

# BHARAT NAV-NIRMAAN CHALLENGE

## OFFICIAL RULES & PARTICIPATION GUIDELINES

*Presented by The Times of India & NICMAR*



Presented by:



### TABLE OF CONTENTS

1. Introduction
2. Program Vision & Objectives
3. Competition Structure Overview
4. Eligibility Requirements
5. Team Composition Rules
6. Registration Rules
7. Problem Statements & Domain Areas
8. Submission Requirements
9. Evaluation Criteria & Scoring Framework
10. Submission Requirement
11. Presentation Rules
12. Prototyping & Model Rules
13. Research & Innovation Guidelines
14. Safety, Ethics & Compliance
15. Intellectual Property (IP) Policy
16. Plagiarism, AI Disclosure
17. On-Ground Event Rules
18. Jury Protocols
19. Disqualification Rules
20. Prizes & Accolades
21. Travel, Stay & Hospitality
22. Conduct & Anti-Harassment Policy
23. Technology Use
24. Timeline
25. Support

## 1. INTRODUCTION

The Bharat Nav-Nirmaan Challenge is a national platform to inspire engineering students to solve India's real-world infrastructure and development challenges through practical, scalable, and innovative solutions. The Challenge is structured as a multi-stage competition culminating in a Grand Finale in Mumbai.

## 2. PROGRAM VISION & OBJECTIVES

The Challenge aims to:

- Bridge classroom learning with real-world engineering applications
- Develop industry-ready talent across India
- Encourage innovative, sustainable, and technically credible solutions
- Promote interdisciplinary collaboration
- Provide national visibility to young innovators and institutions
- Foster a culture of applied problem-solving in campuses
- Support India's infrastructure development mission

## 3. COMPETITION STRUCTURE OVERVIEW

The Bharat Nav-Nirmaan Challenge follows a structured, multi-stage progression designed to evaluate innovation, feasibility, and presentation excellence across several levels. The competition includes five key stages, beginning at the college level and culminating at the national Grand Finale in Mumbai.

### 3.1 College-Level Round

- Conducted intra college by each participating college.
- Participating college register with a team of 3 students each and compete basis the official Problem Statement provided by organisers.
- Each team need to submit solution for a problem statement to their college SPOC/HOD.
- One winning team (3 students) per college qualifies to move to the next stage.
- **National Orientation Session** - All qualifying college teams attend a virtual orientation session conducted jointly by Times of India and NICMAR.
- Orientation covers submission guidelines, expectations, evaluation parameters.
- Teams receive detailed instructions for the online submission round.

### 3.2 Online Submission Round

- Teams of participating colleges need to submit their detailed project proposal through the official microsite with team details.
- Direct participation is allowed only for students enrolled in the 3rd or 4th year of engineering; however, if their college is already participating in the Challenge, such students must participate through their college and not as independent entries.
- Direct entry of student teams will be accepted only from colleges that are not participating through the College Round. All members of the team should be from the same college.
- All submissions from both College Round qualifiers and direct-entry students are evaluated by a central jury.
- Based on the evaluation scores, the jury selects the Top 20 Teams per City, who advance to the City Finale.

### 3.3 City Finale

Conducted across 11 host cities - Delhi, Mumbai, Bengaluru, Pune, Ahmedabad, Hyderabad, Chennai, Lucknow, Kochi, Chandigarh, Kolkata.

- Each city hosts its Top 20 qualifying teams selected from the online submission.
- Teams present their solutions before a professional city-level jury.
- The Top 3 Teams per City advance to the Regional Finale.

### 3.4 Regional Finale

- Held at 3 regions. NICMAR Pune, NICMAR Hyderabad, and NICMAR Delhi NCR.
- Teams present full-scale proposals and prototypes.
- All 3 winning teams of regional round will be called at grand finale for felicitation and prize distribution.
- Only the top team from each region will compete for the National winner at Grand Finale.
- Travel, stay, and hospitality for students and one accompanying college SPOC are provided by the organisers.

### 3.5 Grand Finale – Mumbai

- The Top Winner from each region compete for the National Winner title.
- Final presentations will take place in presence of senior industry leaders, government officials, and academic experts.
- National Winner will be announced.

## 4. ELIGIBILITY REQUIREMENTS

### 4.1 Academic Eligibility

Students must be from 3<sup>rd</sup> or 4<sup>th</sup> year of Engineering:

- Civil Engineering
- Architecture
- Other core engineering streams

### 4.2 Year of Study

Students studying in 3<sup>rd</sup> or 4<sup>th</sup> year of engineering is must.

## 5. TEAM COMPOSITION RULES

- Each team must have **exactly 3 members**.
- Cross-disciplinary teams are allowed but must have at least 2 from civil or architecture discipline.
- No student can be part of more than one team.
- A faculty mentor (HOD/SPOC) is advised to provide support throughout the competition

## 6. REGISTRATION RULES

### 6.1 College Registration

Through SPOC/HOD via the official College Registration Form on our microsite.

### 6.2 Student Registration

Direct students must register through student registration form via the microsite.

### 6.3 Deadlines

Missed deadlines will result in automatic disqualification.

7. PROBLEM STATEMENTS & DOMAIN AREAS

Problem statements will fall into the following categories:

- Urban Mobility & Transport Systems
- Water Management
- Waste Management & Sanitation
- Affordable Housing
- Smart Infrastructure
- Renewable Energy & Sustainability
- Innovative Construction Material
- AI in construction
- Road/Bridge/Highway Innovation
- Disaster-Resilient Design
- City Development & Redevelopment
- Open Innovation (Participant-proposed problems)

Teams must adhere to all instructions in the Problem Statement.

8. SUBMISSION REQUIREMENTS

8.1 File Formats

- PDF only
- Maximum size: 20 MB
- Font: Calibri/Times New Roman
- High-quality images, graphs, and diagrams allowed
- AI-generated visuals must be disclosed

8.2 Mandatory Submission Components

- Executive Summary
- Problem Understanding
- Proposed Solution
- Design/Model/Concept Details
- Impact Analysis
- Feasibility & Cost Estimate
- Sustainability Considerations
- References
- Plagiarism & AI Disclosure

9. EVALUATION CRITERIA & SCORING FRAMEWORK

Category

- Concept Understanding
- Innovation & Creativity
- Technical & Economic Feasibility
- Impact & Relevance
- Functional Demonstration
- Sustainability & Scalability
- Presentation & Communication
- Deployment Strategy

While clarity, logic, technical depth, and problem relevance will be considered, the jury retains the authority to adjust the evaluation criteria as necessary for each project.

10. SUBMISSION REQUIREMENTS

10.1 College Round

- Project submission to HOD/SPOC

**10.2 Online submission Round**

- Project submission through microsite.

**10.3 City Finale Deliverables**

- 8–12 slides presentation.
- Initial model/sketch/design
- Presentation + Q&A

**10.4 Regional Finale Deliverables**

- Comprehensive Proposal
- Detailed design or prototype
- Costing and implementation plan
- Presentation + Q&A

**10.5 Grand Finale Deliverables**

- Final refined design
- Final prototype/digital model
- Implementation roadmap
- Presentation + Q&A

**11. PRESENTATION RULES**

- Time limits must be strictly followed.
- Visual aids allowed (PPTs, videos, models).
- Offensive or political content is prohibited.
- Teams must present in English or Hindi.

**12. PROTOTYPING & MODEL RULES**

- Models may be physical or digital.
- Safety standards must be followed for physical prototypes.
- No hazardous materials allowed.
- Digital models must be original or properly credited.

**13. RESEARCH & INNOVATION GUIDELINES**

- Teams must justify their concepts with real data.
- Government and industry reports may be used.
- Economic and sustainability analysis encouraged.

**14. SAFETY, ETHICS & COMPLIANCE**

Participants must follow:

- Academic honesty
- Lab safety standards
- No misrepresentation of data
- No dangerous practices in prototype building
- Organisers will not take responsibility for any accidents that happen in making or during presentation of prototypes.

**15. INTELLECTUAL PROPERTY (IP) POLICY**

- Organisers may publicly display submissions.
- Industry partners may request collaboration after consent.

**16. PLAGIARISM & AI DISCLOSURE**

- Plagiarism above 10% leads to disqualification.
- All participants are required to follow AI guidelines (published under AI guidelines section). AI tools must be declared in the submission.
- Copying designs, code, or models is prohibited.

**17. ON-GROUND EVENT RULES**

- Teams must report on time.
- College ID verification required.
- Dress code: smart casual/formal.
- Late entry beyond 15 minutes is not allowed.

**18. JURY PROTOCOLS**

- Jury decisions are final.
- Jury discussions remain confidential.
- No communication with jury outside scheduled sessions.

**19. DISQUALIFICATION RULES**

Reasons include:

- Missed deadlines
- Plagiarism
- Misconduct
- Falsified data
- Offensive content
- Non-compliance with instructions
- The organisers reserve the right to disqualify any team at any stage of the competition if they are found to be in violation of the rules or act in a manner that compromises the fairness or integrity of the Challenge. All such decisions by the organisers shall be final and binding.

**20. PRIZES & ACCOLADES**

- ₹30 lacs + prize pool
- National media coverage
- Digital Certificates for all levels

**21. TRAVEL, STAY & HOSPITALITY**

- Travel, stay and hospitality will be provided only for Regional Round and Grand Finale.
- All must follow hostel/campus rules.

**22. CONDUCT & ANTI-HARASSMENT POLICY**

- Zero tolerance for harassment or discrimination.
- Respectful behaviour mandatory.
- Violation leads to disqualification from the event.

**23. TECHNOLOGY USE**

- Any software allowed (AutoCAD, SketchUp, STAAD, GIS, AI tools).
- Licensed/authorized versions must be used.
- Teams responsible for compatibility issues.

24. TIMELINE

Will include:

- Registration window
- College round
- Online submission
- City Finale dates
- Regional dates
- Grand Finale

25. CONTACT

NICMAR Representatives:

Ahmedabad	8188855855
Bangalore	9916123984
Chandigarh	9988095129
Chennai	9916123984
Delhi	9045161876
Hyderabad	9705646585
Kochi	8086058615
Kolkata	8188855855
Lucknow	8090456288
Mumbai	9890575089
Pune	9890575089