

LIFE TRANSFORMATION CENTRE (LTC) CAMPUS INSTALLATIONS

From Ideation to On-Site Realisation: A Hybrid Design & Fabrication Journey

Student Intern: Pranshu Jena

Institution: MIT-WPU School of Design, Pune

Team Unit: Multidisciplinary Student Design Agency (Team of 25 Interns)

Academic Guide & Mentor: Dr. Suman Devdula (Dean, MIT-WPU School of Design)

Industry Director / Primary Contact: Dr. Harshavardhan Patil (Senior Director, LTC)

Executive Summary: The Hybrid Internship Paradigm

Split 2-Column Card Grid — Origin & Model / Core Objectives



Internship Structure & Origin

- ▶ **Origin Story:** Awarded a compulsory summer internship directly by the MIT-WPU Founder/Owner following exceptional performance at the MIT-WPU School of Design Expo.
- ▶ **Hybrid Execution Model:** Operates across two distinct spatial hubs—internal college workshops at MIT-WPU for full-scale prototyping and the 170-acre LTC Daund campus for live installation.
- ▶ **Agency Dynamics:** Functioned as a self-managed 25-intern design consultancy handling end-to-end design, engineering, material logistics, and site mounting.



Key Deliverables & Scope

- ▶ **Spatial Identity:** Fabrication of 35ft landmark pylon signage and 8ft wayfinding gateways.
- ▶ **Infrastructure & Safety:** Production of custom mild steel road barricades and directional barriers.
- ▶ **Interior & Sustainability Interventions:** Installation of pine wood/PVC yoga mat walls, Japanese joinery cooling corners, and astronomical sundials.
- ▶ **Documentation:** Authoring a 50-page coffee table book detailing campus transformations.

Client Profile: Life Transformation Centre (LTC)

Experiential Campus for Holistic Youth Growth & Leadership

Geographic & Spatial Scale

- ▶ **Location:** Boribel, Daund Taluka, Pune District, Maharashtra.
- ▶ **Campus Footprint:** Expansive 170-acre residential ecosystem balancing forested terrain, agricultural zones, and learning pavilions.

एवं विश्व में उच्च शिक्षा के क्षेत्र में पहला

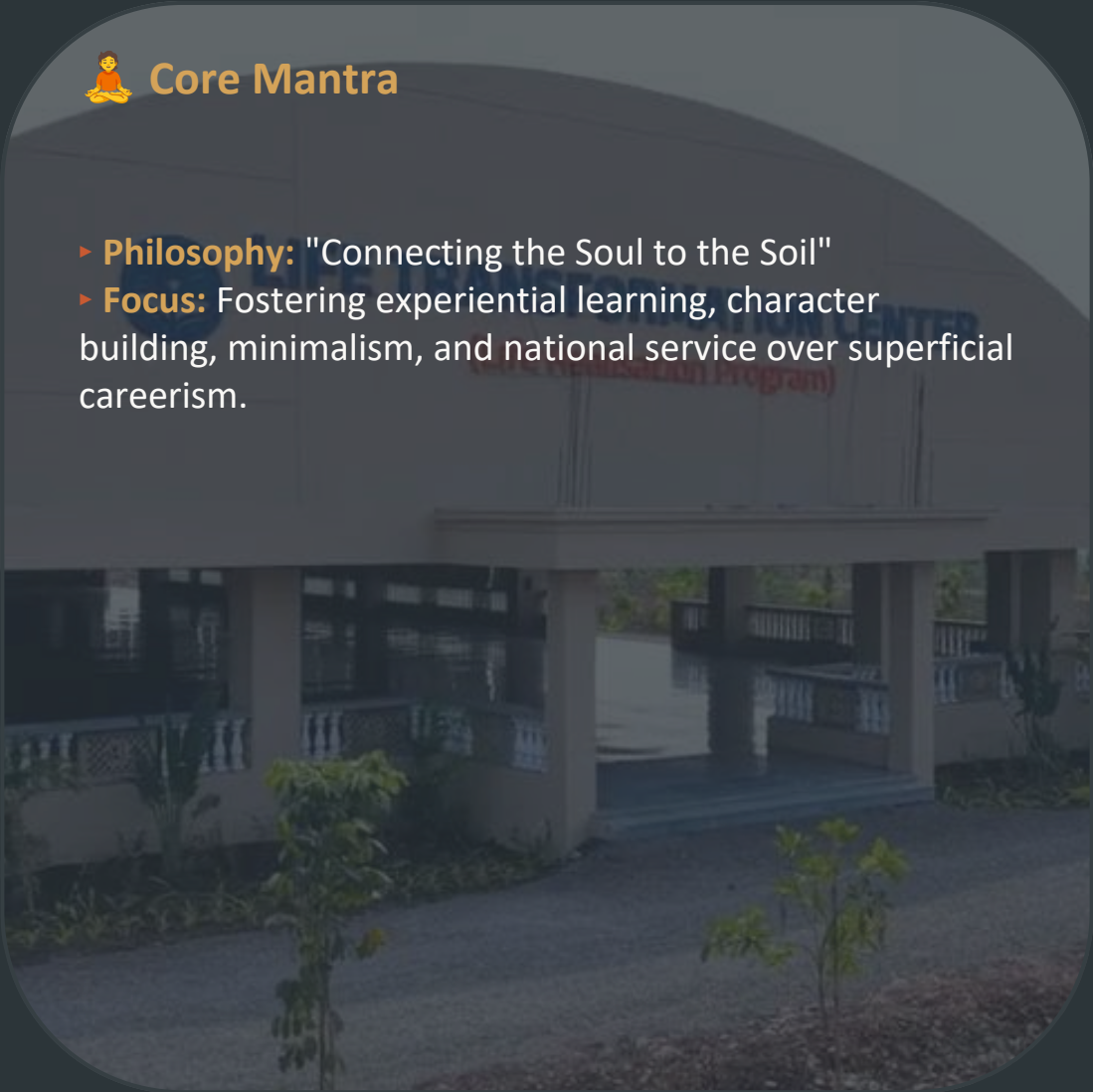
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Institutional Heritage & Vision

- ▶ **Conceptual Leadership:** Established under the guidance of Dr. Rahul V. Karad (MIT-WPU) in honour of Smt. Urmilatai Karad and Prof. Dr. Vishwanath D. Karad.
- ▶ **Mission:** Merging ancient Bharatiya heritage with modern higher education to combat stress, digital exhaustion, and academic burn-out.

Core Mantra

- ▶ **Philosophy:** "Connecting the Soul to the Soil"
- ▶ **Focus:** Fostering experiential learning, character building, minimalism, and national service over superficial careerism.



 170 Acres

 5 Core Pillars

 25 Design Interns

 8+ Major Spatial Interventions

Foundational Framework: The 5 Pillars of LTC

Designing Spatial Products Grounded in Institutional Philosophy



Design Note: All physical products engineered during the internship visually embed these 5 pillars into their structural graphics—each installation serves as a tangible expression of LTC's foundational philosophy.

Leadership Architecture & Project Management

Organisational Chart & Key Contact Cards

Dr. Suman Devdula

Academic Mentor & Project Guide — Dean, MIT-WPU School of Design

Role: Overall academic supervision, design validation, structural safety oversight, and institutional coordination.



Dr. Harshavardhan Patil

Industry Contact & Client Leadership — Senior Director, LTC

Role: Campus site allocation, spatial requirement briefing, client sign-off, and installation logistics coordination.



Agency Operating Structure (25 Interns)



Research & Ideation Unit

Site mapping, spatial analysis, and concept rendering.



Engineering & Prototyping Unit

Metal fabrication, welding, joinery, and stress analysis.



Logistics & Execution Unit

Transport coordination, site prep, and structural mounting.



Media & Documentation Unit

Photography, videography, and graphic compilation of the coffee table book.

The Workflow Arc: From Workshop to Campus

Horizontal 4-Phase Process Flowchart

1

Design Expo & Selection

April

- ▶ Exhibition at MIT-WPU School of Design.
- ▶ Client evaluation and formal internship mandate awarded by college leadership.



2

Workshop Ideation & Prototyping

- ▶ Brainstorming, CAD modeling, structural calculations, and 1:1 scale mockups inside MIT-WPU workshops.



3

Full-Scale Fabrication & Testing

- ▶ Metal cutting, arc welding, bamboo treatment, joinery crafting, and modular pre-assembly.



4

Logistics & On-Site Installation

Daund

- ▶ Flatbed truck transport, site civil preparation, concrete anchoring, and final campus mounting.



Materiality Strategy: Industrial & Natural Synergy

4-Quadrant Material Matrix with Technical Specifications



Bamboo Stalks & Jute Twine

- ▶ **Application:** 35ft Pylon letters, wayfinding boards, wind chimes.
- ▶ **Rationale:** High tensile strength, zero-carbon footprint, rustic harmony with LTC's eco-philosophy.



Mild Steel (MS) Framing & Wire Mesh

- ▶ **Application:** Structural skeletons, road barricades, sign supports.
- ▶ **Rationale:** Heavy-duty wind resistance, structural rigidity, and outdoor weather durability.



Pine Wood & Repurposed PVC Pipes

- ▶ **Application:** Sanskruti Hall yoga mat wall, cooling corner scaffolding.
- ▶ **Rationale:** Geometric precision, lightweight modular storage, upcycling industrial waste.



Terracotta & Natural Stone

- ▶ **Application:** Ground sundial circle, mud pot cooling stations.
- ▶ **Rationale:** Thermal insulation, ancient astronomical relevance, raw earthen texture.

Spatial Interventions: Landmark & Wayfinding Systems

Featured Project Spotlight

01 The 35ft LTC Pylon Signage

- ▶ **Structural Specs:** 35ft height, heavy-duty Mild Steel internal frame anchored into ground foundations.
- ▶ **Lettering:** 5ft tall letters crafted entirely from bundled, treated bamboo stalks.
- ▶ **Identity Emblem:** Circular blue metallic badge with laser-cut floral motifs representing campus identity.

02 8ft Diversion Gateways & Wayfinding Boards

- ▶ **Structural Specs:** 8ft tall freestanding bamboo structures.
- ▶ **Graphic Features:** Woven bamboo circles containing carved symbols of LTC's 5 Foundational Pillars.
- ▶ **Purpose:** Guiding visitors across 170 acres while reinforcing core institutional values.



Campus Infrastructure: Custom Road Barricades

2-Column Comparison Layout — Design Specs vs Functional Impact

⚙️ Engineering & Design Specifications

- ▶ **Frame Construction:** Heavy-gauge Mild Steel rectangular tubing engineered for stability against outdoor winds.
- ▶ **Infill Panels:** Wire metal mesh featuring custom-cut geometric and natural motifs painted in vibrant primary colors.
- ▶ **Portability:** Integrated side handles and balanced weight distribution for manual repositioning by campus staff.

🎯 Functional & Spatial Impact

- ▶ **Traffic Control:** Managing vehicle access and pedestrian movement along gravel campus pathways.
- ▶ **Aesthetic Upgrading:** Replacing industrial construction barriers with culturally aligned, artistic boundary markers.
- ▶ **Welcoming Aesthetic:** Positioned at entry gateways to greet visiting dignitaries, students, and guests.

Interior & Utility Interventions: Mat Grid & Cooling Corner

Side-by-Side Dual Product Cards



Sanskruti Hall Yoga Mat Grid Wall

- **Materials:** Pine wood outer framing housing an array of honeycombed PVC cylindrical tubes.
- **Function:** High-density storage wall capable of housing dozens of rolled yoga mats for indoor sessions.
- **Design Feature:** Space-saving geometric layout paired with hanging brass bells to enhance spiritual ambiance.



Japanese Joinery Cooling Corner (Mud Pot)

- **Materials:** Terracotta water vessel (earthen jar) fitted with a brass spigot, resting on a pine wood scaffold.
- **Craftsmanship:** Built using traditional Japanese wood joinery (interlocking joints without exposed screws).
- **Eco-Feature:** Integrated bird-friendly drainage tray to catch spillover water for local wildlife.



Experiential Installations: Sundial & Coffee Table Book

2-Column Product Spotlight

☀️ The Outdoor Ground Sundial (Sun Clock)

- ▶ **Location:** Positioned on the open dirt field between the campus helipads.
- ▶ **Construction:** 6ft radius circular perimeter marked by white stones and wooden hour-indicator stakes.
- ▶ **Central Element:** Smooth tiled semicircular shadow platform and a vertical gnomon to cast precise solar time shadows.
- ▶ **Pedagogy:** Connects students to ancient Bharatiya astronomical timekeeping practices.



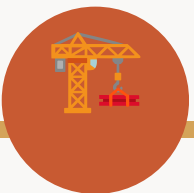
📖 The 50-Page LTC Coffee Table Book

- ▶ **Content:** Complete visual narrative documenting the 25-intern journey from college workshop ideation to site installation.
- ▶ **Graphics:** Architectural blueprints, material specification sheets, photo-essays, and leadership interviews.



The Deployment Phase: Transport & Site Installation

3-Step Sequential Logistics Timeline



Step 1: Workshop Disassembly & Flatbed Loading

MIT-WPU Campus

- ▶ Rigorous packing of 35ft metal frames, fragile bamboo structures, and wooden units onto flatbed utility trucks.
- ▶ Team coordination to safely load heavy steel components without structural damage.

Step 2: Transit from Pune to Daund Campus

80+ Kilometers

- ▶ Navigating highway and rural gravel road transport over 80+ kilometers.
- ▶ Securing cargo against vibration and environmental exposure.

Step 3: On-Site Assembly, Civil Prep & Mounting

LTC Daund

- ▶ Excavation, ground leveling, and concrete anchoring for major pylon structures.
- ▶ Collaborative unloading, manual lifting, precision alignment, and final finish touches.

Personal Ownership: My Specific Contributions

Highlighted Personal Portfolio Layout with Accent Border Cards

Area 1: Concept Ideation & CAD Drafting

- Developed initial 2D vector layouts and 3D CAD models for structural joinery and signage letterforms.
- Conducted scale studies to ensure readability of 5ft bamboo typography from a distance.

Area 2: Hands-On Workshop Fabrication (MIT-WPU)

- Metal Workshop: Directly executed arc welding, angle grinding, and frame assembly for road barricades.
- Wood & Bamboo Workshop: Performed bamboo stripping, heat treatment, jute binding, and Japanese joinery cutting.

Area 3: Logistics Coordination & Team Leadership

- Managed inventory lists, packing sequences, and weight distribution during truck loading at college.

Area 4: On-Site Installation Lead (Daund)

- Supervised ground anchoring, structural leveling, and final mounting of installations in field conditions.

Professional Growth: Core Competencies Mastered

4-Card Grid with Key Competency Icons



Multi-Material Technical Prototyping

Mastered practical techniques in metal welding, bamboo preservation, wood joinery, and structural steel framing.



Spatial Ergonomics & Scale Appreciation

Gained a deep understanding of designing large-scale outdoor interventions (up to 35ft) accounting for wind load and sightlines.



Real-World Agency Workflow

Experienced working inside a 25-intern agency structure—balancing peer collaboration, division of labor, and tight deadlines.



Client Management & Design Constraints

Learned to adapt creative concepts to strict client brand philosophies (LTC's 5 Pillars) and rugged outdoor environments.

Project Achievements & Lasting Impact

Hero Conclusion Layout

Key Milestones Achieved

- **Tangible Delivery:** Successfully fabricated and installed 8+ major spatial products across LTC's 170-acre campus.
- **Brand Integration:** Embedded LTC's core philosophy ("Connecting Soul to Soil") into functional, durable physical landmarks.
- **Academic Validation:** Fulfilled all compulsory internship requirements under the guidance of Dr. Suman Devdula and client sign-off from Dr. Harshavardhan Patil.
- **Student Recognition:** Commemorated with formal certificates of accomplishment in a closing ceremony on-site.

"This summer internship bridged abstract design education with heavy-duty real-world execution. By transforming raw metal, bamboo, pine, and clay into functional campus landmarks, our team didn't just design products—we shaped the experiential landscape of the Life Transformation Centre."

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Thank You

