SMU School of Information Systems Overview

10 April 2013
SIS Dean’s Office
Singapore Management University

SMU: a world-class university centered on the world of business and management, for the private and public sector.

SMU: an urban university in the heart of downtown Singapore
SIS Basic Facts

Industry sectors for applications & inspiration

Academic communities for research & publishing

Basic disciplinary foundations & building blocks

1. Research & Scholarly Publishing

2. Education

3. Application & Practice

SIS Fast Facts

Students Enrolled
BSc (ISM): 1041
MITB: 126
PhD (IS): 48
MAIS: 7
MSc (IS): 4

Alumni
BSc (ISM): 1020
MITB: 111
PhD (IS): 4
MSc (IS): 3

Faculty
45

Research Staff
RC: 23
ICLI: 33

Instructors
BSc (ISM): 11
MITB: 6

Metrics updated as of Apr 2013
SIS Organisation Chart - Deanery

version: Mar 2013

**Dean**
Professor
Steven MILLER

**SIS Board of Advisors**

**SIS Internal Governance Committees**
- Large-Scale SMU Centres & Labs managed by SIS
  - Living Analytics Research Centre (SMU-CMU)
  - LiveLabs
  - SMU-TCS iCity Lab

**Assistant Dean, Administration**
TAN Puay Siang

**Personal Assistant to the Dean**
Safrina LUI

**Associate Dean, Faculty**
Robert DENG
- Faculty Development
- Faculty Reviews
- PAC Cases
- External Research Collaboration

**Associate Dean, Research**
Robert KAUFFMAN
- SIS Research Centre
- SIS Research Strategy
- Research Collaboration Across SIS and SMU
- External Research Collaboration Relationships

**Associate Dean, Operations**
CHU Chao Hsien
- Information Assurance
- LARC Overseas Training Residency at CMU
- On-line Strategy for Ugrad & PGP

**Associate Dean, Education (Undergraduate)**
Venky SHANKARARAMAN
- BSc (ISM) Programme
- Teaching Adjuncts & Teaching Visiting Faculty
- SIS Teaching Load Management
- ABT Second Major & related tracks

**BSc (ISM) Instructors**

**Director, SIS Post-Graduate Research Programmes**
PANG Hwee Hwa
- PhD in Information Systems

**Coordinator, PG-R Masters Programmes**
ZHENG Baihua
- Master of Applied Information Systems
- MSc in Information Systems

**Coordinator, PhD Programme Outreach**
LAU Hoong Chuen
- International Outreach
- Industry Outreach

**Director, SIS Post-Graduate Professional Programmes**
Michelle CHEONG
- Overall MITB Programmes
- SIS Continuing Education & Training (CET) Programmes
- SMU SIS-Next U Collaboration

**Director, MITB (Financial Services) Programme**
Enoch CH'NG
- MITB (FS) Instructors
- SIS CET Programmes for Banking, Processes, Operations, Technology & Transformation

**Director, MITB (Analytics) Programme**
MA Nang Laik
- MITB (A) Instructors
- SIS CET Programmes for Business, Consumer & Social Analytics
## SIS Programmes and Areas

### 1. Educational Programmes

<table>
<thead>
<tr>
<th>Undergraduate</th>
<th>BSc (IS Management)</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Post-Graduate:</strong></td>
<td></td>
</tr>
<tr>
<td>Professional Degrees</td>
<td></td>
</tr>
<tr>
<td>Master of IT in Business, MITB</td>
<td></td>
</tr>
<tr>
<td>MITB (Financial Services)</td>
<td></td>
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<tr>
<td>MITB (Analytics)</td>
<td></td>
</tr>
<tr>
<td><strong>Post-Graduate:</strong></td>
<td></td>
</tr>
<tr>
<td>Professional Development, CET</td>
<td></td>
</tr>
<tr>
<td>Non-Degree</td>
<td></td>
</tr>
<tr>
<td>Financial Services Tech &amp; Ops (TOPS) focused</td>
<td></td>
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<tr>
<td>Analytics focused</td>
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<tr>
<td>IT management focused</td>
<td></td>
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<tr>
<td><strong>Post-Graduate:</strong></td>
<td></td>
</tr>
<tr>
<td>Research Degrees</td>
<td></td>
</tr>
<tr>
<td>PhD, Info Sys</td>
<td>(coursework + PhD thesis)</td>
</tr>
<tr>
<td>Master of Applied Info Systems, MAIS</td>
<td>(coursework + applied project)</td>
</tr>
<tr>
<td>MSc, Info Sys</td>
<td>(coursework + MSc thesis)</td>
</tr>
</tbody>
</table>

### 2. Areas of Research & Faculty Hiring

- used for Faculty Administration and Headcount Planning)

<table>
<thead>
<tr>
<th>Data Management &amp; Analytics</th>
</tr>
</thead>
<tbody>
<tr>
<td>Info Security &amp; Trust</td>
</tr>
<tr>
<td>Info Systems &amp; Management</td>
</tr>
<tr>
<td>Intelligent Systems &amp; Decisions Analytics</td>
</tr>
<tr>
<td>Software Systems</td>
</tr>
</tbody>
</table>
Total SMU Faculty Composition

Faculty figures as of Apr 2013  
Source: OHRFA Full-time Faculty Profile Report

305* Full-Time Faculty

*NOTE: Inclusive of 4 Long Term Visitors and 4 Senior Faculty Administrators

Research Track:  
187 faculty (63%)

Education, Practice, Lecturers Tracks:  
112 faculty (37%)

LKCSB = Lee Kong Cheong School of Business  
SOA = School of Accountancy  
SOSS = School of Social Science  
SOE = School of Economics  
SOL = School of Law  
SIS = School of Information Systems
## School of Information System Areas and Faculty Size

<table>
<thead>
<tr>
<th>Area</th>
<th>Research Track</th>
<th>Education &amp; Practice Track</th>
<th>Total</th>
</tr>
</thead>
<tbody>
<tr>
<td>Data Management &amp; Analytics</td>
<td>8</td>
<td>2</td>
<td>10</td>
</tr>
<tr>
<td>Information Security &amp; Trust</td>
<td>5</td>
<td>0</td>
<td>5</td>
</tr>
<tr>
<td>IS &amp; Management</td>
<td>6</td>
<td>5</td>
<td>11</td>
</tr>
<tr>
<td>Intelligent Systems &amp; Decision Analytics</td>
<td>3</td>
<td>4</td>
<td>7</td>
</tr>
<tr>
<td>Software Systems</td>
<td>6</td>
<td>6</td>
<td>12</td>
</tr>
<tr>
<td><strong>Total</strong></td>
<td><strong>28</strong></td>
<td><strong>17</strong></td>
<td><strong>45</strong></td>
</tr>
<tr>
<td><strong>Percent</strong></td>
<td><strong>62%</strong></td>
<td><strong>38%</strong></td>
<td><strong>100%</strong></td>
</tr>
</tbody>
</table>

**Industry sectors for applications & inspiration**

- Financial Services
- Supply Chain & Distribution
- Infocomms & Media
- Hospitality, Tourism & Entertainment
- Healthcare Services
- Public Sector & E-Government

**Academic communities for research & publishing**

**Basic disciplinary foundations & building blocks**

- Computer Science
- Information Technology
- Information Systems & Management
- Management Science
Beyond our 5 Faculty & Disciplinary Areas to 9 Strategic Cross Cutting Themes and Competencies
SIS Ecosystem: Research, Education, Application & Practice

**Research Centres**
- Living Analytics Research Centre
- RFID Security Lab + Information Security & Privacy Centre (**)

**LiveLabs R&D Testbed**
- LiveLabs@ the Malls
- LiveLabs@ Changi Airport
- LiveLabs@ Sentosa
- LiveLabs@ SMU

**Education / Practice Centric Labs**
- SMU-TCS iCity Lab
- SMU-SAS Advanced Analytics Lab
- Standard Chartered iLab@SMU
- SMU-Alexandra Health T- Lab
  (Strong links with SIS)

**PG – Research**
- PhD (IS)
- MSc (IS)
- Master of Applied Info Systems, MAIS

**PG – Professional**
- Master of IT in Business, MITB
  - MITB (Financial Services)
  - MITB (Analytics)
- Continuing Education & Training
- Joint programmes with SMU Executive Development

**Undergrad**
- BSc (IS Management)
  - Advanced Business Technology 2nd major
  - Business Analytics track
  - Other tracks
- 2nd majors with all other SMU undergraduate programmes

(**) Planning stage
Large Scale SIS Testbeds for Integrating Research, Application & Practice

1. Living Analytics Research Centre

Living Analytics is a joint research initiative between Singapore Management University (SMU) and Carnegie Mellon University (CMU) to conduct research on behavioural and social network analytics and behavioural experiments so as to discover and harness the laws of information network evolution for networks of people, organisations and businesses. Read more about Research Priorities and Essence of Living Analytics.

2. Welcome to Livelabs

Urban Lifestyle Innovation Platform

3. Dressing Global Mega Trends

Aging and Chronic Disease Management
LiveAnalytics (LARC + LiveLabs) : New Concepts, Methods and Tools for Consumer & Social Insights that are

LARC
- Experiment-driven
- Closed-loop, and iterative
- Network-centric
- Observing complex behaviors via digital traces
- Progressively real-time
- Progressively societal-scale
- Combining field realism & complexity with lab control

Plus LiveLabs
- Context aware via mobile phones
- Using real-time context triggers for automating behavioral interactions
- Combining usage-adaptive 4G network management with end-user behavior
LiveAnalytics Vision

Analytics that combine realism, complexity and dynamics of social and consumer behavior observable in the field with experimental control and causal inference capability of the lab in a network-centric world
RESEARCH AREAS
Analytics for Business, Consumer & Social Insight

Area A: Intelligent Systems for Analytics
- Data Mining
- Machine Learning
- Automated Planning
- Adaptive Decision Making

Area B: Social Science & Management
- Social Science
- Management Science
- Consumer & Social Behaviour
- Behavioural Economics
- Business Value

Area C: Statistics & Experimentation
- Randomise Experiments with Controls
- Network-Centric Experimentation
- Closed-Loop, Iterative Experimentation
- Experimentation and Learning

Area D: Security, Data Fusion & Privacy Preservation
- Secure Computing Environments
- Data Privacy & Protection
- Data Fusion & Record Linkage

Area E: Systems & Infrastructure
- Next-Gen Mobile Sensing for Context-Aware Analytics
- Computing for Real-Time Analytics
- Computing, Storage, & Network Infrastructure

Secure, Privacy Protected, Distributed Work-Flow
- For Administration and Planning
- For Big Data Processing
Analytics for Business, Consumer and Social Insight

- An SMU Area of Excellence
- SIS efforts are instrumental to the university’s build up of this area
## Integrated Ecosystem for Analytics Across SMU

### Undergraduate Specialisations
- BSc (IS Management), Business Analytics Track
- BBM (Marketing)
- BBM (Strategy & Organisation)
- BSc (Economics), 2nd Major in Statistics

### Postgraduate - Professional
- Master of IT in Business (Financial Services)
- Master of IT in Business (Service Sector Analytics)
- SIS Continuing Education and Training in Analytics

### Postgraduate - Research
- Master of Science (Information Systems)
- Master of Applied Information Systems
- PhD (Information Systems)
- PhD (Marketing)
- PhD (Operations Management)

## Research Organisations
- **LiveLabs Urban Lifestyle Innovation Platform**
- **SMU-SAS Advanced Analytics Lab**
- **Standard Chartered iLab@SMU**
- **SMU-TCS iCity Lab**
- **Centre for Marketing Excellence**
- **Institute of Innovation and Entrepreneurship**
- **SMU-Alexandra Health i-Lab**
Cybersecurity Key Research Areas

Data Security & Privacy
- Data security & privacy in cloud computing
- Query privacy in databases
- Multimedia security
- Authentication of query results
- Privacy-preserving data analytics
- Data applications security
- Social network security

RFID and IoT Security
- RFID security & privacy
- Secure EPCGlobal network
- Tamper Detection in the EPC Network
- RFID privacy issues in healthcare
- IoT security & privacy

Mobile Platform & Applications; Systems Security
- Mobile platform security
- Software attack analysis & defense
- Trusted computing
- Intrusion detection
- Leakage resilient password systems
- Human factors in user authentication
- Computer & cyber forensics

Cybersecurity Management and Policy
- Cybersecurity Laws
- Security & risk management
- Organizational security
- Personnel security & awareness
- Security audit & compliance
- Business continuity & incidence response
- Cybersecurity policy management
Top Tier Publications Across All SIS Areas

<table>
<thead>
<tr>
<th>SIS Area</th>
<th>Conferences</th>
<th>Journals</th>
</tr>
</thead>
</table>
| **Information Security & Trust** | IEEE Symposium on Security & Privacy  
USENIX Security Symposium  
ACM Conference on Computer and Communications Security (CCS)  
European Symposium on Research in Computer Security | ACM Transactions on Information and System Security  
IEEE Transactions on Dependable and Secure Computing  
IEEE Transactions on Information Forensics and Security  
Journal of Computer Security |
| **Data Management & Analytics** | ACL Conference  
ACM Multimedia Conference  
ACM SIGIR Conference  
ACM SIGKDD Conference  
ACM SIGMOD Conference  
ICDE Conference  
ICDM Conference  
VLDB Conference  
WWW Conference | ACM Transactions on Information Systems  
ACM Transactions on Database Systems  
IEEE Transactions on Multimedia  
IEEE Transactions on Knowledge and Data Engineering  
IEEE Transactions on Mobile Computing  
IEEE Transactions on Circuits and Systems for Video Technology  
Pattern Recognition  
VLDB Journal |

SIS faculty, PhD students and research staff in these areas have recently published in these conferences and journals.
Top Tier Publications Across All SIS Areas, cont’d

<table>
<thead>
<tr>
<th>SIS Area</th>
<th>Conferences</th>
<th>Journals</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>IEEE International Conference on Computer Communications</td>
<td>IEEE Transactions on Services Computing</td>
</tr>
<tr>
<td></td>
<td>International Conference on Software Engineering</td>
<td>IEEE Computer</td>
</tr>
<tr>
<td></td>
<td>SIGPLAN Conference on Object-Oriented Programming, Systems, Languages, and</td>
<td>IEEE/ACM Transactions on Networking</td>
</tr>
<tr>
<td></td>
<td>Applications</td>
<td>IEEE Journal of Selected Areas in Communications</td>
</tr>
<tr>
<td>Intelligent Systems &amp;</td>
<td>International Joint Conference on Autonomous Agents and MultiAgent Systems</td>
<td></td>
</tr>
<tr>
<td>Decision Analytics</td>
<td>National Conference on Artificial Intelligence (AAAI Conference)</td>
<td></td>
</tr>
<tr>
<td></td>
<td>International Conference on Intelligent Agent Technology</td>
<td></td>
</tr>
</tbody>
</table>

SIS faculty, PhD students and research staff in these areas have recently published in these conferences and journals.
## Top Tier Publications Across All SIS Areas, cont’d

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<thead>
<tr>
<th>SIS Area</th>
<th>Conferences</th>
<th>Journals</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>IS &amp; Management</strong></td>
<td>ACM Conference on Electronic Commerce (ACM EC)</td>
<td>Communications of the ACM</td>
</tr>
<tr>
<td></td>
<td>Americas Conference on Information Systems (ACIS)</td>
<td>Decision Support Systems</td>
</tr>
<tr>
<td></td>
<td>International Conference on Information Systems (ICIS)</td>
<td>Journal of Management Information Systems</td>
</tr>
<tr>
<td></td>
<td>International Workshop on Information Systems and Economics (WISE)</td>
<td>Journal Electronic Commerce Research &amp; Applications</td>
</tr>
<tr>
<td></td>
<td>Hawaii International Conference on System Sciences (HICSS)</td>
<td>IEEE Transactions on Engineering Management</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Information Systems Research</td>
</tr>
<tr>
<td></td>
<td></td>
<td>International Journal of Electronic Commerce</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Management Science</td>
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<tr>
<td></td>
<td></td>
<td>MIS Quarterly</td>
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<tr>
<td></td>
<td></td>
<td>Strategic Management Journal</td>
</tr>
</tbody>
</table>

SIS faculty, PhD students and research staff in this area have recently published in these conferences and journals.
SIS Educational Programmes
Towards the 2nd Generation SIS Learning Model

FROM

Continuing to refine existing PG and UG programmes, and adding more PG students

**PG – Research**
- PhD (IS)
- MSc (IS)
- Master of Applied Info Systems, MAIS

**PG – Professional**
- Master of IT in Business, MITB
  - MITB (Financial Services)
  - MITB (Analytics)
- Continuing Education & Training
- Joint programmes with SMU Executive Development

**Undergrad**
- BSc (IS Management)
  - Advanced Business Technology 2nd major
    - Business Analytics track
    - Other tracks
  - 2nd majors with all other SMU undergraduate programmes

TOWARDS

Distinguishing each of the SIS educational programmes by “the way we learn”

- Pay even more serious attention to applied learning science and “How Learning Works”
- Enhance student capacity for both slow/deep learning and fast/broad learning
- Move further towards clear learning outcomes and well defined competencies along with Big Ideas
- Competency + Cool + Fun & Engaging
- Further integrate our Post-Grad and BSc (ISM) programmes with our Centres & Labs, Testbeds and cross-cutting themes and competencies
- More personalized (yet scalable) learning
  - For heterogeneous levels, for motivation and for academic integrity
- More interactive and iterative learning
  - Simulation and gaming, experimentation, learning by doing cycles with feedbacks
- More networked & social learning (internally, externally)
BSc (Information Systems Management) Curriculum

**INFORMATION TECHNOLOGY & SYSTEMS**
- IS Software Foundations
- Object Oriented Application Development
- Software Engineering
- Enterprise Integration
- Enterprise Web Solutions
- Interaction Design & Prototyping
- IS Application Project
- Seminar on IS Management
- Data Management
- Process Modelling & Solution Blueprinting
- Information Security & Trust
- Architectural Analysis
- IS Depth Electives (4)

16 Courses

**MANAGEMENT & 2ND MAJORS**
- Business Oriented Electives (4)
  - (Major-related courses offered by the other SMU Schools)
- Additional Second Major Electives
  - (Courses from the other SMU Schools or from SIS)

4 Courses for ISM Major (With +2 to +4 for 2nd major)

**QUANTITATIVE THINKING**
- Computer as an Analysis Tool (CAT)
- Intro Statistics
- Computational Thinking (counted as a General Ed elective)

2 Courses

**SMU BROAD BASED**
- SMU Foundation (3)
  - Academic Writing
  - Intro Economics
  - Calculus
- SMU Common University Core (6)
  - Analytic Skills (1/2)
  - Creative Thinking (1/2)
  - Biz, Gov & Society
  - Management Comm.
  - Ethics and SR
  - Tech & World Change
  - Leadership & Team Building
- General Education (3)
  - GE elective #1, #2
  - Comp. Thinking for SIS
- Global & Regional Studies (2)
  - Elective 1
  - Elective 2

14 Courses

Internship: at least 10 continuous weeks
Second Majors for BSc (ISM) students

2nd Majors Offered
- School of Information Systems
- School of Accountancy
- Lee Kong Chian School of Business
- School of Economics
- School of Law
- School of Social Sciences

advanced business technology

- accounting
- actuarial science
- arts & culture mgmt.
- business statistics
- corporate comm.
- economics
- finance
- international & asian studies
- law
- marketing
- operations mgmt.
- org. behaviour
- political science
- psychology
- public policy & public mgmt.
- quantitative finance
- sociology
- strategic mgmt.
Undergraduate Depth Electives in Analytics offered by the SMU School of Information Systems

<table>
<thead>
<tr>
<th>Foundations</th>
<th>Computational Thinking</th>
<th>(New as of 01 Jan 2012)</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Business Modelling with Spreadsheets (official name is CAT)</td>
<td></td>
</tr>
<tr>
<td>Decision Analytics</td>
<td>Systems Dynamics and Business Gaming</td>
<td></td>
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<tr>
<td></td>
<td>Intelligent Business Gaming</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Enterprise Adaptive Decision Support</td>
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<tr>
<td>Data Analytics</td>
<td>Advanced Data Management</td>
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<tr>
<td></td>
<td>Data Warehousing &amp; Business Analytics</td>
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<td></td>
<td>Data Mining &amp; Business Analytics</td>
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<td></td>
<td>Geospatial Analytics for Business Intelligence</td>
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<tr>
<td></td>
<td>Visual Analytics</td>
<td></td>
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<tr>
<td></td>
<td>Search Engine Technologies</td>
<td></td>
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<tr>
<td></td>
<td>Social &amp; Contextual Analytics</td>
<td>(New as of Aug 2012)</td>
</tr>
</tbody>
</table>

Courses for our Advanced Business Technology 2\textsuperscript{nd} major track in Business Intelligence & Analytics
How our SIS students learn ...
How our SIS students learn...
The Web of Learning for the BSc (ISM) curriculum

Learning Activities
- Clubs, service work, volunteering
- Coursework in other SMU schools
- Coursework in SIS
- SIS Enrichment Courses
- SIS Internships
- SIS “Final Year Project”
- SIS Research Projects
- SIS Entrepreneuring

Learning Settings and/or Partners
- SMU and City Campus
- Industry & Government People, Organizations
- SIS Faculty & Instructors
- Other BSc (ISM) students
- SMU/SIS Research Centres & Labs
Important Parts of Learning for the BSc (ISM) Programme

- Creating
- Designing
- Inventing
- Exploring
- Experimenting
- Questing
- PLAYING

Goals --
- Find ways to help organisations, consumers, and social interaction through better IT applications, better information, and improved process management
- Understand how this can improve productivity, quality, and service delivery
- Understand how to estimate the business value of these improvements
- Learn how to make choices, execute solutions, and manage transitions in order to realize this value
A Life Changing Experience

“MITB is obviously one of my greatest life-changing experiences. It kick-started my career in the financial services industry from a much broader perspective.”

Bui Hai Nam (MITB Class of 2010)
APAC Regional Lead of MI Reporting
Credit Suisse (as of Mar 2012)

Learn more

MASTER OF IT IN BUSINESS (MITB)

EVENTS | HIGHLIGHTS

FINANCIAL SERVICES TRACK | ANALYTICS TRACK

APR 26
INFORMATION SESSION
FINANCIAL SERVICES INFORMATION SESSION
Seminar Room 2-3,
School of Information Systems

APR 25
INFORMATION SESSION
ANALYTICS TRACK INFORMATION SESSION
Seminar Room 2-3,
School of Information Systems

APR 9
FINANCIAL SERVICES SEMINAR
WINO OF CHANGE...
Seminar Room 2-4
School of Accountancy/School of Law

SANDRA ZHOU JIE YING
Management Associate
Overseas-Chinese Banking Corporation

Sharpening the Sword

“MITB had given me an opportunity to hone my communication, presentation and project management skills.”
SIS Post-Graduate Professional Programmes: Leveraging Our Full Ecosystem for Expertise, Scale and Synergy

Banking & Financial Services
T & O: Technology, Operations, Processes & Service Innovation (TOPS)

Masters Level
Professional Short Courses
Undergraduate Level

Analytics for Business, Consumer & Social Insights: Data, Processes, Technology & Business Applications

Masters Level
Professional Short Courses
Undergraduate Level

Joint effort with industry to develop business oriented IT professionals in strategic areas

ATTRACT
PREPARE
RETAIN

32
### MITB (Financial Services) Programme Structure

<table>
<thead>
<tr>
<th>A. Banking Processes, IT &amp; Architecture</th>
<th>C. Information Technology &amp; Project Management</th>
<th>D. General Management for Technology &amp; Operations</th>
</tr>
</thead>
<tbody>
<tr>
<td>A.1 Banking Products &amp; Processes</td>
<td>C.1* Innovation Management</td>
<td>D.1A* Financial Accounting for Financial Services</td>
</tr>
<tr>
<td>A.3 Corporate &amp; Institutional Banking Technology: Processes, IT &amp; Architecture</td>
<td>C.3 IT Project &amp; Vendor Management</td>
<td>D.2 Strategy &amp; Organisation</td>
</tr>
<tr>
<td>A.5 Lifecycle Implementation of Banking Products</td>
<td>* Half module</td>
<td>D.4* HRM for Technology &amp; Operations Managers</td>
</tr>
<tr>
<td>A.6 FS Operational Risk: Foundation &amp; Framework</td>
<td></td>
<td>* Half module</td>
</tr>
<tr>
<td>A.7 FS Operational Risk: Data, Information, System &amp; Architecture</td>
<td></td>
<td></td>
</tr>
<tr>
<td>A.8 e-Trading Technology</td>
<td></td>
<td></td>
</tr>
<tr>
<td>A.9 ePayment Technology</td>
<td></td>
<td></td>
</tr>
<tr>
<td>A.10 Assets Management Technology</td>
<td></td>
<td></td>
</tr>
<tr>
<td>C.2, D.1A &amp; D.1C are compulsory unless exempted; choose 2 other course units across series C or D. Exempted course must be replaced by another course from A, B, C or D series.</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>E. Capstone Project (2 course units)</th>
</tr>
</thead>
<tbody>
<tr>
<td>E.1 Capstone Project</td>
</tr>
<tr>
<td>• Project definition, development &amp; critique workshops</td>
</tr>
<tr>
<td>• Industry expert seminars &amp; company site visits</td>
</tr>
<tr>
<td>E.2 Project Delivery</td>
</tr>
</tbody>
</table>
The MITB (FS) Programmes develops and strengthens four families of relevant competencies

<table>
<thead>
<tr>
<th>“Vertical” Competencies</th>
<th>Existing Courses</th>
<th>Forthcoming Courses</th>
<th>Forthcoming Enhancements</th>
</tr>
</thead>
<tbody>
<tr>
<td>Retail Banking Technology</td>
<td>Corporate &amp; Institutional Banking Technology</td>
<td>Asset Management Technology</td>
<td></td>
</tr>
<tr>
<td>Banking Products &amp; Processes</td>
<td>Financial Markets Technology</td>
<td>Wealth Management Technology</td>
<td></td>
</tr>
<tr>
<td>Corporate &amp; Institutional Banking Technology</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>“Horizontal” Competencies</th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>eTrading Technology</td>
<td>Product Life Cycle Implementation</td>
</tr>
<tr>
<td>FS Operational Risk I</td>
<td>FS Operational Risk II</td>
</tr>
<tr>
<td>ePayment</td>
<td>Info Security &amp; Privacy</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Trade-off Competencies</th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>Unified Banking Process Framework</td>
<td>Global Sourcing of Technology &amp; Processes</td>
</tr>
<tr>
<td>Spreadsheet Modeling for T&amp;O Decisions</td>
<td></td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>T&amp;O Management Competencies</th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>IT Project &amp; Vendor Management</td>
<td>Innovation Management</td>
</tr>
<tr>
<td>Financial Accounting</td>
<td></td>
</tr>
<tr>
<td>Management Accounting</td>
<td>Strategy &amp; Organization</td>
</tr>
<tr>
<td>HRM</td>
<td>Finance</td>
</tr>
</tbody>
</table>

Underpinned by Operations, Processes & Technology

Courses leveraging on scenario-based simulation and games.
<table>
<thead>
<tr>
<th>B. Service Sector Processes, Analytics &amp; IT</th>
<th>C. Information Technology &amp; Project Management</th>
<th>D. General Management for Technology &amp; Operations</th>
</tr>
</thead>
<tbody>
<tr>
<td>B.1 Service Sector Process &amp; Data Framework</td>
<td>C.1* Innovation Management</td>
<td>D.1B* Financial Accounting for Service Sector Analytics</td>
</tr>
<tr>
<td>B.2 Data Analytics Lab</td>
<td>C.2 Spreadsheet Modeling for Technology &amp; Operation Decisions</td>
<td>D.1C* Management Accounting for Technology &amp; Operations Managers</td>
</tr>
<tr>
<td>B.3 Customer Focused Data, Analytics &amp; IT</td>
<td>C.3 IT Project &amp; Vendor Management</td>
<td>D.2 Strategy &amp; Organisation</td>
</tr>
<tr>
<td>B.4 Operations Focused Data, Analytics &amp; IT</td>
<td>C.4 Global Sourcing of Technology &amp; Processes</td>
<td>D.3 Finance for Technology &amp; Operations Managers</td>
</tr>
<tr>
<td>B.5 Cloud and Big Data Analytics</td>
<td>* Half module</td>
<td>D.4* HRM for Technology &amp; Operations Managers</td>
</tr>
<tr>
<td>B.6 Social &amp; Contextual Analytics</td>
<td></td>
<td>* Half module</td>
</tr>
<tr>
<td>B.7 Business Analytics Practicum</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

C.2, D.1B & D.1C are compulsory unless exempted; choose 2 other course units across series C or D. Exempted course must be replaced by another course from A, B, C or D series.

<table>
<thead>
<tr>
<th>E. Capstone Project (2 course units)</th>
</tr>
</thead>
<tbody>
<tr>
<td>E.1 Capstone Project</td>
</tr>
<tr>
<td>• Project definition, development &amp; critique workshops</td>
</tr>
<tr>
<td>• Industry expert seminars &amp; company site visits</td>
</tr>
<tr>
<td>E.2 Project Delivery</td>
</tr>
</tbody>
</table>
SIS Education Model

Research, practical and education strength in data, data value chain, and analytics.

Distinctive & highly interactive learning environment with real business analytics cases.

The World of Business and Management is our laboratory

Linkages across Service Delivery Processes, Data, Operations, Analytics, Technology & Architecture

Data-centric perspective for understanding service processes & delivery

Emphasis on emerging “next-practices” of data & decision analytics that are more real time, contextual and adaptive

Using analytic thinking and output to identify opportunities for business improvements and to implement changes

The World of Business and Management is our laboratory
MITB Analytics Courses and Financial Services Courses

B.1 Service Sector Process & Data Framework
B.2 Data Analytics Lab
B.3 Customer Focused Data, Analytics & IT
B.4 Operations Focused Data, Analytics & IT
B.5 Cloud and Big Data Analytics
B.6 Social & Contextual Analytics
B.7 Business Analytics Practicum

A.1 Banking Products & Processes
A.2 Retail Banking Technology: Processes, IT & Architecture
A.3 Corporate & Institutional Banking Technology: Processes, IT & Architecture
A.4 Financial Markets Technology: Processes, IT & Architecture
A.5 Lifecycle Implementation of Banking Products
A.6 FS Operational Risk: Foundation & Framework
A.7 FS Operational Risk: Data, Information, System & Architecture
A.8 eTrading Technology
A.9 ePayment Technology
A.10 Assets Management Technology

Unique ability to do business, consumer and social analytics in the context of banking
Our Mission
To produce PhD graduates with expertise at the intersection of IT and business for R&D units and applied academic institutions. To establish SIS as a distinct research and teaching school in Asia that attracts high-caliber professors, and influences academic research and industry practices.

Our Goal
To develop researchers/educators who address deep technology challenges in real information systems that impact business processes or management, or who develop tools and methodologies to translate business goals to technology solutions. Our PhD graduates will be capable of collaborating with faculty members from different research areas, designing technology solutions for real-world problems and applications, while still producing top-rate academic publications.
Students entering our PhD programme in August 2013 and January 2014 are eligible to participate in the 10-month training residency at CMU through LARC.

<table>
<thead>
<tr>
<th>R&amp;D UNITS</th>
<th>ACADEMIC INSTITUTIONS</th>
<th>INDUSTRY</th>
<th>START-UPS</th>
</tr>
</thead>
<tbody>
<tr>
<td>Research &amp; Development Units require PhD graduates with system/business-view of technology, to complement graduates from other institutions who are trained to work on component technologies.</td>
<td>Academic institutions, particularly software schools require PhD graduates with application/system building and management skills.</td>
<td>Industry requires PhD graduates with the skill to develop tools and methodologies to translate business goals into technology requirements, and also to build technology-based solutions that contribute to revenue growth or cost reduction.</td>
<td>Economies require start-ups to stay vibrant.Entrepreneurially minded students can work with SMU’s Institute of Innovation and Entrepreneurship to translate their Ph.D. research into high potential globally scalable start-ups using the different funding schemes available to such start ups in Singapore.</td>
</tr>
</tbody>
</table>

### Employment Prospects of Our Graduates

<table>
<thead>
<tr>
<th>💼 <strong>R&amp;D UNITS</strong></th>
<th>📣 <strong>ACADEMIC INSTITUTIONS</strong></th>
<th>🤝 <strong>INDUSTRY</strong></th>
<th>🌐 <strong>START-UPS</strong></th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Research &amp; Development Units</strong> require PhD graduates with system/business-view of technology, to complement graduates from other institutions who are trained to work on component technologies.</td>
<td><strong>Academic Institutions</strong> particularly software schools require PhD graduates with application/system building and management skills.</td>
<td><strong>Industry</strong> requires PhD graduates with the skill to develop tools and methodologies to translate business goals into technology requirements, and also to build technology-based solutions that contribute to revenue growth or cost reduction.</td>
<td><strong>Economies</strong> require start-ups to stay vibrant. Entrepreneurially minded students can work with SMU’s Institute of Innovation and Entrepreneurship to translate their Ph.D. research into high potential globally scalable start-ups using the different funding schemes available to such start ups in Singapore.</td>
</tr>
</tbody>
</table>

#### LEVERAGE OPPORTUNITIES AT THE INSTITUTE OF INNOVATION AND ENTREPRENEURSHIP

SMU’s Institute of Innovation and Entrepreneurship will work with you in transitioning your technology innovation or a business model innovation into a commercial for profit company. Enroll in our workshops taught by serial entrepreneurs and acquire the skills required to translate your technology innovation into a business. Work with their Sandbox manager to explore the appropriate grants that can help you build a prototype of your innovation. Their innovation manager can link you to Entrepreneurs-in-residence and business mentors who will work shoulder to shoulder with you in creating a company using your PhD research results. Benefit from their Entrepreneurs corner and Affiliates corner to develop networks that can help you achieve your entrepreneurial dreams.

#### INSTITUTE OF INNOVATION AND ENTREPRENEURSHIP WEBSITE

### Possible Opportunities in the Programme

#### LIVING ANALYTICS RESEARCH CENTER

**STUDY & RESEARCH OPPORTUNITIES**

The Living Analytics Research Center (LARC) is a collaboration between our University and the Carnegie Mellon University (CMU). Our PhD Students enjoy the opportunity to conduct their dissertation research at LARC, working on exciting, real problems and collaborating with leading researchers. The center also sponsors selected students for a 10-month training residency at CMU, during which they will work directly with CMU faculty and researchers.

[Click for more details on LARC projects, and our PhD students currently at CMU.](#)
<table>
<thead>
<tr>
<th>Year</th>
<th>Term</th>
<th>Name</th>
<th>Job After Attaining PhD</th>
<th>Dissertation Topic</th>
<th>Research Area</th>
<th>Research Advisor(s)</th>
</tr>
</thead>
<tbody>
<tr>
<td>2010-11</td>
<td>Term 3</td>
<td>Koh Noi Sian</td>
<td>Lecturer, School of Information Technology, Nanyang Polytechnic, Singapore</td>
<td>The Valuation of User-Generated Content: A Structural, Stylistic and Semantic Analysis of Online Reviews</td>
<td>Information Systems &amp; Management</td>
<td>Assistant Professor HU Nan</td>
</tr>
<tr>
<td></td>
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<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>2011-12</td>
<td>Term 1</td>
<td>Hu Meiqun</td>
<td>Research Scientist, Institute for Infocomm Research (I2R) - A*STAR, Singapore</td>
<td>Predictive Modeling for Navigating Social Media</td>
<td>Data Management &amp; Analytics</td>
<td>Professor LIM Ee-Peng &amp; Assistant Professor JIANG Jing</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
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<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>2011-12</td>
<td>Term 3</td>
<td>Fu Na</td>
<td>Research Fellow, Living Analytics Research Centre, Singapore Management University, Singapore</td>
<td>Robust Execution Strategy for Scheduling Under Uncertainty</td>
<td>Intelligent Systems &amp; Decisions Analytics</td>
<td>Associate Professor LAU Hoong Chuan</td>
</tr>
<tr>
<td></td>
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<tr>
<td></td>
<td></td>
<td>Han Jin</td>
<td>Research Scientist, Institute for Infocomm Research (I2R) - A*STAR, Singapore</td>
<td>Novel Techniques of Using Diversity in Software Security and Information Hiding</td>
<td>Information Security &amp; Trust</td>
<td>Assistant Professor Debin GAO &amp; Professor Robert DENG</td>
</tr>
<tr>
<td></td>
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</tbody>
</table>
# SIS PhD Programme Online Application

## Application Deadlines

<table>
<thead>
<tr>
<th>Term 1 (August)</th>
<th>Term 2 (January)</th>
</tr>
</thead>
<tbody>
<tr>
<td>31 January of intake year</td>
<td>30 June of prior year</td>
</tr>
</tbody>
</table>

## REQUIRED SUPPORTING DOCUMENTS

- Identity Card (For Singapore Citizens PR)
- Passport & Identity Card (For non-Singapore Citizens)
- TOEFL IELTS (for applicants whose first language is not English)
- GRE/GMAT
- Bachelor Degree Certificate
- Official Transcripts for Bachelors Degree
- Master Degree Certificate (if applicable)
- Official Transcripts for Master Degree (if applicable)
- Resume
- Two Referee Reports (Referees are to submit the completed referee form directly to us.)
- Any other supporting documents

For all non-English certificates or documents, a copy of the original certificates/documents and their official English translations must be submitted.

## Referee Forms

All application requires 2 referees (academic referees preferred). Please request your referees to mail the completed form directly to us. Referees may also send in their completed form via their official mailbox to sis_phd@smu.edu.sg.
PhD (Information Systems) Curriculum Structure

## Curriculum Requirements - 40 Course Units (CUs)

### Coursework (7 CUs)

- **Information Systems & Management Track students**
  - 5 foundation courses (in IS&M and Economics) + 2 IT courses

- **Information Technology Track students**
  - 5 foundation courses + 1 Depth Elective + 1 Breadth Elective

### Empirical Research Projects – ERPs (3 CUs)

- 2 Term papers/projects in the depth area
- 1 Term paper/project in the breadth area

### Advanced Research Topics – ARTs (2 CUs)

- Technical writing and presentation
- Readings in Information Systems

### Dissertation (28 CUs)
### SIS PhD Courses

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
</tr>
</thead>
<tbody>
<tr>
<td>IS701</td>
<td>Information Storage and Retrieval</td>
</tr>
<tr>
<td>IS702</td>
<td>Information Security</td>
</tr>
<tr>
<td>IS703</td>
<td>Decision Support and Optimization</td>
</tr>
<tr>
<td>IS705</td>
<td>Information Systems and Management</td>
</tr>
<tr>
<td>IS706</td>
<td>Engineering Software Systems</td>
</tr>
<tr>
<td>IS752</td>
<td>Advanced Topics in Information Security</td>
</tr>
<tr>
<td>IS753</td>
<td>Advanced Topics in Intelligent Decision Support</td>
</tr>
<tr>
<td>IS755</td>
<td>Advanced Topics in Data Mining and Social Network Analysis</td>
</tr>
</tbody>
</table>
Typical Year-by-Year Progression for PhD (IS)

<table>
<thead>
<tr>
<th>Year</th>
<th>Term 1</th>
<th>Term 2</th>
<th>Term 3</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>• 3 Foundation courses (1 CU each)</td>
<td>• 2 Foundation courses (1 CU each)</td>
<td>• 1 ART course (1 CU each)</td>
</tr>
<tr>
<td></td>
<td>• 1 Elective Course (1 CU each)</td>
<td>• 1 Elective course (1 CU each)</td>
<td>• Prepare Dissertation Proposal</td>
</tr>
<tr>
<td></td>
<td>• 1 ERP (1 CU each)</td>
<td>• 2 ERPs (1 CU each)</td>
<td></td>
</tr>
<tr>
<td>2</td>
<td>• 1 ART course (1 CU each)</td>
<td>• Pass PhD Qualifying Exam</td>
<td>• Prepare Dissertation Proposal</td>
</tr>
<tr>
<td></td>
<td>• Prepare Dissertation Proposal</td>
<td>• Form Dissertation Committee</td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td>• Prepare Dissertation Proposal</td>
<td></td>
</tr>
<tr>
<td>3</td>
<td>• Submit Written Dissertation Proposal</td>
<td>• Conduct Dissertation research</td>
<td>• Conduct Dissertation research</td>
</tr>
<tr>
<td></td>
<td>• Oral defense of Dissertation Proposal</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>• Conduct Dissertation research</td>
<td></td>
<td></td>
</tr>
<tr>
<td>4</td>
<td>• Conduct Dissertation research</td>
<td>• Conduct Dissertation research</td>
<td>• Revise and Re-submit Dissertation Report</td>
</tr>
<tr>
<td></td>
<td></td>
<td>• Submit Written Report of Completed</td>
<td>• Submit Approved Dissertation Report to GSO</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Dissertation research</td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td>• Oral defense of Completed Dissertation</td>
<td></td>
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<td></td>
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</tr>
</tbody>
</table>

- PhD Scholarship Support from Singapore’s Ministry of Education last for a maximum of four years.
- Support for a 5th year of PhD work is usually available through RA work and/or Teaching/Instructor work
Master of Applied Information Systems

Curriculum Structure & Scheduling

**Curriculum Composition**

**TOTAL 10 COURSE UNITS (CUs)**

- **IS Technical Foundation**
- **IS Management and Commercialisation**
- **IS Capstone Project**

The MAIS programme has the following structure for each track respectively:

*Toggle the following buttons to show/hide information on tracks*

- **Data Management & Analytics Track**
- **IT-Enabled Innovation & Entrepreneurship Track**

Last updated on 6 July, 2012 by School of Information Systems.
Master of Applied Information Systems (MAIS) Curriculum Structure

### Curriculum Requirements

<table>
<thead>
<tr>
<th>Total 20 modules</th>
</tr>
</thead>
<tbody>
<tr>
<td>IS Technical Foundation (color code: □)</td>
</tr>
<tr>
<td>These modules expose students to technical foundation and industry standard practices, and meanwhile broaden and deepen students’ understanding of the basic knowledge, the important topics, and useful practical techniques that are required to develop applications in respective areas.</td>
</tr>
<tr>
<td>IS Capstone Project (color code: □)</td>
</tr>
<tr>
<td>The projects in aligned research centers and institutes are to encourage students to apply IT skills and come up with innovative solutions to real business and technical problems.</td>
</tr>
<tr>
<td>IS Management and Commercialization (color code: □)</td>
</tr>
<tr>
<td>These modules are designed to provide students with a broad overview of information systems management and information technology management.</td>
</tr>
</tbody>
</table>

**Note 1:** All the modules are existing courses  
**Note 2:** A module is ½ of a full semester course  
**Note 3:** Total of 20 modules is equivalent to 10 full semester courses
MAIS Programme Structure

• Full time (1 to 1.5 years), or
• Part time (2 to 3 years)
• Three terms per academic year
• Two intakes every year (Aug, Jan)
The MAIS is a PG-Research Programme, yet has some features of a PG-Professional Programme

<table>
<thead>
<tr>
<th>MAIS features like a PG-Research Programme</th>
<th>MAIS features like a PG-Professional Programme</th>
</tr>
</thead>
<tbody>
<tr>
<td>• Engaged mainly the research/tenure track faculty</td>
<td>• Can work with Practice &amp; Education track faculty as well</td>
</tr>
<tr>
<td>• Most core courses are from the existing Ph.D. program curriculum</td>
<td>• Can take upper year SIS undergrad electives to supplement PhD courses</td>
</tr>
<tr>
<td>• Focus on applied R &amp; D, and for preparing students for R&amp;D work (versus managerial work)</td>
<td>• Students pay tuition fees, do not receive stipends, and program is self-funding</td>
</tr>
<tr>
<td></td>
<td>• &gt;= 50% credits from coursework</td>
</tr>
<tr>
<td></td>
<td>• Major project is required</td>
</tr>
</tbody>
</table>
SIS Post-Graduate Degree Programmes Will Definitely Increase Your Opportunities!

You will have options for multiple paths forward.
SMU SIS CONTINUING EDUCATION & TRAINING SHORT COURSES
## Overview of SMU SIS Professional Programmes for Continuing Education and Training (CET)

<table>
<thead>
<tr>
<th>Content Base for SIS CET Courses</th>
<th>Delivery Model and Channel</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Short Version Through NTUC Next U – SIS Partnership (Open Enrolment)</td>
</tr>
<tr>
<td>BSc (Information Systems Management) Courses</td>
<td>Possible</td>
</tr>
<tr>
<td>MITB (Financial Services) Courses [Series A]</td>
<td>No</td>
</tr>
<tr>
<td>MITB (Service Sector Analytics) Courses [Series B]</td>
<td>For Selected Courses</td>
</tr>
<tr>
<td>MITB IT &amp; Project Management Courses [Series C]</td>
<td>Possible</td>
</tr>
<tr>
<td>SIS PhD Courses</td>
<td>No</td>
</tr>
</tbody>
</table>
## SMU SIS Business Analytics
**Short Professional Courses with NTUC Next U**

<table>
<thead>
<tr>
<th>Title</th>
<th>Duration</th>
</tr>
</thead>
<tbody>
<tr>
<td>Advanced Analytics for Business Intelligence</td>
<td>4 days</td>
</tr>
<tr>
<td>Applied Business Forecasting</td>
<td>3 days</td>
</tr>
<tr>
<td>Business Modelling using Spreadsheets (Basic)</td>
<td>2 days</td>
</tr>
<tr>
<td>Business Modelling using Spreadsheets (Advanced)</td>
<td>2 days</td>
</tr>
<tr>
<td>Data Visualisation for Business Intelligence (Basic)</td>
<td>2 days</td>
</tr>
<tr>
<td>Data Visualisation for Business Intelligence (Advanced)</td>
<td>2 days</td>
</tr>
<tr>
<td>Interactive Business Analytics (Basic)</td>
<td>2 days</td>
</tr>
<tr>
<td>Interactive Business Analytics (Advanced)</td>
<td>2 days</td>
</tr>
<tr>
<td>Social Network Analysis</td>
<td>2 days</td>
</tr>
</tbody>
</table>
### SMU SIS Business IT & Cloud Short Professional Courses with NTUC Next U

<table>
<thead>
<tr>
<th>Title</th>
<th>Duration</th>
</tr>
</thead>
<tbody>
<tr>
<td>Business Process Modelling</td>
<td>2 days</td>
</tr>
<tr>
<td>Composing Adaptable Business Processes using SAP</td>
<td>3 days</td>
</tr>
<tr>
<td>IT Solutions Blueprinting</td>
<td>1 day</td>
</tr>
<tr>
<td>Cloud Security and Compliance</td>
<td>3 days</td>
</tr>
<tr>
<td>Cloud Computing and SaaS</td>
<td>3 days</td>
</tr>
<tr>
<td>Cloud Computing Economics</td>
<td>3 days</td>
</tr>
<tr>
<td>Cloud Computing for Developers</td>
<td>3 days</td>
</tr>
</tbody>
</table>

^50% Funding Available for Singaporeans and Singapore Permanent Residents Union Members can apply further funding under the Union Training Assistance Programme (UTAP) of up to $250 per year
SMU SIS Professional Education Programme – Special Programmes

• Special programmes for companies in the areas of:
  a. Financial Services Processes, Operations, Technology and Transformation; or
  b. Business, Consumer & Social Analytics

• Technology & Operations Graduate Education Program – June 2011
  – Client was extremely pleased with the program outcome and they wish to collaborate again to execute a 2nd run on a larger scale for twice as many of their graduate executives (to be conducted in two sections) in 2012

How has one month campus training prepared you for your job?

Since I am an engineering graduate, my knowledge of finance and banking is limited. In the one month training, I learnt a lot about banking products and processes. Besides the knowledge, my soft skills have also improved which really prepared me for the job rotations.

– A participant of the Technology & Operations Graduate Education Program
# Collaborating with SIS through our Education Programmes

|----------------------|---------------------------|---------------------------------------------|
| **BSc (ISM)**        | • Sponsor IS Application Projects, the upper year capstone projects (IS480)  
                        • Recruit IS students as interns  
                        • Co-create case studies and learning labs | • Student scholarships (term or endowed)  
                        • Course-specific prizes  
                        • Outstanding student prizes  
                        • Outstanding project prizes |
| **BSc (ISM) work = Coursework + Capstone Project + Internships** |                        |  
| **MITB**             | • Sponsor MITB Capstone Projects  
                        • 6 month + attachments for full-time students  
                        • Co-create case studies and learning labs  
                        • Sponsor your employees to do the programme full-time, or part-time | • Resources for instructor and teaching support staff  
                        • Headcount expansion  
                        • Resources for equipment and labs |
| **MITB work = Coursework + Capstone Project** |                        |  
| **MAIS**             | • Provide problems & data for MAIS Capstone Projects or MSc theses  
                        • Participate in Capstone Project supervision  
                        • Sponsor your employees to do the programme full-time, or part-time |                        |
| **MAIS work = Coursework + Applied Capstone Project for IP creation with research faculty** |                        |  
| **MSc (IS)**         |                        |  
| **MSc (IS) work = Coursework + MSc thesis with research faculty** |                        |  
|
Collaborating with SIS through our Education Programmes – cont’d.

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<tbody>
<tr>
<td>PhD (IS)</td>
<td>EDB Industry PhD Programme, as way to sponsor one of your employees to do the programme full-time</td>
<td>Project funds for joint faculty- PhD student project work</td>
</tr>
<tr>
<td>PhD work = Coursework + Project work + PhD dissertation with Research Faculty</td>
<td>Sponsor your employees to do the programme full-time, or part-time</td>
<td>Student scholarships (term or endowed)</td>
</tr>
<tr>
<td></td>
<td>Provide internships for PhD students</td>
<td>Course-specific prizes</td>
</tr>
<tr>
<td></td>
<td>Provide problem and/or data for R&amp;D collaboration</td>
<td>Outstanding student prizes</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Outstanding project prizes for and/or PhD theses prizes</td>
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<tr>
<td></td>
<td></td>
<td>Resources for equipment and labs</td>
</tr>
</tbody>
</table>
Collaborating with SIS through the Living Analytics Research Centre (LARC)

<table>
<thead>
<tr>
<th>SIS Managed Centres &amp; Labs</th>
<th>Mechanisms for Joint Work</th>
<th>Mechanisms for Financial &amp; Resource Support</th>
</tr>
</thead>
</table>
| **LARC (SMU + Carnegie Mellon)** | • Become a data set partner (with enabling project resources)  
• Become a technology partner (with enabling resources for experimentation)  
• EDB Industry PhD Programme, as way to sponsor one of your employees to do the programme full-time  
• Sponsorship of students (undergraduate/master/PhD) projects | • Research project grants  
• PhD scholarships  
• MAIS scholarships  
• MITB scholarships  
• Industry Affiliate member |
Collaborating with SIS through the LiveLabs Urban Lifestyle Innovation Platform

<table>
<thead>
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<tbody>
<tr>
<td><strong>LiveLabs@theMalls</strong></td>
<td>• Test context-based Apps in the retail &amp; advertising space</td>
<td>• Provide participation incentives, product discounts, product rebates to LiveLabs participants</td>
</tr>
<tr>
<td><strong>LiveLabs@Sentosa</strong></td>
<td>• TBD</td>
<td>• Rebates and promotions for tourism-related services and products</td>
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<td></td>
<td></td>
<td>• Fees for Application Testing on testbed.</td>
</tr>
<tr>
<td><strong>LiveLabs@SMU</strong></td>
<td>• Co-develop context-aware rich media Apps for mobiles/tablets</td>
<td>• Fees for Application Testing on testbed;</td>
</tr>
<tr>
<td></td>
<td>• Sponsor IS480 Application Projects</td>
<td>• Donation or sponsorship of sensors, mobile devices &amp; networking equipment.</td>
</tr>
</tbody>
</table>
Collaborating with SIS through SMU-TCS iCity Lab

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<tr>
<td>SMU – TCS iCity Lab</td>
<td>TBD</td>
<td>TBD</td>
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</tbody>
</table>
Collaborating with SIS through Information Security & Trust Research

<table>
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</table>
| **RFID Security & Privacy Lab** | • Provide problem and/or data for R&D collaboration  
• Provide industry requirements  
• Participate in user testing for development of practical RFID information platforms | • Project funds for joint faculty-student project work  
• Resources for supporting research engineers  
• Resources for equipment and labs |
Collaborating with SIS through Practice/Education Oriented Labs

<table>
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</tr>
</thead>
<tbody>
<tr>
<td>SCB iLAB@SMU (Since 2006)</td>
<td>• Sponsor projects with all the different SIS degree programmes (undergraduate, Masters, PhD)</td>
<td>• Outstanding student prizes</td>
</tr>
<tr>
<td></td>
<td>• Sponsor projects with faculty</td>
<td>• Outstanding project prizes</td>
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<tr>
<td></td>
<td>• Student internships</td>
<td>• Resources for instructor and teaching support staff headcount expansion</td>
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<tr>
<td></td>
<td>• Student attachments</td>
<td>• Resources for equipment, infrastructure and software applications</td>
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<tr>
<td></td>
<td>• Co-create case studies and learning labs</td>
<td>• Student scholarships linked to lab participation</td>
</tr>
<tr>
<td></td>
<td>• Guest lectures / seminar speakers</td>
<td>• Student bursaries linked to lab participation</td>
</tr>
<tr>
<td>SMU - SAS Advanced Analytics Lab (since 2008)</td>
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<td></td>
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<tr>
<td>SMU – Alexandra Health T-Lab (since 2010)</td>
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</tr>
</tbody>
</table>

If you are interested in setting up a similar type of “collaboratory”, please contact us by email enquiries@sis.smu.edu.sg