAD drafting and Concrete Mix Design. The workshop aimed to help students bridge the gap between theoretical classroom knowledge and real-world engineering practices. It also sought to strengthen participants' confidence and technical abilities through hands-on sessions, practical demonstrations, and industry-standard design exercises**.**

Brief Description: The five-day workshop was thoughtfully structured to combine essential aspects of concrete technology and computer-aided drafting**.**

On Day 1 (24.11.2025), students were introduced to the fundamental principles of Concrete Technology, including concrete ingredients, properties, and the role of admixtures. The session also covered the theoretical framework of mix design as per IS 10262:2019 and IS 456:2000**.**

Day 2 (25.11.2025) provided participants with hands-on exposure to sample mix calculations for M20 and M25 grades. This was followed by practical demonstrations of batching, mixing, cube casting, and essential field practices in the Concrete Technology Laboratory.

Day 3 (26.11.2025) marked the beginning of AutoCAD training. Students learned the interface, commands, layers, units, and foundational drafting techniques. They practiced drawing basic shapes and components required in civil engineering layouts**.**

On Day 4 (27.11.2025), students advanced to drafting building plans, creating elevations and sections, and exploring the basics of 3D visualization. A drafting contest, "Fastest Accurate Drafter," was conducted to motivate students and enhance their competitive learning spirit.

Day 5 (28.11.2025) focused on testing the concrete cubes prepared earlier, allowing students to understand the relationship between theoretical calculations and actual strength results. The final session involved team-based preparation of consolidated reports summarizing their entire five-day learning experience**.**

The continuation of activities on 1st and 2nd December 2025 allowed students additional time for project refinement, report corrections, and evaluation.

Outcome: The training program resulted in significant skill enhancement among all participating students. They gained proficiency in AutoCAD 2D drafting, learned to prepare construction drawings, and understood the workflow of planning and detailing. Students developed practical competence in concrete mix proportioning, cube casting, and compressive strength testing as per Indian standards.

They were able to correlate theoretical concepts with real-time data, particularly in understanding the strength–workability relationship for different mix grades. The drafting contest and team reporting tasks further improved their time management, accuracy, and collaborative abilities. Overall, the workshop strengthened their readiness for professional roles in drafting, construction supervision, and quality control.

Conclusion: The 5-Day Skill Development Workshop cum Internship Program proved to be a highly impactful and enriching academic initiative. Through a well-balanced combination of theory and practical sessions, the workshop successfully met its intended objectives and offered students valuable exposure to industry-relevant skills. The enthusiasm and dedication exhibited by the trainers, coordinators, and support staff significantly contributed to the smooth execution of the event.

Participants expressed positive feedback and deep appreciation for the opportunity to engage in hands-on learning that directly aligns with real-world engineering practices. The program concluded with a strong sense of accomplishment among students, reinforcing the need for similar practice-oriented workshops in the future to continue building technical competence within the civil engineering domain**.**

Please find the glimpses of the event -

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Design to Reality: 5-Day Skill Development Workshop cum Internship Program on AutoCAD & Concrete Mix Design on 24th November to 2nd December 2025