

SAFETY CREDENTIALS

A. SAFETY-RELATED PROFESSIONAL SOCIETIES



Member:

Singapore Institution of Safety Officers (SISO)
 Society for Risk Analysis, USA (SRA)
 American Society of Safety Engineers (ASSE)

B. SAFETY-RELATED TEACHING

1. Presented and continuing to present:
 - Hundreds of workshops, short courses, seminars, and invited talks
 - On workplace safety, risk management, life-cycle design, forensic engineering, welding safety, construction safety (specifically scaffold and formwork safety), oil and gas industry safety, airport safety, etc.
 - For audiences ranging from top management to engineers to supervisors/foremen,
 - For durations ranging from half-day workshops to two-day short courses, and longer-term evening courses
 - From 2001 to present
 - In USA, Singapore, Malaysia, Hong Kong, Abu Dhabi, and India
 2. “OHSE3740 : Risk Assessment and Management”, at University of Newcastle, Australia – Singapore Campus:, Trimester-1, 2010
 3. “Safety in Welding, Cutting, and Allied Processes”, for SETSCO (and certain other companies), Singapore, averaging once a year
 4. “Risk Management”, 14-hour (two days or four evenings) course, for Singapore Contractors Association Limited (SCAL), averaging twice or more a month
 5. Selected list of other organisations sponsoring more safety courses, seminars and lectures:
 - National University of Singapore (NUS)
 - Ministry of Manpower, Singapore (MOM)
 - Institution of Engineers – Singapore (IES)
 - Singapore Contractors' Association Ltd. (SCAL)
 - Prestressed and Precast Concrete Society of Singapore (PPCS)
 - Defence Science and Technology Agency, Singapore (DSTA)
 - Singapore Aviation Academy (SAA)
 - Singapore Metro Rail Transit (SMRT)
 - PSB – Singapore
 - ... and numerous government and private organisations
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C. SAFETY-RELATED RESEARCH AND CONSULTANCY

1967-1981 (USA)

1. Went on personal inspections and conducted or participated in analyses of construction failures, and served as consultant to forensic experts in USA
2. Safety-related analyses, design, and testing included the following:
 - Steel cotton-gin press
 - Steel grain silo
 - Torsion of steel thin walled sections
 - Installation procedure for additional steel sewer alongside old R.C. sewer
 - Steel thin-walled section roof trusses
 - Pre-stressed concrete nuclear reactor model (for US Atomic Energy Commission)
 - Heavy section steel nuclear pressure vessel (for US Atomic Energy Commission)

1981 – 1988, and 1999 – Present (Singapore)

(Between 1988 and 1999 ran a computer academy in Mysore, India)

1. Risk Management consultant and safety trainer approved by Ministry of Manpower, Singapore (MOM)
2. Observer on audit teams from SCAL on their site inspections in Singapore, thus acquiring practical know-how to back up theoretical knowledge.
3. Consultant for investigation, third-party audit, and reporting of local accidents, mainly in construction sector in Singapore, safety-related analysis/design including:

1981-1988:

- Failure of oil rig on the high seas
- Crane transportation by barge from Singapore to Kolkata, India
- Steel 3D truss connector

1999-Present:

- Trained safety personnel Ministry of Manpower and other Government agencies in scaffold safety, design for safety, risk management, etc.
 - Developed course modules on accident causation, investigation, and prevention for project management courses by IES, SCAL, etc.
 - Formalised and presented my '5A-Way' method applied to safety.
 - Project on Effectiveness of Risk Management Regulations in Singapore, by the Workplace Safety and Health Council of the Singapore Ministry of Manpower, 2009-2010.
 - Prosecution expert in the Fusionpolis formwork collapse of 2004 for Ministry of Manpower, Singapore, 2006-2009.
 - Fall of worker from mobile scaffold, 2007.
 - Fall of worker for seven storeys from scaffold during demolition, 2005
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D. SAFETY PUBLICATIONS & PRESENTATIONS (PARTIAL LIST)
(URLs in brackets are links to the complete papers, and slides if second URL)

Book

'Introduction to Risk Management', ISBN: 978-981-05-7924-1, 2007, 86p

Selected Papers on Workplace Safety and Risk Management

1. "Safety in precast and prestressed concrete construction", *Proceedings of the 5th International Symposium on 'Noteworthy Developments in Prestressing & Precasting'*, organised by Prestressed and Precast Concrete Society of Singapore, at Singapore, 27-28 August 2010, p. 17-26.
2. "Workplace safety in ASEAN, and Singapore's initiatives", *Proceedings of CAFEO - 27 Conference of ASEAN Federation of Engineering Organisations 2009 – 'Engineering for Sustainable Environment'*, held at Singapore, 30 November- 2 December 2009.
3. "Safety : The 5A-Way", Feature Item in *The Singapore Engineer - The Magazine of the Institution of Engineers*, Singapore, April 2009, p.32.
[http://www.profkrishna.com/ProfK-Assets/5A-Way/5A-Way-IES\(Apr09\).pdf](http://www.profkrishna.com/ProfK-Assets/5A-Way/5A-Way-IES(Apr09).pdf)
4. "On Crossing A Drain - A Tutorial in Risk Management", *Safety Matters* – Publication of the Singapore Institution of Safety Officers, Issue 03, Third Quarter 2008, p. 8-9, 20.
[http://www.profkrishna.com/ProfK-Assets/NK-SISOPaper\(ManDrain\).pdf](http://www.profkrishna.com/ProfK-Assets/NK-SISOPaper(ManDrain).pdf)
5. "The 5A-Way to Adjusting to Change in Workplace Safety and Health", *Conference pre-print, Workplace Safety and Occupational Health Conference 2008*, 21-22 Aug. 2008, 15p. (Slightly edited by author.)
[http://www.profkrishna.com/ProfK-Assets/5A-Way/5A-Way\(ABFPrePrint-Edited\).pdf](http://www.profkrishna.com/ProfK-Assets/5A-Way/5A-Way(ABFPrePrint-Edited).pdf)
6. "From Qualitative to Quantitative Assessment in Risk Management", CD *Proceedings of International System Safety Regional Conference 2008*, held 23-25 Apr. 2008 at Singapore, Session 12: Mishap Risk Assessment/Management (2), 11p. Presented on 24 Apr. 2008, 2.50-3.30pm.
<http://www.profkrishna.com/ProfK-Assets/ISSRC2008-QualiAbst&Paper.pdf>
<http://www.profkrishna.com/ProfK-Assets/ISSRC2008-QualPaper8Slides.pdf>
7. "Psychology of Risk", CD *Proceedings of International System Safety Regional Conference 2008* held 23-25 Apr. 2008 at Singapore, Session 3: Mishap Risk Assessment/Management (1), 11p. Presented on 23 Apr. 2008, 4.30-5.10pm.
<http://www.profkrishna.com/ProfK-Assets/ISSRC2008-PsychAbst&Paper.pdf>
<http://www.profkrishna.com/ProfK-Assets/ISSRC2008-PsychPaper12Slides.pdf>
8. "The Precautionary Principle in Risk Analysis", *Safety Matters* – Publication of the Singapore Institution of Safety Officers, Issue 01, First Quarter 2008, p. 7.
[http://www.profkrishna.com/ProfK-Assets/NK-SISOPaper\(PrecaPrin\).pdf](http://www.profkrishna.com/ProfK-Assets/NK-SISOPaper(PrecaPrin).pdf)

9. "Forensic Engineering in Structural Design and Construction", CD *Proceedings of Structural Engineers World Congress 2007* held 2-6 Nov. 2007, at Bangalore, India, Section TPS 09: 'Evaluation, Retrofitting, Repair & Health Monitoring', 16p. Presented on 4 Nov. 2007, 1.30-2.15pm.
[http://www.profkrishna.com/ProfK-Assets/NK-SEWCPaper\(CD\).pdf](http://www.profkrishna.com/ProfK-Assets/NK-SEWCPaper(CD).pdf)
 10. "The 5A-Way to Safety", *Safety Matters* – Publication of the Singapore Institution of Safety Officers, Issue 03, Third Quarter 2007, p. 5-7.
[http://www.profkrishna.com/ProfK-Assets/5A-Way/5A-Way\(SISOPaper\).pdf](http://www.profkrishna.com/ProfK-Assets/5A-Way/5A-Way(SISOPaper).pdf)
 11. "The 5A-Way to Safe Sports", Overview and Recommendations for Sports Safety in Singapore – *Final Report of the Sports Safety Committee of the Singapore Sports Council*, p. 63-65, 21 Aug. 2007
<http://www.profkrishna.com/ProfK-Assets/5A-Way/5A-WayToSafeAports.pdf>
 12. "On Changing a Light Bulb", *Safety Matters* – Publication of the Singapore Institution of Safety Officers, Issue 02, Second Quarter 2007, p. 12-16.
[http://www.profkrishna.com/ProfK-Assets/NK-SISOPaper\(ChangeBulb\).pdf](http://www.profkrishna.com/ProfK-Assets/NK-SISOPaper(ChangeBulb).pdf)
 13. "Safety in High-Rise Design and Construction", Seminar pre-print, *Build Tech – 2006 Souvenir of International Seminar on High Rise Structures*, by Builders' Association of India, Mysore Centre, 10 Dec. 2006, p. 19-34. [Expanded version of Oct. 2006 Singapore OSH Conference 'Safety in Design' paper.]
<http://www.profkrishna.com/ProfK-Assets/BuildTech2006Paper.pdf>
 14. "Safety in Design", *Conference pre-print 'OSH – A Business Advantage' Conference*, 11-12 Oct. 2006.
<http://www.profkrishna.com/ProfK-Assets/Publications.htm>
 15. "Risk Analysis of Manual Lifting", *The Structural Engineer* – Journal of the Institution of Engineers (Singapore), August 2006, p. 20-23.
<http://www.profkrishna.com/ProfK-Assets/IES-SE-Sept2006.pdf>
 16. "Recent Impact of Global Safety Culture on Fall Management", MOM-IES, *OHS Seminar on Fall Prevention while Working at Height* on 29 April, 2006.
[http://www.profkrishna.com/ProfK-Assets/FallPrevPaper\(v2\).pdf](http://www.profkrishna.com/ProfK-Assets/FallPrevPaper(v2).pdf)
 17. "Safety in the Construction Industry", *Proceedings of CAFEO -22 Conference on Engineering Capacity Building for ASEAN Integration and Global Competitiveness*, held at Yangon, Myanmar, on 18-19 December, 2004, Vol. 3, p. 608:1-17.
<http://www.profkrishna.com/ProfK-Assets/CAFEOPaper.pdf>
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E. SELECTED PRESENTATIONS ON SAFETY AND RISK MANAGEMENT

(Complete list viewable from 'Activities' page in www.profkrishns.com)

[URLs in brackets are links to slides]

1. 2010 May 13: Invited Keynote Lecture, "*Global Concerns on Working at Height in the Oil and Gas Industry*", Seminar and Workshop on 'Working at Height', organised by National Drilling Company, Abu Dhabi.
<http://www.profkrishna.com/ProfK-Assets/NDC-NK-Keynote.pdf>
 2. 2009 Dec 9: Invited paper "*Towards a Universal Deca-Scale for Risk assessment*", at the Annual Meeting of Society for Risk Analysis (USA), 6-9 Dec. 2009 , at Baltimore, Maryland, USA.
 3. 2009 Dec 6: One-day (8am-5pm) Workshop "*Risk Management for Movers and Shakers*", organised by Society for Risk Analysis (USA), at Baltimore, MD, USA.
 4. 2009 Dec 1: Invited paper, 2.00-2.40pm, "*Workplace safety in ASEAN, and Singapore Initiatives*", at CAFEO-27 (27th Conference of ASEAN Federation of Engineering Organizations) Conference, 30 Nov-2 Dec, 'Engineering for Sustainable Environment', at Suntec City Convention Centre Ballroom II, Singapore.
 5. 2009 May 29: Invited Lecture, "*Five Myths for Working at Heights*", Seminar on 'Fresh Look at Working at Heights', organised by IES, supported by MOM, WSHC.
 6. 2007 Mar 22: Invited lecture, "*5a-Way to Safety (in working at height)*", Technical Seminar on 'Work at Heights', as part of Launch of ProBE for FY2007, organised by Ministry of Manpower, Singapore.
<http://www.mom.gov.sg/Documents/safety-health/5A%20Way%20to%20Safety.pdf>
 7. 2007 Jan 12, 23, 25: Invited lecture, "*The 5A-Way to Safety (Management's Role in Safety)*" for Seminar cum workshop: 'ProBE (Falls from Height) Dialog Session', EDB Learning Centre, Singapore, organised by Ministry of Manpower, Singapore.
[http://www.profkrishna.com/ProfK-Assets/5A-Way/5A-WaytoSafety\(web\).pdf](http://www.profkrishna.com/ProfK-Assets/5A-Way/5A-WaytoSafety(web).pdf)
 8. 2006 Nov 9,10: Two batches, Half-day training course, "*Falling from Height*", for MOM field staff, Kim Seng, organised by ProBE-MOM, at MOM OSH Division.
 9. 2006 Oct 20: Invited Lecture , "*Risk Assessment in relation to Working at Height*", for Safety Seminar on 'Working-At-Height', organized by SCAL, supported by MOM, HDB and Surbana.
 10. 2006 Oct 9: Invited Lecture, "*Safety while Working at Heights*", for 'Fall from Height Seminar', organised by ProBE, Ministry of Manpower.
<http://www.profkrishna.com/ProfK-Assets/ProBESeminar-9Oct2006.pdf>
 11. 2006 Apr 29: "*Recent Impact of Global Safety Culture on Fall Management*", MOM-IES, OHS Seminar on 'Fall Prevention while Working at Height'.
 12. 2006 Jan 19: Invited Lecture, "*Impact of Civil Engineering on Emergency Preparedness*", for IES-SLP Short Course on 'Emergency Preparedness Planning', at York Hotel, Singapore.
<http://www.profkrishna.com/ProfK-Assets/ProBESeminar-9Oct2006.pdf>
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F. RECENT INTERNATIONAL INVOLVEMENTS (OUTSIDE SINGAPORE) IN SAFETY MATTERS

- **AbuDhabi:** Presented the keynote lecture, "*Global Concerns on Working at Height in the Oil and Gas Industry*", at the Seminar and Workshop on 'Working at Height', organised by National Drilling Company, Abu Dhabi, 13 May 2010.
- **Australian University:** Taught course 'OHSE3740 - Risk Assessment and Management' for University of Newcastle, Australia, Singapore campus, Trimester-1, Jan-Apr 2010.
- **USA:** Presented the paper, "*Towards a Universal Deca-Scale for Risk Assessment*", on 9 Dec 2009, at the Annual Meeting of Society for Risk Analysis (SRA), Baltimore, MD, USA, 6-9 December 2009.
- **USA:** Conducted a one-day workshop, "*Risk Management for Movers and Shakers*", on 6 Dec 2009, at the Annual Meeting of Society for Risk Analysis (SRA), Baltimore, MD, USA, 6-9 December 2009.
- **USA:** Reviewer for risk analysis books for Society of Risk Analysis(SRA), USA
- **International** Society of System Safety, Regional Conference at Singapore, Presentation of two papers in 2008.
- **India:** Presentation and publication of paper "*Forensic Engineering in Structural Design and Construction*", at 'Structural Engineers World Congress 2007' held 2-6 Nov. 2007 at Bangalore, India.
- **India:** Presentation and publication of paper "*Safety in High-Rise Design and Construction*", at 'International Seminar on High Rise Structures', by Builders' Association of India, Mysore Centre, 10 Dec. 2006.
- **Myanmar:** Presentation and publication of paper "*Safety in the Construction Industry*", at 'CAFEO -22 Conference on Engineering Capacity Building for ASEAN Integration and Global Competitiveness', held at Yangon, Myanmar, on 18-19 December, 2004.

G. INVENTION

'**SAFER Diamond**', a new method of risk assessment and management, patented in Singapore, registered in India, and being patented in USA
