



International Centre for Information Systems & Audit

A-52, Sector- 62, Institutional Area, Phase-II, Noida – 201309 (Uttar Pradesh)

# 162nd International Training Programme

on

Use of Data Analytics & Emerging Technologies in Audit

(5th February to 28th February, 2025)

# Course Schedule

162nd ITP First week: Introduction to Data Analytics and Data Analytics tools in Audit & Introduction to Python

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| **Date & Day** | Session 1 10:00– 11:15 Hours | | Session 2 11:45 –13:00 Hours | Session 3 14:00 – 15:15 Hours | Session 4 15:45 –17:00 Hours |
| **5 Feb 2025**  **Wednesday** | **Briefing & Ice-breaking session** | | **Introducing India** | **Inauguration at iCISA** | |
| Presentation by SAI India participant |
| Room no. 108 | | | **iCISA Auditorium** | |
| **6 Feb 2025 Thursday** | **Data Analytics**: An overview | | | **Use of Data Analytics Tool KNIME in Audit:** Building Basic Workflow, Data preparation & cleaning, Data manipulation, : Visualization, Report Generation, Case Study | |
| **Ms. Megha Raizada, Dy. Director, NIC & Mr. Ankit Pandey, Dy. Director, NIC** | | | **Mr. Prashant Ujlayan, AAO(CDMA),O/o the C&AG of India, New Delhi & Mr. Hitesh Kumar, AAO, iCISA** | |
| **7 Feb 2025 Friday** | **Introduction to Python for Audit:** Overview of Python ,installation, IDE, Variables & Data Types, Syntax & Structure, Function & Modules | | | **Data Handling & Processing:** Overview of Panda, Data Cleaning & Transformation, Aggregating data for audit insights | |
| **Mr. Gaurav Kumar Omee, AAO, RCBKI, Nagpur** | **Mr. Gaurav Kumar Omee, AAO, RCBKI, Nagpur & Mr. Vaibhav Rawat, AAO,iCISA** | | **Mr. Gaurav Kumar Omee, AAO, RCBKI, Nagpur & Mr. Vaibhav Rawat ,AAO ,iCISA** | |
| **8 Feb 2025 Saturday** | **Agra Visit** | | | | |
| **9 Feb 2025**  **Sunday** | **Social Programme** | | | | |

162nd ITP Second week: Python Programming Language and Use of Emerging Technologies in Audit

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| **Date & Day** | Session 1 10:00 – 11:15 Hours | Session 2 11:45 – 13:00 Hours | Session 3 14:00 – 15:15 Hours | Session 4 15:45 – 17:00 Hours |
| **10 Feb 2025**  **Monday** | Use of Python in Determining Cartel Formation in Audit of e-Procurement System: An award winning case study | Online Certification Course in Python | **Data Visualisation using Python for Audit Insights:** Introduction to visualisation libraries, creating visualisation, hands on activities | **Introduction to Image Analytics using Python in Auditing:** Overview of image analytics, working with images, case studies |
| **Ms. Leela Sivaraman, SAO,**  **O/o the PAG (Audit-I), Chennai** | **Mr. Vaibhav Rawat, AAO, iCISA &**  **Mr. Veeresh Singh, Auditor , iCISA** | **Mr. Anil Kumar Goyal, Sr. AO (CDMA) and Mr. Chandersheel, AAO (CDMA), O/o the C&AG of India, New Delhi** | |
| **11 Feb 2025 Tuesday** | **Data Analytics using Tableau** | | Online Certification Course in Python | |
| **Mr. Gowthaman R., Director, O/o the DGA (I&CA), New Delhi** | | **Mr. Vaibhav Rawat, AAO, iCISA &**  **Mr. Veeresh Singh, Auditor , iCISA** | |
| **12 Feb 2025 Wednesday** | **Introduction to Artificial Intelligence & Machine Learning:** Key Concepts, history, and evolution, types of AI | **Supervised and Unsupervised learning** | Legal, Policy & Regulatory issues in AI | |
| **Dr. Anil Singh Parihar, Professor, DTU** | | **Ms. Karnnika A Seth, Cyber Lawyer** | |  |
| **13 Feb 2025**  **Thursday** | **Deep Learning & Neural Networks**  **&**  **Natural Language Processing, AI Tools and Prompt Engineering** | | **Use of Artificial Intelligence for development of applications for Field Audit Office** | |
| **Mr Nitin Raj, Partner PwC &**  **Mr. Gaurav Goswami, Director, PwC** | | **Mr. Karan Vohra, Director(IR-I) & Mr Chandersheel, AAO**  **O/o the C&AG of India, New Delhi** | |
| **14 Feb 2025 Friday** | Role of AI in Transport Sector | Traffic Management in Major Cities of “MP” | **Country Paper Presentation:** *The paper to also include* ***demonstration of audit processes*** *(Audit planning, risk assessment) on a specific projects/schemes scheme of respective nations using Data Analytics & emerging technologies* | |
| **Mr. Shivam Singh, Executive Engineer, NHAI & Dr. Amit Agarwal, Associate professor, IIT Roorkee** | **Mr. Jitendra Tiwari, Director,Govt. A/Cs-I**  **O/o the C&AG of India, New Delhi** |
| **15 Feb. 2025 Saturday** | **Delhi Visit** | | | |
| **16 Feb 2025**  **Sunday** | **Cuisine Day** | | | |

162nd ITP Third week – Study Tour & Field Visit

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| Date & Day | Session 1 10:00 – 11:15 Hours | | Session 2 11:45 – 13:00 Hours | | Session 3 14:00 – 15:15 Hours | Session 4 15:45 – 17:00 Hours |
| **17 Feb 2025**  **Monday** | Online certification in Python  **Mr. Vaibhav Rawat, AAO, iCISA &**  **Mr. Veeresh Singh, Auditor , iCISA** | | | | **Theme Country- South Africa**  **( 2 pm to 2:30 pm)** | **Cultural Event- Indian Classical Dance**  **(Bharatanatyam)**  **( 3:00 pm to 4:30 pm)** |
| **18 Feb 2025 Tuesday** | An Overview of MeitY’s technology driven start up ecosystem across India  **(10:30-11:00 Hrs)** | Initiatives taken by NASSCOM CoE for IoT in fostering innovation using emerging technologies  **(11:00—11:30hrs)** | | Success stories of NASSCOM, CoE, IoT Gurugram  **(11:30-12:30Hrs.)** | **Field visit to High Performance Computing Centre (SAI India Headquarters)** | |
| **Mr.** [**Surya Kant**](https://www.linkedin.com/in/panneerselvam79/) **, Program Director, MeitY Startup Hub,** | **Mr Sanjiv Malhotra , CEO, NASSCOM, CoE** | | **Mr Naman Kothari , Innovation leader , NASSCOM, CoE, Gurugram** |
| **19 Feb. 2025 Wednesday** | **STUDY TOUR (Mumbai)** | | | | | |
| **20 Feb. 2025 Thursday** |
| **21 Feb 2025 Friday** |
| **22 Feb 2025 Saturday** |
| **23 Feb. 2025 Sunday** | Social Programme | | | | | |

162ndITP Fourth week- Case Studies and Application of Emerging Technologies in Audit

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| Date & Day | Session 1 10:00 – 11:15 Hours | Session 2 11:45 – 13:00 Hours | Session 3 14:00 – 15:15 Hours | Session 4 15:45 – 17:00 Hours |
| **24 Feb. 2025**  **Monday** | **AI for Good**: Case Studies | | Use of Remote Sensing / GIS in Audit | Use of Remote Sensing / GIS in Audit:- Case Studies |
| **Ms. Swetha Kullori (Advisor-AI strategy),World Bank** | | **Mr. Manabendra Saharia , Professor, IIT Delhi** | **Dr. Nanda Dulal Das, Director, NAAA, Shimla** |
| **25 Feb. 2025 Tuesday** | **Introduction to Block chain**: Use of Block chain in government, Forensic Accounting using Block Chain, Transition to Automated Auditing using Block chain &Case Studies | | **Country Paper Presentation:** *The paper to also include* ***demonstration of audit processes*** *(Audit planning, risk assessment) on a specific projects/schemes scheme of respective nations using Data Analytics & emerging technologies* | |
| **Mr. Karthik Raj , IRS, Vice President, GSTN** | |
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| **26 Feb 2025 Wednesday** | **Holiday** | | | |
| **27 Feb. 2025 Thursday** | **Country Paper Presentation:** *The paper to also include* ***demonstration of audit processes*** *(Audit planning, risk assessment) on a specific projects/schemes scheme of respective nations using Data Analytics & emerging technologies* | | Robotic Process Automation in Public Sector( Online Session) | |
| **Mr.Naveen Bhansali, Professor, IIM-Bengaluru** | |
| **28 Feb. 2025 Friday** | Closing Ceremony at iCISA Auditorium | |  | |
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