



Curriculum Vitae



Dr YU Yonghe, George

PhD, CEng (UK)

Chief Consultant

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**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**

**API 510 Pressure Vessel
Inspector, American
Petroleum Institute, USA**

**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, *National University Singapore*

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

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

Summary

Dr YU has more than 35 years of industrial and research experience related to forensic investigation, failure analysis, accident investigation, fire investigation, product development, quality improvement, 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. He is listed in **Who's Who in the World** (Marquis Publication) since 2010.

Professional Experience

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

CNG Taxi fire and explosion near Buona Vista MRT

Transformer fire

Hand dryer fire in school

Notebook computer burning

Explosion of power distribution system

Fire and explosion in shopping mall

Explosion of electric storage water heater in condominium

Switchgear Fire in ship

Taxi fire at Marymount Road

Tower crane fire and collapse

Fire and explosion in train vehicle

LED burning in shopping mall

Professional Experience

Critical device failure of power plant resulting in City blackout
Hovercraft accidents (gearbox, propeller)
Failures in gas and steam turbines (Singapore, Thailand)
CV joint damages of monorail (India, Malaysia)
Failures in jack-up rigs
Damages of amusement rides (roller coaster vehicle & track),
Major train disruptions/accidents (power supply, vehicles, rails)
Accidents of mobile and tower cranes
Aerospace engine damages (fan and stages of blades, vanes)
Automotive failures (steering system, torsion shaft etc.)
Lift wire rope breakage
Car Airbag Flexible Flat Circuit malfunction (Malaysia)
Glass shatter in high rise building
Submarine batteries - extra H₂ gas release (>300 Kg)
Failures of PCB, PCBA, LCD, diodes, transistors and IC
LED failures (intermittent emitting, burning etc.)
Damages in power generators
Heat exchanger burst and pipe leakage in oil refinery plants
Submarine power cable damages
Microprocessor malfunction
Unmanned aerial vehicle (UAV) landing gear system failure
Large ship-lifting system cracking
Failures 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, regional and global countries, e.g.
COI Public hearing on two major MRT disruptions in 2011
[Suit No: 409/2010X, "Investigation on damages of MC50 Printer"](#)
Suit No: 934/2014 Forensic investigation on crane collapse
DSC 900613-2015 Investigation on fatal accident of door toppling in construction site
SIAC ARB 107/2015 Forensic Investigation on fatal tower crane collapse at National Arts Gallery
DC 562/2013/X: Investigation on mobile crane toppling

Professional Lecturing

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

Publications

As lead author, Dr YU published ~ 50 technical papers in referred international journals and conferences.
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.
>1000 classified technical reports