



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 Professional Accident Reconstruction Specialists, USA

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

Member of National Association of Fire Investigators, 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 Materials Science (electronic), *National University of Singapore*

M.Eng in Mechanical Engineering, *NUS*

M.Eng in Materials Sci & Eng., *Xi'an Jiaotong University*

B. Eng. in Mechanical and Material 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, accident investigation & reconstruction, fire investigation, failure analysis, 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, and featured in *Straits Times* and *MediaCorp TV* programs for forensic accident investigation.

Professional Experience

As Principal Investigator, Dr YU successfully accomplished more than 1000 relevant projects, typical accidents and litigations including

Fatal collision of truck and cyclist (Grace Law LLC)

Fatal gate toppling at worksite & court hearing as expert witness (MOM, AGC)

Fatal tower crane collapse at National Arts Gallery & expert witness-Takenaka

Fatal building cladding/ACP fire & expert witness in court hearing (Netto&Magin)

Singapore Flyer electrical control system fire (Singapore Flyer)

Damages of amusement rides (roller coaster vehicle & track) (RWS)

Fatal accident at ship repairing during welding (MOM)

Mobile crane toppling and expert witness (KSL)

Major MRT disruptions/accidents (power supply, vehicles, rails)-(SMRT/SBS)

Fatal HDB fire related to PMD failure (Singapore Enterprise)

Mobile crane collapse @ site & expert witness (China Taiping Insurance)

Traffic accident injuries and expert witness (Hoh Law Corporation)

Electric storage water heater explosion in condominium (ESG/SPRING)

Heat exchanger burst and pipe leakage-oil refinery plants (Shell, Seadrill)

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

Refrigerator fires @ condominium (Singapore Enterprise)

Expert witness in ISO tanks & prime mover fatal accident (Harry Elias Partnership)

Building lift drop related to wire rope breakage (HDB)

Interior corrosion in Esplanade Theatres (Penda-Oceans Japan)

Cast iron sanitary pipe cracking and litigation (NTUC Health)

Manhole corrosion and breakages (PUB)

Accidents of vehicle collisions and fires – MSIG Insurance

Professional Experience

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Large ship-lifting system cracking (**Malaysia Shipyard**)
Aerospace engine damages (fan and stages of blades, vanes) (**ESA, TOS**)
Ship propeller corrosion (**Sembawang Marine**)
Submarine power cable damages (**Seage Kingston**)
Car Airbag Flexible Flat Circuit malfunction (**Autoliv, Malaysia**)
Critical device failure of power plant resulting in City blackout
Transformer fire (**Makino, Japan**)
Failures of PCB, PCBA, LCD and IC (**SGS-Thomson, PCI, HP etc.**)
School hand dryer fire (**Venus Technology**)
Ceramic insulator flashover of MRT power supply (**SBS Transit**)
Explosion of power distribution system at sub-station (**Alstom**)
High voltage connecting system fire and explosion in train vehicle (**SMRT**)
Submarine batteries - extra H₂ gas release (>300 Kg) (**Navy**)
Failures in gas turbine and steam turbines (**Singapore, Thailand**)
CV joint damages of monorail (**India, Malaysia**)
Ship engine damages/ Hovercraft accidents (gearbox, propeller) (**Navy**)
Automotive failures (steer system, crankshaft, gear, torsion shaft etc.)
Unmanned aerial vehicle (UAV) landing gear system failure (**Air Force**)
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.
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
H/C 1069/2017 Building cladding/ACP fire at Toh Guan Road- **Netto & Magin**
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 Air Force
"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.
- As Principal Investigator, 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, SCDF, MOT, PUB, LTA, ESG, Air Force, Singapore Police, Navy, EMA, Hyundai, Shell, SMRT, China Taiping Insurance, Rajah & Tann, Wong Partnership, RWS, MSIG, NTUC Health, YTL PowerSeraya, Takenaka, STMarine, Sembawang Marine, ST Aerospace, Dell, HP, BD, DSTA etc.

Credential & Recognitions

- 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.
- Featured in Singapore **Mediacorp TV Programs**
"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, Singapore**
"The analysis report (Dr YU) was not challenged. It was clearly at the odds"
- **Singapore High Court Judge's decision statements of SGHC 254 [2011]**