Curriculum Vitae

Mr. Abhinav Agarwal (Research Scholar)
Department of Civil Engineering
School Of Engineering
Shiv Nadar University, Dadri Uttar Pradesh

Email id: aa615@snu.edu.in
Mobile: +91-9990849495

OBJECTIVE:

Seek to work in an environment that will challenge me further while allowing me to contribute to the continued growth and success of the organization. Obtain a position that will provide me the ability to apply my skills and work experience to a growing industry. Look forward to working with an organization that promotes quality products and services and provides me with the opportunity to meet and exceed assigned research goals

EDUCATION:

Course	School / College	Board / University	Year Of Passing	Percentage/CGPA	Division
M.Tech Structural	Thapar Institute of Engineering & Technology, Patiala(Punjab)	Thapar University	2015	7. 27	I
B.Tech-Civil	Krishna Institute of Engineering & Technology, Ghaziabad(U.P)	Gautam Buddha Technical University, Lucknow	2013	64%	I
12th	Ch Chhabil Das Public School, Ghaziabad (U.P)	CBSE	2009	72%	I
10th	St Pauls Academy, Ghaziabad (U.P)	ICSE	2007	70%	I

PROJECT/DESSERTATION:

M.Tech Thesis:" Properties of Cement Mortar containing GGBS and cured with CO_2" under the supervision of **Dr Shweta Goyal** (Associate Professor) Department of Civil Engineering, Thapar Institute of Engineering & Technology, Patiala

Abstract: The aim of this study was to evaluate the effect of carbon dioxide curing and normal water curing on mortar specimen incorporating GGBS as partial replacement of cement. The other properties such as water absorption, apparent weight, porosity, sorptivity, SEM and XRD are also examined on the mortar specimen. The level of replacement of cement with GGBS was varied from 10% to 50%. In all, six mixes, including the control mix, was studied. For each mix twelve 70X70X70 mm cubes and six 100mm diameter and 150mm height cylindrical mortar specimens were casted incorporated with varying percentage of GGBS as partial replacement of cement. These specimens were de-moulded after 22 hours. After demoulding half of the samples were water cured and remaining samples were kept for carbon di-oxide curing. For carbon di-oxide curing, the curing chamber with specimens was closed, vacuumed to a pressure of around 600mm Hg and maintained for 2 min before CO_2 was injected to remove all the gases from the chamber and then a constant pressure of 10psi was maintained for a period of 6 hours. The pressure inside the curing chamber was monitored by a pressure gauge attached on the curing chamber. It was found that the short term CO_2 curing promoted early strength development, which is almost equal to that of water curing at 28-day. Durability performance of the carbon-dioxide cured mortar samples was compared with normally water cured. The CO_2 cured mortar specimens were exhibited more resistance to water absorption and chloride permeability. The micro-structural analysis i.e. SEM and XRD of the mortar samples were also observed during the study. It was concluded that slower strength development due to GGBS can be compensated by small duration of CO_2 curing of the specimen.

B.Tech Project: "Analysis & Design of G+6 Residential Building using STAAD Pro" under the supervision of **Dr J. Girish** (Associate Professor and Head of the Department) Department of Civil Engineering, Krishna Institute of Engineering & Technology, Ghaziabad.

Abstract: The principle objective of this project is to analyse and design a multi-storied building [G + 6] using STAAD Pro. The design involves load calculations manually and analysing the whole structure by STAAD Pro. The design methods used in STAAD-Pro analysis are Limit State Design conforming to Indian Standard Code of Practice. STAAD.Pro is the professional's choice. Our final work was the proper analysis and design of a (G + 6) 3-D RCC frame under various load combinations. We considered a 3-D RCC frame consisting of 3 bays. The ground floor height was 3.5m and rest of the 6 floors had a height of 3.3 m. The structure was subjected to self-weight, dead load, live load under the load case details of STAAD.Pro. The materials were specified and cross-sections of the beam and column members were assigned. The supports at the base of the structure were also specified as fixed. We have also check the deflection of various members under the given loading combinations. The design of the building is dependent upon the minimum requirements as prescribed in the Indian Standard Codes. The minimum requirements pertaining to the structural safety of buildings are being covered by way of laying down minimum design loads which have to be assumed for dead loads, imposed loads, and other external loads, the structure would be required to bear. Strict conformity to loading standards recommended in this code, it is hoped, will ensure the structural safety of the buildings which are being designed. Structure and structural elements were normally designed by Limit State Method. Complicated and high-rise structures need very time taking and cumbersome calculations using conventional manual methods. STAAD.Pro provides us a fast, efficient, easy to use and accurate platform for analysing and designing structures.

EMPLOYEMENT:

- Assistant Professor, Department of Civil Engineering, IIMT College of Engineering, Gr.Noida, India (August 2016 to present)
- Design Engineer at "M.A.S Infrastructure" Ghaziabad (U.P) (Oct 2015 – July 2016)
- Site Engineer at "M.A.S Infrastructure", Ghaziabad (U.P) (June 2013-August 2013)

RELEVANT EXPERIENCE:

Project Name	**Consultancy Work**
Client	Greater Noida Authority
Position Held	Civil Engineer
Project Features	U.P Government, Greater Noida Authority Planned to lay interlocking tiles along the roads to make it easy for walking of peoples safely and also allow vehicles for standing purposes.
Responsibilities	✓ Bifurcation & marking of samples on the basis of vendors. ✓ Curing of each samples and maintains its record. ✓ Performing lab testing of each samples as per required ✓ Preparation of final report on the basis of samples tested in laboratory

Project Name	**G+17 Storey Building**
Client	MAS Infrastructure
Position Held	Design Engineer
Project Features	Private Builder, Planned to construct a high rise building in collaboration with "MAS Infrastructure"
Responsibilities	✓ Analysis and review of site plan. ✓ Preparation of drawing. ✓ Co-ordination with proof consultant and client for design related issues. ✓ Handling of site queries by providing suitable solution.

Project Name	**G+2 Residential Building**
Client	MAS infrastructure
Position Held	Site Engineer
Project Features	Private Builder, Owner Planned to construct a house for his family, a total of 3 storey needs to be constructed as per architectural plan in accordance with government rules and regulations of building design
Responsibilities	✓ Analysis and review of site plan. ✓ Review of drawings & Architectural plans. ✓ Site Layout & Laying of Reinforcement as per drawing ✓ Co-ordination with proof consultant and client for design related issues. ✓ Handling of site queries by providing suitable solution.

RESEARCH INTERESTS:

- Sustainable Concrete
- Accelerated Carbonation Concrete
- Use of Industrial By-products in cement based materials

SUBJECTS TAUGHT:

- Design Of Concrete- I (NCE- 505)
- Advance Foundation Design (NCE-011)
- Design Of Concrete- II (NCE-601)
- Ground Improvement Technique(ECE-061)
- Structure Detailing Lab (NCE-651)
- Estimation Costing & Evaluation (NCE-553)

AWARDS/FELLOWSHIPS:

- M.Tech. Scholarship by Ministry of Human Resource Development (MHRD), Government of India (2013-2015)

DISSERTATIONS AND PROJECTS GUIDED/GUIDING:

UG: Final Year Projects (FYP)

S. No.	Dissertation/Project Title	Duration
(1)	To determine the Compressive Strength of Recycled Coarse Aggregate	2017-2018
(2)	To determine the effectiveness of rice husk ash concrete	2017-2018
(3)	Analysis & Design of G+4 Residential Building using Staad.Pro	2016-2017

ADMINISTRATIVE RESPONSIBILTIES:

- NAAC Coordinator of Criteria 1, 2018
- Software Trainer as per schedule for Auto CADD & STAAD Pro.
- Student mentor.
- Member of Exam Cell, 2017
- Coordinate Industrial visits
- Final Year Project mentor

PUBLICATIONS:

Shelendra kumar, **Abhinav Agarwal**, Vipin Chauhan, *"***UTILISATION OF POLY PROPLENE FIBER IN RIGID PAVEMENT***", INTERNATIONAL JOURNAL OF CREATIVE RESEARCH THOUGHTS (IJCRT), ISSN:2320-2882, Volume.5, Issue 4, Page No pp.14 - 19*

CONFERENCES/SEMINAR:

- International Conference on "**New Horizons in Science, Engineering and Management and Humanities**" conducted at IIMT college of engineering, Gr. Noida
- International conference on " **Emerging Trends on Engineering, Technology, Science & Management"** on 12th April, 2017
- Attended a one week Faculty development Program on "**AUTO-CAD**" held during **12-17 December 2016** at IIMT College of Engineering, Greater Noida
- Attended a one week Faculty development Program on **"Application of advanced softwares in Engineering (staad.pro, Revit & 3d max)"** held during **6-12 December 2017** at IIMT College of Engineering, Greater Noida, conducted by Lelogix Design solutions Pvt. Ltd.
- Attended a one week Faculty development Program on **"challenges and innovations in Engineering"** held during **7-11 May 2018** conducted by GCET, Greater Noida under TEQIP-III Dr. APJ Abdul kalam technical university, Lucknow, Uttar Pradesh

List of workshop Attended/participated:

- Worked as a coordinator for one day **workshop on 3D Printing** held **on 24 August 2017** Organized by IIMT college of Engineering, Greater Noida and **conducted by Apron Solution Pvt. Ltd**.
- Received a certificate of completion for attending a **workshop on "ETAB**" held **on 10th January 2018** organized by Department of Mechanical Engineering IIMT college of Engineering, Greater Noida

ACHIVEMENTS:

Qualified GATE 2013 with 88 percentile

TECHNICAL SKILLS:

- ETABS
- STAAD Pro
- Auto CADD
- M.S Office

STRENGTH & SKILLS:

- Use time and resources effectively
- Efficiency in planning, and accountability.
- Hardworking and peaceful working mind.
- Flexible to adapt to any environment.

REFERENCES:

Name	Dr. Shweta Goyal	Dr. Naveen Kwatra
Occupation/ Position	Associate Professor	Professor
Address	Structural Engineering	Structural Engineering
	Department of Civil Engineering	Department of Civil Engineering
	Thapar University	Thapar University
	Patiala- 140007	Patiala- 140007
E-mail	shweta@thapar.edu	nkwatra@thapar.edu
Phone No	+91 9781715332	+91 9988821166

DECLARATION:

I hereby declare that the entries in the curriculum vitae are true to the best of my knowledge and belief.

Date:
Place: Ghaziabad

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(Signature)