Credit Assessment Analytics in Banking and Data Science Applications in the Digital Transformation Process

PURPOSE

The most important concepts in the credit assessment process in banking are knowledge accumulation and experience gained from past examples. However, producing quality outputs by processing data analytically using scientific methods and using these outputs to support decision-making will increase the quality and efficiency of the process. On the other hand, the implementation of IFRS 9 in the Turkish Banking Sector has necessitated that banks manage the analysis, allocation, marketing, monitoring, tracking, and reporting of Loans, which are the most important component of the active composition of bank balance sheets, in serious interaction with digital transformation. In this regard, banks are prioritising practical data science applications by developing credit decision support systems based on their own initiatives, as well as integrating modelling algorithms required by legislation into their systems. This programme aims to provide banks with a reference point for developing both mandatory and initiative-based systems and algorithms in the digital transformation process, featuring assessments and applications that blend expert experience and data science.

WHO CAN PARTICIPATE?

Staff at all levels with an interest in the subject may participate.

CONTENT

Loans and Digital Transformation Integration in Banking

-        Types of Loans and Risks in Banking

-        Credit and Collateral Classes from Past to Present

-        IFRS 9 – Credit Impairment Allowance and Its Impact on the Banking Sector v

Loan Staging (Stage 1, Stage 2, Stage 3)

v Expected Credit Loss (ECL) Calculation Algorithms (PD, EAD, LGD)

-        Credit Valuation in Banking: Practical Experience & Data Analytics v

Analysis of Financial Data

v Analysis of Non-Financial Data

v Sector-Based Credit Valuation Roadmaps v Credit

Decision Formation

A Managerial Approach to Data Science and Credit Process Applications

-        Global Research and Trends

-        Literature Review

-        Statistical Learning & Machine Learning & Artificial Intelligence & Deep Learning

-        Augmented Intelligence: Data Analytics & Data Modelling & Validation & Calibration

-        An Example Data Science Application in the Credit Process

Training Date	Thursday, 26 February 2026 Saturday, 28 February 2026
Virtual Classroom Application	Microsoft TEAMS
Virtual Classroom	
Start-End Time	10:00 - 16:00

INSTRUCTOR

Dr. Mustafa Ceran

Kuwait Turkish Participation Bank

Head of Corporate and Commercial Loans Group

CURRICULUM VITAE

Bachelor : Boğaziçi University / Business Administration (BA)

Master's Degree: Bahçeşehir University / Capital Markets and Finance (MBA)

Doctorate : Marmara University / Banking Department (PhD)

ACADEMIC INTERESTS:

· Artificial Intelligence & Augmented Intelligence & Cognitive Science and Financial Applications

· Financial Management

§ Basic Financial Statement Analysis Methods

§ Advanced Financial Analysis Methods; Fund Flow and Cash Flow Analyses

§ Consolidation, Manipulation Detection and Early Warning Signals in Financial Statements

§ Sector-Based Creditworthiness Analysis Methods

· Bank Management and Banking Operations

· Credit Management and Analytics in Banking (Analysis, Allocation, Marketing, Monitoring, Tracking and Reporting)

· Risk Management in Banking

· Financial Consultancy for SMEs

· Macroeconomic Indicators and Public Finance

· Islamic Finance and Sustainable Financial Management

PUBLICATIONS

CERAN, Mustafa, MERMOD, Aslı Yüksel, "Banking Risks and Capital Adequacy in Line with Basel III; A Comparative Analysis of the Turkish Banking Sector", Marmara University Banking and Insurance College Journal of Financial Research and Studies, Issue: 4, 2011.

CERAN, Mustafa, Socially Responsible Investing in Emerging Countries, 4th International Conference on Governance, Fraud, Ethics and CSR, Alanya, 2012.

CERAN, Mustafa, BÜLBÜL, Serpil Ergün, "A Scientific Approach to Identifying Problem Loans in the Banking Sector," Marmara University Journal of Economic Research, Volume: 3, Issue: 1, 2019.

Identifying Non-Performing Loans with the Support of Artificial Intelligence in the Context of Digitalisation in Banking, 2019 (Doctoral Thesis).

CERAN, Mustafa, BALÇİÇEK, Ökkeş Emin, How to Create Exponential Growth Via Platform Ecosystems: Machine Learning and Augmented Intelligence Based Smart Analytic Banking Systems, Fintech Festival, Singapore, 2019.