

# COMMITTEE ON INFORMATION TECHNOLOGY of ICAI

## 3 days Hands on Experience Training on Forensic Analytics using CAAT Tools

on 21<sup>st</sup>, 22<sup>nd</sup> & 23<sup>rd</sup> August 2017 from 10 AM to 5 PM at ICAI Bhawan, Sector 62,  
Noida

Course Duration 3 Days and Fees is Rs. 5500/- per participant (for Member ICAI)

### Program Objective

To enable participants leverage advance Excel and GAS (Generalized Audit Software) tool (IDEA) functionalities for assurance analytics (i.e., data analytics from an audit perspective), reporting, interpreting results and decision making.

### Methodology

Hands – on exercises in Excel 2010 / 2013 and IDEA data analysis software using learn-by-doing approach on real world (realistic) data files interspersed with brief lectures and brain storming Sessions.

### Program Intended for

- Chartered Accountants, Managers, team members in the audit function.
- Internal auditors and Information System Auditors.

### Course Material - Participants shall be given:

1. Realistic data files,
2. Brainstorming and creative exercises
3. Stationery

**Please register from the below link to reserve your seat, hurry-up as the seats are limited to 20 Only. In case of registrations received more than 20, the excess registrations shall be shifted to the next batch.**

<http://ccm.icai.org/?progid=1457>

### Prerequisite:

Basic knowledge of MS-Excel

### Indicative Course Content

<b>Day 1</b>	<b>2.5 HRS.</b>	<b>Module 1 - Data Import – Getting Data into Excel</b> <ul style="list-style-type: none"><li>• Learn techniques of Data Import from varied sources like Text files (ASCII format, including .dat files),</li><li>• Web pages (including on-line connectivity to refresh data on real time basis),</li><li>• RDBMS like SQL Server, Tally database, etc.</li><li>• PDF files.</li></ul>

	3.5 HRS.	<p><b>Module 2 - Multi-Dimensional Analysis of data &amp; reporting Use Pivot tables to:</b></p> <ul style="list-style-type: none"> <li>• Analyze data exceeding one million rows!!</li> <li>• Slice &amp; dice data,</li> <li>• Tabulate, cross-tabulate,</li> <li>• Get running totals (e.g. running balance account),</li> <li>• View amounts / quantities as % of rows / columns,</li> <li>• Produce Top 3 or Top 10 reports,</li> <li>• Group sales by weeks, months, quarters, etc.</li> <li>• Apply the Pareto's (80-20) principal to identify high value transactions</li> <li>• Analyze large data sets (even more than million rows).</li> </ul>
Day 2	3 HRS	<p><b>Module 3 - Statistical Sampling</b></p> <ul style="list-style-type: none"> <li>• Introduction to sampling</li> <li>• Statistical v/s. Non. Statistical Sampling</li> <li>• Learn to use Binomial distribution to determine sample size; set tolerable rate of misstatement, expected population exception rate, and confidence level.</li> <li>• Draw samples using various statistical sampling techniques like <ul style="list-style-type: none"> <li>○ Random Sampling, o Systematic Sampling,</li> <li>○ Probability Proportional to size Sampling,</li> </ul> </li> <li>• Determine how representative your samples to the population are, and finally extrapolate the results of evaluation of sample to the population to manage audit risk involved in the attestation.</li> </ul>
	1 HRS	<p><b>Module 4 - Data Mining</b></p> <ul style="list-style-type: none"> <li>□ Master the art of mining for susceptible transactions by efficiently shifting through millions of transactions and filtering out transactions that are indicative of kick-backs, non-compliance with laws, rules or organizational policies, etc.</li> </ul>
	1 HRS	<p><b>Module 5 - Benford's law</b></p>
		<ul style="list-style-type: none"> <li>□ Use Benford's law to identify irrational repetition of digits so that you can zero down on suspicious transactions that irregularities or fraud.</li> </ul>
	1 HRS	<p><b>Module 6 - RSF and Sigma</b></p> <ul style="list-style-type: none"> <li>□ Know Relative Size Factor Theory (RSF) and Standard Deviations (sigma) and how these can help you zero-down on entities and identify red flag transactions. Learn to implement RSF and sigma in Excel.</li> </ul>

<b>Day 3</b>	<b>6 HRS</b>	<p><b>Module 7 – Introduction to Generalized Audit Software (GAS IDEA)</b></p> <ul style="list-style-type: none"> <li>• The need for Generalized Audit Software (GAS), Brief on IDEA,</li> <li>• Features of IDEA, setting a Working Folder, Getting Data into IDEA,</li> <li>• Reconciling Data, Setting Control Total,</li> <li>• Data Manipulation and Interrogation, Indexing,</li> <li>• Sorting,</li> <li>• Navigating in the database (Go To), Display Items Containing (Display Criteria), Find, Search,</li> <li>• Field Manipulation, Extractions,</li> <li>• Analyzing Data and Audit tests, Detecting Gaps,</li> <li>• Detecting Duplicates,</li> <li>• Detecting Customers to whom no sales have been made – Joining Databases,</li> <li>• Detecting Sales made to Unauthorized Customers, Detecting Sales made at Un-authorized rates, applying the 80-20 principle using Stratification, Documentation – Reviewing History Log.</li> </ul>
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