

Project Case Study

AL JUBAIL RECREATION CENTRE – MAIN AUDITORIUM

Table of Contents

The Project	01
Scope of Work	02
Client Requirements	04
Project Challenges	05
Project Outcomes	06

The Project

The Al Jubail Recreation Centre is a large-scale, multi-purpose development commissioned by the Royal Commission of Jubail, designed to serve as a premier venue for cultural, recreational, and community events within the region. The facility includes a 2,400-seat main auditorium, a 750-seat secondary auditorium, in addition to multiple meeting rooms and indoor sports halls, positioning it as a key public infrastructure asset.

Oasis Enterprises was engaged under a design-and-build contract to deliver a fully integrated theatre and AV solution in collaboration with Reziyat, Bactel, and the Royal Commission of Jubail.

The design phase was completed within a six-month timeframe, requiring coordinated input across architectural, structural, MEP, and specialist systems disciplines. The primary objective was to transform a shell-and-core structure into a high-performance, fully operational venue, equipped with advanced technologies to support large-scale events, conferences, performances, and multilingual functions.

The project emphasized system integration, operational flexibility, and long-term reliability, ensuring the facility meets international standards for performance venues while remaining aligned with budgetary constraints.



Scope of Work

Oasis Enterprises was responsible for the complete design, engineering, supply, installation, integration, and commissioning of all theatre, AV, and stage technology systems across the facility.

a. Audio-Visual Systems

- Design and implementation of a professional-grade audio system across both auditoriums, engineered to deliver:
 - Uniform sound pressure level (SPL) distribution across large seating capacities
 - High speech intelligibility (STI) for both spoken word and performances
- Deployment of digital audio processing (DSP), amplification systems, and distributed loudspeaker configurations (including line arrays where applicable).
- Integration of video display and projection systems to support presentations, live events, and multimedia content.
- Provision of signal routing, switching, and distribution systems designed for low latency and high reliability.

b. Stage Lighting Systems

- Installation of intelligent LED-based theatrical lighting systems, replacing conventional lighting approaches to improve:
 - Energy efficiency
 - Thermal performance
 - Lighting flexibility
- Implementation of DMX-controlled lighting networks with centralized lighting consoles.
- Lighting design configured to support a variety of event types, including theatrical productions, conferences, and entertainment events.

Scope of Work

c. Motorized Rigging Systems

- Deployment of motorized stage rigging systems for both auditoriums, designed to support:
 - Lighting fixtures
 - Curtains and stage masking systems
 - Additional stage equipment
- Systems engineered for:
 - Safe load handling and compliance with international rigging standards
 - Precise positioning and repeatable movement
 - Integration with control systems for automated operation

d. Language Interpretation System

- Integration of a simultaneous interpretation system to support multilingual events, including:
 - Interpreter consoles and booths (where applicable)
 - Wireless receivers for audience members
- System designed to ensure clear audio transmission with minimal latency, supporting international conferences and official events.

e. Theatre Curtain and Drapery Systems

- Installation of complete theatre curtain systems, including:
 - Main stage curtains
 - Acoustic curtains
 - Masking systems
- Materials selected to meet fire safety regulations and contribute to acoustic performance within the venue.

f. Centralized Control System

- Implementation of a fully integrated control platform to manage all AV, lighting, and stage systems.
- Features include:
 - Touch-panel interfaces for intuitive operation
 - Preset configurations for different event modes
 - Centralized monitoring and diagnostics
- System designed with redundancy and fail-safe mechanisms to ensure continuous operation during critical events.

Client Requirements



The client's initial input consisted of a shell-and-core layout, requiring Oasis Enterprises to develop a complete, end-to-end theatre solution aligned with operational and budgetary objectives.

Key technical requirements included:

- Development of a fully functional theatre environment from a base building structure
- Delivery of high-performance AV and stage systems suitable for large-capacity venues
- Integration of multilingual communication systems to support international events
- Implementation of advanced lighting and rigging systems for flexible stage operations
- Optimization of acoustic performance to ensure clarity in large-volume spaces
- Provision of a centralized control system for simplified operation and management
- Ensuring cost-efficiency without compromising system performance or reliability
- Compliance with relevant international standards and local authority regulations

Project Challenges

The project involved several complex engineering and coordination challenges:

- **Shell-and-Core Development Constraints:**

The absence of pre-installed infrastructure required complete system design from first principles, including routing, equipment placement, and coordination with architectural and MEP systems.

- **Large-Scale Acoustic Design:**

Achieving consistent audio coverage and intelligibility across a 2,400-seat auditorium required detailed acoustic analysis and careful loudspeaker placement.

- **System Integration Across Multiple Venues:**

Ensuring interoperability between systems in the main auditorium, secondary auditorium, and auxiliary spaces required a unified design approach and robust control architecture.

- **Structural Coordination for Rigging Systems:**

Installation of motorized rigging systems required precise coordination with structural engineers to ensure compliance with load-bearing and safety requirements.

- **Multilingual System Integration:**

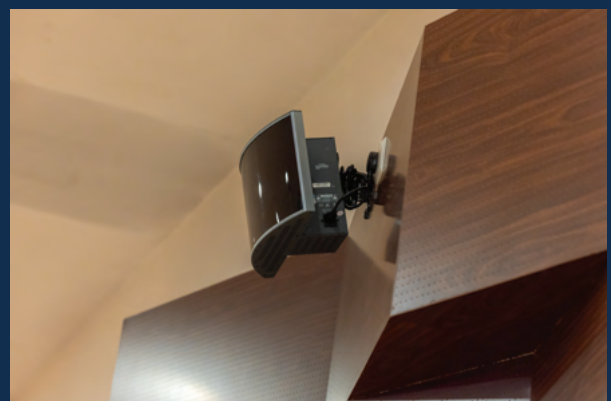
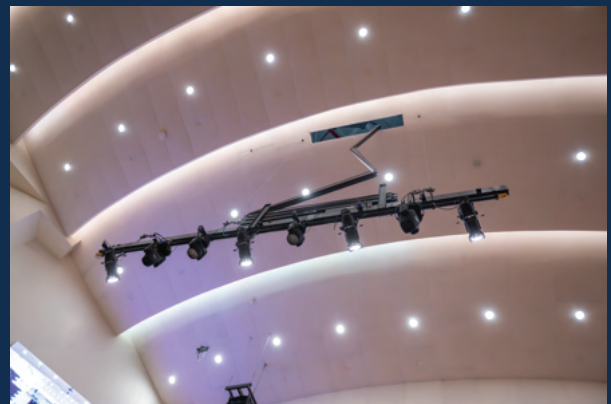
Incorporating interpretation systems into the overall AV infrastructure required careful signal routing and synchronization to maintain low latency and clarity.

- **Design-to-Budget Optimization:**

Balancing high-performance system requirements with budget constraints required value engineering without compromising critical functionality.

- **Accelerated Design Timeline:**

Completion of the design phase within six months required efficient stakeholder coordination and rapid decision-making processes.





Project Outcomes

The project was successfully delivered in accordance with the client's requirements, achieving a high level of technical performance and operational functionality.

The outcomes include:

- **Fully Operational, High-Capacity Venue:**
Transformation of a shell-and-core structure into a fully integrated, multi-functional performance facility.
- **Enhanced Audio-Visual Performance:**
Delivery of high-quality audio and visual systems capable of supporting large-scale events with consistent performance.
- **Flexible and Scalable Infrastructure:**
Systems designed to accommodate a wide range of event types, with provisions for future upgrades and expansion.
- **Efficient Operational Control:**
Centralized control systems enable streamlined operation, reducing complexity for technical staff.
- **Support for International Events:**
Integration of language interpretation systems enables seamless hosting of multilingual conferences and official functions.
- **Compliance and Safety Assurance:**
All systems implemented in line with relevant safety standards and performance benchmarks.
- **Optimized Cost-to-Performance Ratio:**
Successful delivery of a high-performance solution within the client's budget constraints through effective value engineering.

Contact Us

OASIS ENTERPRISES L.L.C.

DUBAI - UAE
+971 4 282 1337
info@oasismena.com

ABU DHABI - UAE
+971 26 217 043
info@oasismena.com

RIYADH - KSA
+966 11 222 4488
info.ksa@oasismena.com

مشاريح الواحة
OASISenterprises
الشيراوي AL SHIRAWI