



Curriculum Vitae



Dr YU Yonghe, George

PhD, CEng (UK)

Chief Consultant/E Director

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Website: www.ut.sg

Chartered Engineer, Engineering Council, UK

Technical assessor/expert, Singapore Accreditation Council

Member of National Association of Fire Investigators, USA

Professional Member of Institute of Materials, Minerals and Mining, UK

Member of National Association of Professional Accident Reconstruction Specialists, USA

API 510 Pressure Vessel Inspector, American Petroleum Institute, USA

Member, Society of Automotive Engineers, China

Executive Committee Member of The Institute of Materials (East Asia)

English, Mandarin

Educations

PhD in Electronic Materials, *National University of Singapore (NUS)*

M.Eng in Mechanical Engineering, *NUS*

M.Eng in Material Science and Engineering, *Xi'an Jiaotong University*

B. Eng. in Mechanical and Materials Engineering, *Jiangsu University*

Certificate in Accident Reconstruction, *University of Tennessee*

Summary

Dr YU has more than 35 years of industrial and research experience related to forensic investigation, fire investigation, failure analysis, accident investigation, facility assessment/inspection, structure evaluation and technical training, including 18 years in Singapore Productivity and Standards Board and TUV SUD PSB and ever as AVP & Senior Principal Consultant in charge of operation for Failure Analysis Centre, besides Nanjing Automotive Research Institute and SGS-Thomson Microelectronics. Dr YU is listed in *Who's Who in the World* (Marquis Publication) since 2010, featured in *Straits Times* (MRT disruption) and *MediaCorp TV* programs (fire investigation), conducted "Vehicle Fire Investigation" course for LTA & SCDF.

Professional Experience

As Principal Investigator, Dr YU successfully accomplished more than 1000 relevant projects, investigated incidents including

Fatal house fire (PMD & electrical wiring) @ Ang Mo Kio (Enterprise Singapore)

CNG Taxi fire and explosion near Buona Vista MRT (SCDF)

Electric facility fire @Singapore Flyer (Singapore Flyer)

Refrigerator fires in condo (Enterprise Singapore)

Fatal building cladding (ACP) fire and expert witness (Netto & Magin)

CNG Taxi fire at Marymount Rd (SCDF)

Kitchen fire with liquid dispenser failure (Enterprise Singapore)

Various vehicle fires (MSIG Insurance)

Transformer fire (Makino, Japan)

Hand dryer fire in school (Venus Technology)

Notebook computer burning

Explosion of power distribution system at sub-station (Alstom)

Fire and explosion in shopping mall

Explosion of electric storage water heater in condominium (SPRING)

Switchgear Fire in ship (Prosafe)

Fire related to battery charging (DSTA)

Tower crane fire and collapse (Hyundai)

Fire and explosion in train vehicle (SMRT)

LED burning in shopping mall (Krisledz)

Shophouse fires (Coorma @ Rai - Law)

Campfire incident injuries and expert witness, (Inkwell Law Corporation)

Professional Experience

Corrosion in Esplanade Theatres (Panda-Oceans)
Damages of amusement rides (roller coaster vehicle & track) (RWS)
Major MRT disruptions/accidents (power supply, vehicles, rails)-SMRT/SBS
Traffic collision reconstruction(vehicle-vehicle,vehicle-bicycle&pedestrian etc.)
Hovercraft accidents (gearbox, propeller) (ST Marine)
Failures in gas and steam turbines (Singapore, Thailand)
Accidents of mobile & tower cranes (SIA Eng, MOM, Hyundai, Takenaka...)
Aerospace engine damages (fan and stages of blades, vanes) (ESA, TOS)
Automotive failures (steer system, crankshaft, gear, torsion shaft etc.)
Failures in jack-up rigs (Seadrill)
Lift wire rope breakage (HDB)
Submarine batteries - extra H₂ gas release (>300 Kg)
Failures of PCB, PCBA, LCD, diodes, transistors and IC
Heat exchanger burst and pipe leakage in oil refinery plants
Submarine power cable damages/ship engine damages
Large ship-lifting system cracking/ship propeller corrosion
Failures and damages in building and structures etc.

Litigation/court hearing

As expert witness, Dr YU was engaged in more than 100 cases of disputes/technical litigations/court cases by government agency and MNC from local and overseas (civil and criminal), e.g.
DC 2004/2021, Campfire incident injuries, Inkwel Law Corporation
H/C 1069/2017 Building cladding/ACP fire at Toh Guan Road- **Netto & Magin**
HC/S 786/2021, Fatal collision of truck and cyclist (Grace Law LLC)
COI Public hearing on two major MRT disruptions in 2011- AGC, MOT
Suit No: HC409/2010X, "Damages of Taxi MC50 Printer" - **Trans-Cab**
DC 934/2014 Crane collapse @ construction site-**TaiPing Insu/Rajah & Tann**
DSC 900613-2015 Investigation on fatal accident of gate toppling at construction site -MOM, AGC
DC 235/2021, Traffic injuries by car collision (Hoh Law Corporation)
SIAC ARB 107/2015 Forensic Investigation on fatal tower crane collapse at National Arts Gallery (10 millions) -**Wong Partners, Takenaka (Japan)**
DC 3899/2015: Mobile crane toppling - **Khor Law/Genesis Law**
HC/S 1186/2020, Collision of car and cyclist (Hoh Law Corporation)
DSC-900395-2021 – Fatal worksite accident (Harry Elias)

Professional Lecturing

Conducted a series of technical courses, including customized courses
"Failure Investigation Analysis" course for RSAF
"Vehicle Fire Investigation" course for LTA and SCDF

Publications

- **As lead author**, Dr YU published dozens of technical papers in referred international journals and conferences.
- more than 1000 classified technical reports

Clients

Trusted by clients of governments and multi-national companies from aerospace, marine, construction, transportation, electrical, chemical, oil & gas, insurance etc such as MOM, MOT, SCDF, PUB, LTA, ESG, RSAF, Navy, HDB, Hyundai, Shell, SMRT, China Taiping Insurance, Rajah & Tann, Wong Partnership, RWS, MSIG, YTL PowerSeraya, Takenaka, NTUC Health, STMarine, Sembawang Marine, ST Aerospace, Dell, HP, BD, DSTA etc.

Credential & Recognitions

-Featured in MediaCorp TV Programs for fire investigation.
- Featured in **Straits Times** (Top View, A4 on 30 July, 2015) for correctly determining failure cause(s) of massive MRT disruption on 7 July 2015.
"The analysis report was not challenged. It was clearly at the odds"
- **High Court Judge's decision statements of SGHC 254 [2011]**
"Dr YU, I thank you for the most excellent report". - Mr Tony FIELDING, Project Director, **Teekay Shipping (Australia) & Sembawang Shipyard**
"UTC has proven to be capable of fulfilling our requirements. We are very satisfied with UTC's performance." - Ms WONG Shi Min, Procurement Manager, **Defence Science and Technology Agency**