# Amphitheater Seat Booking Management System

## Complete User Guide for Event Organizers

**Updated: October 23, 2025**  
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## Welcome to Your Seating Management System

This guide explains how to use the Amphitheater Seat Booking Management System — a visual tool that helps you assign, track, and manage seat reservations for university events. Whether you’re planning a graduation ceremony, cultural program, or annual function, this system makes seating simple and organized.

**No technical knowledge required** — this guide uses plain language and step-by-step instructions.

## What You’ll Learn

✓ How to read the seating map  
✓ What each color means  
✓ How many seats are available for each group  
✓ How to assign seats to people  
✓ How to find seats quickly  
✓ How to save and export your work  
✓ Where attendee information is stored  
✓ Common tasks from start to finish  
✓ **NEW: Current booking status as of October 23, 2025**  
✓ **NEW: Ticket generation with SPSU branding**

## Chapter 1: Understanding the Main Screen

When you open the system, you’ll see four main areas:

### 1. The Seating Map (Center of Screen)

This is the visual layout of your entire amphitheater. Think of it as looking down at the venue from above. You’ll see:

* 25 rows numbered 1 to 25
* Each row split into left side and right side with a center aisle
* Small colored squares representing individual seats
* Row numbers on the left
* Category labels (like “VIP” or “Faculty”) on the right

### 2. Summary Cards (Top of Screen)

These show you quick statistics:

* **Total Seats**: 788 seats available in total
* **Booked Seats**: 570 seats currently assigned
* **Available Seats**: 218 seats still empty
* **Utilization**: 72.3% capacity filled

### 3. Operations Console (Control Buttons)

A toolbar with buttons for common actions:

* **Refresh Data** — Reload the latest information
* **Save to CSV** — Save your current work
* **Export Assignments** — Create a printable list
* **View CSV Data** — See and edit attendee details
* **Search Box** — Find specific seats or people
* **Clear Highlight** — Remove search highlights

## Chapter 2: Understanding Seat Colors

Each category of attendee has its own distinctive color. This helps you quickly identify and manage different groups.

|  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- |
| Color | Category | Location | Total Seats | Filled | Available | Why This Matters |
| 🟣 Purple/Pink Gradient | **VIP Seats** | Row 1 (front row, closest to stage) | 50 | 0 | 50 | These are the most prominent seats — easy to spot and direct VIPs |
| 🟠 Amber/Orange Gradient | **Guest Seats** | Rows 2-3 | 100 | 0 | 100 | Keeps guests together near the front for easy coordination |
| 🔵 Blue Gradient | **Faculty Seats** | Rows 4-5 | 100 | 0 | 100 | Faculty section is grouped together for protocol and convenience |
| 🩷 Pink | **Parents Seats** | Row 6 | 50 | 0 | 50 | A dedicated section makes it easy for families to find seats |
| 🟢 Green Gradient | **Degree Students** | Rows 7-12 | **210** | **175** | **35** | Senior students get priority seating in the middle section |
| 🔵 Cyan/Teal Gradient | **College Students** | Rows 13-25 (back section) | **578** | **395** | **183** | This is the largest group and occupies most of the amphitheater |

### Current Booking Status (as of October 23, 2025)

**Degree Students:**

* Capacity: 210 seats
* Booked: 175 seats (83.3% full)
* Available: 35 seats
* Categories included: M.Tech, MCA, B.Tech final year

**College Students:**

* Capacity: 578 seats
* Booked: 395 seats (68.3% full)
* Available: 183 seats
* Categories included: All undergraduate students, MBA, BBA, BCA

**Overall Status:**

* Total Booked: 570 seats
* Total Available: 218 seats
* Utilization: 72.3%

### Visual Status Indicators

Beyond category colors, seats also show their status:

* **Empty appearance** = Available (not assigned yet)
* **Filled with color** = Booked (someone is assigned)
* **Glowing ring** = Highlighted (from your search)
* **Popup window open** = Selected (you clicked it to view/edit)

## Chapter 3: How to Assign Seats

### Before You Start

Make sure you have your attendee list ready with:

* Full names
* Contact information (email/phone)
* Category (VIP, Guest, Faculty, Parents, Degree Students, or College Students)
* Enrollment number (for students)

### Step 1: Add Attendees to the System

1. Click the **“View CSV Data”** button.
2. You’ll see a table with two tabs: **Attendees** and **Bookings**.
3. Click the **Attendees** tab.
4. Add each person’s information:
   * ID number
   * Seat number (assigned)
   * Full name
   * Email address
   * Phone number
   * Category (must match: VIP, Guests, Faculty, Parents, Degree Students, or College Students)
5. Click **Save** when done.

### Step 2: Assign Someone to a Seat

1. Look at the seating map.
2. Find an empty seat in the correct category section (check colors!).
3. Click the empty seat — a popup window will appear.
4. In the popup:
   * Search or select the person’s name from your attendee list.
   * The system will show their details.
   * Add any special notes if needed (e.g., “wheelchair accessible”, enrollment number).
5. Click **“Confirm Assignment”** or **“Book Seat”**.
6. The seat will change color and show the person’s name.

### Step 3: Save Your Work

1. Click the **“Save to CSV”** button in the toolbar.
2. Your assignments are now saved.

**Important:** Save frequently, especially when assigning many seats!

## Chapter 4: Finding Seats and People Quickly

### Using the Search Feature

The search box is your best friend for large events:

**To find a person’s seat:**

1. Type their name in the search box.
2. Press Enter.
3. Their seat will glow/highlight on the map.
4. Scroll to see the highlighted seat.

**To find a specific seat number:**

1. Type the seat number (e.g., “D25” for Degree seat 25, or “150” for College seat 150).
2. The seat will highlight.
3. Useful when someone asks “Where is seat C45?”

**To clear the highlight:**

1. Click the **“Clear Highlight”** button.
2. All highlights disappear, returning to normal view.

## Chapter 5: Ticket Generation System

### Overview

As of October 23, 2025, the system now includes automated ticket generation with professional PDF tickets for all attendees.

### Ticket Features

Each ticket includes:

✓ **SPSU University Logo** - Official branding at top-left  
✓ **Event Details** - Convocation Ceremony 2025  
✓ **Date & Time** - 28th October, 2025 | 4:30 PM  
✓ **Guest Information** - Name, email (if applicable), category  
✓ **Seat Information** - Large seat number, row, section  
✓ **QR Code** - For quick verification at entry  
✓ **Important Instructions** - Event guidelines  
✓ **Contact Information** - studentwelfare@spsu.ac.in

### Ticket Naming Convention

* **Degree Students**: ticket\_D1.pdf to ticket\_D175.pdf
* **College Students**: ticket\_C1.pdf to ticket\_C395.pdf

### Generating Tickets

1. Ensure all seat assignments are complete and saved.
2. Open terminal/command prompt in the project folder.
3. Run the command: node scripts/generateTickets.js
4. Wait for generation to complete (shows progress every 50 tickets).
5. All tickets will be saved in the tickets/ folder.
6. Check generation\_summary.json for generation report.

### Ticket Distribution

Tickets can be:

* Emailed to attendees individually
* Downloaded and printed
* Shown on mobile devices (digital tickets)
* Verified using QR code scanning at venue entrance

## Chapter 6: Exporting and Printing

### Creating a Final Seating List

Before your event, you’ll want a printable list for staff at entry points:

1. Click the **“Export Assignments”** button.
2. Choose your format (usually CSV or PDF if available).
3. The system creates a file with:
   * Every booked seat
   * Person’s name
   * Category
   * Contact information
   * Enrollment number (for students)
4. Save the file to your computer.
5. Print copies for:
   * Entry gate staff
   * Ushers
   * Backup records

### Export Files Available

* **booked\_seats.csv** - Complete booking database
* **users.csv** - All attendee information
* **generation\_summary.json** - Ticket generation statistics
* **consent\_form\_processing\_summary.json** - Student consent form analysis

## Chapter 7: Complete Event Workflow

### Phase 1: Planning (1-2 Weeks Before)

**Collect attendee information:**

* Create your list in Excel or get it from registration forms
* For students: Process consent forms (check “NEW CONSENT FORM.csv”)
* Organize by category

**Enter attendees into the system:**

* Use “View CSV Data” → Attendees tab
* Add all names, contacts, categories
* For students, include enrollment numbers
* Save the data

**Review seat totals:**

Check if you have enough seats per category:

|  |  |  |  |
| --- | --- | --- | --- |
| Category | Available | Currently Used | Remaining |
| VIP | 50 | 0 | 50 |
| Guests | 100 | 0 | 100 |
| Faculty | 100 | 0 | 100 |
| Parents | 50 | 0 | 50 |
| Degree Students | 210 | 175 | 35 |
| College Students | 578 | 395 | 183 |

Adjust categories if needed.

### Phase 2: Seat Assignment (3-5 Days Before)

**Start with VIPs and special guests:**

* Assign chief guests to center front seats (VIP row)
* Assign other VIPs to remaining front row seats

**Save your work**

**Assign Faculty:**

* Assign department heads first
* Then other faculty members
* Keep departments together if possible

**Assign other categories:**

* Guests
* Parents
* Degree students (already completed: 175 assigned)
* College students (already completed: 395 assigned)

**Save regularly** (every 10-15 assignments)

**Run duplicate check:**

* Use node scripts/checkDuplicates.js to verify no duplicate assignments
* Use node scripts/fixDuplicates.js if duplicates found

**Export a draft for review**

### Phase 3: Ticket Generation (2-3 Days Before)

**Generate all tickets:**

1. Run: node scripts/generateTickets.js
2. Wait for completion (570 tickets)
3. Verify generation report
4. Sample check a few tickets

**Quality control:**

* Open 5-10 random tickets
* Verify all information is correct
* Check logo display
* Confirm date: October 28, 2025
* Verify contact: studentwelfare@spsu.ac.in

**Prepare for distribution:**

* Set up email system (if sending digitally)
* Prepare printing if physical tickets needed
* Create QR code scanning station plans

### Phase 4: Final Preparation (1 Day Before)

**Make final adjustments:**

* Handle special requests
* Accommodate accessibility needs
* Adjust for last-minute registrations (183 college seats available, 35 degree seats available)

**Export final list:**

* Create the official seating chart
* Print multiple copies

**Brief your team:**

* Show ushers the color system
* Distribute printed seating lists
* Assign zones (who manages which rows)
* Train staff on QR code verification

### Phase 5: During the Event

* Keep the system open on a laptop/tablet
* Use search to help people find seats quickly
* Make live adjustments if needed (no-shows, seat swaps)
* Have one person manage the system to avoid conflicts
* Verify tickets at entrance using QR codes
* Save periodically if making changes

## Chapter 8: Understanding the Data (Simple Explanation)

### Where Information is Stored

The system uses two simple lists (like Excel spreadsheets):

#### 1. Attendees List (users.csv)

Contains everyone who might attend:

* ID
* Seat Number
* Name
* Email
* Phone
* Category

Think of this as your “phone book” — everyone you might seat.

**Current Status:**

* Total entries: 570
* Degree students: 175
* College students: 395

#### 2. Bookings List (booked\_seats.csv)

Contains actual seat assignments:

* Category
* Seat number
* User ID
* Name
* Email
* Phone
* Special notes (enrollment number, branch, etc.)

Think of this as your “seating chart” — who sits where.

**Current Status:**

* Total bookings: 570
* Last updated: October 23, 2025

### How They Work Together

1. First, you add people to the Attendees List
2. Then you assign them seats (creates entries in Bookings List)
3. The visual map reads the Bookings List and colors seats accordingly
4. When you export, you get data from both lists combined
5. Ticket generation reads from both lists to create PDF tickets

### Editing the Lists Directly

You can edit these lists like a spreadsheet:

1. Click “View CSV Data”
2. Make changes directly in the tables
3. Save when done
4. The map updates automatically
5. Regenerate tickets if needed

## Chapter 9: Processing New Student Registrations

### Using the Consent Form Processor

When you receive new student consent forms:

**Step 1: Prepare the data**

* Save the consent form responses as “NEW CONSENT FORM.csv” in the data/ folder
* Ensure it has required columns: Name, Enrollment Number, Email, Contact, etc.

**Step 2: Process the form**

1. Run: node scripts/processConsentForm.js
2. The script will:
   * Check against existing degree students (removes duplicates)
   * Filter out students who said “No” to attending
   * Assign sequential seat numbers
   * Update booked\_seats.csv and users.csv

**Step 3: Check for duplicates**

1. Run: node scripts/checkDuplicates.js
2. Review the duplicate report
3. If duplicates found, run: node scripts/fixDuplicates.js

**Step 4: Regenerate tickets**

1. Run: node scripts/generateTickets.js
2. New tickets will be created for new students
3. Existing tickets remain unchanged

**Example Results (from October 23, 2025):**

* Total responses: 444
* Not attending: 3
* Duplicates with degree students: 45
* Duplicates within college students: 378
* **New unique students added: 14**
* Final total: 570 unique students

## Chapter 10: Troubleshooting Common Issues

### Issue 1: Duplicate Students

**Problem:** Same student appears multiple times

**Solution:**

1. Run node scripts/checkDuplicates.js to identify duplicates
2. Run node scripts/fixDuplicates.js to remove them automatically
3. Regenerate tickets

### Issue 2: Seat Capacity Exceeded

**Problem:** More students than available seats

**Current Capacity:**

* Degree Students: 210 seats (175 used, 35 free)
* College Students: 578 seats (395 used, 183 free)

**Solution:**

* Prioritize confirmed attendees
* Use waiting list for overflow
* Consider expanding to other categories if needed

### Issue 3: Missing Logo on Tickets

**Problem:** Logo doesn’t appear on generated tickets

**Solution:**

1. Verify image/logo.png exists
2. Check file is not corrupted
3. Regenerate tickets: node scripts/generateTickets.js

### Issue 4: Wrong Date on Tickets

**Current Date:** October 28, 2025

**Solution:**

* Check scripts/generateTickets.js line with date
* Should read: “Date: 28th October, 2025”
* Regenerate if incorrect

## Chapter 11: Quick Reference Card

### COLOR GUIDE

* 🟣 **Purple/Pink** = VIP (Row 1, 50 seats) — 0 filled, 50 available
* 🟠 **Amber/Orange** = Guests (Rows 2-3, 100 seats) — 0 filled, 100 available
* 🔵 **Blue** = Faculty (Rows 4-5, 100 seats) — 0 filled, 100 available
* 🩷 **Pink** = Parents (Row 6, 50 seats) — 0 filled, 50 available
* 🟢 **Green** = Degree Students (Rows 7-12, 210 seats) — **175 filled, 35 available**
* 🔵 **Cyan/Teal** = College Students (Rows 13-25, 578 seats) — **395 filled, 183 available**

### QUICK ACTIONS

✓ **Assign seat:** Click empty seat → Select person → Confirm  
✓ **Find person:** Type name in search → Press Enter  
✓ **Edit booking:** Click booked seat → Make changes → Save  
✓ **Save work:** Click “Save to CSV” button  
✓ **Export list:** Click “Export Assignments” button  
✓ **View data:** Click “View CSV Data” button  
✓ **Generate tickets:** Run node scripts/generateTickets.js  
✓ **Check duplicates:** Run node scripts/checkDuplicates.js  
✓ **Fix duplicates:** Run node scripts/fixDuplicates.js

### CURRENT STATISTICS (October 23, 2025)

**Total Capacity:** 788 seats  
**Total Booked:** 570 seats (72.3%)  
**Total Available:** 218 seats (27.7%)

**Breakdown by Category:**

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| Category | Capacity | Filled | Available | % Full |
| VIP | 50 | 0 | 50 | 0% |
| Guests | 100 | 0 | 100 | 0% |
| Faculty | 100 | 0 | 100 | 0% |
| Parents | 50 | 0 | 50 | 0% |
| **Degree Students** | **210** | **175** | **35** | **83.3%** |
| **College Students** | **578** | **395** | **183** | **68.3%** |

### SEATING LAYOUT

**Total Rows:** 25  
**Layout:** Left Section + Center Aisle + Right Section  
**Row Configuration:** V-shaped tapering (wider at back, narrower at front)

**Row-by-Row Breakdown:**

|  |  |  |  |
| --- | --- | --- | --- |
| Rows | Category | Seats per Row | Total Seats |
| 1 | VIP | 50 | 50 |
| 2-3 | Guests | 50 each | 100 |
| 4-5 | Faculty | 50 each | 100 |
| 6 | Parents | 50 | 50 |
| 7-8 | Degree Students | 46 each | 92 |
| 9-10 | Degree Students | 44 each | 88 |
| 11-12 | Degree Students | 42 each | 84 |
| 13 | College Students | 42 | 42 |
| 14-15 | College Students | 40 each | 80 |
| 16-17 | College Students | 38 each | 76 |
| 18-19 | College Students | 36 each | 72 |
| 20-21 | College Students | 34 each | 68 |
| 22-23 | College Students | 32 each | 64 |
| 24-25 | College Students | 30 each | 60 |

### FILE LOCATIONS

**Data Files:**

* data/users.csv - All attendees
* data/booked\_seats.csv - Seat assignments
* data/Data base Convocation 12 till date.csv - Degree students database
* data/NEW CONSENT FORM.csv - College student consent forms

**Tickets:**

* tickets/ticket\_D1.pdf to tickets/ticket\_D175.pdf - Degree student tickets
* tickets/ticket\_C1.pdf to tickets/ticket\_C395.pdf - College student tickets
* tickets/generation\_summary.json - Generation report

**Scripts:**

* scripts/generateTickets.js - Create PDF tickets
* scripts/processConsentForm.js - Process new registrations
* scripts/checkDuplicates.js - Find duplicate students
* scripts/fixDuplicates.js - Remove duplicates

### CONTACT INFORMATION

**Event Contact:** studentwelfare@spsu.ac.in  
**Event Date:** 28th October, 2025  
**Event Time:** 4:30 PM  
**Venue:** SPSU Amphitheater

## Chapter 12: Advanced Features

### Batch Operations

**Processing Multiple Students at Once:**

* Use CSV import for bulk additions
* Process entire consent form batches
* Regenerate all tickets in one command

**Duplicate Detection:**

* Automatic email-based detection
* Enrollment number matching
* Cross-reference with degree students

### Reporting

**Available Reports:**

* Seat utilization by category
* Booking timeline
* Duplicate analysis
* Generation summary

### Version Control

**All changes tracked in Git:**

* Commit after major updates
* Push to GitHub: mritunjai-prog/Amphitheatre-Booking
* Branch: main
* Latest commit includes: 570 unique tickets with duplicates removed

## Conclusion

This Amphitheater Seat Booking Management System makes event seating simple, organized, and visual. Remember:

✓ **Colors = Categories** — learn the colors and you’re 80% done  
✓ **Click, Assign, Save** — that’s the basic workflow  
✓ **570 tickets generated** — ready for October 28, 2025 event  
✓ **218 seats available** — space for VIP, guests, faculty, parents, and additional students  
✓ **Professional PDF tickets** — with SPSU branding and QR codes

### Next Steps

1. Complete VIP, Guest, Faculty, and Parent assignments (300 seats available)
2. Fill remaining student seats if needed (218 seats available)
3. Generate tickets for newly assigned attendees
4. Distribute tickets to all attendees
5. Set up QR code verification at venue
6. Brief event staff using this guide

### Support

For technical assistance or questions about the system:

* **Developer:** Mritunjai Singh (B.Tech 3rd Year)
* **Event Contact:** studentwelfare@spsu.ac.in
* **GitHub Repository:** mritunjai-prog/Amphitheatre-Booking

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