VISION SYSTEMS ENGINEERING

9 JAN- 6 FEB 2021

Course Manager: DR. TIAN Jing

Lecturers: DR. Matthew CHUA & DR. TAN Jen Hong & TAN Tzann Chang

OVER
5,900 GRADUATE ALUMNI

OFFERING OVER
130 ENTERPRISE IT, INNOVATION & LEADERSHIP PROGRAMMES

TRAINING OVER
130,000 DIGITAL LEADERS & PROFESSIONALS

Vision and Mission

Vision

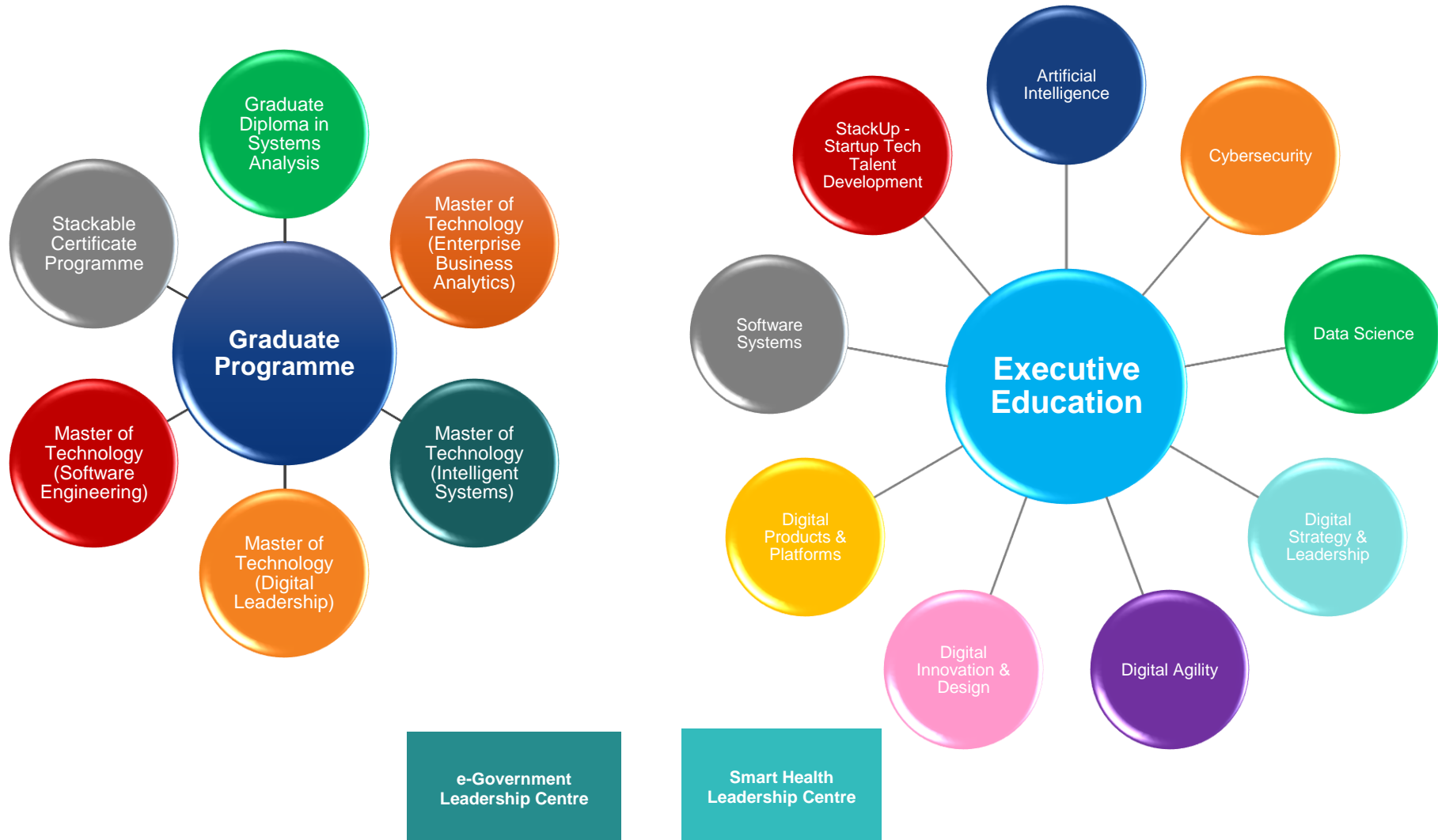Enabling a digital economy that is always learning and always leading

- Executive Education
- Graduate Programmes
- Industry Engagement
- Services Portfolio
- Career Services
- Applied Research
- Consulting

Mission

Developing digital talent through education, applied research, consulting and career services

Our Practice-based Education

Research > Consulting > Education

Graduate Programme

- Graduate Diploma in Systems Analysis
- Stackable Certificate Programme
- Master of Technology (Enterprise Business Analytics)
- Master of Technology (Software Engineering)
- Master of Technology (Intelligent Systems)
- Master of Technology (Digital Leadership)

Executive Education

- Artificial Intelligence
- StackUp - Startup Tech Talent Development
- Cybersecurity
- Software Systems
- Data Science
- Digital Products & Platforms
- Digital Strategy & Leadership
- Digital Innovation & Design
- Digital Agility

e-Government Leadership Centre

Smart Health Leadership Centre

Learner's Roles & Responsibilities

- Attend and complete all lectures, class exercises, workshops and assessments
- Complete the course feedback* at the end of class to help us improve quality of course
- Complete the post course survey sent about three to six months after class attendance to help us continuously improve the application of learning to work
- Please contact course admin/instructor or email to isstraining@nus.edu.sg for any enquiry or feedback

Course Details

- **Lectures: 5** days (9:00 am to 5:00 pm)

Course Details

- **Course Pre-requisites/Assumed Knowledge & Skills:**
  - No prior experience with video analytics is assumed, although previous knowledge of visual computing or signal processing will be helpful.

- **Course Objectives/Learning Outcome:**
  - Identify the requirements for vision systems in various industrial applications
  - Understand the fundamentals of computer vision technology and core vision analytics theories and algorithms
  - Design and apply vision analytics algorithms to solve industrial use-case scenarios
  - Design and build vision systems in domains including security surveillance, manufacture, consumer electronic, healthcare, urban solution.
  - Assess the performance and usefulness of various vision systems.

Assessment

- **Broad Schedule of Assessment:** during the course and end of course

- **Passing Criteria:** achieve above 50% for exam and achieve objectives in the case of exercise/workshop

- **Assessment Method:** workshop and written exam

Assessment

- The WSQ assessment assesses whether learner is Competent (C) or Not Yet Competent (NYC) against criteria defined in the TSC covered in this training. If learner is assess as competent, a Statement of Attainment (SOA) will be issued.

- Participants will receive email or SMS notification within three weeks from date of assessment on the issuance of the e-certificate.

- The students can download the e-cert from MySF Portal at www.myskillsfuture.sg with their SingPass, effective from 13th Apr 2019.

- The e-Certs can be found in the **'Certificates'** tab of the trainee's Skills Passport upon login.

- All the students are to log in to MySF Portal so that they can receive system-generated notifications informing them that their e-Certs are ready for downloading.

Appeal Process

Assessment and Exam Result Appeal process

- Submit appeal letter to course administrator within 2 weeks from receipt of the assessment/exam results
- You will receive the appeal result via email within 1 month from the date the appeal is received and processed
- If appeal is successful, results will be reissued
- The appeal decision is final. No further appeal will be entertained
- *For external examination appeal process, please directly contact the "certification governance bodies"*

Post Course Value-Added Services for Sponsoring Organisations

- Complimentary services can be any <u>one</u> of the following, that is directly related to the course attended:
  - 1 hour presentation on the course materials/key takeaways/training roadmaps to senior management
  - Half day on-site advice on initiation of project
  - Half day on-site review of project plan or deliverables
- Applicable to executive education courses
- Delivered in Singapore only
- Valid for 3 months after attendance of course
- It is 1 session or half day advisory per organisation for each course

NUS-ISS Jobs & Skills (Career Services)

Who do we serve

Individuals
Graduate Programme students, Executive Education Programme participants, Professional Conversion Programme participants

Employers
Any company or organisation that are registered in Singapore and are looking for Singaporeans or permanent resident to fill job vacancies.

How do we serve

NUS-ISS Jobs & Skills Portal
Help individuals identify suitable training courses for personal development as well as performing job matching.

Professional Conversion Programme
Professional skills conversion and move into new occupations or sectors that offer better prospects.
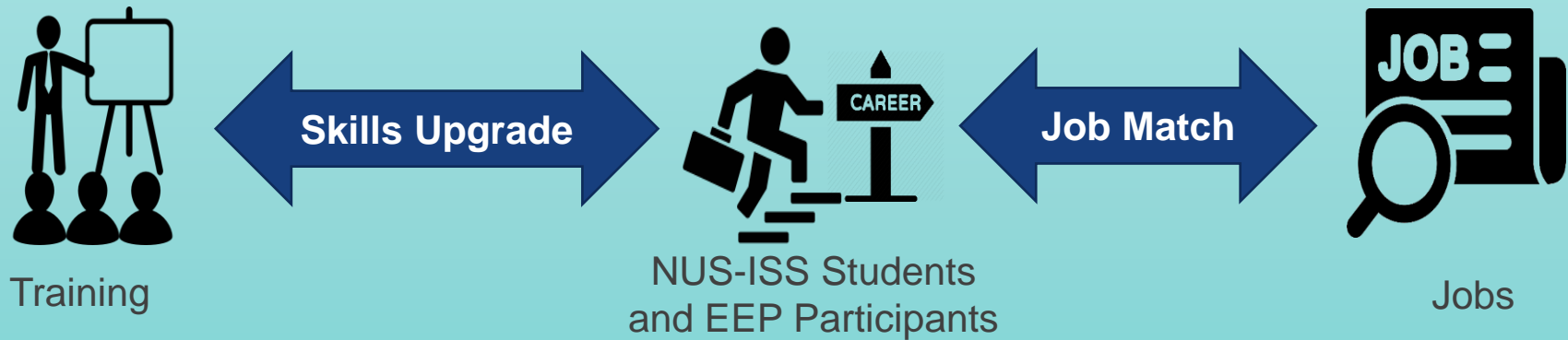
Career Fairs/ Workshops / Events
Help learners and employers to network and exchange information about career and job opportunities.
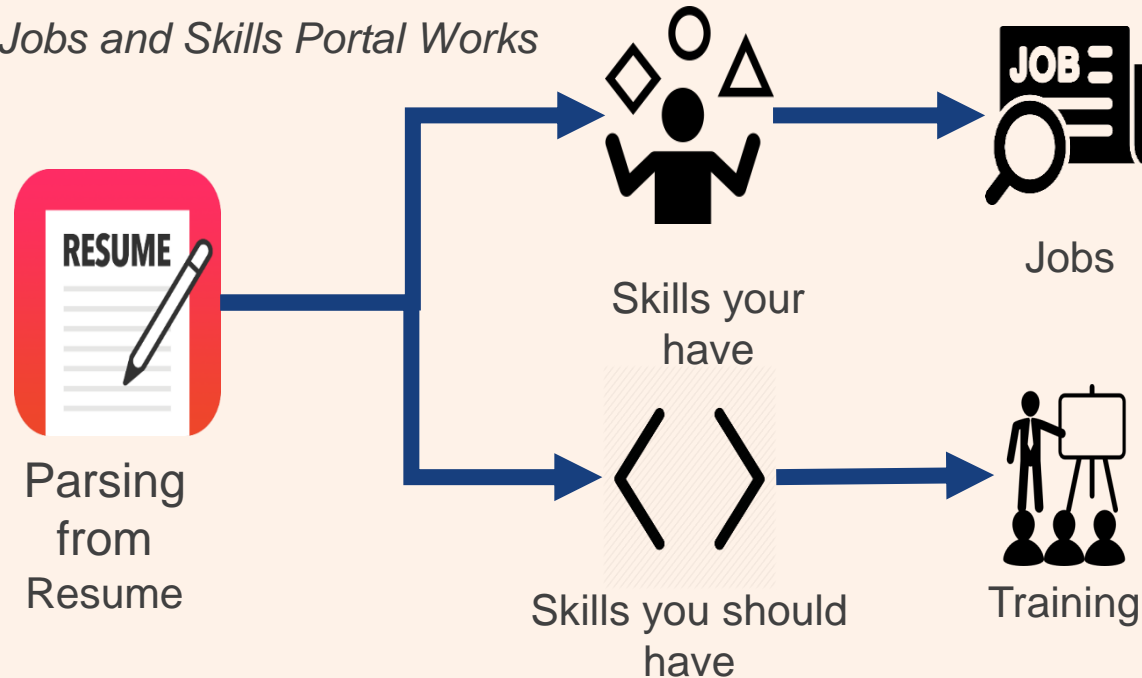
Career Transition and Coaching
Offer needed advice to develop the needed skills sets and explore other career options.

NUS-ISS Jobs and Skills Portal
(www.issjobsandskills.sg)

Training

Skills Upgrade

NUS-ISS Students
and EEP Participants

Job Match

Jobs

How ISS Jobs and Skills Portal Works

Parsing
from
Resume

Skills your
have

Jobs

Skills you should
have

Training

Key Features:

- **F**ocus on skills
- **I**nteractive
- **E**asy to use and intuitive
- **L**earning new skills is key to opportunities
- **D**riven by AI (in matching)

How to Register Your Interest

Scan QR Code to Register Now

You may also approach your lecturer to arrange a meeting with any one of our career coaches at a suitable time of convenience.
*Or email us directly to : **isscareerservices@nus.edu.sg***

Logistics- 29 HMKT Campus

- Attendance

- Name verification

- ID Tag / Name plate

- Internet / Wi-fi access

- Mobile gadgets – Silent mode

- Please do not leave your mobile devices (e.g. smartphone, power bank etc.) unattended when it is charging – i.e. please bring along with you or switch off the charging when stepping out of the classroom (e.g. for tea break or lunch break)

- SSG post-course online survey

- Storage of items at the end of the day

- Tea breaks and lunch provided at 1st floor, BISSTRO

- Coffee/Tea/Water Cooler machines

- Washrooms

- Classrooms

(Level 2- Integration, Interaction, Integrity, Level 3- Influence)

- NUS is a smoke-free campus. Smoking is strictly prohibited on campus

Logistics- SFAH Campus

- Attendance
- Name verification
- ID Tag / Name plate
- Internet / Wi-fi access
- Mobile gadgets – Silent mode
  - Please do not leave your mobile devices (e.g. smartphone, power bank etc.) unattended when it is charging – i.e. please bring along with you or switch off the charging when stepping out of the classroom (e.g. for tea break or lunch break)
- SSG post-course online survey
- Storage of items at the end of the day
- Tea breaks and lunch provided at 1st floor, BISSTRO (near the waterway)
- Coffee/Tea/Water Cooler machines
- Washrooms
- NUS is a smoke-free campus. Smoking is strictly prohibited on campus

Fire Evacuation (29 HMKT campus)

DO's upon fire alarm trigger:

- Evacuate immediately
- Exit from the building using nearest exit door – look out for **EXIT** sign overhead to locate the staircase
- Do not panic but walk quickly and orderly down the staircase
- Proceed to assembly point

DONT's upon fire alarm trigger:

- Do not bring any belongings with you (handbags, files, etc)
- Do not use the lift as it will be de-activated upon the fire alarm trigger
- Do not re-enter the building unless instructed otherwise by the Fire Safety Coordinator or the Civil Defence Officer in attendance

Emergency Escape Route Plan for 29 Heng Mui Keng Terrace

LEGEND | ★ Assembly Area | Fire Escape Route

Fire Evacuation (SFAH campus)

DO's upon fire alarm trigger:

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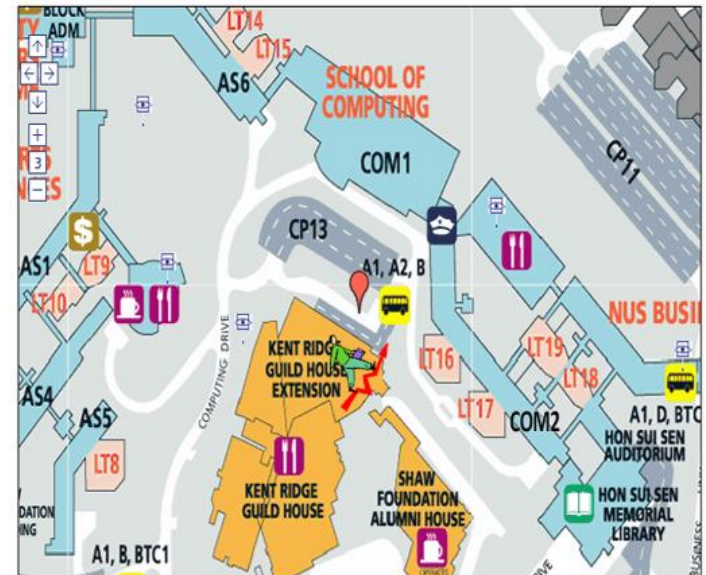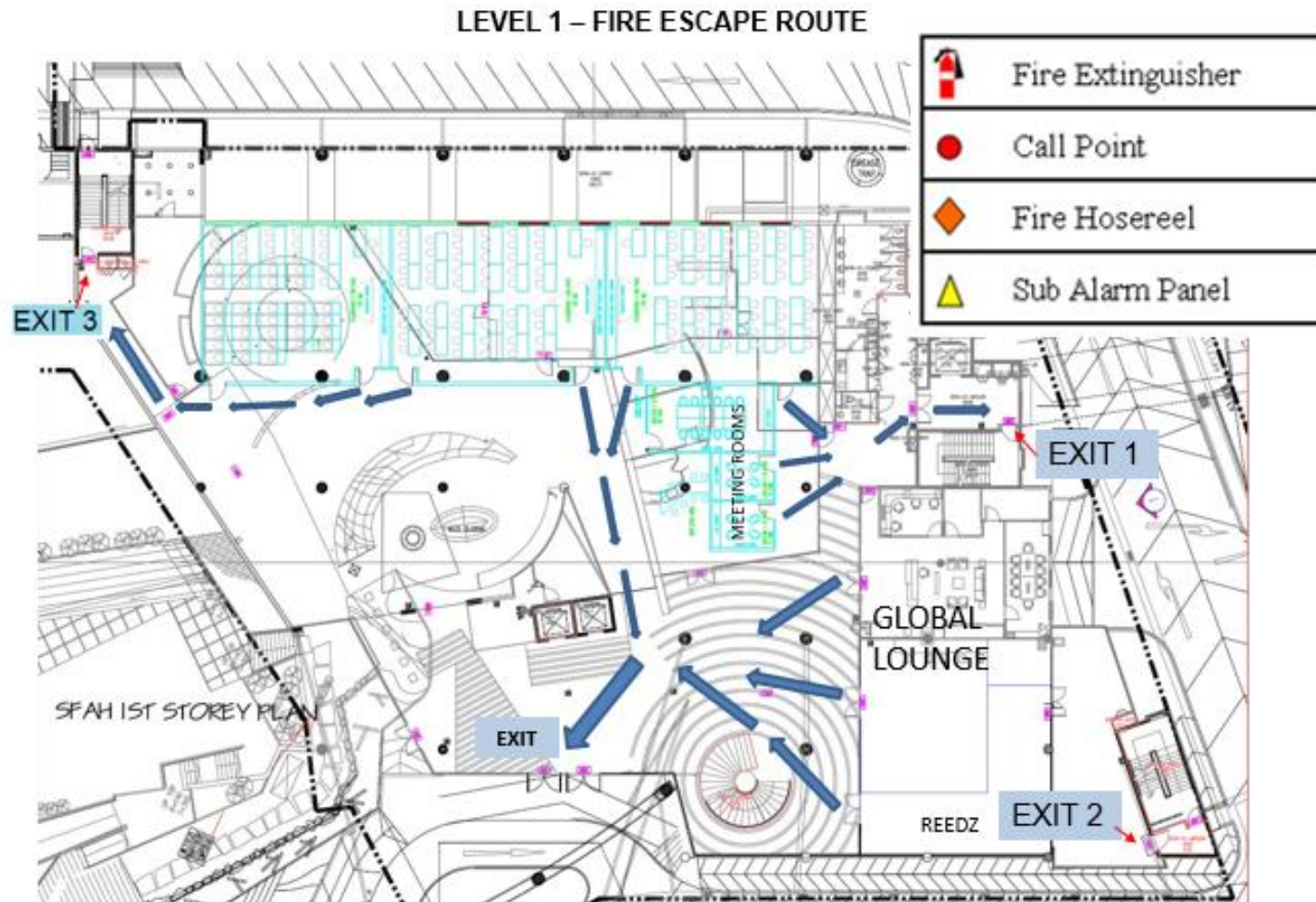
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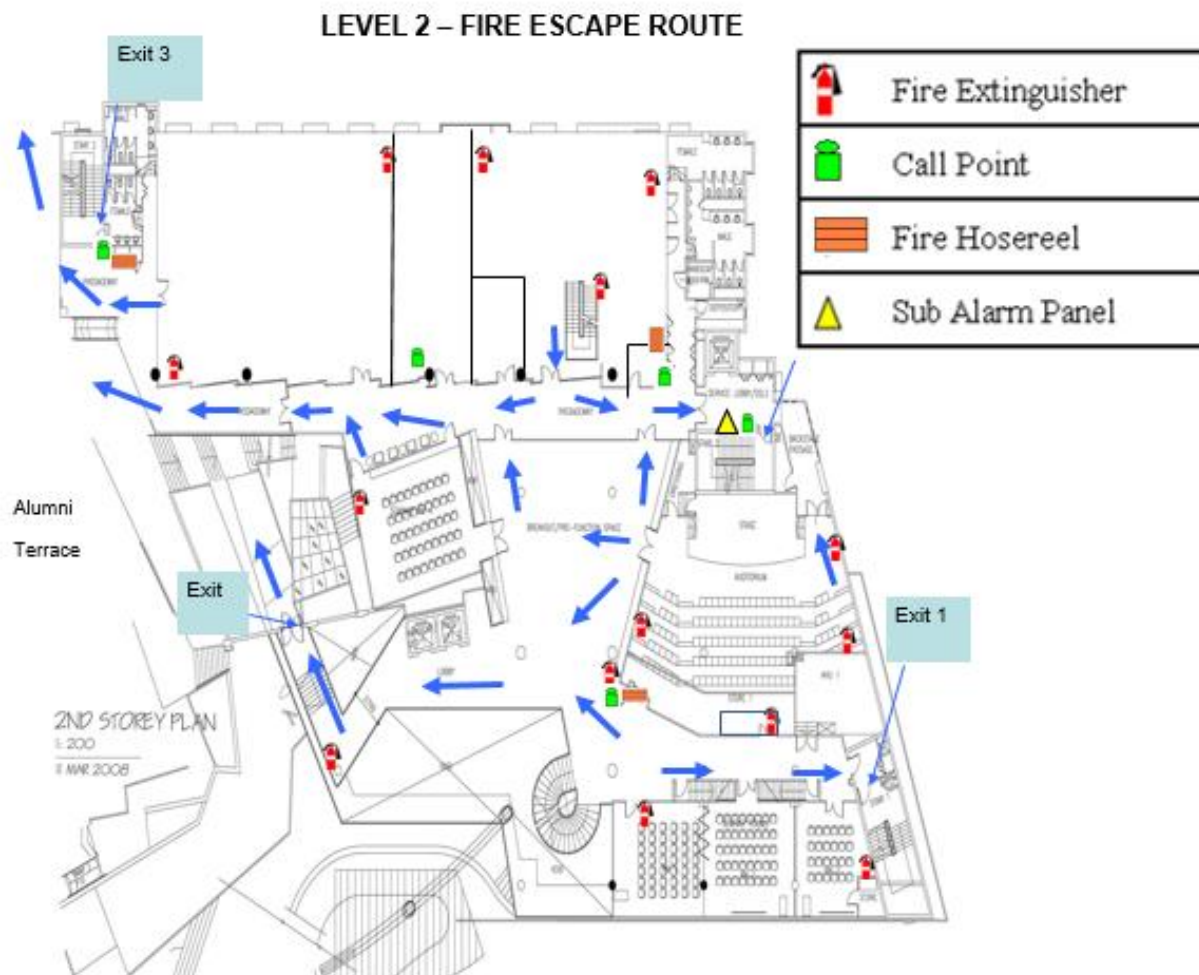

Assembly Point /Area at Carpark 13 in front of COM 1

Fire Escape route (SFAH campus)

LEVEL 1 – FIRE ESCAPE ROUTE

🧯	Fire Extinguisher
●	Call Point
◆	Fire Hosereel
⚠	Sub Alarm Panel

EXIT 3

EXIT 1

MEETING ROOMS

GLOBAL LOUNGE

SFAH 1ST STOREY PLAN

EXIT

REEDZ

EXIT 2

Fire Escape route (SFAH campus)

LEVEL 2 – FIRE ESCAPE ROUTE

🧯	Fire Extinguisher
🟩	Call Point
▬	Fire Hosereel
⚠	Sub Alarm Panel

Other courses for your consideration

	Fundamental Certificates		Specialist Certficates			
	Intelligent Reasoning	*Pattern Recognition Systems*	*Intelligent Robotic Systems*	*Intelligent Sensing Systems*	*Intelligent Software Agents*	*Practical Language Processing*
Foundation	Machine Reasoning	Problem Solving Using Pattern Recognition				
Intermediate	Reasoning Systems	Pattern Recognition and Machine Learning Systems	Robotic Systems	Vision Systems Engineering	Intelligent Process Automation	Text Analytics
	Cognitive Systems	Intelligent Sensing and Sense Making	Human-Robot System Engineering	Speech & Sound Sensing Systems	Software Robots	New Media & Sentiment Mining
						Service Chatbots
Advanced			Developing Autonomous Robots & Vehicles	Spatial Reasoning from Sensor Data	Self-Learning Systems	Text Processing using Machine Learning

Certificate in Intelligent Reasoning Systems

Certificate in Pattern Recognition Systems

Certificate in Intelligent Robotic Systems

Certificate in Intelligent Sensing Systems

Certificate in Intelligent Software Agents

Certificate in Practical Language Processing

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youtube.com/user/TheISSNUS/