



PB INSTITUTE OF RESEARCH AND TECHNOLOGY

P.O Box 21457-00100

Nairobi - Kenya

Mobile: +254 721 214 795

Email: info@pebblesinstitute.org

AI Governance And Audit For Responsible AI Training

Duration: 5 days

On-Site

01 Who Should Attend

- This course is ideal for;
- IT Auditors & Internal Auditors
- Risk Management Professionals
- Compliance Officers
- Data Scientists & AI Developers
- Legal & Regulatory Affairs Specialists
- Chief Data Officers (CDOs) & Chief AI Officers (CAIOs)
- Business Leaders & Executives overseeing AI initiatives
- Ethics & Corporate Social Responsibility (CSR) Managers



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02 About the Course

As Artificial Intelligence (AI) rapidly integrates into every facet of business and society, the imperative to develop, deploy, and manage these powerful systems responsibly has become paramount for preventing unintended biases, ensuring data privacy, upholding ethical standards, and navigating a rapidly evolving regulatory landscape. Mastering AI Governance and Audit for Responsible AI is absolutely critical for organizations aiming to harness the transformative power of AI while mitigating its inherent risks, building public trust, and demonstrating accountability to stakeholders. This essential training course is designed to equip IT auditors, internal auditors, risk managers, compliance officers, data scientists, AI developers, legal professionals, and business leaders with the specialized knowledge and practical skills required for understanding the core principles of ethical AI (fairness, transparency, accountability), designing robust AI governance frameworks, developing mechanisms for continuous monitoring and auditing of AI systems, identifying and mitigating algorithmic bias, ensuring data quality and privacy in AI pipelines, and complying with emerging global AI regulations. Participants will gain a comprehensive understanding of the full AI lifecycle from an ethical and governance perspective, the nuances of auditing AI algorithms and data, the challenges of explainable AI (XAI), and the critical role of proactive governance in fostering trust and driving sustainable innovation in the age of AI. This program emphasizes practical application, adherence to international best practices, and real-world scenarios pertinent to building and auditing responsible AI systems.



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03 Workshop Objectives

- Master the foundational principles of responsible AI, including fairness, transparency, and accountability.
- Learn sophisticated techniques for designing and implementing an effective AI governance framework.
- Develop proficiency in identifying, assessing, and mitigating ethical and societal risks associated with AI systems.
- Understand advanced strategies for conducting comprehensive audits of AI models, data, and processes.
- Explore best practices in detecting and addressing algorithmic bias across the AI lifecycle.
- Grasp advanced techniques for ensuring data privacy and security within AI applications and pipelines.
- Learn about robust approaches to promoting explainability (XAI) and interpretability of AI decisions.
- Identify the critical global regulatory frameworks and standards for AI governance and compliance.
- Develop skills in creating an audit trail and robust documentation for AI systems.
- Understand the importance of human oversight and "human-in-the-loop" strategies for AI.
- Formulate strategies for continuous monitoring and improvement of AI governance and audit processes.

04 Module Topics

Module 1: Foundations of Responsible AI & Governance



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- Defining Artificial Intelligence (AI), Machine Learning (ML), and their applications
- The ethical imperative for responsible AI: societal impact, trust, and risk
- Core principles of responsible AI: fairness, transparency, accountability, privacy, robustness, safety
- Introduction to AI governance: why it's needed and key components of a framework
- The AI lifecycle from a governance perspective (design, development, deployment, monitoring)

Module 2: AI Governance Frameworks & Policies

- Designing an effective AI governance structure: roles, responsibilities, committees
- Developing an organizational AI ethics policy and code of conduct
- Integrating AI governance with existing GRC (Governance, Risk, Compliance) frameworks
- Establishing clear lines of accountability for AI decisions and outcomes
- Building an ethical AI culture within the organization

Module 3: AI Risk Assessment & Mitigation

- Identifying AI-specific risks: bias, discrimination, privacy breaches, security vulnerabilities, unintended consequences
- Methodologies for assessing AI risks across different use cases
- Quantitative and qualitative approaches to risk evaluation
- Developing risk mitigation strategies and controls for identified AI risks
- Understanding the concept of "AI safety" and its implications

Module 4: Auditing AI Systems for Bias & Fairness

- Sources and types of algorithmic bias (data bias, algorithmic bias, interaction bias)
- Techniques for detecting bias in datasets and AI models (e.g., fairness metrics, statistical parity)
- Strategies for mitigating bias: data augmentation, re-weighting, algorithmic adjustments
- Auditing AI models for fairness and non-discrimination
- Case studies of biased AI systems and their impact



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Module 5: Data Governance, Privacy & Security for AI

- The critical role of data quality, lineage, and provenance in AI systems
- Data privacy principles in AI: GDPR, CCPA, and other relevant regulations
- Privacy-enhancing technologies (PETs) for AI (e.g., federated learning, differential privacy)
- Cybersecurity risks specific to AI: adversarial attacks, model inversion, data poisoning
- Auditing data governance and security controls in AI pipelines

Module 6: AI Explainability (XAI) & Human Oversight

- The importance of explainable AI (XAI) for trust, debugging, and compliance
- Techniques for achieving explainability in machine learning models (e.g., LIME, SHAP, feature importance)
- Trade-offs between model accuracy, complexity, and explainability
- Designing for human oversight: human-in-the-loop, human-on-the-loop, human-in-command
- Auditing the effectiveness of human oversight mechanisms

Module 7: Regulatory Compliance & Future of AI Audit

- Overview of key global AI regulations (e.g., EU AI Act, national AI strategies)
- Compliance requirements for high-risk AI systems
- Role of standards and certifications in demonstrating AI trustworthiness
- Future trends in AI governance and audit: continuous AI auditing, AI-driven audit tools
- Best practices for establishing an ongoing AI audit program and adapting to evolving regulations