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| **क्षेत्रीय क्षमता निर्माण एवं ज्ञान संस्थान,कोलकाता**तीसरा एमएसओ बिल्डिंग, सीजीओ कॉम्प्लेक्स, 5वीं मंजिल, 'ए'विंग,डीएफ ब्लॉक, साल्ट लेक, सेक्टर - I, कोलकाता - 700 064 |  | **REGIONAL CAPACITY BUILDING & KNOWLEDGE INSTITUTE, KOLKATA**3RD MSO BUILDING, CGO COMPLEX, 5TH FLOOR, ‘A’ WING, DF BLOCK, SALT LAKE, SECTOR– I, KOLKATA - 700 064 |

***Course Title: ‘IT Audit Theory and Practical’*
*Course Duration: 16-06-2025 to 24-06-2025 (07 Days)***

***Course Coordinator: Shri Sujay Banerjee SAO/IS***

***Course ID: 2209002025147***

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| **Date** | **Forenoon Session** | **Afternoon Session**  |
| **10.30 hrs. to 11.45 hrs .** | **12.00 hrs. to 13.15 hrs.** | **14.15 hrs. to 15.30 hrs.**  | **15.45 hrs. to 17.00 hrs.** |
| **16-06-25** | **INAUGARATION:****Need of IT Systems*** Need for Conducting IT Audits
* Identifying the need for IT systems in organizations
* Conducting a feasibility study and cost-benefit analysis
* Assessing the current IT infrastructure and gaps

Documenting the IT system requirements | **Overview of IT Audit** * Definition, main audit objective and scope of IT Audit
* Understanding the IT System and its function and processes
* Understanding the IT System and its modules, interfaces, etc.
* Walkthrough of an IT System through PPT
* Role of IT Audit in overall risk management
* IT Governance and Strategy

Relevant Standards, Policies, and frameworks for IT Audit | **IT Audit Planning*** Audit Preparation and Planning –
* Review and analysis of Business Process Document/SRS/other documents related to the design and implementation of the IT System

Defining Audit Scope and Audit Objectives  | **IT Audit Planning****Defining Audit methodology** – access to UAT environment, writing queries in English, taking the help of Auditee to convert English queries into data executable query and Data Extraction, validating business processes mapped into the system for their correctness and completeness, checking interface aspects for data mismatch/gaps in the data transfer, reconciliation mechanism between the IT systems, etc.  |
| **Faculty** | **Shri B. K. Mahanti, SAO (Retd), South Eastern Railway** | **Shri Sagarmay Mandal, SAO (Retd.), Eastern Railway** |
| **17-06-25** | **Acquisition, development and implementation of IT System** |
| * Project Governance and Management
* Procurement of Hardware
* Procurement and/or Development of Software
* Finalizing User Requirements Specification (URS)/ Business Requirements Specification (BRS) and whether the same meets the needs of the organisation.
* Vendor assessment and selection criteria
* Procurement process and contract management
* Ensuring compliance with organizational policies and standards
* Auditing the procurement process

Software Requirements Specification (SRS) and its components and whether it correctly maps the URS/BRS | * Exploring different Software Development Life Cycle (SDLC) models and their applications and its adequacy to support the organisation’s system requirement.
* Auditing the SDLC process (during various phases of SDLC post implementation) for adherence to best practices.
* Identifying hardware and software vulnerabilities, Defining IT General Controls, physical controls and Application Controls including managing user access and privileges.
* Evaluating control effectiveness and efficiency through Audit Checklist including unauthorised login if any.
* Best practices for IT control implementation.
* Assessing security controls and measures.
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| **Faculty** | **Shri Sagarmay Mandal, SAO (Retd.), Eastern Railway** | **Shri Hemanta Kr. Paul, Expert Trainer** |
| **18-06-25** | **Use of various Data Analytics tools for testing the Systems in IT Audit (Practical)**• Importance of data analytics in IT Audits• Use of different tools for IT Auditing like IDEA, SQL, Excel, Data Queries, • Techniques for data extraction and analysisUsing data analytics to identify anomalies and trends.• Testing in UAT environment |
| **Faculty** | **Shri Biswajit Saha, SAO, O/o PAG (Audit I), WB** | **Shri Chandan Kumar, AAO, RCB&KI, Kolkata** |
| **19-06-25** | **Rolling Out of IT Systems and quality assurance in IT projects*** Strategies for system rollout and monitoring the system implementation process.
* System Migration and Infrastructure Deployment
* Types of testing and their purposes
* Test planning, execution, and documentation
* Testing and Quality Assurance process for various components/modules of IT Systems and adequacy and effectiveness of its interfaces with other IT Systems within the organization and external IT Systems as envisaged in URS/SRS.
 | **Rolling Out of IT Systems and quality assurance in IT projects*** Interface testing
* IT Audit considerations for system rollout like Systems as envisaged in URS and SRS.
* Testing and audit of IT application by the Accredited Agency before and after roll-out (Like STQC) and implementation of their recommendation
* User Acceptance Testing etc.
* Use post-implementation review and auditing.
 | **IT Change Management*** Auditing existence, adequacy, and effectiveness of implementation of change control procedures.
 | **Business Continuity Planning (BCP) and Disaster Recovery Planning (DRP)*** Importance of documented BCP and DRP
* Identifying critical business processes and IT dependencies
* Testing for adequacy and effective functioning of BCP/DRP plans using IT Audit Checklist
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| ***Faculty*** | **Shri B K Mahanti, SAO (Retd) , South Eastern Railway** |
| **20-06-25** | **IT Audit Reporting and Communication*** Communicating audit findings to the Auditee i.e. AR/AE/AO
* Preparation of Audit reports
* Data visualization for effective reporting

Following up of Audit Findings | **Emerging Trends and Challenges in IT Audit*** AI and automation in IT Audits
* Cybersecurity and IT Audit implications

Privacy, data security and data protection considerations | Case Study on IT Audit |
| ***Faculty*** | **Shri Samaresh Roy (Ram), SAO, O/o PAG (Audit I) WB** | **Shri Somendra Kr. Sharan, SAO, O/o the DGA Central** |
| **23-06-25** | Case Study with example of any application (GSTN, CBIC, OIOS etc.) | Case Study on IT Audit |
| ***Faculty*** | **Shri Bijan Paul, AAO, RCB&KI, Kolkata** | **Shri Sathish M, DAG, O/o PAG (Audit II) WB** |
| **24-06-25** | Case Study on IT Audit | Case Study on IT Audit |
| ***Faculty*** | **Shri Avnindra Kr Rai, DAG, O/o PAG (Audit I) WB** | **Shri Sujay Banerjee, SAO/ RCBKI, Kolkata** |
|  | **TEST & VALEDICTION** |

NB: **Programme is subject to change under circumstances**.

Tea Break :12.00 hrs to 12.15 hrs & 15.15 hrs. to 15.30 hrs

Lunch Break: 13.15 hrs. to 14.15 hrs

**Training Methodologies:**

1. **Focus on holistic learning**
2. **Customized training module**
3. **Talk, Tell & MS PowerPoint presentation as required**
4. **Practical Example with cases & reference as required**
5. **Personal counselling and guidance**