



MARKETING
INSTITUTE OF
SINGAPORE

MARKETING

Data Mining Essentials 1 – Data Mining Foundation & Predictive Analytics

Why You Should Attend This Course:

The rise of global businesses over the past few decades has resulted in an explosion of operational data containing customer, supplier and market information. Competition requires timely and sophisticated analysis on an integrated view of the data. Data mining, the extraction of hidden predictive information from large databases, is a powerful technology with great potential to help companies discover insights to their most important asset – the massive data available in all organisations. Data mining is widely applied in all industries, from financial, pharmaceutical, telecommunications, consumer package goods, retail to the Public Sector. Many successful applications have been built to leverage the power of data mining. The giants that use data mining to enhance their core competency and increase profit include household names like HSBC, Amazon.com, GE Money, Vodafone, China Unicom, Bell Atlantic, Korea Customer Service, Fairmont and many others. Though data mining techniques are well-developed, there is a growing gap between more powerful data mining softwares and the business users' ability to effectively leverage this technology to act on valuable information. This course is designed to provide participants with understanding of the data mining process, basics of various data mining techniques and identify opportunities to improve business effectiveness and performance in leaps and bounds.

The challenge for every customer-oriented organisation consists of identifying potential customers and satisfying and retaining existing customers. This necessitates extensive effort in marketing and effective analysis of marketing data to understand customers' need and expectations. Adequately addressing these needs in a timely manner is crucial to grow and maintain a long-lasting and mutually profitable relationship. Data mining has been widely used in sales, marketing, and customer relationship management, to distill insights into customer behaviours. Among various techniques in data mining, predictive analytics form a crucial group. It can greatly facilitate marketing tasks, including response modelling, up-sell and cross-sell prediction, customer valuation, churn analysis, and to improve customer service. The business giants that have benefited from predictive analysis in the marketing context include HSBC, Vodafone, China Unicom, Bell Atlantic, P&G, Redcats USA and many others. This course is designed to provide participants with the detail understanding of various classification/prediction techniques and help them identify opportunities to improve marketing effectiveness and increase profit.

Learning Outcome:

- Understand the concepts and process of data mining
- Learn the various applications of data mining
- See live demonstrations of various data mining techniques, including classification, prediction, clustering and association
- Learn the data preparation process
- Learn the nuances of data mining and how to seek out profitable data mining projects
- Understand the concepts and workings of predictive analysis
- Learn various classification/prediction algorithms, including Decision Tree, Naive Bayes, Logistic Regression and Support Vector Machines
- Understand how to compare the predictive models from different algorithms
- Understand how to create predictive scores for new records using the predictive models

Course Outline:

Introduction to Data Mining

- Motivation: Why data mining
- Definition: What is data mining
- Data Mining Process
- Examples of Data Mining Applications

Fundamentals of Data Mining Techniques

- Introduction on Various Data Mining Techniques and Demos
 - Classification/Prediction
 - Clustering
 - Association
- Data Preparation

○ Why data preparation	Data integration
○ Data cleansing	Data normalization
○ Data reduction	Data discretization
- What Is Predictive Modeling?
- Salient Modeling Issues
- Modeling Techniques: Decision Tree
- Modeling Techniques: Naive Bayes
- Modeling Techniques: Logistic Regression
- Modeling Techniques: Support Vector Machine
- Comparison of Modelling Techniques
- Example Applications of Predictive Modeling
- Live demonstrations of Predictive Models

Who Can Benefit?

Marketers, Customer service managers, Sales managers, Analysts, Operations managers, Business Owners, Key executives, Sales operations, Heads of departments or any Decision-makers responsible for business analysis and marketing success should attend this essential workshop on data mining. You will be armed with the data mining knowledge which will enhance the competitive advantage of your company.

Trainer's Profile:

Raymond Au has more than 20 years of industry experience in the area of IT consulting, Data Mining and Business Intelligence. Raymond has worked in many MNCs in regional roles to provide solutions to customers across various vertical industries like Retail, Government, Telco, FSI and Manufacturing. Specifically in the area of Sales & Marketing, Raymond has implemented analytics to assist customers improve their campaign response, identify up-sell and cross-sell opportunities and also using text mining to analyse and improve customer services in call centers and other channel feedbacks.

Date:

22 Mar 2012
10 May 2012

Course Fees:

S\$420.00

MIS MEMBER:
20% OFF

For Course Enquiries

Web:
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51 Anson Road #03-53
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Data Mining Essentials 2 – Clustering, Market Basket Analysis & Text Mining

Why You Should Attend This Course:

To better align the products with customers' need, clear and effective customer/product segmentation is a must. Adequately addressing these needs at the right time is crucial to grow and maintain a long-lasting and mutually profitable relationship.

Clustering analysis is one group of data mining techniques that has been widely used in customer segmentation, product differentiation and new product design. It can greatly help users understand customers' behaviour and tailor their products according to customers' need.

Massive transaction data, which is accumulated in a company's database, contains lots of knowledge including customer purchasing behaviours and links between different products. Whether the knowledge in the transaction data can be understood determines whether the company can identify potentials for up-sells and cross-sells. However, it is very difficult to withdraw this knowledge in traditional analysis method. Fortunately, automatic product association technique can help the users identify the up-sells and cross-sells potentials from transaction data. In addition to the market basket analysis introduced above, association analysis is also employed in many application areas including web usage mining, intrusion detection and bioinformatics.

This course is designed to provide participants with understanding of clustering and association techniques and identify opportunities to improve marketing effectiveness and increase profit.

Due to improvements and innovations in communications and IT, more and more customer information is made available in textual form, including industry white papers, academic publications relating to markets, trade journals, market news articles, reviews, and even public or consumer opinions regarding customer feedback. Text mining technology enables organisations to maximise the value of information stored within large quantities of text that is generated, acquired or exists in repositories. Text Mining extracts relevant information, interprets them, mines and structures information to reveal patterns, sentiments and relationships among documents. This is a relative new technology as compared to the traditional structured data analysis, as it enables richer analysis of information stored within text that is largely left undiscovered.

This course is designed to provide participants with understanding of text mining techniques and its applications in marketing, so that they can identify opportunities of using text mining to enhance marketing effectiveness.

Learning Outcome:

- Understand the concepts and workings of clustering analysis
- Learn K-Means clustering technique
- Understand various measures of distance of data objects
- Understand the concepts and ideas of association
- Identify potentials of up-sells and cross-sells from transaction data
- Understand basic concepts and techniques in Text Mining
- Potential applications of Text Mining
- Learn about Sentiment Analysis (the study of moods within text)
- Learn how Text Mining can be applied in understanding survey results

Course Outline:

Customer/Product Segmentation using Clustering

- What Is Clustering Analysis?
- K-Means Clustering
- Distance of Data Objects
- Example applications of Cluster Modelling
- Live demonstrations of Clustering

Market Basket Analysis using Association Analysis

- Overview of Association Analysis
- Mining Association Rules
- Frequent Item Set Generation: Apriori Method
- Rule Generation
- Existing Applications of Association Analysis

Overview of Text Mining

- What Makes Text Stand Apart from Other Kinds of Data
- How to perform Text Classification/Prediction
- How to perform Text Clustering
- Applications of Text Mining
- Sentiment Analysis explained
- Live demonstrations of Text Mining

Who Can Benefit?

Marketers, Customer service managers, Advertising account managers, Analysts, Operations managers, Business Owners, Key executives, Sales operations, Heads of departments or any Decision-makers responsible for business analysis and marketing success should attend this essential workshop on data mining. You will be armed with data mining knowledge which can enhance the competitive advantages of your company.

Trainer's Profile:

Dr Han Dongling earned his PhD from NUS in Industrial Analytics. Dr Han is a Senior Consultant in Prometheus and has many years of experience providing training and consultancy to customers in the Retail, FSI, Government and Telco industries. Dr Han's specialty lies in creating complex models to forecast demand in logistics and optimising the supply chain. Some of his projects include airfreight demand forecasting and also typical marketing customer segmentation projects whereby up-sell and cross-sell opportunities were discovered through the use of advance analytics.

Date:

23 Mar 2012
11 May 2012

Course Fees:

S\$420.00

MIS MEMBER:
20% OFF

For Course Enquiries

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REGISTRATION FORM



EXECUTIVE DEVELOPMENT PROGRAMMES

Register online at www.mis.org.sg/seminars or fax form to 6327 9741

Register for 3 or more participants and enjoy 5% discount!

- Data Mining Essentials 1 – *Data Mining Foundation & Predictive Analytics* S\$ 420.00 10 May 2012 9.00am – 5.00pm
 Data Mining Essentials 2 – *Clustering, Market Basket Analysis & Text Mining* S\$ 420.00 11 May 2012 9.00am – 5.00pm

Special Package Fee:

2 Workshops Package

S\$ 750.00

**Fees subject to prevailing GST.

Special Package Fee cannot be used in conjunction with 20% MIS Member Discount.

**Approved for SDF funding*

Please indicate if you wish to apply Yes No

Participant(s) Name	Designation	E-mail	Contact No.
1)			
2)			
Company:			
<input type="checkbox"/> Member (MIS Membership No):		<input type="checkbox"/> Non-Member	
Billing Address:			
Contact Person:		Designation:	
Tel:		E-mail:	
How did you know about this course? (You may tick more than one)		<input type="checkbox"/> e-Newsletter (pls specify sender): _____ <input type="checkbox"/> Print ad (pls specify publication): _____ <input type="checkbox"/> Received brochure through direct mail <input type="checkbox"/> Received brochure at event (pls specify): _____ <input type="checkbox"/> Search engines (pls specify): _____ <input type="checkbox"/> MIS website <input type="checkbox"/> i-Marketer portal <input type="checkbox"/> Word-of-Mouth/Recommendation (pls specify): _____ <input type="checkbox"/> Others (pls specify): _____	

Administrative Details

Registration

Register Online @ www.mis.org.sg/seminars

The fastest and most effective way to register for our courses is via our online registration form.

Register via Email or Fax

A place will be reserved for you upon receipt of your registration. Registrations should be sent at least two weeks before course commencement. A confirmation email will be sent to you two weeks before the course.

Payment

Payments are to be made in Singapore Dollars (SGD) and subjected to prevailing GST. Please make your payment either by cheque or GIRO upon receiving our invoice. All cheques should be crossed and made payable to "Marketing Institute of Singapore" with the invoice no. indicated on the back of the cheque. Any bank charges incurred as a result of bank/telegraphic transfers will have to be borne by the company. Fees are inclusive of course materials, certificate of participation, lunch & tea breaks.

MIS Member Discount

Corporate and Individual Members of MIS are entitled to 20% discount on all Executive Development Programmes. For membership enquiries, email: membership@mis.org.sg.

Group Discount

Companies are entitled to 5% discount for sending 3 or more participants to the same course on the same date.

Course Venue

All courses will be held at the Marketing Institute of Singapore, 51 Anson Road #03-53 Anson Centre Singapore 079904 unless otherwise stated.

SDF Training Grant (for SDF-Approved Courses)

- To apply for SDF funding, companies have to submit the training grant application for their employees on SkillsConnect within the stipulated timeline. SDF funding is subject to WDA's approval. For details, please visit www.skillsconnect.gov.sg.
- In the event that the SDF funding is rejected, the company will be liable to pay MIS the balance amount.
- Participants who wish to apply for SDF are required to indicate this on the course registration form.

Withdrawals / No-Show

For any withdrawals or cancellation, participants will be subjected to the following charges:

Notice Period	Withdrawal / Cancellation Charge
More than 14 days	No charge
Less than 14 days	25% of course fee
Less than 3 working days or No-Show	100% of course fee

Replacements from the same company are allowed.

Cancellation

Marketing Institute of Singapore reserves the right to change or cancel the course due to unforeseen circumstances.

Customised In-House Training

Courses can be custom-designed to suit your department/organisation's unique training requirements. Please contact us for enquiries. Email: seminars@mis.org.sg or call 6327 7586 / 583 / 582.

FOR COURSE ENQUIRIES

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