

## BRIEF CV



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**Areas of interest:** Energy, Indoor Air Quality, Building Services

### Academic Qualification:

- PhD (ventilation and Indoor air quality), University of Nottingham, UK, 1995.
- MS (agricultural engineering), Michigan State University, East Lansing Michigan, 1985
- BSc Honours (mechanical engineering) with mathematics, University of Reading UK, 1981.

### Professional Qualification/ Membership/ Affiliation:

- Professional engineer (Mechanical Engineering), Registration number 10571
- Corporate member The Institution of Engineers Malaysia, number M18774
- Vice President, The Institution in Disaster, Emergency Management Malaysia
- Member Alpha Epsilon since 1985

### Appointments:

2001- Date	Associate Professor Department of Mechanical and Manufacturing Engineering U
1997- 2001	Lecturer Department of Mechanical and Manufacturing Engineering UPM
1996-1997	Lecturer, Department of Biological and Agricultural Engineering Department, UP
1985-1991	Lecturer, Department of Power and Machinery Engineering, UPM

### Areas of Interest:

Energy, Indoor Air Quality, Building Services

### Research Topics (Project Leader):

Year	Topic/ Sponsor	Amount (RM)
2007-2010	Energy Harnessing From Landfill Gas, Kementerian Pendidikan Tinggi	6.17 mil
2007-2009	Determination of Malaysian Behaviour on Abuse of Energy at a Teaching Institution, Fundamental Research Grant Scheme (FRGS),	50k
2007-2009	Determination of Carbon Monoxide (CO) Level in Passenger Car in Klang Valley for Application of CO Indicator in Car Control Panel (RUGS)	29.2k
2004-2005	Development of Internet based Expert System for Solar System	20k

2003-2004	Expert System for Predicting and Managing Thermal Comfort of Buildings	20k
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## Publications:

### List of International Journal Papers

1. WCK Steven, M Daud, **NM Adam**, SM Sapuan, R Samin and N Ismail (2007), "Particulate and Black Emissions from Palm Oil Mill Boilers in Sarawak, Malaysia", *Journal of Ecotoxicol. Environment Monitoring*, 17(5):445-453
2. HR Zahedi, **NM Adam**, SM Sapuan and MMHM Ahmad (2007), "Effect of Storage Tank Geometry on Performance of Solar Water Heater", *Journal of Scientific and Industrial Research*, Vol 66, pp 146-151 Citation Index
3. Bashria AA Yousef and **Adam NM** (2007) "Performance Analysis for V-Groove Absorber", *Sunaree Journal of Science and Technology* 14 (1): 39-42
4. Barkawi Sahari, **Nor Mariah Adam** and Aloysius Decruz (2007) "Noise Problems in air Conditioning Installations", *Journal Jurutera*, March 2007 p 22-24
5. Bashria AbdruAlrasoul Yousef, **Nor Mariah Adam**, Mohamed Daud, Husaini Omar and Megat Hamdan, (2006) "Prediction Study on Single and Double Flow Solar Air Heater", *Suranaree J. Sci Technology* 13(2): 123-136
6. Yousef BAA and **NM Adam** (2006), "Thermal Performance and economic Effectiveness for Solar Air Heaters: Analysis and Expert System Developments", *Journal of Energy and Environment*, Volume 5: 45-56
7. Bashria AAYousef, **Adam N**, Daud M, Omar H and Megat MH (2006), "Prediction for the Thermal Performance of Flat Plate Collector Using Expert System", *Journal of Technology and Commerce Brunei Darrusalam*, Volume 4 No.1 p 26-37
8. EE Supeni, MM Megat Hamdan, MS Salit, **NM Adam** and MY Ismail, (2006), "An Experimental Investigation to Evaluate Heating Value of Palm Oil Waste by Calorimetry- A Review", *Mechanical Engineering Research Journal* Vol 4, Chittagong University of Engineering and Technology
9. Suditama, MHM Ahmad, S Sulaiman and **NM Adam** (2005), "Heat Transfer Study in the Low Temperature Thermal Energy Storage Material (multi-component material) Between Tubes Array during Melting", *Jurnal Mekanikal*, June 2005, No. 19 p 71-83
10. Azali A, AB Nasrin, YM Choo, **NM Adam** and SM Salit (2005) "Development of Gasification System Fuelled with Oil Palm Fibres and Shells", *American Journal of Applied Sciences (Special Issue)*: 72-75, **Best MPOB paper for 2005**
11. **Adam NM**, TH Ho and AM Lemam (2005) "Indoor Air Quality of Longhouses in Sarawak", *Abstract, Journal Indoor Air*, Volume 15, Supplement 11, p 171
12. Lemam AM, **NM Adam**, MZM Yusof and A Husain (2005) "Indoor Air Quality of Public Toilets in Malacca", *Abstract, Journal Indoor Air*, Volume 15, Supplement 11, p 6
13. FA Ansari, AS Mokhtar, KA Abbas and **NM Adam**, (2005) "A Simple Approach for Building Cooling Load Estimations", *American Journal of Environmental Sciences* 1(3): 209-212
14. MS Aini, A Fakhru-Razi, M Daud, **NM Adam** and R Abdul Kadir (2005) "Analysis of Royal Inquiry Report on the Collapse of a Building in Kuala Lumpur: Implications for Developing Countries", *Disaster Prevention and Management*, Volume 14 Number 1, p 55-79
15. Bashria AAY, **NM Adam**, M Daud, H Omar, MHM Ahmad and SM Sapuan, (2004), "Criteria for Solar Drying Projects in Malaysia", *Journal of Industrial Technology, SIRIM, Malaysia* Volume 13(2) 2004:39-48
16. ES Eris, M Hamdan, SM Sapuan, **N Adam**, MY Ismail and TR Vijayaram (2004) "An Experimental Investigation to Evaluate the Heating Value of Palm Oil Waste by Calorimetry", *Journal of Chemical Engineering and Environment*, 3, No. 1, p 8-13
17. E Supeni, MM Hamdan, M Sapuan, **NM Adam**, MY Ismail and TR Vijayaram, (2004) "An Experimental Investigation to Evaluate the Heating Value of Palm Oil Waste by Calorimetry", *Journal of Mechanical Engineering Research Journal*, Volume 4, p17-21
18. Bashria AA, **Adam NM**, Sapuan SM, Daud M, Omar H, Megat HM and Abas F, (2004), "Predictions for Thermal Performances of Solar Air Heaters by Internet-Based Mathematical Simulation", *Journal of Power and Energy*, Proceedings of the Institution of Mechanical Engineers, United Kingdom. Volume 218 Part A

19. Yousef AB, **NM Adam**, M Daud, H Omar, MHM Ahmad, Elradi Musa, (2004)ö Prediction and Experimental Studies on Solar Air Collector in Malaysia Using Expert Systemö, *Journal of Energy and Environment*, Bangladesh 3(2004) 91-101
20. Omar H, J Ahmad, MS Salsidu, **NM Adam** and S Hassim, (2003),öTesting of Weak Rock Using H-O meter in Diametrical Positionö, *Khon Khaen University Science Journal*, 31(4): 218-236
21. Salam AIA, MMHM Ahmad, SM Sapuan and **N Adam**, (2002),öTechno Economical Aspects of Encapsulated Ice Method in Thermal Storage Application for Air Conditioning System,ö *International Energy Journal*: volume 3(1): 45-52
22. Weizhen Lu, Andrew Howarth, **Nor Adam** and Saffa Riffat, (1999)öCFD Modeling and Measurement of Aerosol Particle Distributions in Ventilated Multi-zone Roomsö, *Transaction ASHRAE*, Volume 105 (2), p 116-127
23. Lu, WZ, Howarth A, **Adam N** and Riffat SB (1998),öAirborne Particles in a Ventilated Room: Prediction and Measurementö, *Journal Building Services Engineering Research and Technology*, Volume 19 (2), p 73-77
24. **Adam N**, P Everitt and SB Riffat, (1996),öSmoke Deposition in Ventilation Ductsö, *International Journal of Heat and Fluid Flow*.
25. **Adam N**, P Everitt and SB Riffat, (1996),öAerosol Deposition in Ventilation Ductsö, *International Journal of Energy Research*, Volume 20(12) December, p 1095-1101
26. Lu WZ, Howarth AT, **Adam N** and Riffat SB, (1996),öModeling of Airflow and Aerosol Particle Distribution In Ventilated Two-Zone Chamber Using CFD Techniqueö, *Journal Building and Environment*, Volume 31(5), p 417-423
27. Riffat SB, KW Cheong, **N Adam** and L Shao, (1995), öMeasurement and CFD Modeling of Aerosol Particles in Buildingsö, *Journal of Indoor Environment*, Volume 4(3)
28. Riffat SB, KW Cheong, **N Adam** and L Shao, (1995), öMeasurement and CFD Modeling of Aerosol Particles in A Controlled Chamberö, *Journal of Heat óGas-Supply and Ventialtion*, Kazan, Institute of Civil Engineers, Russia, 420045 Russia, Tatarstan, Kazan, p 63-74
29. **Adam NM**, JS Kohal and SB Riffat, (1994),öEffect of Ventilation Rate on Deposition of Aerosol Particles on Materialsö, *Journal Building Services Engineering Research and Technology* 15(3), p. 185-188

#### Accepted Journal papers up to 2007

30. Suditama Sulaiman, Megat Mohamad Hamdan Megat Ahmad, Shamsuddin Sulaiman and Nor Mariah Adam, öExperimental and Numerical Analysis Heat Transfer Characteristic of Tubes Arrangement Immersed in the Thermal Energy Storageö, *Sudan Engineering Society Journal*, 2007
31. Zahedi, H, NM Adam, HM Megat and MS Salit, 2005 öOptimal Design for a Thermosyphon Solar Water Heater Convenient for Malaysiaö, *International Energy Journal*, Regional Energy Resources Information Center, Asian Institute of Technology, Thailand (in press)
32. Bashria AA, **Adam NM**, Omar H and Megat HM (2007), öPerformance Analysis of Single and Double Passes With and Without Porous Media for Flat Plate Collectorö, *Journal of Power and Energy*, Proceedings of the Institution of Mechanical Engineers, (in press)
33. Elfaig A, M Daud, **NM Adam** and R Abdullah, (2007), öEnvironmental Noise Pollution in Residential Areas of Kuala Lumpur Malaysiaö, *International Journal of Global Issues*, Cleveland, Ohio, USA
34. Bashria AA Yousef, **Adam NM**, Daud M, Omar H and Megat HM, öExpert System to Predict Thermal Performance of Air Heaterö, *International Journal of Power and Energy Systems*, Canada (in press)

#### **Awards & Recognitions:**

1. **Bronze Medal**, Active Noise Control for Buildings, Research and Innovation and Commercialization Exhibition, Universiti Putra Malaysia, 27-29 November 2007
2. **Bronze Medal**, Design and Development of Fluidized Bed Gasifier Using Oil Palm Biomass for Energy Generation, Azali Awal Research and Innovation and Commercialization Exhibition, Universiti Putra Malaysia, 22-24 August, 2006
3. **Bronze Medal**, Internet based Expert System for Solar System, Research and Innovation and Commercialization Exhibition, Faculty of Engineering, UPM March 2006

4. **Best MPOB paper for 2005**, Azal 16-17 March 2006i A, AB Nasrin, YM Choo, NM Adam and SM Salit, *Development of Gasification System Fuelled with Oil Palm Fibres and Shells*, American Journal of Applied Sciences (Special Issue): 72-75, 2005
5. **Silver Medal**, Pameran RekaCipta, Penyelidikan & Inovasi, 1-19 Mac 2005  
*Socio-technical Disaster Model of Malaysia* Aini Mat Said, Mohamed Daud, Razali Abdul Kadir, Fakhruddin Ahmadun and Nor Mariah Adam
6. **Bronze Medal**, Pameran RekaCipta, Penyelidikan & Inovasi, 1-19 Mac 2005 *The Adoption of Eco-net: The Internet based Malaysian Ecotourism Network and- Site Rating Expert System* Mohamed Daud, Mohd Zohadie Bardaie, Abdul Rahman Ramli, Husaini Omar and Nor Mariah Adam
7. **Best Thesis National Science Fellowship 2001** Ting Kee Chien, Simulations of Onset of Convection in a Non - Newtonian Liquid Induced by Unsteady State Heat conduction, MS Thesis December 2001.

### Professional Training Attended

Colloquium: Towards Publishing in Journals with Impact Factor, with Prof Peter Heggs, 4 December 2007, Fakulti Kejuruteraan UPM (Participant)

Clinic on Writing Journal Paper with Prof Peter Heggs, RMC UPM 4 December 2007 (Participant)

Forum on Public Information on Nuclear Energy, Kuala Lumpur, 29 November 2007 (Participant)

18<sup>th</sup> ERP Seminar, Bintulu 2-5 September 2007 (paper presenter)

World Engineering Congress, Penang, 5-9 August 2007 (Invited Speaker)

Bengkel Pemantapan Kerja, Tiara Beach Resort, Negri Sembilan, 13-15 Julai 2007 (Participant)

World Housing Congress, Kuala Trengganu, 1-5 July 2007 (Invited Speaker)

Workshop on Patent Tiara Beach Resort, Negri Sembilan, 2007 (Participant)

Bengkel Keselamatan dan Ergonomik di pejabat dan Makmal, A Famosa Resort, 22-24 June 2007 (Participant)

Seminar Gempa Bumi: Kesan Terhadap Infrastruktur dan Bangunan di Malaysia, PWTC 15 Mei 2007 (Peserta)

Seminar Fire Safety Codes: Design and Applications, Kuching 9 & 10 April 2007, Kota Kinabalu 11 & 12 April 2007 (Invited Speaker)

Workshop on Development of Composite Index to Evaluate Car Park for Malaysian Condition, 13 February 2007 (Course Leader)

Bengkel Pembentangan Projek-Projek di bawah Pembiayaan Akaun Amanah Industri Bekalan Elektrik (AAIE), Hotel Equatorial, 11 January 2007

OBE Workshop on Teaching Plan and Course Assessment, Faculty of Engineering UPM, 21 December 2006 (Participant)

ERP Course for Institute of Engineers, Malaysia, Bangunan IEM, Petaling Jaya, 20 December, 2006 (Course Leader)

Workshop on Journal Paper Writing, Department of Mechanical and Manufacturing Engineering, UPM, 14 December 2006 (Participant)

International Symposium and Exhibition on Sustainable Energy and Environment, Hotel Maya, Kuala Lumpur, 3-6 December 2006 (Paper Presenter)

OBE Workshop: Course Assessment for Different Course/Learning Outcomes, Faculty of Engineering UPM, 13 October 2006 (Participant)

Kursus Asas Keselamatan dan Pencegahan Kebakaran, Jabatan Bomba dan Penyelamat Malaysia, Fakulti Kejuruteraan UPM, 4-8 September 2006, (Paper Presenter and Participant: Konsep ERP Dalam Pencegahan Kebakaran)

Seminar Modal Insan, Faculty of Engineering, UPM, 1 August 2006 (Participant)

Workshop on ABET Accreditation, Prof Dr Mustaque Hossain, Kansas State University, USA, 30 June 2006

Workshop on Emergency Response and Planning for Bank Negara Malaysia 22-23 June 2006, Bank Negara Training Centre, Petaling Jaya (Paper presenter and facilitator)

17<sup>th</sup> ERP Seminar, Faculty of Engineering, UPM Serdang, 30 May, 2006 (Paper Presenter)

16<sup>th</sup> ERP Seminar for Marine Industry, Kuching 2 May 2006, (Welcoming Address)

Workshop Revision of MS 1525: Code of Practice on Energy Efficiency and Use of renewable Energy for Non-Residential Buildings, SIRIM, 26 April 2006 (Participant)

Seminar Design Life of Buildings and Constructed Assets, JW Marriott Hotel, Kuala Lumpur 5 April 2006

International Real Estate Research Symposium (IRERS), PWTC 11-13 April 2006 (Paper Presenter: Indoor Air Quality of Malaysian Buildings)

Learning Outcome Initiative 2: Institute Bioscience, UPM 6-7 April 2006

Design Life of Buildings and Constructed Assets, JW Marriott Hotel, Kuala Lumpur, 5 April 2006

Seminar Penguatkuasaan Akta Bomba 341 1988, IOI Palm Garden, 28 March 2006  
Learning Outcomes Initiative 1, Faculty of Engineering, UPM 8-9 March 2006  
Kem Bina Semangat, Bentong, 20-22 January 2006  
Seminar Involvement of Small and Medium Scale Industry in the Eco-Tourism Sector, Perhentian, Terengganu  
September 13-15, 2005 (paper presenter)  
Forum Women Engineer, Bangunan Ingeniur, Petaling Jaya, August 20, 2005 (invited speaker)  
Seminar Agenda 21 Wanita Selangor Maju Sejahtera, Grand Bluewave, Shah Alam, August 11-12, 2005 (invited participant)  
Forum Indoor Air Quality, Bangunan Ingeniur, Petaling Jaya, June 20, 2005 (invited speaker)  
Seminar on Energy Efficiency (Motors), Crown Princess, Kuala Lumpur, 10 May, 2005  
Kursus Keselamatan dan Kesihatan Pekerjaan, Fakulti Bahasa Moden, Universiti Putra Malaysia, 25-26 April, 2005  
Kursus Pengurusan Stres, Grand Continental Hotel, Langkawi, 17-19 April, 2005  
National Seminar of Energy in Buildings, Holiday Villa, May 10-11, 2005 (paper presenter)  
Major Conference in Building Services, Sheraton Hotel and Towers, Subang Jaya, 18-19 March 2005 (invited speaker)  
Forum Halatuju Selangor Bersama YAB Menteri Besar Selangor pada 27 Jun 2005 di Kediaman Rasmi Menteri Besar Selangor, Bukit Melawati, Shah Alam  
Indoor Air Quality and Thermal Energy Storage, Bangunan IEM, Petaling Jaya, 14 December 2004 (Participant)  
Energy Efficiency in Building, Bangunan IEM, Petaling Jaya, 30 November 2004 (Participant)  
Affordable Quality Housing 2004, Mega Hotel, Miri 24-26 November 2004 (Paper Presenter)  
International Fire Chiefs Association of Asia Conference, Taipei, Taiwan, 17-19 November 2004 (Sponsored Participant by IMDEMM)  
Fifteenth Emergency Response and Planning Seminar, Universiti Putra Malaysia, 23 October 2004 (Paper Presenter)  
Inaugural IFE International Branch Meet 2004 Conference and Exhibition, Putra World Trade Centre, 5-6 October, 2004 (participant)  
Emergency Response and Planning 14<sup>th</sup> Seminar: Emerging Response and Emerging Issues, Bintulu Development Authority, Bintulu, 28-30 September 2004 (Paper Presenter, Session Chairperson)  
Forum on Renewable Energy and Energy Efficiency öThe Way Forwardö, Mariott Hotel, Putrajaya, 12 August 2004 (Representing Dean, Engineering Faculty UPM)  
Seminar Industrial Security Issues: A Business Solutions Approachö, Gurney Hotel, Penang, 26-27 July, 2004 (Invited Participant)  
Second National Fire Protection Seminar: Developing and Implementing Effective Fire Protection Strategy, MIECC, Mines Resort City, 17 June 2004. (Invited Paper Presenter)  
Kursus Keselamatan di Tempat Kerja, anjuran Pengawas Keselamatan, Universiti Kebangsaan Malaysia, Bayu Beach Resort, Port Dickson, 8-10 Jun 2004  
English Course (Advanced level) March 29-April 2 2004, Engineering Complex UPM  
Reliability and Quality Engineering (RQE-04) led by Professor Sayed (Rutgers University USA) organized by Department of Mechanical and Manufacturing Engineering UPM, IEM, and Rutgers University, New Jersey, USA, Nikko Hotel Kuala Lumpur. 27-28 January 2004  
Seminar on Opportunities for Agro-Eco-Tourism in Bario Highlands of Sarawak, 11-14 May 2004. (Paper presenter)  
Seminar on Understanding the Threat of Fire and Terrorism, 27 March 2004, Pan Pacific Hotel Glenmarie, Shah Alam (Invited participant)  
Design Life of Buildings and Constructed Assets, SIRIM, 25 March 2004 (Invited participant)  
Knowledge Management Centre (KMC) Workshop, Corus Paradise Hotel, Port Dickson, 9-12 December 2003 (Participant)  
Seminar Pelan Tindakan Kecemasan, IPD Kuala Kangsar, 11 October 2003 (Guest of Honor)  
Pertandingan Rekacipta dan Inovasi MARA 2003, MIAT, Sepang, 4-5 October 2003 (Panel Judge)  
Kemahiran Kepimpinan Dalam Pengurusan, Budiman Research Training Sdn, Bhd, Fakulti kejuruteraan, 22-24 September 2003 (Participant)  
13<sup>th</sup> ERP Seminar, UPM Bintulu, 7-8 September 2003. (Paper Presenter)  
International Conference on Environmental Management and Technology, A Clean Environment Towards Sustainable Development, Kuala Lumpur, 4-6 August 2003. (Paper Presenter)  
REHDA Seminar, Bangunan REHDA, Kelana Jaya, 13 August 2003. (Invited Speaker)  
Installation and Public Security Course, UPM Serdang, 18-21 July, 2003 (Organizing Chairperson and presenter)  
Course on Installation and Public Security: Transportation Perspective, UPM Bintulu Campus, and 24-27 June 2003. (Session Chairperson)

10<sup>th</sup> ERP Seminar UPM Serdang, 3 March, 2003 (Paper Presenter, Seminar Chairperson)  
Bengkel Semakan Tahunan Dokumen ISO ke 3 Fakulti Kejuruteraan, Pan Pacific KLIA Hotel, 31 January-2 February, 2003 (Wakil MS Sturktur C)  
Pertandingan Rekacipta dan Inovasi MARA 2002, Jasin, Melaka 25-27 October 2002 (Panel Judge)  
Envirotour 2002, Sunway Hotel, Subang Jaya, 8 October 2002 (Invited Speaker).  
Bengkel Persediaan Program Pengajian Siswazah dan Penyelidikan Kearah ISO 9001, Dynasty Hotel, Kuala Lumpur 4-6 October 2002 (Wakil MS Sturktur C)  
Ninth Emergency Response and Planning Seminar on Disaster Management, Strategic Networking for Safer Industrial Growth, Bintulu, 17-19 September 2002  
Fire Performance-Based Fire Safety Course, Organized by Fire and Rescue Department Malaysia, Crown Plaza Hotel, 4-7 September 2002 (Participant)  
First Multi Government Agency Drill in Malaysia, Ex-Rampas 2/02, Marang 18-20 August, 2002 (Observer)  
World Engineering Congress, Kuching 22-25 July, 2002 (Paper Presenter)  
National Conference on Occupational Safety and Health, PWTC, Kuala Lumpur, 25-26 June 2002 (Paper Presenter)  
National Fire Protection Seminar, Mines Exhibition Centre, 20 June 2002 (Invited Speaker)  
Third International Conference on Disaster Management: Strengthening National Security Capabilities, Kuching, 5-6 May, 2002 (Paper Presenter)  
Kolokium Akademik Pusat Pengajian Pasca Siswazah, Universiti Selangor, 19 April, 2002 (Invited Participant)  
Workshop on Rain-harvesting As a Tool for Sustainable Water Supply and Storm Water Management, Pan Pacific Hotel, Kuala Lumpur, 12 March 2002. (Invited Speaker)  
Sixth Emergency Response and Planning Seminar: Industrial Disaster Management in the New Era, Holiday Villa Hotel, Subang Jaya, 5-6 March 2002. (Invited Speaker)  
Seminar When Worlds Collide, Equatorial Hotel, Kuala Lumpur, 30-31 January 2002 (Invited Speaker and Session Chairperson).  
Seminar Affordable Quality Housing, Equatorial Hotel, Bangi 15 January 2002 (Invited Speaker).  
Invited Speaker, Monthly Activity for Manufacturing Group, The Institution of Engineers Malaysia, 8 December 2001.  
Workshop Emergency Response and Preparedness, Ministry of Health (Contagious Disease Unit), Bayu Beach Resort, Port Dickson, 22-24 November 2001 (Paper Presenter and Facilitator)  
ERP Conference Disaster Management in the IT Age, Senior Police Officer College, Kuala Lumpur, 23-25 October 2001 (Invited Speaker)  
Invited Speaker, Ajinomoto Safety Week, Jalan Kuchai Lama, 24 September 2001.  
Fire Test for Four Storey Steel Structure, Perwaja Steel Sdn Bhd, Gurun, 8 May 2001 (Invited Observer)  
Second International Conference on Disaster Management: Preparing and Planning for the Future, Surabaya Indonesia, 3-5 May, 2001 (Paper Presenter and Session Chairperson)  
Workshop on CIDB Manual for Assessment of Industrialized Building Systems, ITMA, UPM 19 April 2001 (Invited Consultant)  
Hazardous Material Incident Command Emergency Response Awareness Karambunai Resort, Kota Kinabalu Sabah, 4-10 April 2001 (Facilitator)  
Incident Command Emergency Response, Karambunai Resort, Kota Kinabalu Sabah, 4-10 April 2001 (Facilitator)  
Workshop Preparation Incident Action Plan on Communication Risks for Ministry of Health (Institut Kesihatan Umum), Puteri Hotel, Kota Bharu, 22-25 April 2001 (Facilitator)  
Seminar Association of South East Asian Institution of Higher Learning (ASAIHL), Genting Highlands, 21-23 November 2000 (Paper Presenter)  
Fifth Emergency Response and Planning Conference, Sheraton Subang, 3 October 2000 (Paper Presenter)  
Conference on Occupational Safety and Health, Equatorial Hotel, Bangi, 25-26 September, 2000  
National Seminar on Indoor Air Quality and Thermal Comfort in Housing, Equatorial Hotel, Bangi 20 June 2000 (Keynote Speaker, Session Chairperson, Panelist)  
Kursus ISO 9000 Internal Quality Audit, Bimbingan En Wan Zainal Hanafi, QAI Sdn Bhd, 16-17 Mei, 2000  
International Conference on Disaster Management ó Lessons to be Learnt, Langkawi, 29-30 April, 2000 (Paper Presenter)  
Seminar National Fire Alarm Code NFPA 72, Eastin Hotel, 14-15 April, 2000 (Invited Participant)  
Seminar Pencegahan dan pengurusan Bencana Minyak dan Gasö, Organized by Petronas, Guoman Resort, Port Dickson, 13 March 2000 (Invited Participant and Facilitator)  
Seminar on Passive Fire Protection, Kementerian Kerja Raya, Jalan Tun Ismail, Kuala Lumpur, 17 February 2000 (Guest of Honour)

Seminar Kesedaran Kebakaran Tanggungjawab Bersama, Anjuran Jabatan Bomba dan Penyelamat Malaysia, 24 November 1999 (Session Chairperson)

Seminar Automatic Sprinkler System NFPA 13, Crystal Crown Hotel, Petaling Jaya, 4-5 November 1999 (Invited Participant)

Workshop on Ventilation, Panasonic Shah Alam for CIDB, 28 October 1999 (Keynote Speaker)

Seminar on Standards, Organized by SIRIM, Pan Pacific Glenmarie Hotel, Shah Alam, 26 October, 1999 (Invited Participant)

Fourth Emergency Response and Planning Seminar, Dynasty Hotel, Miri, 9 October 1999 (Paper Presenter, Organizing Committee Member)

Third Emergency Response and Planning Seminar, Sandy Bay Hotel, Penang 7 October 1999 (Session Chairperson, Organizing Committee Member)

Second Emergency Response and Planning Seminar, Radisson Hotel, Shah Alam, 5 October 1999 (Paper Presenter, Organizing Committee Member)

Petronas Penapisan Melaka-Jabatan Bomba dan Penyelamat: Emergency Response Exercise Ops Ulang Bakar, Batu Berendam Malacca, 28 September 1999 (Observer)

Introduction to Incident Command System Course, US Fire Department, Renaissance Hotel, Malacca, 3-4 August 1999 (Invited Participant)

World Engineering Congress, Sheraton Subang Jaya, 19-22 July 1999 (Paper Presenter)

Field Exercise with Fire Extinguishers, Organized by Conoco Asia Pacific, Wisma Sime Darby, 7 July 1999 (Invited Participant)

Seminar HVAC Technologies, UTM Jalan Semarak, Kuala Lumpur, 25 June 1999 (Invited Participant)

Seminar Life Safety Code NFPA 101, Holiday Villa Hotel, Subang Jaya 22-23 March 1999 (Invited Participant)

Integrated Safety, Occupational Health and Environment management Course, Organized by IEM, led by Ir Rahmat, 16-18 March, 1999 (Participant)

Course on Introduction to Incident Command System, led by Jack Flannery, Conoco Asia-Pacific, Bomba HQ Malacca, 8 December 1998 (Invited participant)

Regional Conference on Emergency Response and Planning, in the Coming Millennium, PWTC 1-3 December 1998 (Paper Presenter, Organizing Chairperson)

Introduction to Forensic Science Course by Professor CB Torrance, PWTC, 30 November 1998 (Participant)

Seminar Pengurusan Krisis Anjuran INTAN bersama MAMPU, BPSM Sabah, 6-9 October 1998. (Paper Presenter and Facilitator)

Seminar on Standards, organized by SIRIM, Pan Pacific Glenmarie Hotel, Shah Alam, 3 October 1998 (Invited Participant)

Technical Forum, Wet Fire Protection System, FRDM HQ, 10 September 1998 (Invited Participant)

Seminar Advanced Materials Process and Technology, Mines Beach Resort, 24-28 August 1998 (Paper Presenter)

Short Course on Chemical Industry Major Accident Hazard, led by Shuttleworth (Fire Department Glasgow), Pusat Latihan Bomba dan Penyelamat Malaysia, Kuala Kubu Bharu, 25-26 June 1998 (Invited Participant)

KLIA-Jabatan Bomba dan Penyelamat Malaysia, Emergency Response Drill, June 1998 (Observer)

Seminar Halon Bank, PWTC, Kuala Lumpur 7 May 1998

Seminar on Comprehensive Expert System for EIA, Evaluation, Approval, and Monitoring, IDEAL, UPM Serdang, 17-18 February, 1998

Short Course on Risk and Hazards led by Professor Rex Thorpe (Cambridge University), UPM Serdang, 12-13 December 1997

Asian-Pacific Conference on Built Environment, PJ Hilton, 4-6 November 1997 (Paper Presenter)

Seminar Kecekapan Tenaga, organized by JBEG, Park Royal Hotel, Kuala Lumpur, 7 July 1997 (Invited Participant)

Technical Workshop on Urban Vision 2020 Making Urban Areas Child-Friendly, Asia Pacific Development Centre, 5 July 1997 (Invited participant)

New Refrigerant for the Next Millennium, Crystal Crown Hotel, Petaling Jaya, 3 June 1997 (Invited Participant)

Kursus Untuk Penyelia Bangunan, Mutiara Budi, UPM, 22-27 May 1997 (Participant)

Seminar on Affordable Quality Housing, UPM, 13 May 1997 (Paper Presenter, Organizing Committee Member)

Workshop on Industrial Application of Fluid Machinery, Crystal Crown Hotel, Petaling Jaya, 11-13 March 1997 (Participant)

Seminar on Comprehensive Expert System for EIA, Evaluation, Approval, and Monitoring, PPPL, UPM Serdang, 17 December 1996 (Participant)

Aerosol Society 9<sup>th</sup> Annual Conference, Norwich England, 4-6 April 1995 (Paper Presenter)

CIBSE National Conference, Brighton, England, 2-4 October, 1994 (Paper Presenter)  
CLIMA 2000 Conference, London, Organized by ASHRAE, CIBSE, and REHVA, 1-3 November 1993 (Paper Presenter)  
Seminar Natural Ventilation, organized by CIBSE and BRE (representing University of Nottingham), London, 11 November, 1992  
International Conference on University-Industry Interaction, Putra World Trade Centre, Kuala Lumpur, 21-23 August 1990 (Paper Presenter)  
Asia Pacific Regional Conference on Engineering for the Development of Agriculture, Universiti Pertanian Malaysia, Serdang Selangor, 5-7 June 1990 (Paper Presenter, Organizing Committee Member)  
AEESEAP ó FEISEAP Joint international Conference on Engineering Education, City Bay View Hotel, Penang, 22-24 May, 1990 (Paper Presenter, Organizing Committee Member)  
Workshop on An Agenda for Research into Further Mechanization of Oil palm Estates, PORIM HQ, Bangi 3 May 1990 (Participant)  
A day Colloquium on Expert Systems, Equatorial Hotel, Kuala Lumpur, 21 February 1990 (Participant)  
Seminar Kebangsaan Graduan Kejuruteraan I Elektronik dan Mekanikal, PPPL, UPM Serdang, 15-16 August, 1989 (Participant)  
Seminar Belimbing: Dayamaju & Prospek, Hilton Hotel, Kuala Lumpur, 18-19 July 1989 (Participant)  
Dasar Ekonomi Baru: Penyelesaian Selepas 1990, PPPL UPM Serdang, 21 March 1989 (Participant)  
Seminar Kebangsaan Kejuruteraan Pertanian, 16-17 November, 1988 (Paper Presenter, Organizing Committee Member)  
Persidangan Kebangsaan Kelapa Sawit/Minyak Sawit óPerkembangan Masa Kiniö, Shangri-La Hotel, 11-15 October 1988 (Participant)  
MOPGC Workshop on Plant Mechanization in Oil Palm Estates, RRIM HQ, Jalan Ampang, 14 April 1988 (Participant)  
Kolokium Kejuruteraan Pertanian, Cameron Highlands, 10-13 December 1987 (Participant)  
Seminar Penggunaan Bahasa Malaysia Dalam Pendidikan dan Amalan Kejuruteraan, Universiti Malaya, Kuala Lumpur, 14-15 July 1987 (Participant)  
Kursus Diploma Penterjemahan Anjuran Bersama Persatuan Penterjemah Malaysia dan DBP dengan kerjasama Perpustakaan UPM 20 April-2 May 1987 (Participant)  
Bengkel Latihan Sistem Penasihat Akademik PPPL UPM Serdang, 30 March 1987 (Participant)  
Kursus Diploma Penterjemahan Anjuran Bersama Persatuan Penterjemah Malaysia dan DBP dengan kerjasama Perpustakaan UPM 10-20 December, 1986 (Participant)  
Bengkel Mekanisasi Padi, Organized by MARDI, Butterworth Penang, 22 July 1986 (Participant)  
Seminar Kebangsaan óCabaran Dalam Pendidikan Kejuruteraan ke Arah Abad ke21ö Universiti Malaya, Kuala Lumpur, 29-30 April, 1986 (Participant)  
Seminar Mechanization in Agriculture, Merlin Hotel, Kuala Lumpur, 26 April 1986 (Participant)  
Seminar: óFrom Rubber to Oil Palm -What Next?ö Merlin Hotel, Kuala Lumpur, 18 March 1986 (Participant)  
R&D Collaboration for Industrial Development, PWTC Kuala Lumpur, 22 January 1986 (Participant)