

# TEXAS STATE VITA

## I. Academic/Professional Background

A. Name: VATSALYA SHARMA

## B. Educational Background

<i>Degree</i>	<i>Year</i>	<i>University</i>	<i>Major</i>	<i>Thesis/Dissertation</i>
Master of Science in Technology Management	2020	Texas State University, San Marcos	Construction Science and Management	Creating an educational training manual for producing interactive 3D construction models for a VR environment
Diploma in 3D Animation and Visual Effects	2018	Vancouver Film School, Vancouver	Visual Effects	
Bachelor of Architecture	2015	School of Planning and Architecture, New Delhi	Architecture	Adapting Architectural Elements Of Classic Indian Architecture In Modern Teaching Spaces

## C. University Experience:

<i>Position</i>	<i>University</i>	<i>Activity</i>	<i>Dates</i>
Assistant Professor of Instruction	Department of Engineering & Technology, Texas State University	Teaching CSM 4313: Architecture Design II-Technology in Construction	Sep 2024 – present
		Teaching CSM 2313: Architecture Design I-Construction Documents	
		Teaching CSM 2360: Residential Construction I-Construction Practices	
		Teaching CSM 2262: Construction Lab	
Lecturer	Department of Engineering & Technology, Texas State University	Taught CSM 4313: Architecture Design II-Technology in Construction	July 2020 – Aug 2024
		Taught CSM 2313: Architecture Design I-Construction Documents	
		Taught CSM 2360: Residential Construction I-Construction Practices	
		Taught CSM 2262: Construction Lab	

Adjunct Faculty/ Graduate Teaching Assistant	Department of Engineering & Technology, Texas State University	Taught CSM 4368: Environmentally Conscious Design	Aug 2019 – May 2020
		Taught CSM 4369: Contracts, Liability and Ethics	
		Assisted CSM 2313: Architecture Design I- Construction Documents	
Teaching Assistant	Department of Engineering & Technology, Texas State University	Assisted CSM 2313: Architecture Design I- Construction Documents	Oct 2018 – Aug 2019
		Assisted CSM 4313: Architecture Design II- Technology in Construction	
Lecturer	Department of Architecture, Madhav Institute of Technology & Science (MITS), Gwalior, India	Taught Architectural Design IV	Jul 2015 – Jun 2016
		Taught Architectural Design II	
		Taught Theory of Design I	
		Thesis coordinator: Architecture Design	
		Organizer for two study tours	

#### D. Relevant Professional Experience:

<i>Position</i>	<i>Entity</i>	<i>Activity</i>	<i>Dates</i>
Senior Associate Architect	Studio Toolbox, New Delhi, India	Developed design drawings for Ashoka City (Patna, India), a 1530 apartment housing complex with six different typologies of apartments Site Area –19 acres Site Built Up – 2389500 SqFt	Jan 2016 – Mar 2017
		Developed design and drawings for Green City (Patna, India) - a 600 apartment housing complex with six different typologies of apartments Site Area – 4.7 acres Site Built Up – 664160 SqFt	
Assistant Architect	Scientist Studios, Gwalior, India	Developed drawings and 3D model of Morena Mall, Morena, India	Apr 2014 – Jul 2014
		Developed drawings and 3D model of Sahakari (Cooperative) Bank, Morena, India	
		Developed presentations and report for Chief Minister Road Development Project of Gwalior, India	
Intern (Architecture)	Atwal Associates, New Delhi, India	Developed drawings, specifications, and 3D model of Buro Happold, Mumbai India	Feb 2014 – Apr 2014
		Executed modifications in drawings of Krrish Tower, Colombo, Sri Lanka	

Intern (Architecture)	IF Studios, New Delhi, India	Developed 3D model of a high rise in Noida, India for Spiretech Competition	May 2011 – Jun 2011
Research Assistant	Ms. Ivica Petrikova, Lecturer, University of Portsmouth	Surveyed, collected, and compiled data on food security in Eastern Uttar Pradesh, India	Dec 2012 – Feb 2014
Research Assistant	Prof. Ashok Grover, Dean, MBS School of Architecture	Conducted literature review, data collection, compilation, development of drawings, and 3D models on ‘Evolution of development of City Centers around Airports’	Aug 2011 – Apr 2012

**E. Other Professional Credentials (licensure, certification, etc.):**

Licensed Architect (Council of Architecture, India) – CA/2016/77308

LinkedIn Learning Certificate – Construction Estimating Takeoff

LinkedIn Learning Certificate – BIM Foundations

LinkedIn Learning Certificate – Construction Estimating Bid Recap

LinkedIn Learning Certificate – Construction Estimating Extension

LinkedIn Learning Certificate – Construction Estimating: RSMMeans and Cost Data

LinkedIn Learning Certificate – Construction Estimating: Specifications and CSI MasterFormat

LinkedIn Learning Certificate – Introduction to Bluebeam Revu 20

LinkedIn Learning Certificate – Autodesk Construction Cloud

**II. TEACHING**

**A. Courses Taught:**

<i>Course</i>	<i>University/College</i>
CSM 4313: Architecture Design II- Technology in Construction	Texas State University, San Marcos
CSM 2313: Architecture Design I- Construction Documents	Texas State University, San Marcos
CSM 2262: Construction Lab	Texas State University, San Marcos
CSM 2360: Residential Construction I- Home Production	Texas State University, San Marcos
CSM 4368: Environmentally Conscious Design	Texas State University, San Marcos
CSM 4369: Contracts, Liability, and Ethics	Texas State University, San Marcos

Arch. Design IV: Architectural Design Thesis

Madhav Institute of Technology and Science, Gwalior, India

Arch. Design II: Residential Design

Madhav Institute of Technology and Science, Gwalior, India

Theory of Design I: Basic Design Theory

Madhav Institute of Technology and Science, Gwalior, India

## B. Courses Prepared and Curriculum Development:

### *Courses*

### *Development*

CSM 4314: Construction Technology Application  
(Fall 2026) Texas State University

Developed course that introduces students to emerging digital technologies used in modern construction management

The course emphasizes practical, hands-on learning with industry platforms such as Bluebeam, Revit, Navisworks, and Procore, along with virtual, augmented, and mixed reality tools for immersive project visualization and coordination

Students will apply these technologies in team projects to simulate real-world construction planning and management challenges

CSM 2313: Construction Documents (Fall 2025)  
Texas State University

Following the departmental curriculum review conducted in Summer 2025, the course places greater emphasis on construction drawing interpretation

The course specifically focuses on reading construction drawings from residential, commercial, and heavy civil projects, with a separate examination dedicated to each type of drawing set

CSM 2262: Construction Lab (Spring 2024)  
Texas State University

Developed hands on coursework based on Virtual Design and Construction (VDC) technologies

Developed exercises related to 3D printing, 3D Building Information Modeling (BIM), 4D BIM, 5D BIM, Reality Capture, VR, and MR

Arranged guest lectures to expose students to applied construction technologies

Organized field trips to expose students to onsite 3D printing construction activities

CSM 4313: Architectural Design II- Technology in Construction (Spring 2022)  
Texas State University

Added one exercise based on Residential Construction

CSM 2313: Architecture Design I- Construction Documents (Spring 2022)

Developed coursework with more hands-on and

Texas State University	interactive exercises, emphasizing the transition between 2D and 3D visualization and vice versa
	Introduced 3D modeling software like Trimble and SketchUp Introduced new projects of varying complexities
Arch. Design IV: Architectural Design Thesis MITS, India	Expanded the range of project options so students could choose from more diverse and complex design topics
	Increased the scale of the building models to help students explore finer architectural details and spatial relationships
	Created a detailed assignment and submission timeline to help students plan their work and track progress throughout the semester
Arch. Design II: Residential Design MITS, India	Introduced two residential design exercises to enhance students' understanding of scale and complexity in housing projects
	The first exercise focused on designing a basic house, emphasizing functional planning and spatial organization
	The second exercise expanded to a larger residential building, encouraging students to explore architectural form, aesthetics, and detailed design development

C. Teaching Professional Development Activities Attended:

<i>Organization</i>	<i>Activity</i>	<i>Date</i>
Texas State University	Faculty Success: Promotion for Non-Tenure Line Faculty	September 2025
Texas State University	Faculty Success: AI for Everyday Teaching: Getting Started with Gemini & NotebookLM	September 2025
Associated Schools of Construction (ASC), University of Oklahoma at Norman, OK	ASC 2025 Faculty Bootcamp  Attended faculty bootcamp to explore construction technology and software applications in estimating. This workshop provided new perspectives and resources that allowed me to develop classes with updated and industry-relevant estimating content.	July 2025
Texas State University	Faculty Success: Promotion for Non-Tenure Line Faculty	May 2025
ASC, University of North Carolina, Charlotte, SC	Virtual Design and Construction (VDC) Faculty Bootcamp  The bootcamp helped me to stay updated with the latest VDC practices and technological innovations, allowing me to better	June 2024

	incorporate advanced construction technologies into my teaching and course design.	
Texas State University	Faculty Success: The Power of Play: Using Student-Centered Pedagogy & Play to Enhance Student Engagement, Connection, and Learning	November 2024
ASC, California Polytechnic University, San Luis Obispo, CA	VDC Faculty Bootcamp  Participated as a faculty member specializing in construction technology courses. This workshop provided insights into advancements in construction technology and directly supported the development of the VDC component in the CSM 2262 course.	June 2022
Accreditation for Construction Education (ACCE)	12 Hours Construction Management Teaching Workshop  This workshop reinforced and deepened my understanding. With greater teaching experience and familiarity with academic terminology, I was able to engage more meaningfully and strengthen my approach to curriculum design and assessment.	February 2022
Texas State University	Faculty Success: Navigating the External Funding Landscape	February 2021
Texas State University	Faculty Success: Canvas Basics	March 2020
ACCE	12 Hours Construction Management Teaching Workshop  As a new faculty member, this workshop helped me understand the reasoning and logic behind construction management course structures and Student Learning Outcomes (SLOs), providing a strong foundation for effective teaching.	February 2020

### III. SCHOLARLY/CREATIVE

#### A. Works in Print (including works accepted, forthcoming, in press):

##### 1. Books:

###### a. Textbooks:

Sharma, V. (2025). *Draft, model, and visualize: Creating a simple construction drawing set using AutoCAD and SketchUp* (Interactive eBook ed.). Cognella Academic Publishing. (ISBN 979-8-8233-9286-0)

I started writing this book in March 2023 with the goal of developing an easy-to-follow and accessible resource that teaches students AutoCAD (2D drafting software) and SketchUp (3D modeling software) efficiently. This interactive eBook features embedded videos and quizzes that guide students through creating a basic construction drawing set from start to finish. The focus of the book is to help students visualize 2D monochrome drawings as 3D visualizations. The book is currently being used in the CSM 2313 course.

##### 2. Conference Proceedings:

a. Refereed Conference Proceedings:

Kisi, K. P., Snosi, O., & Sharma, V. (2024). Creating a Construction Safety VR Game with Decision-Making Scenarios for an Interactive Learning Experience. In *Computing in Civil Engineering 2023*. American Society of Civil Engineers. <https://doi.org/10.1061/9780784485248.054>

B. Works Not in Print:

1. Invited Talks, Lectures, and Presentations:

Guest Lecturer, Madhav Institute of Technology & Science (MITS), Gwalior, India

Delivered three 2-hour online lectures on *Project Management Using BIM* (November 2024). Developed and taught modules integrating BIM techniques to illustrate practical project planning, scheduling, and control, enhancing students' understanding of contemporary construction management practices.

## IV. SERVICE

### A. Institutional

1. University:

- Faculty Advisor, Texas State Wakeboard Student Organization (Aug 2022 – Aug 2024)  
Provided mentorship and organizational guidance to the university's wakeboard club
- Attended summer commencement ceremony (Aug 2025)  
Represented the department at the university's summer graduation ceremony

2. Department/School:

- Donated book royalties to support student association (Fall 2025 – present) – Donating 50% of book royalties to the Construction Student Association (CSA) to support student activities, professional development, and participation in industry events
- Developed proposal drawings for the Infrastructure Research Lab (IRL) at Star Park (2024) – Created proposal drawings, 3D models, and walkthrough visualizations for the proposed research facilities at Star Park, supporting departmental expansion initiatives
- Represented the department at Hays CISD & TXST Mini-Expo (Dec 2024) – Demonstrated emerging construction technologies to high school audiences, promoting departmental engagement with the local community
- Attending non-tenure line faculty meetings (2024 – present) – Engaging in dialogue and initiatives that promote non-tenure-line faculty collaboration and development
- Attended 7th Annual Non-Tenure Line Faculty Appreciation Reception (2024) – Participated in networking and recognition events supporting non-tenure-line faculty contributions
- Organized and led field trips for technology and construction courses (2024 – present) to expose students to live construction environments featuring 3D printing, prefabrication, and digital field tools

- Developed banners for the Construction Advisory Board (CAB) and Construction Science and Management (CSM) program (2023) – Designed promotional materials using graphic and design software to enhance program visibility and branding for departmental activities and career fairs
- Assisted in logo development for CAB (2023) – Collaborated on the conceptualization and design of the official CAB logo
- Participated in Bobcat Day (2023) – Represented the CSM program during university open house events to engage prospective students and families
- Participation in career fairs (2021 – present) – Networking with industry professionals and alumni to invite guest speakers and discuss current innovations and technologies shaping the construction industry
- Assistance in high school trips for the CSM Department (2021 – present) – Supporting departmental outreach by showcasing virtual and mixed reality construction technologies, including VR glasses and HoloLens to visiting high school students
- Attendance in CSM program monthly meetings (2020 – present) – Actively participating in program-level discussions focused on curriculum development, accreditation, and departmental planning
- Attendance in annual department meetings (2020 – present) – Participation in annual meetings to understand departmental goals, developments, and strategic planning
- Attended events organized for NTFL (Non Tenure Line Faculty)
- For the development of course content for the new course CSM 4314 (Fall 2026), I coordinated with Autodesk and Bentley Systems and worked with departmental IT to install ACC and Synchro software on classroom computers

## B. Community:

- Volunteer, Central Texas Vipassana Association (CTVA) (January 2020 – present)  
Support facility projects by developing construction drawings, 3D models, and assisting with construction supervision

## C. Organization Memberships:

- Trust member, Central Texas Vipassana Association (CTVA) (2021 – present)