

SAUDI TV

Vijaya Cherian brings you the inside scoop on Saudi Arabia's Ministry of Culture and Information's multi-million dollar tech deals for its radio and TV facilities.

Dr. Riyadh K. Najm, assistant deputy minister for engineering, MOCI, Saudi Arabia.





A US \$26 million production facility in Dammam will be officially inaugurated after Eid; \$31.5 million for a brand new digital radio facility in Jeddah and \$33.5 million for TV centres in three Saudi provinces were awarded two months ago; a \$7.5 million deal to refurbish the radio studios at Riyadh is currently under way as is a digital terrestrial TV project that was begun in 2006 while a state-of-the-art \$30 million archival project is slated for completion in the next two years.

This is only a fraction of the multi-million dollar projects undertaken by the Ministry of Culture and Information (MOCI) in the Kingdom of Saudi Arabia to achieve its three key goals: that of migrating to High Definition (HD), rolling out digital terrestrial television across the country and archiving historical footage that dates back to the 1950s.

Besides this, several satellite and transmission projects worth hundreds of millions of dollars as well as contracts for new production and radio facilities for some of the 13





Some of the women in Saudi TV pose for a photo.



Abdullah Ali Al-Elaiwi, Radio Riyadh.



Saad Mohammed Aljoris, GM, Radio, MOCI of Saudi Arabia.

KEY SIs IN SAUDI ARABIA

- FIRST GULF COMPANY
- JAMAL JAROUDI GROUP
- SAUDI TECHNICAL ENGINEERING SYSTEMS ASSOCIATED



After investing in state-of-the-art HD facilities in KSA's main cities, the MOCI now hopes to build similar studios in smaller province

provinces in the Kingdom are still to be awarded while others are awaiting completion or just been awarded.

Saudi Arabia is no small country. As the largest country in the Arabian Peninsula with an estimated population of 27.6 million (according to official estimates) and with very few private broadcasters operating in the Kingdom, the challenges that the Ministry of Culture and Information (MOCI), which runs the country's public radio and TV stations, face are many and daunting. For one, it places a huge onus on the MOCI to ensure that its four TV channels and radio stations reach the far reaching corners of the Kingdom.

The MOCI operates a whopping 150 transmission sites across the Kingdom, and although there are TV and radio production facilities in seven of the country's 13 provinces, the objective is to have a comprehensive, albeit smaller facility in each of the 13, explains Dr. Riyadh Najm, assistant deputy minister for engineering at Saudi Arabia's MOCI and a key player in helping the country meet sophisticated broadcast objectives that are on par with international standards.

"We already have facilities in Riyadh, Dammam, Kasim, Jeddah, Medina, Mecca

and Abha," explains Dr. Najm. "But our plan is to build a model HD production facility with one TV studio, one radio studio and corresponding editing facilities in each of the other seven main provinces as well including Tawuk, Hail, Jazan, Baha, Najran, Arar and Jofa. We have already awarded a contract for a TV centre in Tawuk, Hail and Jazan two months ago and we will do the same for the others."

Dr. Najm is very clear about where the broadcaster is heading. Having started his career as an engineer at Saudi TV in 1980 and having gradually worked in several key technical and media positions in radio and television at the MOCI before reaching his current position, he understands both sides of the business.

He has been one of the primary forces behind the silent technical revolution at Saudi TV and as president of the Arab States Broadcasting Union (ASBU) and chairperson of the HDTV Arab Group, he has also played a key role in encouraging Middle East broadcasters to adopt a universal HD standard in the region rather than pursuing different formats.

Saudi TV itself has adopted 720p.

"Our aim is to work in 720P with a migration path to 1080p in the future and this is what we have recommended to other broadcasters as well. The network that we

build within the studio, therefore, is ready for 1080p but the equipment is all 720p. We believe this format is ideal because there is tried and tested equipment across the whole chain that is 720P. We do not entertain continuous change of formats within the studio with some in 720p and others in 1080i or 1080p. I don't think 1080p is ready as a full chain or maybe it is, but some parts of it are still subject to testing so we did not want to risk going with it," explains Dr. Najm.

In the last couple of years, all investments have been geared towards a gradual migration to HD, at least with regards to production, says Dr. Najm. In some cases, the focus has been to migrate from analogue to digital.

"One of our main projects has been to transfer our TV operations from SD to HD at least in the production facilities. We don't purchase anything that is not HD anymore unless we are making some minor SD upgrades in existing facilities. When we made this decision three years ago, we needed to refurbish the analogue studios within the cities in



A staff member digitises old audio tapes on Otari machines.

MANUFACTURERS INVOLVED IN KEY BROADCAST PROJECTS IN SAUDI ARABIA

- Hitachi
- Sony
- Harris
- Snell
- NETIA
- Lawo
- HP
- Avid
- VITEC
- Thomson Grassvalley
- EMC
- VectraCom
- Otari

Medina and Kassim so these are our first fully-equipped HD studios," Dr. Najm says.

The big digital production facility in Jeddah, however, was planned prior to the HD era and, therefore, its studios, although state-of-the-art, are SD, he adds.

Likewise, the two main facilities located in the holy shrines of Mecca and Medina to cover the live broadcasts of the prayers held there, were renovated and equipped earlier this year with HD equipment.

The Dammam production facility is perhaps the newest with key kit such as Hitachi HD cameras, Snell switchers and a range of Harris equipment for the control room.

"This facility will be inaugurated officially after Eid. It is a model facility, where we have two studios, production facilities and editing facilities that are fully equipped with HD equipment," explains Dr. Najm.

On the radio side as well, several projects are ongoing or still to be awarded.

The radio studios are being migrated from analogue to digital formats with the aim of



Hitachi has enjoyed great success in the Kingdom with its high-end HD cameras.

SOME MAJOR DEALS IN KSA

- Dammam production facility - **US \$26 million**
- Jeddah digital radio facility - **\$31.5 million**
- TV centres in Tawuk, Hail and Jazan - **\$33.5 million**
- Refurbishing radio studios at Riyadh - **\$7.5 million**
- Archival project - **\$30 million**

moving to an entirely tapeless environment.

"We took the decision to migrate four years ago. Presently, we are renovating the radio facility in Riyadh, where we have 15 radio studios. From here, we run all our radio channels — one of which is dedicated to the Quran, while there are others that develop programmes for our Arab listeners. We also have a multi-lingual channel for our English, French and Urdu listeners," explains Dr. Riyadh.

NETIA is part of the new installation at Radio Riyadh, which incorporates 15 on-air and recording studios, along with extra studios for backup in case of an emergency. The installation includes 65 editing workstations and six archiving workstations.

The entire interface for the Radio-Assist system from NETIA at Radio Riyadh is in Arabic.

A similar full-fledged radio production facility is being built in Jeddah as well.

"This is a brand new facility and we expect it to be operational next year," says Dr. Najm.

In addition to all of these projects, several isolated radio sites have also been recently

built or being planned across the Kingdom in cities such as Dammam, Kassim, Abha, Mecca and Medina.

In several cases, TV and radio facilities will share some of the transmission equipment to drive efficiencies, he explains.

The technical reform in Saudi Radio and TV has not been without its challenges, admits Dr. Najm, although employees in radio have warmed to the technology faster than in TV.

"The operators in our radio facilities have embraced the change more openly. In TV, we find big resistance to adopting a tapeless environment. People don't want to work with NLE; they prefer to work with tapes. Convincing operators to migrate to the new workflow has been difficult," he explains.

In addition, the medium of operation has also been a significant issue in the organisation, where more than 95% of the employees are Saudi nationals and communication is primarily in Arabic.

"Unfortunately most of the IT operating systems are English based and many of our



Dr. Riyadh Najm

*Assistant Deputy Minister For Engineering
Ministry of Culture & Information, Saudi Arabia*

Key positions presently held by Dr. Najm, an electrical engineer with a PhD in telecommunications from Liverpool University, UK.

- President of Arab States Broadcasting Union (ASBU) since January 2009.
- Chairman of the committee in charge of laying out AV and Broadcast regulations in KSA since 2007.
- Chairman of HDTV Arab Group since 2006.
- Chairman of the Technical Committee, World Broadcasting Unions since 2002.



Eng. Saleh AlMughailaeth

*Assistant deputy minister for TV Affairs.
Head of the technical committee at ASBU since 2006.*



The new installation at Radio Riyadh includes 15 on-air and recording studios with additional studios for backup.

operators do not speak English. Now, it is becoming easier to get an Arabic interface and we insist the names of the programmes, titles and so on should be in Arabic. Many manufacturers claim they support Arabic but sometimes, we see that the support is quite superficial," explains Dr. Najm.

Saudi Arabia is also well known as the first country in the Middle East to roll out digital terrestrial television, one of the country's key investment projects.

"In 2006, we started with digital terrestrial television and so far, we have covered about 45 sites," explains Dr. Najm.

"Our main objective was to include all the TV channels on terrestrial. We might continue with analogue for at least another three years but after that, we will go only with digital terrestrial," he adds.

The changes in Saudi TV, however, are not confined to technical operations. Big changes are also in the offing for the MOCI's Radio and TV division.

"We are in the process of corporatising radio and TV," reveals Dr. Najm.

"Presently, we are limited in terms of hiring, purchasing and so on. We do not have the flexibility to compete with other local or outside broadcasters. It may not be a full-fledged private enterprise. It will still follow some of the government regulations but it will be a more flexible system of operation that will allow us to run more professionally and with commercial objectives in mind,"

explains Dr. Najm.

In the meantime, changes in TV content programming are also being shaped up under the leadership of Eng. Saleh AlMughailaeth, who is the assistant deputy minister for TV Affairs at Saudi TV and also, head of the technical committee at ASBU.

AlMughailaeth, who has decades of experience working in the MOCI's radio and TV departments, is responsible for the entire operation of the TV facility. He is keen to bring more dynamic sports content, entertainment and news to the viewers.

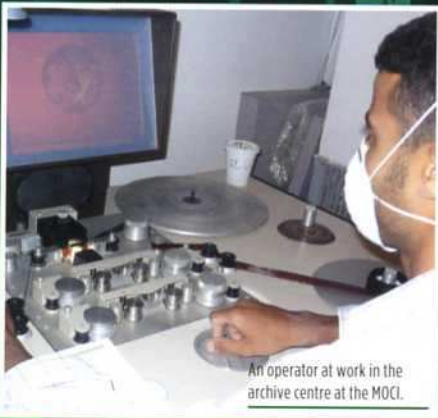
"We've just invested in two two-camera SNG vans. The idea is to be able to produce and uplink on the spot and is great for news gathering. We also have a fleet of 16 OB vans at Saudi TV and the Saudi football league is closely followed here. There's a lot we can do and we're moving forward with more dynamic content," explains AlMughailaeth.

A combination of technical and corporate reform with a much-needed content shake-up sounds like the ideal recipe for success at Saudi TV and radio. In addition, the technical model Saudi Arabia's MOCI is pursuing for its radio and TV facilities is an efficient model that other regional broadcasters would do well to observe.

However, high-quality content is still the key factor that drives the success of any broadcaster and how far Saudi TV will be willing to go to provide better entertainment to its viewers is a question to be reckoned with. ■



Cleaning 35mm footage.



An operator at work in the archive centre at the MOCI.



Saudi TV has a legacy of content in different formats.



Cleaning and splicing old footage.



EMC, Quantum and Grass Valley solutions have been installed at the facility.

SAUDI ARABIA'S MOCI UNDERTAKES \$30 MILLION RESTORATION AND ARCHIVAL PROJECT

Saudi Arabia's MOCI recently invested in a US \$30 million archival project that is scheduled for completion in a couple of years. The state broadcaster presently has about 270,000 TV tapes and 500,000 audio tapes. The formats it has includes among others, 1" and 2" tapes, several Sony formats such as betacam, digibetacam and IMX as well as 35mm and 16 mm film. The objective was to digitise and archive these media assets for future use.

"There were some attempts eight years ago to transfer 1" and 2" tapes to betacam. However, everyone realised the futility of the exercise because the betacam was already becoming obsolete and new formats were being introduced," explains Dr. Najm

Three years ago, Saudi TV once again revived its attempt to archive its footage but this time looked at a solution that would embrace both its video as well as audio formats.

"We realised that we needed to view this as one issue that required one complete solution, where we start the preservation of the media, digitise it, put it into a digital format and archive it," explains Dr. Najm.

The objective was to eventually create two high-quality copies of the archived material – one in Riyadh and one in Jeddah.

"We have done this to ensure full redundancy should anything go wrong in one place," explains Dr. Najm.

A third low-res copy is available for browsing.

"The process includes adding the metadata right at the beginning as the metadata is associated with all the three copies so if anyone in TV or radio wants these copies, he can browse, get access or request a copy through the network," explains Dr. Najm.

Six tapes are being ingested at the same time in Sony VTRs that can take all the Sony formats at one time while the 1" and 2" tapes have to be processed individually.

The final stage of the archiving of the media assets include Thomson Grass Valley, EMC and Quantum solutions. EMC installed a fully-scalable, interoperable infrastructure comprising its CLARiiON networked storage system, its Celerra unified storage system, its Connectrix switches and directors that will manage more than 700 terabytes of data at Riyadh and Jeddah.

No doubt, the project is huge but Dr. Najm is confident that the broadcaster took the right decision and went with appropriate vendors to address its archiving issue.

"We thought if we worked three shifts, seven days a week, we could get this project done in two years. However, such a gruelling schedule is not possible although we do three shifts on some days so we may take a little longer. But we have the capability to archive at least 1000 audio tapes in one day and maybe, 50 or 60 video tapes depending on the tape. So far, we have completed about 15-20% of the project, which was started in the second quarter of this year.

"We have gone with the best vendors in this field, including Grass Valley, VectraCom and EMC. We hope that it will be a model for others to follow and we are confident we have chosen the best method of archival for this project. We contracted this for \$30,000 but I don't think any other broadcaster will be able to do it for this price at this pace with these solutions. A lot of careful planning has helped us keep our budgets down," explains Dr. Najm.