



Patna Women's College Auditorium Gets Best-In-Class Audio System From SOUNDXPERTS

An Equilibrium of Art & Technology

Founded in 1940 by **Bishop B.J. Sullivan S.J.**, Bishop of Patna and **Mother M. Josephine A.C.** Superior General of the Apostolic Carmel, **Patna Women's College** was the first institution of higher learning that catered to the educational needs of women in Bihar, India.

The college has recently invested in new world's best-in-class pro audio, video and lighting systems for its newly-built 2500-seater auditorium named Veronica.

Following the successful completion of another project for Patna Women's College, Punjab-based **SOUNDXPERTS** won the contract to supply a complete turnkey solution for the auditorium, including pro audio, video, lighting, control, acoustics, seating, and flooring. **SOUNDXPERTS** worked closely with professional audio distributor, **Sun Infonet**, which supplied leading brands for the crucial audio component of this prestigious project.

Talking about trusting Sun Infonet for a mammoth pro audio install project such as Veronica auditorium, **SOUNDXPERTS** owner, **Amninder Warraich**, commented, "Having a complete audio solution under one roof from renowned brands like **Shure**, **Allen & Heath**, **AUDIOFOCUS**, **Quest Engineering** and **Meyer Sound**, Sun Infonet is known for its commitment, timely delivery, technical support and after sales service."

Pro Audio Equipment Used:

The stage of this auditorium has a vast space that accommodates more than 350 people to perform at a time. This auditorium can be used for the full spectrum of live band performances, theatre shows, cultural events, video conferencing and cinema screenings. For this purpose, four cameras and fourteen display screens have been installed on various places like left and right side of the **Main Screen - Samsung P4 Active LED screen**, the biggest screen of its kind - Green Room, VIP Room, Control Room and Main Hall. The entire system is connected on a network and switching for the same is provided by AMX.

The main PA system comprises of clusters of eight **AUDIOFOCUS ARES8A** line arrays on each side and a single cluster of four **ARES 8a cabinets** as centre fills. With the potential for



The Veronica Auditorium in Patna Women's College is equipped with a multitude of pro audio equipment, including, but not limited to, **AUDIOFOCUS** tops, subs, and coaxial monitors

large numbers of artists onstage, eight **AUDIOFOCUS CM 15a low profile monitor speakers** were provided, together with four **MTSub 218a twin 18" subwoofers** from the same brand.

"Belgium-based AUDIOFOCUS has always focused on transparent tonality that needs minimal equalisation," comments **Kallol Nath**, Sun Infonet Senior Application Engineer. "AUDIOFOCUS being the main PA system gives the user ease of operation. As all cabinets are equipped with internal Wi-Fi, the user can check and alter any parameter of any loudspeaker whenever needed. This brings a lot of flexibility to the entire system."

In addition to live events, the PA system is capable of delivering full 7.1 Dolby cinema sound for screenings. 18 **Quest HPI 110 loudspeakers** were installed to achieve this surround sound capability, with a further 13 **Quest HPI25 cabinets** employed as front fills under the stage and balcony and two **Quest QM4** as side fills, plus a pair of **QM18SA speakers** from Quest on each side of stage. Four **Quest QSA200i active speakers** have been positioned in the main and stage control rooms. **Quest QX2280 amplifiers** were installed to power speakers in the main control room and entrance foyer.

A pair of **Allen & Heath's Avantis mixing console** was supplied for both FoH and monitor mixing purposes. The main PA and surround systems are controlled by an Allen & Heath **AHM-32 matrix processor**, supported by **DX168** and **DX012 I/O** expanders connected over S-Link. Presets transforming the entire auditorium from a live venue to a cinema can be recalled from the AHM-32's front panel.

"Allen & Heath's **AHM DSP** is built for scenarios where we have multiple sources and zones," comments Amninder Warraich. "The ability to link AHM-32 to external input and output modules expands its horizons and allows you to control the entire system with surrounds, green rooms, control rooms, and more. AHM is a very versatile, powerful DSP and it is readily available on the market."

Warraich further adds, "Avantis consoles are very flexible and take the main responsibility for mixing all the acts on the stage. Equipped with a gigaACE card and a DX Hub remote audio networking hub, Avantis controls the stage as well as the control room and multiple inputs coming from the Shure wireless microphones and also provides enough inputs and outputs for any other operations that need to be done."

Shure wireless microphones were deployed throughout the Auditorium and control rooms, including the flagship **Axient Digital System** for the main presenter, plus **ULX-D**, **SLX-D**, and **SVX** systems for the audience, anchors, performers, and main control. All Shure systems are networked and can be checked and controlled through the **Shure Wireless Workbench** application. The system is designed to cover the entire facility, enabling easy communication between audience members and guest speakers during panel discussions, and allowing interaction between the stage and control rooms.

In addition to the wireless microphones, wired **Shure CVG 18RS-B/C gooseneck microphones** have been installed at the podium. **SM7B vocal microphones** were supplied to enable studio-quality recording of key performances and speeches. Patna Women's College has also invested in its inventory of microphones for musicians and performers, adding **Shure Beta 91/A/C-X**, **SM57**, **SM58**, **PGDRUMKit7**, **MX 418D/C**, **MX393/C**, **SM81-LC**, **PSM 300**, **PGA57** and **PGA58** to cater for all perfor-



The self-powered line array system from AUDIOFOCUS completes the pro audio install at the Veronica Auditorium, promising an unrivalled audio experience for the audience

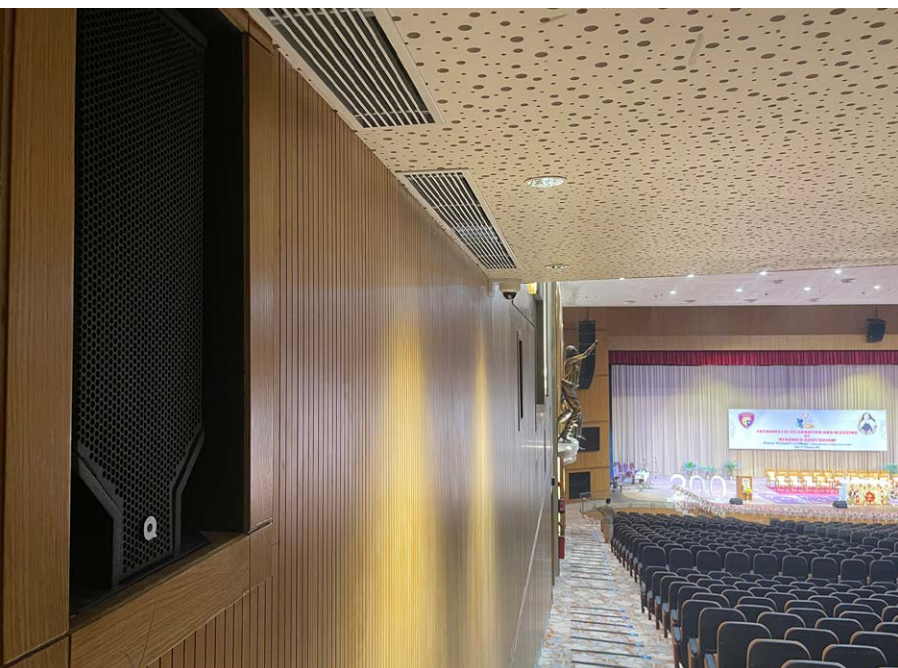
mance scenarios. **Shure UA844+SWB Antenna Distribution Systems** and **UA874 Active Directional Antennas** have also been used to ensure strong, uninterrupted wireless signals.

Final Remarks:

Amninder Warraich, while talking about equipping high-end auditoriums with equally sophisticated, fine quality audio equipment, says, "Today's auditoriums go beyond the game to provide high-impact entertainment - from video and music to live performances, delivering an awe-inspiring experience. Our high-end range of audio products deliver full-fidelity, full-bandwidth sound, from the deepest lows to crystal-clear highs, over a range of programming, from announcements to music." He further adds, "We installed the India's largest **P4 Samsung Active LED screen** at Veronica Auditorium with a super wide viewing angle. It adds another star to the venue and also multiple contents that can be showed at once."

Installed Products:

- AUDIOFOCUS self-powered line array & stage monitoring system. 20 tops, 8 subs & 8 coaxial monitors
- QUEST HPI110 and HPI25 for stage fill & surround sound speakers with asymmetrical acoustic coverage and 2 QM4 along with 2 QM18SA on each side of the stage for side fills. QSA200i Active Speakers in the Main and Stage Control Rooms. QX2280 in Main control room for Entrance Foyer Speakers
- SX Class-D, ultra-high efficiency amplifiers for Paging & Surround Speakers
- Allen & Heath AVANTIS as a main mixing console and another AVANTIS as a Monitor Console
- Allen & Heath AHM Signal Processors & Stage Racks
- Shure Axient Digital, ULXD & SLXD, SVX wireless microphones with UA series antenna system
- SX stage lighting system with Obsidian Control System
- LUMENS 30X optical PTZ Cameras, joystick, recording, streaming & webcasting hardware
- India's largest SAMSUNG P4.0 Active LED screen
- AMX AV Control system



The QUEST HPI110 and HPI25 were used for stage fill & surround sound with asymmetrical acoustic coverage, and two QM4 along with two QM18SA were installed on each side of the stage for side fills