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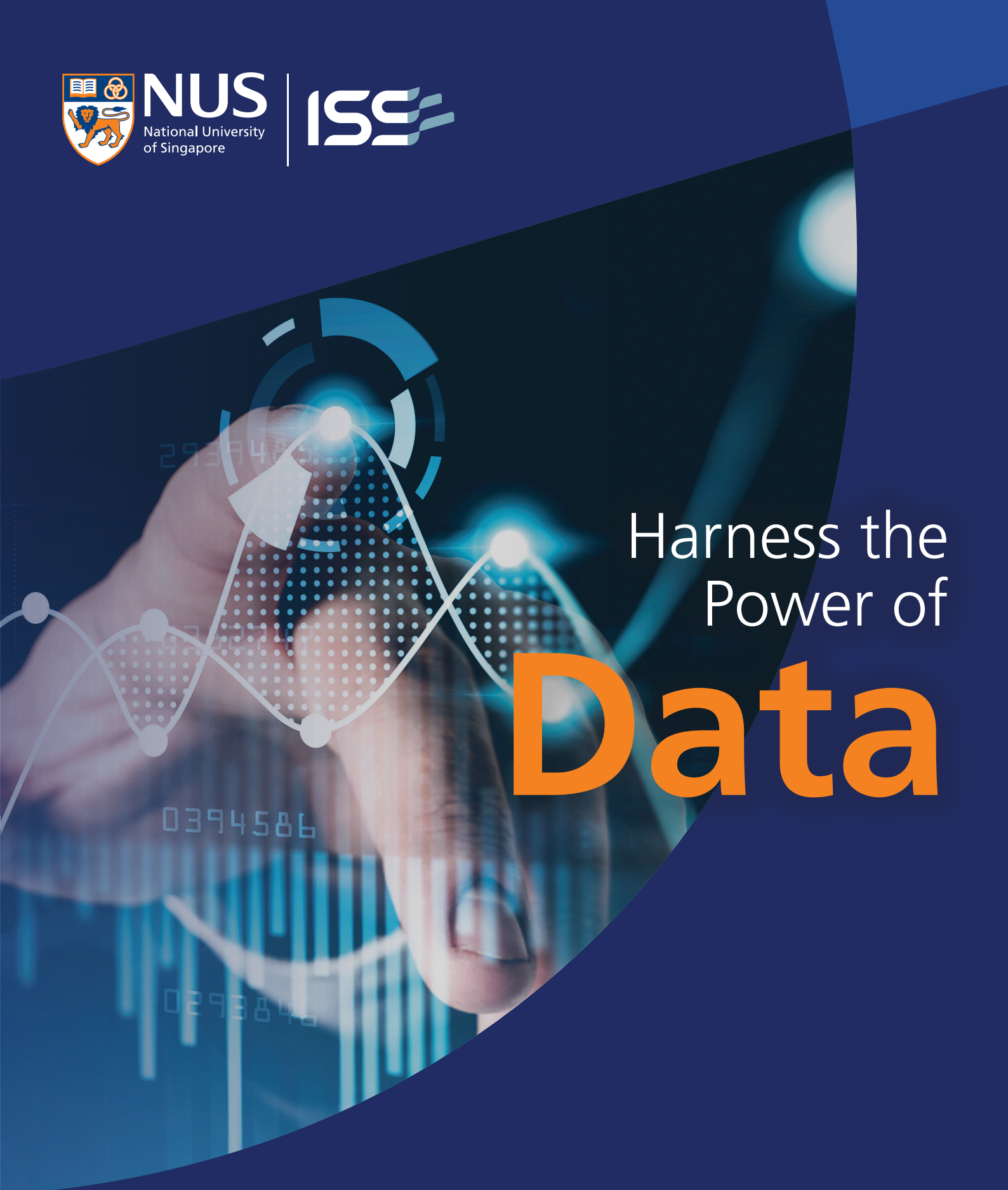

Harness the Power of Data

Master of Technology in **Enterprise Business Analytics**

Available as Stackable Graduate Certificate Programme in Data Science

Master of Technology in **Enterprise Business Analytics**

The NUS Master of Technology in Enterprise Business Analytics programme (MTech EBAC) is meticulously crafted to meet the industry's pressing need for adept data scientists and machine learning specialists, with a keen focus on their role in advancing enterprises through the power of data and AI. Our programme is a gateway to specialist, expert and leadership positions in data science.

MTech EBAC stands out by offering holistic training in key aspects of data science and AI, from exploratory data analysis and predictive modelling to natural language processing, recommender systems and big data engineering. Professionals will be equipped with the essential technical expertise to harness data, machine learning and enabling technologies to develop and deploy effective data-driven solutions. These solutions are designed not only to enhance decision-making processes but also to optimise operations, drive profitability and elevate overall user experiences within enterprises.

Recognition

- Best student is awarded the IBM Medal and Book Prize
- Best Project Award
- A coveted Master's degree from the top university in Asia

Who Should Apply

- IT professionals who wish to carve a new career in the area of analytics
- Research professionals in quantitative disciplines, who wish to increase proficiency in the area of business analytics
- Marketing professionals who wish to leverage data for better targeting and achieve increased business growth
- Data and business analysts who are interested to upskill or cross-skill in the field of business analytics
- Individuals who would like to incorporate data analytics for planning, forecasting, increasing productivity and better decision making

Grants & Subsidy

The NUS-ISS MTech Study Award will be given to qualifying Singapore Citizens and Singapore Permanent Residents matriculated from AY2023 / 2024 Semester 2 onwards for the unfunded courses of MTech EBAC, MTech AIS and MTech SE degrees.

The quantum for MTech EBAC is (up to) S$15,000 for Singapore Citizens and (up to) S$7,500 for Singapore Permanent Residents, subject to terms and conditions.

NUS-ISS will also extend a 20% subsidy for NUS Alumni, including International students, and no other subsidy shall apply concurrently.

Admission Criteria

- Bachelor's degree preferably in Mathematics, Statistics, Econometrics, Management Science, Operational Research, Science or Engineering and a grade point average of at least B
- Demonstrate proficiency in the English Language (written and spoken)
- An acceptable GRE score (overseas applicants) or pass NUS-ISS Entrance Test
- A favourable assessment at admissions interview conducted by NUS-ISS
- Preferably two years of relevant working experience
- The NUS-ISS Entrance Test or GRE and interview requirements will be waived for applicants with relevant Bachelor's degrees from NUS, NTU, SMU and SUTD with Second Upper or above Honours.
- NUS-ISS Graduate Diploma in Systems Analysis alumni who wish to apply to NUS-ISS Master of Technology programmes may be waived of Entrance Test / GRE and interview requirement if they meet the GPA requirements.
- Admission is on a competitive basis; eligible students will be offered admissions on a first-come first-served basis.

GRE/NUS-ISS ENTRANCE TEST

- International applicants residing overseas are required to submit GRE as evidence to demonstrate their academic capability:

A minimum GRE score of **320** (verbal & quantitative) and **3.5** (analytical) is recommended, within 5 years validity. (GRE institution code: 0677)

Applicants who have significant work experience relevant to their intended area of study may be considered for admission even if they do not meet the recommended GRE scores on a case-by-case basis. Please note that school projects, internships and enrichment programmes do not count as work experience.

- Applicants residing in Singapore will be required to pass an Entrance Test administered face-to-face in NUS-ISS

Local applicants may opt to submit GREs instead of taking the Entrance Test in which case the same conditions apply as above

ENGLISH LANGUAGE PROFICIENCY

- Applicants who graduated from universities where English is not the medium of instruction is required to submit TOEFL (Test of English as a Foreign Language) or IELTS (International English Language Testing System) score as evidence of their proficiency in the English language.

TOEFL	IELTS
• Paper-based test (580) • Computer-based test (237)	Result of 6.0

- TOEFL and IELTS are only valid for two (2) years and five (5) years respectively after the test and the validity should not expire before the beginning of the application period for the coursework programme.
- Institution code of NUS-ISS for TOEFL is 2432

WORK EXPERIENCE

- Preferably two years of relevant working experience in fields like

IT, engineering and various scientific domains

Candidates with highly relevant degrees in Mathematics, Statistics, Computer Science, Econometrics, Operations Research or similar, with consistently good academic records may be granted a work experience waiver

How to Apply

All applicants are required to apply online via the Graduate Admission System (Coursework). Find out more about the MTech programmes at our info sessions.

Visit www.iss.nus.edu.sg/graduate-programmes for more details. We conduct in-country entrance tests and interviews in selected countries.

MTech EBAC students must successfully complete **2 mandatory Fundamental Graduate Certificates**, **2 of 5 Specialist Graduate Certificates** as well as complete an Internship Project (Full-time students) / Capstone Project (Part-time students). Students are evaluated through a combination of course work, project work and examinations.

Programme Schedule

Full-time (1 year)

Semester 1		Semester 2	
Analytics Project Management	Business Analytics Practice	Customer Analytics	Practical Language Processing
			Specialised Predictive Modelling & Forecasting
		Big Data Analytics	Intelligent Financial Risk Management
		Internship Project (5 months) and Data Science Solutions Implementation course	

Part-time (2 years)

Semester 1	Semester 2	Semester 3	Semester 4
Analytics Project Management	Business Analytics Practice	Customer Analytics	Practical Language Processing
			Specialised Predictive Modelling & Forecasting
		Big Data Analytics	Intelligent Financial Risk Management
		Capstone Project (7 – 12 months)	

Practice Module

All MTech students are required to complete a Practice Module to attain a Graduate Certificate. This module aims to expose participants to real world problems and enable them to demonstrate their proficiency across all skills that they have learned in the course modules.

Stackable Graduate Certificate Programme in Data Science

The Master of Technology in Enterprise Business Analytics is also available as a Stackable Graduate Certificate Programme in Data Science, allowing Professionals, Managers, and Executives (PMEs) to attain a series of NUS-ISS graduate certificates over a period of five years without disrupting their careers. Participants have the flexibility to study at their own pace by selecting modular courses that comprise the Graduate Certificates to meet their individual needs. PMEs who opt not to pursue the graduate certificate, diploma, or degree can continue attending individual modular courses, enabling them to acquire the skills required to enhance their career prospects.

Visit www.iss.nus.edu.sg/stackable-programmes to find out more.

Fundamental Graduate Certificates

GRADUATE CERTIFICATE IN ANALYTICS PROJECT MANAGEMENT

- Statistics for Business II
- Data Storytelling
- Data Management for Analytics
- Managing Business Analytics Projects
- Practice Module

Learning Outcomes

- Ability to communicate to stakeholders the value proposition by emphatic data story-telling and visualisation methodologies.
- Practical data analytics project management and data management skills.
- Foundation statistical knowledge for more advanced predictive techniques.

Job Roles

- Manager, Project Manager, Analyst (Business Intelligence or Data Analytics)
- Manager (Marketing Experimentation and Data Intelligence)
- Consultant (Data Governance and Transformation)

GRADUATE CERTIFICATE IN BUSINESS ANALYTICS PRACTICE

- Data Analytics Process and Best Practices II
- Statistics in Action: Driving Data Insights
- Predictive Analytics – Insights of Trends and Irregularities
- Text Analytics
- Practice Module

Learning Outcomes

- Essential skills in statistics and machine learning to efficiently carry out data analytics projects using structured & unstructured (text) data.

Job Roles

- Data Scientist
- Data Analyst / Data Analytics Specialist

Specialist Graduate Certificates

GRADUATE CERTIFICATE IN CUSTOMER ANALYTICS

- Customer Analytics
- Advanced Customer Analytics
- Campaign Analytics
- Practice Module

Learning Outcomes

- Apply customer analytics tools and techniques for customer relationship management to drive customer acquisitions, development and retention strategies.
- Utilise customer behavioural analytics to monitor campaign efficiency & effectiveness as well as drive personalised recommendations.

Job Roles

- Marketing / Sales Analyst
- Customer Analytics / Insights Manager
- Functional Operations Analyst / Campaign Activation Specialist

GRADUATE CERTIFICATE IN PRACTICAL LANGUAGE PROCESSING

- Text Analytics
- New Media and Sentiment Mining
- Text Processing using Machine Learning
- Conversational UIs
- Practice Module

Learning Outcomes

- Acquire advanced skills in practical language processing and learn to apply classical as well as deep learning techniques in text data analytics, sentiment mining, and chatbot applications.

Job Roles

- Data Scientist
- NLP Engineer / Specialist / Scientist
- AI Solution Engineer, Machine Learning Engineer
- Chatbot Developer

GRADUATE CERTIFICATE IN BIG DATA ANALYTICS

- Big Data Engineering for Analytics
- Recommender Systems
- Processing Big Data for Analytics
- Practice Module

Learning Outcomes

- Skills and knowledge to meet the challenges of large scale structured and unstructured data processing.
- Various aspects of data processing needed to build scalable solutions.
- Able to build models by integrating multiple disparate large-scale data sources to derive data-driven insights and solutions.

Job Roles

- Big Data Analytics Specialist
- Big Data Analyst
- Associate Big Data Scientist

GRADUATE CERTIFICATE IN SPECIALISED PREDICTIVE MODELLING & FORECASTING

- Complex Predictive Modelling & Forecasting
- Product & Pricing Analytics
- Analytics for Commercial Excellence
- Practice Module

Learning Outcomes

- Leverage the combined strengths of predictive and prescriptive techniques to generate actionable insights for demand forecasting and product portfolio management.
- Address complex prediction and optimisation challenges to enhance marketing, salesforce effectiveness, and operational efficiency, fostering integrated and sustainable commercial excellence.

Job Roles

- Data Analyst / Data Scientist
- Product / Pricing Analyst
- Commercial Excellence Analyst
- Sales / Marketing Analyst

GRADUATE CERTIFICATE IN INTELLIGENT FINANCIAL RISK MANAGEMENT

- Advanced Machine Learning for Financial Services
- Explainable & Responsible AI for Finance
- Credit Risk Modelling and Analytics
- Alternative Data for FinTech Innovation
- Practice Module

Learning Outcomes

- Ability to extract knowledge for decision making from financial data.
- Able to augment customer information using alternative data sources to complement decision making for financial services.

Job Roles

- Data Analyst / Scientist
- AI Scientist / Specialist
- Financial Analyst / Investment Analyst / Risk Analyst

INTERNSHIP/CAPSTONE PROJECT

Student projects for MTech EBAC students include 5 months with companies for full-time students. For part-time students, the capstone project will be for 7 – 12 months. The expected commitment for the project is 30-man days per student. In addition, students will need to attend a mandatory four-day course – Data Science Solutions Implementation.

Learning Outcomes

- Apply business analytics methods and techniques to solve identified business problems.
- Plan and execute business analytics projects by understanding business problems, identifying appropriate analytics techniques, and then applying data exploration, model building, testing and validating of results.

"The programme challenged me to not only learn a wide variety of subjects from statistics, programming, machine learning and more within a short period of time, but also how I can apply what I have learned in my area of work through the practicum. The journey has helped me acquire invaluable skills and allowed me to stay relevant in the industry today."

Eddie Sim
Senior Manager, Customer Success
Skillsoft

"One thing that keeps the MTech EBAC programme unique is the right amalgamation of rich industry based experienced lecturers with a thoroughly researched academia suited for today's demand in terms of both skillset and relevancy. The course curriculum and lectures are undoubtedly top notch. The industry-based internship greatly helped me prepare to be well equipped for data science and business analytics roles.

Bhabesh Senapati
Senior Global Data Analyst
Publicis Groupe

"The MTech EBAC programme has advanced my career prospects by providing advanced knowledge, specialised skills, and valuable professional connections, making me more competitive in the dynamic landscape of information technology. The completion of the capstone project has shaped me into an efficient analytics solution developer and a strategic communicator.

Luthfi Nur Afifah
Senior Data Automation Engineer
Micron

"The MTech EBAC programme offers industry level and state-of-the-art curriculum with practical use cases derived from industry. With its outcomes-focused approach, cutting-edge content, and corporate ties, students are empowered with the capabilities and expanded perspective to shape the future.

Chaitanya Muthaiyan
Assistant Vice President, Group Audit
United Overseas Bank

Other Graduate Programmes

Master of Technology in
Artificial Intelligence Systems

Available as
Stackable Graduate Certificate Programme in Artificial Intelligence

Master of Technology in
Digital Leadership

Available as
Professional Certificate Programme in Digital Leadership

Master of Technology in
Software Engineering

Available as
Stackable Graduate Certificate Programme in Smart Systems & Platforms

Graduate Diploma in
Systems Analysis

Available as
Stackable Graduate Certificate Programme in Digital Solutions Development

About NUS-ISS

Established in 1981, NUS-ISS nurtures digital talent for the industry through graduate education, executive education programmes, consultancy, applied research, and career services. NUS-ISS guides individuals and organisations to bridge future opportunities through a unique portfolio of multiple learning pathways such as blended learning and stackable programmes, leading the way in shaping the next curve of digital excellence. It offers a wide spectrum of programmes in critical industry disciplines, such as digital leadership, software development, data science, artificial intelligence, cybersecurity, product management, digital health, digital innovation and digital sustainability.

To date, over 200,000 digital leaders and professionals, 9,647 corporate client organisations, and 8,277 graduate programmes alumni have benefitted from NUS-ISS' suite of services. Its programmes are delivered by NUS-ISS staff with an average of more than 20 years of industry experience and supported by a strong network of partners. NUS-ISS also works with industry partners and associations locally and globally to co-create a digital learning ecosystem that inspires and shapes solutions for the digital economy.

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