**Experiment 1: Prepare an SRS document in line with the IEEE recommended standards for the specified case study. (Functional requirement)**

Functional requirements for an e-hospital, which is an electronically enabled hospital, defines the specific features, capabilities, and functionalities of the digital system. These requirements are essential for ensuring the efficient and effective operation of the hospital. Here are some key functional requirements for an e-hospital:

**1. Patient Registration and Management:**

- Capture and manage patient demographic information.

- Assign unique identifiers to patients.

- Maintain a comprehensive patient database.

**2. Electronic Health Records :**

- Store and manage electronic health records for each patient.

- Record and update medical history, diagnoses, treatment plans, and test results.

**3. Appointment Scheduling:**

- Enable online appointment booking for patients.

- Provide healthcare professionals with a scheduling system for managing appointments.

**4. Prescription Management:**

- Support electronic prescription creation and transmission.

- Manage medication orders, dosages, and refills.

**5. Laboratory and Radiology Integration:**

- Facilitate electronic ordering and retrieval of lab tests and radiology images.

- Ensure secure communication between healthcare providers and diagnostic facilities.

**6. Telemedicine and Video Consultations:**

- Enable real-time video consultations between patients and healthcare providers.

- Securely store telemedicine visit records within the EHR.

**7. Billing and Insurance Management:**

- Manage patient billing and claims processing.

- Verify insurance coverage and handle reimbursement.

**8. Inventory and Supply Chain Management:**

- Monitor and control the inventory of medical supplies and equipment.

- Automate procurement and restocking processes.

**9. Reporting and Analytics:**

- Generate reports on patient data, hospital performance, and financial metrics.

- Provide data analytics tools for decision-making and quality improvement.

**10. Mobile Access and Patient Portals:**

- Offer mobile applications and patient portals for patients to access their health records, schedule appointments, and communicate with healthcare providers.

**11. Patient Education and Health Information:**

- Provide access to educational resources and health information to empower patients to make informed decisions about their care.

**12. Remote Monitoring:**

- Enable remote monitoring of patients' vital signs and health status, particularly for chronic conditions irrespective of their geographical locations.

**13. Emergency Response and Alerts:**

- Facilitate rapid emergency response coordination and communication within the hospital.

These functional requirements collectively enhance patient care, streamline hospital operations, and improve overall efficiency in an e-hospital environment.