ÇİZGİ TEKNOLOJİ

Medical Computer Solutions

artech
art of technology

Operating Room Integration System

What is the Artech Operating Room Integration System?

- Artech Operating Room Integration System is an innovative solution that combines modern healthcare technologies, providing seamless integration between devices and medical computers used in operating rooms.

- This system represents one of the critical elements of the digital hospital concept, making surgical procedures safer, more efficient, and high-quality thanks to its advanced imaging capacity.

The main components of the Artech Operating Room Integration System are as follows:

① **Operating Room Control Panel:** This panel controls all devices in the operating theatre and allows quick adjustments during operation.

② **Digital Negatoscope & Telemedicine System:** This system provides high-resolution imaging and telemedicine support, allowing you to clearly view the necessary images during surgery and easily communicate with remote specialists.

③ **Operating Room Console:** This console manages all digital operations and data flow in the operating theatre, ensuring smooth operation recording.

Which Devices Does the Operating Room Integration System Consist of?

Digital Negatoscope and Telemedicine System

Operating Room Console

Operating Room Control Panel

Benefits of Artech Operating Room Integration System for **Hospital Management:**

Patient Safety: The integration system significantly improves patient safety by reducing potential risks during surgery. The surgical team can make more accurate decisions thanks to advanced imaging and equipment control.

Staff Efficiency: The system helps operating room staff work more organized and coordinated. This lightens the staff's workload and supports teamwork.

Cost and Resource Management: The integration system enables efficient time, material, and invoicing management. Thus, the hospital saves unnecessary costs and uses resources more effectively.

Surgery Success Rates and Patient Satisfaction: The system increases the success rate of surgical procedures, which is directly reflected in patient satisfaction. Satisfied patients increase the reputation and preferability of the hospital.

Preferability and Utilization Rates: High success rates and patient satisfaction increase the hospital's preferability and, thus, the operating room's utilization rates.

Training and Archive Creation: The system allows surgeries to be recorded and analyzed, creating a valuable archive for training and congresses. This is an essential resource for continuous training and development.

Advantages of Artech Operating Room Integration System for **Surgeons:**

Patient Safety: The system offers integrated features that maximize patient safety before, during and after surgery. This enables surgeons to perform safer procedures by minimizing risks.

Fast Access to Information: Surgeons can quickly and easily access all necessary medical information through the integration system. This speeds up decision-making processes and increases the effectiveness of surgical interventions.

Reduced Risks and Increased Efficiency: The Operating Room Integration System allows operations to be performed more smoothly and efficiently while reducing surgical risks.

Archiving of Surgery Images: The system automatically saves and archives images obtained during surgery. This creates a valuable resource for postoperative review and future training purposes.

Telemedicine and Education Opportunity: The integration system provides telemedicine access to expert consultations and training during surgery, enhancing surgeons' knowledge and skills, especially in complex and specialized cases.

Benefits of Artech Operating Room Integration System for Operating Room Nurses:

Patient Safety: The Artech Operating Room Integration System prioritizes patient safety in the operating room. Nurses can continuously monitor patients' conditions and intervene by quickly identifying potential problems. Thus, the system makes nurses feel more conscious and safe during patient care.

Digital Workflow Tracking: The system digitally tracks the entire workflow, from preoperative preparation to postoperative care. This helps nurses plan their tasks more effectively, use their time more efficiently, and ensure continuity in patient care.

Time and Material Management: The Operating Room Integration System optimizes material usage and time management. Nurses can use the necessary materials correctly at the right time to avoid unnecessary waste and better plan the operation time.

Error-Free Reporting: The system allows nurses to accurately and, without errors, report all surgery-related data, increasing the accuracy of medical records and improving the quality of patient care.
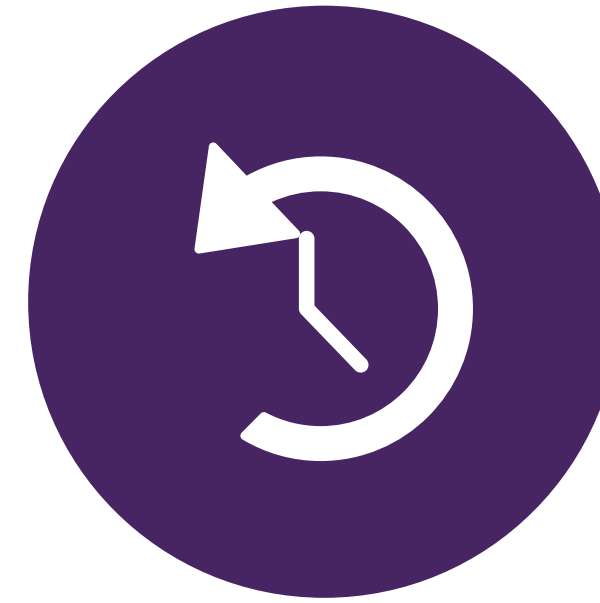
How to Ensure **Patient Safety** with Artech Operating Room Integration System?

- **Easy Access to Patient's Medical History:** The system provides surgical teams quick access to the patient's medical history. This feature enables instant access to information critical for preoperative planning, including the patient's previous interventions, allergies and essential health information.

- **Instant Consultation Facilities:** The Artech system allows the surgical team to consult with specialists outside the operating room. This provides additional information and support in unexpected situations or complex cases, increasing patient safety.

- **Process Tracking with Digital Checklist:** Digital checklists used before, during, and after the operation ensure that all procedures are followed step by step and that no stage is skipped. This systematic approach helps reduce errors and maximize patient safety.

- **Surgery Recording and Analysis:** The system ensures that every surgery is recorded and reviewed when necessary. This enables more accurate diagnostic and treatment decisions and provides a resource for postoperative assessment and education.
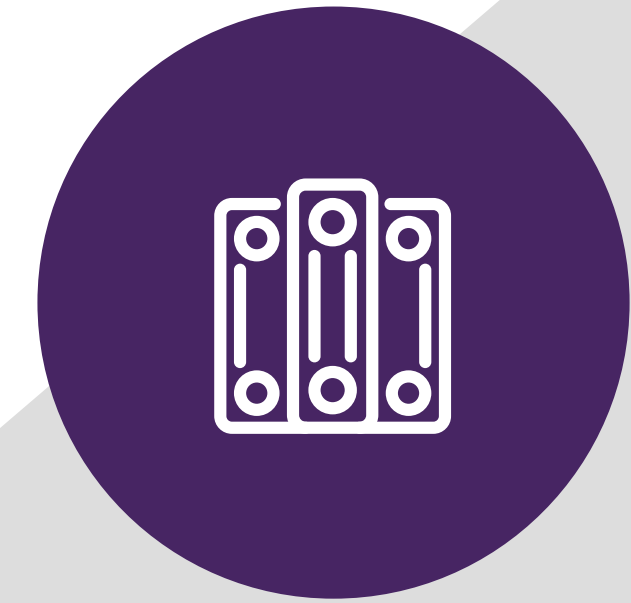
Time Management and Cost Savings with Artech Operating Room Integration System:

- **Shortening Operation Times:** The Operating Room Integration system shortens the duration of each operation by streamlining the operation processes.

- **Increased Surgery Capacity:** Shorter operation times allow the hospital to treat more patients simultaneously. This helps increase hospital revenues and reduce patient waiting times.

- **Reduced Preparation Times with Digital Checklist:** The integration system minimizes the operating room's preparation time. Digital checklists ensure that the equipment and materials are made available quickly so the operating room is ready for patient admission faster.

- **Increasing Staff Productivity:** The system helps the OR staff manage their tasks more effectively and efficiently. This reduces unnecessary staff expenditures and ensures the best use of existing staff capacity.

Cost Savings in Material Management and Invoicing

with Artech Operating Room Integration System:

- **Control and Monitoring of Medical Consumables:** The system's integrated internal barcode readers easily track and control medical consumables. This prevents material wastage and helps to estimate the materials needed more accurately.

- **Comparative Evaluation Opportunities:** The system allows for a comparative evaluation of the materials used for different surgeries. This provides valuable insights for optimizing material usage and increasing cost-effectiveness.

- **Detailed Reporting:** Detailed material utilization reports can be generated for each surgery monthly and annually. This reporting provides hospital management with precise and understandable data on monitoring and managing material costs so that more informed budget decisions can be made.
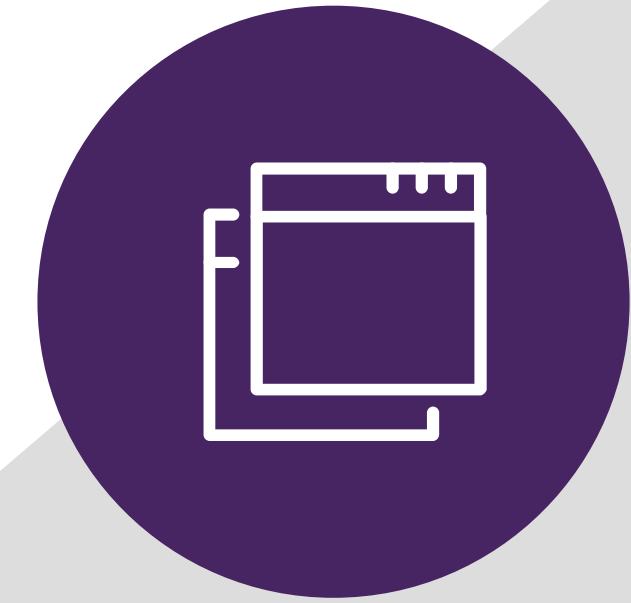
Easy and Fast Accessibility to Information with Artech Operating Room Integration System:

- **Instant Patient History Access:** The system provides surgical team members instant access to a patient's comprehensive medical history. This gives a quick overview of patients' previous treatments, allergies, and critical health information, speeding up the pre-operative assessment.

- **Instant Image and Report Access:** The Artech system provides instant access to PACS images, electronic health records (EHR), and laboratory reports stored in-house. This ensures that all the diagnostic information required for the surgical team is at hand, allowing for more informed decisions.

- **Surgery Recording, Publishing and Sharing:** Surgeries can be recorded, published and easily shared for educational, review or consultation purposes. This promotes knowledge dissemination and collaboration between multidisciplinary teams.

- **Online Expert Consultations:** The system enables surgical team members to consult with other specialists online before, during and after surgery. This facilitates obtaining additional information and support in challenging cases and improves the quality of patient care.

Advanced Surgical Applications
with Artech Operating Room Integration System:

- **Multi-Imaging Capacity:** The Operating Room Integration system allows surgeons to view various images from different medical equipment simultaneously. This feature improves surgical field visualization and provides more accurate and precise interventions.

- **Digital Information and Document Management:** The system ensures that information and documents critical to medical processes are digitized, stored and easily accessible. This speeds up surgical planning and decision-making processes and reduces the error rate.

- **Facilitating Complex Procedures:** The Artech Operating Room Integration System facilitates the efficient execution of more complex and challenging surgical procedures. Advanced imaging and information access features help surgeons make immediate and accurate decisions.

Workflow Monitoring and Increasing Efficiency with Artech Operating Room Integration System:

- **Centralized Control:** The system enables the management of all surgical procedures and devices through a centralized device, allowing surgeons to control and manage the operating environment more effectively. This centralized approach simplifies workflow and improves operational efficiency.

- **Reduced Operational Pressure:** In long and complex surgical cases, the system relieves pressure on surgeons and OR staff. Since tasks and responsibilities are clearly defined, team members can work more focused and less stressed.

- **Personalized OR Configuration:** The system allows customization of the OR according to each surgeon's preferences so that the surgical environment is optimized for each operation. This enables more efficient utilization of OR staff and smoother execution of surgical procedures.

- **Control and Monitoring of Ambient Conditions:** The system continuously monitors the operating room's ideal environmental conditions and circumstances. This reduces the risk of infection, improves patient and staff safety, and creates a healthier working environment overall.

Advanced Archiving Features
with Artech Operating Room Integration System:

DICOM

PACS

● **Central Data Storage:**The system stores patient PACS images and all medical history in DICOM-compliant formats in one central location. This maintains data integrity and provides easy access to medical information obtained at different times and locations.

● **Instant Access:** Surgeons and medical staff can access surgical information and patient records when needed. This rapid access is vital during emergencies and critical decision-making moments and supports the continuity of patient care.

● **Preparation of Educational Material:** Archived information and images can be used to prepare educational materials. This creates valuable learning resources for medical students and new staff and contributes to existing staff's continuing education and development.

Integrated Telemedicine Solutions with Artech Operating Room Integration System:

- **Expert Consultations:** The telemedicine system allows OR staff to consult in real time with experts outside the OR. This supports fast and accurate decision-making processes, especially in unexpected situations and cases requiring urgent diagnosis.

- **Rapid Intervention in Sudden-Developing Situations:** The system offers immediate consultation with specialists for sudden-developing situations, increasing patient safety and contributing to more effective treatment management.

- **Easy Integration of New Procedures:** Hospitals can more easily integrate new procedures into existing practices thanks to training and demonstrations offered through telemedicine. This ensures continuous updating and improvement of medical services.

- **Remote Training and Update:** Surgeons can learn about new procedures and techniques through the telemedicine system without leaving their place of work. This offers a continuous and cost-effective way for professional development and ensures that surgeons master the most up-to-date treatment methods.

Why Artech **Medical Computer** Solutions?

- Domestic Production and Domestic Software.

- Customer orientation and sustainability.

- Artech Medical Computer products have a modular and maintenance-free structure and offer a fast and uninterrupted technical service with up to 3 years warranty and five years spare parts support.

- Rigorous quality control and high customer satisfaction.

- Each device is tested in our test laboratory, located in our factory, and then delivered to our customers after passing through quality processes.

- Compliance with international standards

- Our products have CE certificates.

- Artech medical computers and operating theatre consoles are designed for sterile hospital environments, have 93/42/EEC medical device certification and are manufactured by IEC-60601 medical device, electrical and safety standards.

With video and data integration for a simple, secure and more modern working environment, we enable healthcare staff to focus on the best possible patient care.

ÇİZGİ TEKNOLOJİ

Scan the QR code for our references.

info@cizgi.net

+90 216 365 82 50

www.cizgi.net
www.artech-ipc.com.tr

Çizgi Teknoloji Elektronik Tasarım
ve Üretim A.Ş.

Cizgi Technology
Artech-Art of Technology