



PropTech and AI in Real Estate: Automated Valuation, Analytics and Adoption



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Introduction:

Real estate organisations keep rent rolls, transaction records, work orders and lease files in disconnected systems, then buy PropTech and AI tools that cannot use them, so pilots stall and valuation, deal screening and tenant services stay manual. This Core Concept course equips developers, investors, asset and facilities managers to apply PropTech and AI in real estate: auditing property data, testing automated valuation models, running location and demand analytics, screening deals and governing bias and privacy. Participants produce a PropTech Adoption Roadmap and Business Case for a case portfolio.

Course Objectives:

- Map PropTech segments and AI use cases across the property life cycle and assess the data readiness of a portfolio
- Evaluate automated valuation model outputs using confidence scores, holdout samples and ratio study measures before relying on them
- Apply geospatial and demand analytics to rank locations and forecast rents and absorption for acquisition and leasing decisions
- Specify AI tools for investment screening, lease abstraction, tenant experience apps, predictive maintenance and generative drafting of listings and documents
- Set data governance, bias testing and privacy controls for property AI models and select PropTech solutions on vendor-neutral criteria
- Build a PropTech adoption roadmap and business case that prioritises use cases and defines pilots, metrics and stage gates

Target Audience:

- Development managers responsible for site selection, product mix and pre-leasing decisions on new schemes
 - Investment and acquisitions managers responsible for sourcing, screening and underwriting property deals
 - Asset and portfolio managers responsible for income, occupancy and value performance across property holdings
 - Facilities and operations managers responsible for maintenance planning, service contracts and occupier satisfaction
 - Real estate data, research and digital managers responsible for property data, analytics and technology investment
 - Leasing and tenant relations managers responsible for lettings pipelines, renewals and occupier communication channels
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Course Outline:

Day 1: PropTech Landscape, Property Data Sources and Readiness

- PropTech Segment Map: Real Estate Fintech, Smart Real Estate, Shared Economy and Data Platforms
- AI Use Case Inventory Across the Property Life Cycle: Acquire, Develop, Lease, Operate and Exit
- Property Data Source Register: Transaction Records, Rent Rolls, Listings, Geospatial Layers and Sensor Feeds
- Property Data Quality Scorecard: Completeness, Accuracy, Timeliness and Standard Property Identifiers
- PropTech Maturity Assessment Template Applied to a Sample Portfolio

Day 2: Automated Valuation Models and Location Analytics

- AVM Approaches: Comparable-Based Selection, Hedonic Regression and Repeat-Sales Index
- Machine Learning Valuation: Gradient Boosted Trees and Neural Networks Against Multiple Regression
- AVM Confidence Scores, Holdout Samples and Ratio Study Measures COD, PRD and PRB
- Geospatial Feature Engineering: Amenity Proximity, Catchment Buffers and Travel-Time Isochrones
- Rent and Absorption Forecasting with Time-Series Models and Leading Demand Indicators

Day 3: AI Applications for Investment, Leasing and Facilities

- AI Deal Screening Scorecard: Acquisition Filters, Risk Flags and Yield Signals
- Lease Abstraction with Natural Language Processing: Clause Extraction and Critical Date Registers
- Digital Leasing Journey and Tenant Experience App Feature Requirements
- Predictive Maintenance Models on Work Order History and Asset Condition Data
- Generative AI Prompt Patterns for Property Listings, Tenant Notices and Investment Memos

Day 4: Tokenisation, Data Governance, Bias and Solution Selection

- Tokenised Property and Fractional Ownership: Smart Contract Flow and Custody Risks as an Optional Module
 - Real Estate Data Governance: Data Ownership, Lineage and Access Roles
 - Algorithmic Bias Testing in Valuation and Tenant Screening Models with Fairness Metrics and Model Cards
 - Personal Data Privacy in Tenant Apps: Consent, Minimisation and Retention Rules
 - Vendor-Neutral PropTech Selection Matrix: Integration APIs, Data Portability and Total Cost of Ownership
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Day 5: Case Study: PropTech Adoption Roadmap and Business Case

- Mixed Portfolio Case Briefing: Residential, Office and Logistics Assets with Data Gaps
- Use Case Prioritisation Grid: Value, Feasibility and Data Readiness Scores
- PropTech Business Case Model: Benefits Register, Implementation Cost and Payback
- Pilot Design, Success Metrics and Scale-Up Stage Gates
- PropTech Adoption Roadmap and Business Case Presentation to an Investment Panel

Skills You Will Gain:

- Property Data Quality Auditing
- AVM Performance Testing
- Geospatial Location Analytics
- Rental Demand Forecasting
- AI Lease Abstraction
- Predictive Maintenance Planning
- Algorithmic Bias Review
- PropTech Solution Selection

Why Attend This Course:

- Leave with a PropTech Adoption Roadmap and Business Case for a case portfolio, challenged by an investment panel
- Question an automated valuation or deal screening output with the right accuracy statistics instead of accepting a single number
- Brief technology suppliers with clear data, integration and privacy requirements that keep portfolio data portable
- Compare PropTech practice with peers from developers, investors, asset managers and facilities teams across residential, office and logistics property

Conclusion:

PropTech and AI pay back in real estate only when property data is fit for use and each tool answers a defined investment, leasing or operating decision. The course moves from the PropTech landscape and data readiness, through automated valuation models and location analytics, to AI for deal screening, lease abstraction, tenant apps, predictive maintenance and generative drafting, then to tokenisation, governance, bias, privacy and vendor-neutral selection. The final day produces a PropTech Adoption Roadmap and Business Case for a case portfolio.
