CURRICULUM VITAE

Name: Md. Abdul Mannan (Professor, Dr., Engr.)

Date & Place of Birth*:* 15 August 1962, Bangladesh

Gender: Male

Citizenship: Bangladeshi by birth

Marital status*:* Married

Correspondence Address*:*

Department of Civil Engineering
Faculty of Engineering
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Present Post & Date of Appointment*:* Professor, May 3, 2012

Education Background/ Academic qualification*:*

- BSc, Civil Engineering, Rajshahi University (Bangladesh), **FIRST CLASS**, 1986
- MSc, Civil Engineering, Universiti Kebangsaan Malaysia (UKM), by research, 1994
- PhD, Civil Engineering, Universiti Malaysia Sabah (UMS), by research, 2001

EXECUTIVE SUMMARY

Professor Mannan obtained BSc in Civil Engineering with First class in 1986, MSc in 1994 and PhD in 2001. He started his career as lecturer at Bangladesh Institute of Technology, Rajshahi (now RUET) in 1986. He served as design engineer in consulting firm in KL from 1994 to 1998 to design several structural and infrastructural projects including 25-storey Tower at A'Famosa Golf Resort, Melaka and RM60M infra project at BIMP, Pahang. He served as academician at Universiti Malaysia Sabah, UMS for 13 years (1999 to 2012). Now, he is at Universiti Malaysia Sarawak, UNIMAS since May 2012.

During his service at UMS, he along his colleagues has contributed to develop undergraduate course structures for 4 years and laboratory with sophisticated, modern and essential equipment. The laboratory is equipped with modern testing facilities such as 0.5 Ton capacity Shake Table, Horizontal testing machine, 500kN capacity Servo pulser, 1,000kN capacity Actuator, a strong floor of 15mX15m area, 5,000KN capacity Compression testing machine, 50m/sec wind blowing capacity Wind Tunnel etc. with computerised data acquisition system for testing and research in structural lab. He has also served for acquiring large no. of civil engineering books in UMS library. He along his colleagues at UMS is aware of OBE (outcome based education) since 2005 to meet Engineering Accreditation Council in Malaysia and also Malaysian Quality Assessment.

He has also devised some testing facilities through PhD research which are contributing in research and consultancy. He has obtained International grant from British Council, Malaysia to conduct joint research with University of Leeds, UK. He has also obtained grants from national, local and private sectors. He has attracted students from Nigeria, India, Bangladesh, Indonesia, and local. The research assistantships have been provided them to pursue in PhD and MSc studies under his supervision. He has also five patents (national and international) and has two commercialized products namely SIConSofa and C-channel as IBS products for the construction industry.

Since joining at UNIMAS his main focus is to develop commercially viable research products for the construction industry contributing to the sustainable green infrastructure. Now he is team leader of one ERGS grant project to develop 'Honeycomb precast pavement' to capture flash flood as cost effective to meet sustainable green infrastructure. His research focus is also to develop structural lightweight aggregate using solid wastes. He is also working on non-funded project to develop guidelines on 'Durability-based Concrete Performance using Local Ready-mixed Concrete'. **He has more than 100 publications and obtained h-index of 12, i10-index of 13 with citations of 579.**

Based on 27 years experience in teaching, consulting and research, his vision is to bring the department into international platform as excellence in research on Innovative Construction Materials and Structure.

Teaching conducted

Since joining on 3 May 2012 at UNIMAS, he has taught following courses from 1st year to Final year of Civil Engineering. Courses are as follows:

1. Structural Analysis, KNS2133
2. Civil Engineering Materials, KNS1042
3. Civil Engineering Lab-1, KNS1451
4. Reinforced Concrete Design, KNS3643
5. Structural Steel design, KNS3703
6. Theory of Structure, KNS2093
7. Final Year Project

Research conducted

He along his research colleagues has obtained about RM1.8M research grant from different organisations such as (1) MOSTI (IRPA & eScience), (2) MOHE (ERGS & FRGS), (3) CIDB, (4) UMS, (5) British Council Malaysia & University Leeds, UK, and (6) Osaka Gas.

Awards obtained

He has obtained 26 awards since 2002 until now. The awards are from International, National, UMS and MRSM Betong, Sarawak.

Other relevant matters

1. He has performed duty as organising secretary and editor of International Conference & Proceedings, Construction Technology conducted in 2001 and 2003.
2. He has organised seminar/workshop for several times.
3. He was Editor of SKTM Research Report (2003 and 2004 edition).
4. His researches are covered by Media locally and internationally (NewScientist, 2 February 2002).
5. He has performed duties National level as well as International level.

6. He has already presented three Keynote Papers at International platforms since 2008 and fourth keynote paper will be presented in April 2014, India
7. He is Editorial board member and reviewer for several International Journals.
8. He as External Examiner has examined four PhD Theses from India.

His research philosophy

1. Research is neither a gift nor a donation; it is an achievement through continuous hard work.
2. Developments of commercially viable research products and human resource through advance research
3. Developing network in harmony with academicians and professionals nationally and internationally through teaching, research and consultancy is to make everyone success for fulfilling the vision of university in this global platform.

Award received:

1. **Research Appreciation:** 'Gold in Project Olympiad does state proudB' published in Borneo post on 16 May 2013. List of awards as shown below (although, my name written wrongly here, Professor Mat Abdul Manan). Anyway, the MRSM, Betong, Sarawak, team has obtained the followings:
    a. **Gold medal** at Malaysia Technology Expo (MTE-2013), 21-23 February 2013, PWTC, Kula Lumpur, Malaysia
    b. **Special award from Jury** at MTE-2013, Malaysia
    c. **Gold medal at Geneva** (41st international exhibition of inventions, Geneva, Switzerland, 10-14 April 2013)
    d. **Gold medal at I-SWEEEP, Houston, Texas, US**, 8-13 May 2013

    i. The details are here: http://www.theborneopost.com/2013/05/16/gold-in-projectolympiad-does-state-proudb/

    ii. Again, Tan Sri Alfred Jabu, Deputy Chief Minister, Sarawak on 24 June 2013 in Majlis Penganugerahan dan Penghargaan appreciated my above research very much in presence of large people
2. **Commendable Service Award** for outstanding annual performance appraisal in year 2010, Universiti Malaysia Sabah, UMS, 24 June 2011
3. **Sijil Perkhidmatan Terpuji 2010** (Best Service Certificate 2010) award, Universiti Malaysia Sabah (UMS)
4. **Commendable Service Award** for excellent annual performance appraisal in year 2009, Universiti Malaysia Sabah, UMS, 30 June 2010
5. **Bronze medal** at PEREKA-2010, 5-6 April 2010, UMS for Blast effects on underground structures
6. **Research appreciation** with cash money, RM 900, Universiti Malaysia Sabah, 2010
7. **Sijil Perkhidmatan Terpuji 2009** (Best Service Certificate 2009) award, Universiti Malaysia Sabah (UMS)
8. **Bronze medal,** Seoul International Inventions Fair (SIIF-2009), 3-7 December 2009, COEX, World Trade Centre, Seoul, South Korea, Precast RC floor
9. **The CIDB Award for Best Invention in Building and Construction** for C-channel, 20th International Invention, Innovation and Technology Exhibition (ITEX-09), Kuala Lumpur Convention Centre, 15-17 May 2009, KL, Malaysia
10. **Gold Medal** award for C-channel, 20th International Invention, Innovation and Technology Exhibition (ITEX-09), Kuala Lumpur Convention Centre, 15-17 May 2009, KL, Malaysia

11. **Anugerah Pengiktirafan,** Research and Innovation, UMS, 2008 award
12. '**Sijil Perkhidmatan Terpuji 2008'** (Best Service Certificate 2008) award, Universiti Malaysia Sabah (UMS)
13. **Silver Medal** award for GreenStone aggregate using solid wastes, 18th International Invention, Innovation and Technology Exhibition (ITEX-07), Kuala Lumpur Convention Centre, 18-20 May 2007, Malaysia
14. **Gold Medal** award and cash money RM 500 for 'GreenStone Aggregate'-using solid wastes, Pertandingan Penyelidikan Rekacipta dan Inovasi- 2007, 20-21 April 2007, UMS. In this event, total awards made by jury were 1 gold medal, 5 silver medals and 18 bronze medals from 142 research findings as displayed.
15. **Sijil Perkhidmatan Terpuji 2006** (Best Service Certificate 2006) award, Universiti Malaysia Sabah (UMS)
16. **Sijil Perkhidmatan Cemerlang 2005** (Excellence Service Certificate 2005) award with cash money RM 1,000, Universiti Malaysia Sabah (UMS)
17. **Research appreciation** with cash money, RM 2,000, Universiti Malaysia Sabah, 2005
18. **Saintis Cemerlang 2005'** (Excellent Scientist 2005) award, Higher Education Ministry, Malaysia
19. **Bronze Medal** award, 33rd International Exhibition of Inventions, New Techniques and Products of Geneva, Switzerland, 6-10 April 2005, for modular 'OPS concrete blocks' using solid waste to be used as drain, retaining walls etc. as low cost and also as antimosquito drain system.
20. **Gold Medal** award, 32nd International Exhibition of Inventions, New Techniques and Products of Geneva, Switzerland, 31st March-4th April 2004, for 'OPS hollow block' using agricultural solid waste to be used in building wall as low cost product. **This gold medal is the first of it's kind for UMS after 10 years of existence.**
21. **Saintis Cemerlang 2004** (Excellent Scientist 2004) award, Higher Education Ministry, Malaysia
22. **Sijil Anugerah Kualiti 2003** (Quality Award Certificate 2003) award with cash money RM 5,000, Universiti Malaysia Sabah (UMS) for Rekacipta (Design): 'OPS hollow block made from agricultural solid waste'
23. **Sijil Anugerah Kualiti 2003** (Quality Award Certificate 2003) award, Universiti Malaysia Sabah (UMS) for Rekacipta Terbaik (Best Design): 'Low cost house using hollow block as load bearing wall'
24. **Sijil Perkhidmatan Cemerlang 2003** (Excellence Service Certificate 2003) award with cash money RM 1,000, Universiti Malaysia Sabah (UMS)
25. '**Sijil Perkhidmatan Terpuji 2002'** (Best Service Certificate 2002) award, Universiti Malaysia Sabah (UMS)
26. Marquis Who's Who award, USA under Science and Engineering (10th Anniversary Edition)
27. Jessore Education Board Scholarship, Bangladesh for four years in undergraduate study, 1982-1986.
28. Kushtia District Board Scholarship, Bangladesh for four years in undergraduate study, 1982-1986.
29. Khulna Divisional Board Scholarship, Bangladesh for five years in secondary school study, 1973-1978

Career Background (Date of appointment & position):

- 1986-1991, Lecturer, Department of Civil Engineering, Rajshahi University of Engineering and Technology (then BIT Rajshahi), Bangladesh
- 1994-1998, Engineer, AJP (a Civil Engineering Consulting Firm, KL), Malaysia

- 1999-2002, Lecturer, Civil Engineering Program, SKTM, Universiti Malaysia Sabah, UMS, Malaysia
- 2002-2012 (April), Associate Professor, Civil Engineering Program, SKTM, UMS, Malaysia
- 2012 (May) to date, Professor, Department of Civil Engineering, Faculty of Engineering, Universiti Malaysia Sarawak, UNIMAS, Sarawak, Malaysia

A. Teaching & Education:

A.1. List of courses taught previously & currently

Course	**Year**
1. Concrete Technology, KAxxx3 2. Reinforced Concrete Structure, KAxxx3 3. Highway Engineering, KAxxx3 4. Water & Waste Water Engineering, KAxxx2	1999-2000
1. Concrete Technology, KAxxx3 2. Reinforced Concrete Structure, KAxxx3 3. Civil Engineering Drawing, KAxxx2 4. Advance Reinforced Concrete Structure, KAxxx3 5. Estimating & Contracting, KAxxx2 6. Highway Engineering, KAxxx3	2000-2001
1. Civil Engineering Drawing, KAxxx2 2. Reinforced Concrete Structure, KAxxx3 3. Project Design, KAxxx2 4. Advance Reinforced Concrete Structure, KAxxx3 5. Construction Technology, KAxxx2	2001-2002
1. Civil Engineering Drawing, KAxxx2 2. Reinforced Concrete Structure, KAxxx3 3. Project Design, KAxxx2 4. Advance Reinforced Concrete Structure, KAxxx3 5. Construction Technology, KAxxx2	2002-2003
1. Civil Engineering Drawing, KAxxx2 2. Reinforced Concrete Structure, KAxxx3 3. Project Design, KAxxx2 4. Advance Reinforced Concrete Structure, KAxxx3 5. Estimating & Contracting, KAxxx2	2003-2004
1. Civil Engineering Drawing, KAxxx2 2. Reinforced Concrete Structure, KAxxx3 3. Project Design 4. Advance Reinforced Concrete Structure	2004-2005
1. Civil Engineering Drawing 2. Reinforced Concrete Structure 3. Project Design, KAxxx2 4. Advance Reinforced Concrete Structure, KAxxx3	2005-2006
1. Civil Engineering Drawing, KAxxx2 2. Reinforced Concrete Structure, KAxxx3 3. Project Design, KAxxx3 4. Advance Reinforced Concrete Structure, KAxxx3	2006-2007
5. Steel & Timber Design, KAxxx3	

1. Civil Engineering Drawing, KAxxx2 2. Reinforced Concrete Structure, KAxxx3 3. Project Design, KAxxx3 4. Advance Reinforced Concrete Structure, KAxxx3 5. Steel & Timber Design, KAxxx3	2007-2008
1. Civil Engineering Drawing, KAxxx2 2. Reinforced Concrete Structure, KAxxx3 3. Project Design, KAxxx3 4. Advance Reinforced Concrete Structure, KAxxx3	2008-2009
1. Civil Engineering Drawing, KAxxx2 2. Reinforced Concrete Structure, KAxxx3 3. Project Design, KAxxx3 4. Advance Reinforced Concrete Structure, KAxxx3	2009-2010
1. Reinforced Concrete Structure, KAxxx3 2. Advance Reinforced Concrete Structure, KAxxx3 Concrete 3. Technology, KAxxx3 4. Project Design, KAxxx3 5. Steel & Timber Design, KAxxx3	2010-2011
1. Advance Reinforced Concrete Structure, KAxxx3 [sem. 1] 2. Construction Technology, KA2xx2 [sem. 1] 3. Construction Technology, KA3xx2 [sem. 2] 4. Concrete Technology, KAxxx3 [sem. 1] 5. Project Design, KAxxx3 [sem. 2] 6. Structural Analysis, KNS2133, UNIMAS [sem 2] 7. Structural Analysis, KNS2133, UNIMAS [sem 3]	2011-2012
1. Civil Engineering Materials, KNS1042 [sem 1] 2. Civil Engineering Lab-1, KNS1451 [sem 1] 3. Structural Analysis, KNS2133 [sem 1] 4. Reinforced Concrete Design, KNS3643 [sem 1] 5. Structural Steel design, KNS3703 [sem 2] 6. Reinforced Concrete Design, KNS3643 [sem 2]	2012-2013
1. Civil Engineering Materials, KNS1042 [sem 1] 2. Theory of Structure, KNS 2093 [sem 1] 3. Structural Steel design, KNS3703 [sem 2] 4. Theory of Structure, KNS 2093 [sem 2]	2013-2014

A.2. List of teaching load by academic session

Semester	**Course code**	**Hour/semester**	**No. of student**
	UMS since 1 999		
	Session 19992000		
Concrete Technology	KAxxx3	Lecture + lab work	40+/per course (!)
Reinforced Concrete Structure	KAxxx3	Lecture+Tutorial	
Highway Engineering	KAxxx3	Lecture + Lab work	
Water & Waste Water Engineering	KAxxx2	Lecture+Tutorial	
	Session 20002001		

Concrete Technology	KAxxx3	Lecture + lab work	40+/per course
Reinforced Concrete Structure	KAxxx3	Lecture+Tutorial	(!)
Civil Engineering Drawing	KAxxx2	Lecture+Tutorial	
Advance Reinforced Concrete Structure	KAxxx3	Lecture+Tutorial	
Estimating & Contracting	KAxxx2	Lecture	
Highway Engineering	KAxxx3	Lecture + lab work	
Session 20012002			
Civil Engineering Drawing	KAxxx2	Lecture +Tutorial	60!
Reinforced Concrete Structure	KAxxx3	Lecture +Tutorial	60!
Project Design	KAxxx2	Lecture +Tutorial	40!
Advance Reinforced Concrete Structure	KAxxx3	Lecture +Tutorial	20!
Construction Technology	KAxxx2	Lecture +Tutorial	60!
Session 20022003			
Civil Engineering Drawing	KAxxx2	Lecture +Tutorial	60!
Reinforced Concrete Structure	KAxxx3	Lecture +Tutorial	60!
Project Design	KAxxx2	Lecture +Tutorial	50!
Advance Reinforced Concrete Structure	KAxxx3	Lecture +Tutorial	20!
Construction Technology	KAxxx2	Lecture +Tutorial	50!
Session 20032004			
Civil Engineering Drawing	KAxxx2	Lecture +Tutorial	60!
Reinforced Concrete Structure	KAxxx3	Lecture +Tutorial	60!
Project Design	KAxxx2	Lecture +Tutorial	50!
Advance Reinforced Concrete Structure	KAxxx3	Lecture +Tutorial	20!
Estimating & Contracting	KAxxx2	Lecture +Tutorial	60!
Session 20042005			
Civil Engineering Drawing	KAxxx2	Lecture +Tutorial	60!
Reinforced Concrete Structure	KAxxx3	Lecture +Tutorial	60!
Project Design	KAxxx2	Lecture +Tutorial	60!
Advance Reinforced Concrete Structure	KAxxx3	Lecture +Tutorial	20!
Session 20052006			
Civil Engineering Drawing	KAxxx2	Lecture +Tutorial	60!
Reinforced Concrete Structure	KAxxx3	Lecture +Tutorial	60!
Project Design	KAxxx3	Lecture +Tutorial	60!

Advance Reinforced Concrete Structure	KAxxx3	Lecture +Tutorial	20!
Session 20062007			
Civil Engineering Drawing	KAxxx2	Lecture +Tutorial	60!
Reinforced Concrete Structure	KAxxx3	Lecture +Tutorial	60!
Project Design	KAxxx3	Lecture +Tutorial	60!
Advance Reinforced Concrete Structure	KAxxx3	Lecture +Tutorial	20!
Steel & Timber Design	KAxxx3	Lecture + Tutorial	60!
Session 20072008			
Civil Engineering Drawing	KAxxx2	Lecture +Tutorial	60!
Reinforced Concrete Structure	KAxxx3	Lecture +Tutorial	60!
Project Design	KAxxx3	Lecture +Tutorial	60!
Advance Reinforced Concrete Structure	KAxxx3	Lecture +Tutorial	20!
Steel & Timber Design	KAxxx3	Lecture + Tutorial	60!
Session 20082009			
Civil Engineering Drawing	KAxxx2	Lecture +Tutorial	80+
Reinforced Concrete Structure	KAxxx3	Lecture +Tutorial	80+
Project Design	KAxxx3	Lecture +Tutorial	60+
Advance Reinforced Concrete Structure	KAxxx3	Lecture +Tutorial	20!
Session 20092010			
Civil Engineering Drawing	KAxxx2	Lecture +Tutorial	40+
Reinforced Concrete Structure	KAxxx3	Lecture +Tutorial	80+
Project Design	KAxxx3	Lecture +Tutorial	60+
Advance Reinforced Concrete Structure	KAxxx3	Lecture +Tutorial	20+
Session 20102011			
Reinforced Concrete Structure	KAxxx3	Lecture +Tutorial	73
Advance Reinforced Concrete Structure	KAxxx3	Lecture +Tutorial	37
Concrete Technology	KAxxx3	Lecture + Tutorial	80+
Project Design	KAxxx3	Lecture +Tutorial	75+
Steel & Timber Design	KAxxx3	Lecture + Tutorial	75+
Session 20112012			
Advance Reinforced Concrete Structure	KAxxx3	Lecture +Tutorial	13

Construction Technology, KA2xx2 [sem. 1]	KAxxx2	Lecture +Tutorial	52
Construction Technology, KA1xx2 [sem. 2]	KA1xx2	Lecture +Tutorial	50+
Concrete Technology	KAxxx3	Lecture + Tutorial	37+
Project Design,KAxxx3	KAxxx3	Lecture +Tutorial	75+
UNI MAS, Session 2011-2012			
Structural Analysis, KNS2133, UNIMAS [sem 2]	KNS2133	Lecture +Tutorial	128
Structural Analysis, UNIMAS [sem 3]	KNS2133	Lecture +Tutorial	1
Session 20122013			
Civil Engineering Materials [sem 1]	KNS1042	Lecture	126
Civil Engineering Lab-1 [sem 1]	KNS1451	Lab-1	95
Structural Analysis [sem 1]	KNS2133	Lecture +Tutorial	2
Reinforced Concrete Design [sem 1]	KNS3643	Lecture +Tutorial	150
Reinforced Concrete Design [sem 2]	KNS3643	Lecture +Tutorial	43
Structural Steel design, KNS3703 [sem 2]	KNS3703	Lecture +Tutorial	137
Session 2013-2014			
Civil Engineering Materials, [sem 1]	KNS1042	Lecture	110
Theory of Structure, [sem 1]	KNS2093	Lecture +Tutorial	143
Theory of Structure, [sem 2]	KNS2093	Lecture +Tutorial	19
Structural Steel design, KNS3703 [sem 2]	KNS3703	Lecture +Tutorial	88

A.3. Thesis/Dissertation/Final Year Project

A.3.1 Post-Graduate

Title & Level (Master or PhD)	**Student name**	**Year**	**Status**
PhD Thesis Title: Study on High performance concrete using sandstone aggregates [role: Main Supervisor]	Paramasivam Suresh Kumar	2006	PhD degree awarded at 8th UMS convocation
PhD Thesis Title: A study on structural lightweight concrete using oil palm shell (OPS) aggregate [Main Supervisor]	Delsye Teo Ching Lee	2007	PhD degree awarded at 9th UMS convocation
PhD Thesis Title: Studies on precast reinforced concrete floor panels using Oil Palm Shell aggregate [Main Supervisor]	Ng Chee Hiong	2010	PhD degree awarded at 12th UMS convocation

PhD Thesis Title: Investigations on precast reinforced concrete floor panels using normal weight concrete [Main Supervisor]	Doh Shu Ing	2012	PhD degree awarded at 14th UMS convocation in 2012
PhD Thesis Title: A Rational approach of the design for highway formations [Co-supervisor]	Elsa Eka Putri	2012	PhD degree awarded at 14th UMS convocation in 2012
PhD Thesis Title: Responses of underground pipes due to blast loads [Co-supervisor]	Akinola Olarewaju Johnson	2012	PhD degree to be awarded at 15th UMS convocation in 2013
PhD Thesis Title: Utilization of agro-industrial waste in normal strength self-compacting concrete [co-supervisor]	Brabha A/P Nagaratnam	-	Expected PhD thesis submission for exam. in 2013
PhD Thesis Title: Performance of LWA [main]	Lau Pei Ching	-	Started in Oct 2013
Masters Thesis title: Durability-based Concrete Performance using Local Ready-mixed Concrete [main]	Tan Ying Ying	-	Started in 2013
Masters Thesis title: pavement material investigation [main]	Lim Min Khiong	-	Started in 2013

A.3.2. Undergraduate

Title	**Student name**	**Year**	**Status**
Development of G50 SCC using carbon fibre to meet optimum mix, strength and durability	Abientykoster Anak Anyap hp:0146959573 abientykosteranyap@gmail.com	-	On going
Influence of curing on cover concrete properties	Intan Nurhafizah Fazriana bt Hamzani hp:014 6819042 intanhamzani@yahoo.com	-	On going
Structural lightweight aggregate using sewage sludge and oilpalm-boiler waste	Effie Jeffrey Linjungan hp: 019 8084885 effiejeffrey@gmail.com	-	On going
Structural performance of precast honeycomb pavement	Constontine Lee Lim Fah hp: 014 5612895 constontinelee@gmail.com	-	On going
Durability indicators of different concrete grades made by local ready-mixed companies	Nurul Amal Binti Yusuh hp: 012 8400002 amalyusuh@hotmail.com	-	On going

A study on non-structural precast wall components in a precast building	Eugene Sim Cheng Tat	2013	Completed
IBS Green Smart Building-a Conceptual Approach	Benny Tan Chin Chiu	2013	Completed
Durability performance of concrete using fine and coarse aggregates as used by readymixed companies in Kuching	Abg Ikhwan Abg Bussri	2013	On going
Effects of aggressive ammonium nitrate on durability properties of concrete	Wong Ling Lee	2012	Well done
Effects of aggressive chloride environment on durability properties of normal strength concrete	Idy	2012	Well done
Effects of aggressive chloride environment on durability properties of high performance concrete	Rachel	2012	Well done
Performance of grouting in aggressive chloride environment	Salleh	2012	Well done
Study on self compacting concrete using local materials	Yin Yin	2012	Well done
Study on Soil brick using different binding materials	Eric	2012	Well done
Use of non-structural precast wall components in precast building	Holly	2012	Done
Use of precast structure for marine environment	Look Kuan Chung	2012	Excellent work
A study on green cement using	Saw Chang Long	2011	Well done
solid waste			
Influence of hot water on engineering properties of cement paste, mortar and concrete	Lee Khong Loon	2011	Well done
Study on destructive and nondestructive properties of greenstone concrete	Tan Zeng Ji	2011	Well done
Study on drain system using precast concrete blocks	Frederick Chung Wei Siang	2011	Well done

Study on drying shrinkage properties of mortar used in precast C-channel connection	Tan Yeong Waye	2011	Well done
Study on flexural strength of greenstone concrete	Tan Jiunn Ket Frederick	2011	Well done
Study on impact load resistance of greenstone concrete	Tan Zeng Xiang	2011	Well done
A study on alkali silica reaction of greenstone aggregate	Lu Yi Yi	2010	Well done
FEM study on precast Cchannel made of lightweight concrete	Abdilahi Bashir Omer	2010	Well done
Effect of aggregate size on concrete properties	Neoh Choon Hooi	2010	Well done
Durability properties of greenstone concrete	Teoh How Meng	2010	Excellent work
Model study on precast C-channel under cyclic loading	Tan Kah Keat	2010	Excellent work
FEM study on precast C-channel made of normal weight concrete	Tee Yew Soon	2010	Excellent work
A study on Alkali silica reaction potential using local construction aggregates	Chong Chee Siang	2009	Excellent work, made one journal paper
Performance of prototype floor system using precast C-channels	Kew Mun Seng	2009	Well done
Performance of mortar made of greenstone fine aggregate	Chan Chee Teck	2009	Well done
Properties of LWC made of greenstone aggregate	Chong Kon Kin	2009	Well done
Analysis on precast RC Cchannel by FEM	Henry Chieng Chang Fu	2009	Well done
Model study on precast Cchannel made of LWC	Pau Kek Hung	2009	Well done
Use of bamboo as fiber in cement mortar	Wong Kiiung Sung	2008	Well done
Performance of roof tile made from agricultural solid waste	Yong Seng Fong	2008	Done
Performance of floor panel	Wong Siew Kueng	2008	Well done
made from solid waste			
Precast slab panel using normal weight concrete	Hamdan Bin Morsidi	2008	Well done

Influence of accelerated curing on concrete properties	Hew Sem Yee	2007	Well done
Low cost house using composite board-an approach	Lok Kam Thye	2006	Well done
Connection properties of reinforced precast concrete elements	Chen Khar Hau	2006	Done
Study on high performance concrete using different types of crushed stones	Khaw Choo Yeow	2006	Done
Gravity retaining wall using modular concrete blocks	Yong Lee San	2005	Excellent, Bronze medal, 33rd Geneva Exhibition
Performance observation of OPS as coarse aggregate under extreme conditions	Benjamin Chan Bui How	2005	Well done
Composite board made from agricultural solid waste	Reminius AK Anding	2005	Well done
Study on lightweight concrete using oil palm boiler clinker	Norris Leonarous	2005	Done
Use of rock powder as a potential construction material	Lee King Shen	2005	Well done
Durability studies on concrete with industrial waste	Tong Kin Yin	2005	Well done
Study on roofing tile using oil palm shell	Chin ten Yee	2005	Done
Study on engineering properties of HPC	Julius @ Jeremiah B Sidin	2005	Done
A low cost house using OPS hollow block as load bearing wall	Lim Chin Huei	2004	Well done
A study on mix design of concrete using copper tailing sand	Ing Choon Peng	2004	Well done
A study on Hollow block	Hau Wan Song	2002	Done
Dynamic analysis of tall building for earthquakes	Wong Ching Ching	2001	Done
Low-cost housing for lower income group	Melvin @ Francis Humoe	2001	Done
Use of quarry dust in HPC	Mohd Azwan Zakaria	2001	Well done
Effect of moisture content on strength of timber	Hesmiati bt Miring	2001	Done

Effect of different types of curing on mechanical properties of HPC	Ladjadamsik Landu	2000	Well done
A Study on slab culverts	Bong Kee Chong	2000	Done
Performance of superplasticizer on OPS concrete	Mohd Norazmey Bin Zainory	2000	Done
Multi-storey building analysis for seismic loads	Lau Boon San	2000	Well done
Performance of SP in quarry dust concrete	Chow Weng Leong	2000	Done
Utilisation of quarry dust as fine aggregate in concrete	Ng Kok Hong	2000	Well done
Multistorey frame analysis for wind	Ho Seng Kong	2000	Well done
Note: A partial list of FYP supervision is shown here as full list is not available on supervision since 1999. Usually 6 to 7 students were supervised in each session.			

A.4. Other Academic Contribution & Recognition
(ex: article referee, external/internal assessor, thesis examiner etc.)

Organising International Conferences:

1. 1st International Conference on Construction Technology, CONTEC-2001, 11-13 October 2001, Kota Kinabalu, Sabah, Malaysia
   - He served as main organising secretary & Editor of Proceedings on CONTEC-2001 (ISBN 983-2188-68-7)
2. 2nd International Conference on Construction Technology, CONTEC-2003, 13-15 October 2003, Kota Kinabalu, Sabah, Malaysia
   - He served as organising secretary & Editor of Proceedings on CONTEC2003 (ISBN 983-41310-0-3)

Organising Workshop/Seminar:

1. Seminar on Coastal, Port & Offshore Structures held at IEM Sabah, **19-20 October 1999** (as organising member and presentation of 2 papers)

2. Seminar on Disaster Mitigation held at SKTM, **5 October 2000** (as organising secretary)

3. Seminar conducted on Performance of concrete made from agricultural and industrial solid wastes and by-products, **15 September 2005**, SKTM (as organising secretary)

4. Workshop conducted on precast flooring system held on **12 Dec. 2007** in presence of professional bodies of CIDB, IEM Sabah, PAM Sabah, SUDC, SHAREDA, Manax corporation as awareness on new flooring system (as organising secretary)

5. Workshop conducted on precast flooring system held on **23 April 2008** in presence of professional bodies of CIDB, IEM Sabah, PAM Sabah, SUDC, SHAREDA, Manax corporation as awareness on new flooring system (as organising secretary)

6. Workshop conducted on precast flooring system held on **27 August 2008** in presence of professional bodies of CIDB, IEM Sabah, PAM Sabah, SUDC, SHAREDA, Manax corporation as awareness on new flooring system (as organising secretary)

7. Workshop conducted on precast flooring system held on **25 Feb. 2009** in presence of professional bodies of CIDB, IEM Sabah, PAM Sabah, SUDC, SHAREDA, Manax corporation as awareness on new flooring system (as organising secretary)

8. Workshop conducted on precast flooring system held on **5 May 2009** in presence of professional bodies of CIDB, IEM Sabah, PAM Sabah, SUDC, SHAREDA, Manax corporation as awareness on new flooring system (as organising secretary)

Editor of Research Report, SKTM, UMS, Malaysia He served as Editor of Research Report

1. Volume 1 (2003)
2. Volume 2 (2004)

News and articles published in daily newspapers and NewScientist:

As part of social responsibility, information on using OPS (oil palm shell) solid waste in concrete, ASR on present concrete structure in Sabah, High performance concrete, Anti-mosquito drain, Roof tile made from solid waste and its application etc. were made available in media (widely circulated daily newspapers & **NewScientist-** The World's No. 1 Science & Technology News Service):

1. The Daily Express, 2 April 2010, article title: UMS holds prospecting session to commercialise products
2. New Sabah Times, 2 April 2010, article title: Inventions to be marketed
3. The New Straits Times, NST, 12 January 2010, article title: Oil palm shell in concrete making, published through Ministry of Higher Education, Malaysia
4. The Berita Harian, 16 July 2009, Teknologi C-channel
5. The Borneo Post, 14 April 2009, UMS develops two new construction products
6. Utusan Borneo, 14 April 2009, UMS bangunakan dua produk untuk sector pembinaan
7. The Daily Express, 14 April 2009, Kadazandusun, UMS nokoponoodo duvo kavo produk
8. The Berita harian, 14 April, 2009, UMS Majukan 2 produk pembinaan
9. Berita Harian, 6 May 2006, Photo caption: Muhyiddin mendengar penerangan mengenai atap genting daripada Prof. Madya Dr. Md. Abdul Mannan sambil diperhatikan oleh naib canselor UMS, Prof Datuk Dr. Mohd Noh Dalimin
10. Daily Express, 5 May 2006, Article title: Sea Sand should not cause defects: UMS don
11. Daily Express, 5 May 2006, Article title: UMS comes up with unique high performance concrete
12. New Sabah Times, 6 April 2006, Article title: UMS Cipta satu lagi hasil penyelidikannya
13. New Sabah Times, 6 April 2006, Article title: Roof tile made from oil palm solid waste
14. Daily Express, 6 April 2006, Article title: Roof tile from oil palm solid waste
15. Utusan Borneo, 6 April 2006, Article title: UMS cipta genting atap buangan sawit
16. Harian Express, 6 April 2006, Article title: UMS cipta genting atap dari bahan buangan pepejal kelapa sawit
17. The Borneo Post, 6 April 2006, Article title: Another UMS Breakthrough: University makes roof tile from oil palm solid waste
18. New Straits Times, NST, 10 May 2005, article title: Answer to stagnant water problem
19. Daily Express, 5 April 2005, article title: Professor invents anti-mosquito drainage system
20. Chinese newspaper, 5 April 2005

21. Sarawak Tribune, 2 April 2005, article title: The house that Dr. Mannan builds from oil palm waste
22. New Sabah Times, 1 April 2005, article title: The house of Palm oil
23. Utusan Malaysia, 1 April 2005, article title: Tempurung sawit sumber alternatif bahan binan
24. Utusan Malaysia, 1 April 2005, article title: Pensyarah cipta sistem perparitan 'anti nyamuk'
25. New Straits Times, NST, 12 September 2004, article title: A Cheaper home sweet home
26. **NewScientist, 2 February 2002, Title: Waste nut want nut, say Malaysian builders**
27. Berita Harian, 9 June 2001, Title: UMS hasil jubin lantai daripada bahan kelapa sawit

National level duty:

1. **Served as Member of TechnoFund Technical Committee,** Ministry of Science, Technology and Innovation, MOSTI, Malaysia, 18 September to 9 October 2006, Kuala Lumpur, Malaysia
2. **Technical committee member** for CIRAIC-2009 International Conference, 3-5 November 2009, Organised by CIDB and others

International level duty:

1. S. Sai Ram**,** Department of Civil Engineering, Indian Institute of Technology Kharagpur, Kharagpur 721302, India, Guided this International student in internship program for 3 months at UMS in 2009.

2. Advisory committee, International Conference on Advances in Sustainability of Materials and Environment, ICASME-2014, 10-11 April 2014, Chunkankadai, Nagercoil, Kanyakumari, Tamil Nadu, India, http://icasme14.com/

3. 7th International Conference, CUTSE-2012, 6-7 November 2012, Curtin University, Sarawak campus. Served as international scientific committee

4. He served as review panel for International Conference on Applied Mechanics, Materials and Manufacturing (ICAMMM 2011) (http://www.icammm.org), 18-20 November 2011, Shenzhen, China

5. He served as review panel for International Conference on Civil Engineering, Architecture and Building Materials (CEABM 2011) (http://www.ceabm.org)., 18-20 June 2011, Haikou, China

6. He is associate member of **Sedky-Broadus Collaborative International**, **SBCI,** based in USA and Egypt, www.sedkybroadus.com for low cost housing with sustainable construction materials and techniques.

7. **He conducted Formal collaborative research with University of Leeds, UK through British Council, Malaysia**, Higher Education Link no. HEL 1205 [Housing for low-income families in East Malaysia], Duration: 3 years [2001/2002 to 2003/2004]

8. **He was Invited Speaker to University of Lome, Togo,** To deliver seminar on concrete technology and to give lift to the research team at Department of Civil Engineering, University of Lome, Togo, West Africa, 21-27 August 2005 [Ref.: Prof.

Nicoue L. Gayibor, **Vice Chancellor**, University of Lome, No. 213/UL/CP/2005, Date: 10 June 2005 and No. 333/UL/CP/2005, Date: 22 September 2005]

9. **He performed duty as Advisor to research proposal of TWAS grant** (the academy of sciences for the developing world), **Italy**, www.twas.org [TWAS Ref. no. 07-056 LDC/ENG/AF/AC, 9 March 2007], Strada Costiera 11, 34014 Trieste, Italy, Attn: Mrs. Maria Teresa Mahdavi of Executive Director's office

10. **He conducted Informal collaborative research with University of Lome, Togo** in solid waste utilisation in concrete and stretched sheets, and published three papers in journals and conference.

11. **He conducted Informal collaborative research with University of Ibadan, Nigeria** in Food grain silo and alternative materials for concrete.

12. **2nd International Civil Engineering Conference on Civil Engineering and Sustainable Development, CE-2008, Mombasa, Kenya, 23-26 September 2008.**
    He performed duty as:
    1. Advisory Board Member
    2. Keynote Speaker on topic 'Lightweight Building Floors using Precast Reinforced Concrete Panels'
    3. Technical Session Chairman
    4. Symposium paper presentation on area 'Reorientation of Civil Engineering Education and Training'

13. **He performed duty as Reviewer of research proposal for Science & Technology Research Fund, Higher Education Department, HED, Ministry of Education, MOE, Brunei Darussalam** [Ref. Dr. Haji Omar Haji Khalid, Director of HED, KPE/PTKK/HED/S/19.8, Date: 8 September 2008 & Dr. Teh Keng Watt, Email: kengwatt.teh@moe.edu.bn]

14. **Editorial board member and Reviewer for several International Journals**
    1. Journal of Civil Engineering Research and Practice, JCERP, Asia-Pacific Editor [Reference: Walter O Oyawa, Editor-in-Chief, E-mail: oyawa@jkuat.ac.ke, oyawaw@yahoo.com]

    2. Indian Journal of Engineering and Materials Sciences, IJEMS, Reviewer [Reference: RS Beniwal, Editor, E-mail: rsb@niscair.res.in]

    3. The Open Construction and Building Technology Journal, Reviewer, Bentham Science Publishers Ltd as Editorial Board Member, [Reference: Huma Ovais, Manager, E-mail: tocbtj@bentham.org]
    4. Canadian Journal of Civil Engineering, CJCE, Reviewer [Reference: D. Mavinic, Editor, E-mail: cjce@civil.ubc.ca]

    5. Malaysian Construction Research Journal, MCRJ, Editorial advisory board member [Reference: Chief Editor (Ir Dr. Zuhairi Abd Hamid) & MZM Zain, email: maria@cidb.gov.my]

    6. Journal of Environmental Management, an Elsevier publication, Reviewer [Reference: Alison L Gill, Editor, email: jem@sfo.com]

7. Scientific Research and Essays, Reviewer http://www.academicjournals.org/SRE, [Reference: Dr. M. Sivakumar, Associate Editor, email:sre@academicjournals.org]

8. KSCE Journal of Civil Engineering, Reviewer [Reference: Prof. Wonseok Chung, Associate Editor, email: wschung@khu.ac.kr]

9. Journal of Geology and Mining Research (JGMR), Reviewer [Reference: Prof. Prof. Ashraf M. T. Elewa, Editor, email: academic.jgmr@gmail.com]

10. Journal of Wood Material Science and Engineering, Reviewer [Reference: Prof. Sandberg, Co-editor, email: dick.sandberg@lnu.se]

11. Journal of Engineering Science and Technology, JESTEC, Reviewer [Reference: Dr. Abdulkareem Sh. Mahdi Al-Obaidi, http://jestec.taylors.edu.my]

12. Journal of Construction & Building Materials, Reviewer [Reference: Prof. Mike Forde, Editor-in-Chief, email: m.forde@ed.ac.uk]

13. Journal of Physical Science, Reviewer [Reference: Prof. Huisheng Peng, Editor, E-mail: ijps@academicjournals.org, http:// www.academicjournals.org/IJPS

14. Journal of Structural Engineering and Mechanics, Reviewer [Ref. Dr. ChangKoon Choi, Editor-in-chief, http://www.techno-press.org, email: technop4@chol.com]

15. Journal of Civil Engineering and Construction Technology, JCECT, Editorial board member, www.academicjournals.org/JCECT, [Ref: Umoera Emmanuel, email: jcect.journal@gmail.com]

16. Journal of Civil Engineering and Management, JCEM, Reviewer [Ref: Dr Antucheviciene, Editorial Office, email: jcem@vgtu.lt]

17. International Journal of Construction Engineering and Management, Editorial board member, duration: 1 year, starting 10 Dec. 2011 [Ref. Charles Duke, Editorial Department, International Journal of Construction Engineering and Management: http://journal.sapub.org/IJCEM Scientific & Academic Publishing (http://www.sapub.org/), USA, Email: journal.manager@sapub.org] Editorial Board Website: http://www.sapub.org/journal/editorialboard.aspx?JournalID=1105

18. International Journal of Geomechanics and Engineering, Reviewer, [Ref. Chang-Koon Choi, Ph. D., Editor-in-chief, Techno-Press journals, email: technop@chol.com; http://www.techno-press.org].

19. International Journal of Frontiers in Construction Engineering (FCE), http://www.academicpub.org/fce/, Editorial board member

20. International journal Composites Part B, Elsevier Editorial System at http://ees.elsevier.com/jcomb/. David Hui, Editor-in-Chief, Composites Part B, Reviewer

21. International Journal of Concrete Structures and Materials, IJCS, http://ijcs.edmgr.com/, (Haeng-Ki Lee, Paula Sonneveld - IJCS - <paula.sonneveld@springer.com), Reviewer

22. International Journal of Materials and Design [Ref: Kevin Edwards, Editor in Chief, jmad@elsevier.com], Reviewer

15. **He examined PhD Theses as External and Internal Examiner**

As External Examiner (Theses from India)

a) PhD Thesis, 2013, Evaluation of mechanical properties of high performance hybrid fibre reinforced concrete, SRM University Kattankulathur, Tamilnadu, India

b) PhD Thesis, 2011, Utilization of coconut shell as coarse aggregate in the development of lightweight concrete, SRM University, Kattankulathur, Tamilnadu, India

c) PhD Thesis, 2006: Experimental investigations on the behaviour of high strength concrete, Madurai Kamaraj University, India, 2006

d) PhD Thesis, 2005, Experimental investigation on the behaviour of high strength high performance concrete, Madurai Kamaraj University, India, 2005

As Internal Examiner

a) PhD Thesis, 2012, Thermal comfort in naturally ventilated residences in a hothumid tropical environment, Universiti Malaysia Sabah, UMS, Kota Kinabalu, Sabah, Malaysia

16. **Research Appreciation:**

 'Gold in Project Olympiad does state proudB' published in Borneo post on 16 May 2013. List of awards as shown below (although, my name written wrongly here, Professor Mat Abdul Manan). Anyway, the MRSM, Betong, Sarawak, team has obtained the followings:

a) **Gold medal** at Malaysia Technology Expo (MTE-2013), 21-23 February 2013, PWTC, Kula Lumpur, Malaysia

b) **Special award from Jury** at MTE-2013, Malaysia

c) **Gold medal at Geneva** (41st international exhibition of inventions, Geneva, Switzerland, 10-14 April 2013)

d) **Gold medal at I-SWEEEP, Houston, Texas, US**, 8-13 May 2013

The details are here: http://www.theborneopost.com/2013/05/16/gold-inproject-olympiad-does-state-proudb/

Again, Tan Sri Alfred Jabu, Deputy Chief Minister, Sarawak on 24 June 2013 in Majlis Penganugerahan dan Penghargaan appreciated my above research very much in presence of large people

- Universiti Teknikal Malaysia Melaka, UTeM, 20 April 2009, Remark:

'Congratulation…. Being Producing First Lightweight concrete from oil palm shell (OPS) in the World' [Ref. Datuk Assoc. Prod. Dr. Abu Bakar Bin Mohamad Diah, Deputy Vice Chancellor (Research and Innovation)

- American Journal Experts, www.journalexperts.com, 8 June 2006, subject: my paper as published in Building and Environment (2004) 39:441-448
- San Francisco Edit, USA, subject: Congratulation for my paper 'Concrete from an agricultural waste-oil palm shell (OPS)' in Building and environment journal, 1 March 2006, [Reference: Dr. Paul Kretchmer, email: kretchmer@sfedit.net]
- Sri Lanka, Industrial Technology Institute, subject: Request for a reprint of my paper, 'Quality improvement of oil palm shell (OPS) as coarse aggregate in lightweight concrete', date: 26 April 2006 [Reference Email: shirani@iti.lk]
- Ministry of Housing and Urban Development, Swaziland, subject: Impressed with my research product, 8 December 2005, [Reference: PD Nkambule, Acting Principal Secretary, Email: minhouse@realnet.co.sz]
- NewScientist The World's No. 1 Science & Technology News Service, 2 February 2002, Title: Waste nut want nut, say Malaysian builders

His research products were short-listed for Awards

- **MOSTI, Ministry of Science, Technology and Innovation, Malaysia, Anugerah Inovasi Penyelidikan Bersama Sektor Awam dan Swasta (AIPB) Award 2009**: His product was short-listed and presented to panel on 19 August 2009, Putrajaya, Product name: C-channel: panel lantai Pra Tuang Bertelulang Berkualiti Tinggi dengan Penjimatan Konkrit 35-48%

- **The Malaysian Construction Industry Excellence Award (MCIEA) 2009: R&D Project of the Year Award** ○ His project, C-channel: A sustainable Greenfloor for modern buildings' a shortlisted product presented to the panel on 15 September 2009 at CIDB, HQ, KL.

- **Construction Industry Development Board, CIDB**, Malaysia, 2008, Pembentangan Produk Inovasi Dalam Binaan- 'GreenStone Aggregate- using solid waste', a short listed product presented by him on 15 May 2008 at CIDB, HQ, KL

- **TWAS (the academy of sciences for the developing world) Award nomination-2006**
- UMS authority has submitted his nomination to TWAS (Third World Academy of Science) award committee, Italy (www.twas.org), 'Anti-mosquito drain to eliminate mosquito breeding'

- **The Malaysian Construction Industry Excellence Award (MCIEA) 2006: R&D Project of the Year Award**
- His product was short-listed and presented to panel on 15 September 2006: 'Sustainable construction products made from solid waste and by-product'

Invited speaker on Research commercialisation and research thoughts:

1. Speaker, Literature review for Final year Civil engineering project with 115 students, 7 Oct 2013, TMM, Faculty of Engineering, UNIMAS
2. Speaker, Workshop on Kursus Asas Mix proportion Konkrit, 8 July 2013, 8-4^{30}pm, Makmal Konkrit, Civil Eng. Lan, FK, with 21 participants

3. Speaker, Research thought and Methodology for Postgraduate students of Civil Engineering students, FENG, UNIMAS, 7 March 2013
4. Speaker, Literature review for Final year Civil engineering project with 110 students, 25 September 2012, Faculty of Engineering, UNIMAS
5. Research consultant, student research project for MARA Junior Science College (MJSC) Betong, Sarawak, for INTEL International Science and Engineering Fair (INTEL ISEF) 2013 competition, 8-12 September 2012 at FENG, UNIMAS (Note: They have obtained several gold medals in Malaysia, Switzerland and USA, 2013)
6. Speaker, Enhancing Service Life of RC Structures for Chloride Belt Area through Performance-based Concrete Specifications - A Guideline for Sarawak Construction Industry, 1st August 2012, Faculty of Engineering, UNIMAS
7. Speaker, Green Technology seminar of CIDB, Promenade hotel, KK, Sabah, Malaysia, 21 June 2012 on Precast RC slab using Oil Palm Shell (OPS)
8. Speaker, CIDB roadshow on Green Technology, Pullman Hotel, Kuching, Sarawak, Malaysia, 17 May 2012 on Precast RC slab using Oil Palm Shell (OPS)
9. Speaker, Colourcoil Industries S/B at UMS on 23 June 2011 on (a) C-channel, (b) SIConSofa, (c) Greenstone aggregate, (d) High density board and (e) UMS thermally comfort low cost house
10. Speaker, Sejati Konsult-Consulting Engineers, Block J, Lintas Square, KK, 5 May 2011 on (a) SIConSofa and (b) C-channel, Hijau Ganda S/B
11. Speaker, BIMP-EAGA EXPO-2011, Sabah Trade Centre, 13 March 2011 on (a) SIConSofa and (b) C-channel, UMS Link Holdings S/B
12. Speaker, LIMA Corporation S/B, PJ, Selangor, for KPJ Hospital project, Shah Alam, 21 February 2011 on C-channel
13. Speaker, TOMHER Industrial S/B on 2 September 2010 on C-channel as chaired by Deputy Vice Chancellor (R&I), UMS in presence of CREAM, CIDB, UMSLink and PPI
14. Speaker, '1st Commercialization Prospecting Session UMS' organized by UMSLink on 1 April 2010 on (a) C-channel, (b) SIConSofa, (c) Greenstone aggregate and (d) UMS thermally comfort low cost house
15. Speaker, FELDA Palm Industries S/B for 120 people, Malaysia 2 March 2010 at SKTM, UMS on (a) C-channel, (b) SIConSofa, (c) Greenstone aggregate, (d) High density board and (e) UMS thermally comfort low cost house
16. Speaker, JW Geotechnical Consultant, KK, Sabah, Malaysia, 29 January 2010, on (a) Cchannel, (b) SIConSofa and (c) Greenstone aggregate
17. Speaker, JKR (Public Works Department) Sabah, Malaysia 23 Nov 09 on (a) C-channel, (b) SIConSofa and (c) Greenstone aggregate
18. Speaker, EAG Consulting S/B, KL, Malaysia 28 October 2009 on (a) C-channel, (b) SIConSofa, (c) Greenstone aggregate and (d) High density board
19. Speaker, JPS (Drainage and Irrigation Department), KK, Sabah, Malaysia 23 Oct 09, (a) SIConSofa
20. Speaker, UMS authority, Sabah, Malaysia 11 September 2009 on (a) C-channel and (b) SIConSofa
21. Speaker, Architect Chan & Shariman, KK, Sabah, Malaysia for Sandakan Polytechnic, 21 August 2009 on (a) C-channel, (b) SIConSofa, (c) Greenstone aggregate and (d) High density board

    Speaker, 22. CIDB roadshow, Kuching, Sarawak, Malaysia, 18 August 2009 on C-channel

    Speaker, 23. Bina Puri (construction company), KK, Sabah, Malaysia for housing project, 17 July 2009 on (a) C-channel, (b) SIConSofa, (c) Greenstone aggregate and (d) High density board
24. Speaker, Saga Juta S/B (developer), KK, Sabah, Malaysia for 1 Sulaman project, 17 July 2009 on (a) C-channel, (2) SIConSofa, (3) Greenstone aggregate and (4) High density board

B. Research/Consultancy/Development

No.	Title	Research location	Status	Source
Res earch				
1	Affordable lifestyle house in Kuching measured through thermal comfort	UNIMAS	RM5900 Ongoing co-researcher 12months (January 2014December 2014)	
1	Performance of micro-detention pond using honeycomb structure for green pavement in housing area	UNIMAS	RM135,000 Ongoing Leader, 36 months (2013-2016)	ERGS
2	Chloride penetration and time to corrosion initiation of concrete produced from agricultural waste	UNIMAS	RM73,000 co-researcher, 36 months (2013-2016)	FRGS
3	An Investigation on Concrete Produced from PVA Treated Waste Oil Palm Shell (OPS) Aggregate	UNIMAS	RM6,000, Ongoing [co-researcher] 12 months (Dec 2012 to Dec 2013)	Osaka Gas Foundation in Cultural Exchange (OGFICE) Research Grant Scheme
4	Innovative Vibration Isolation Systems for Equipments & Structures	Curtin university, Sarawak	RM50,000 Ongoing [co-researcher] 36 months [2012 to 2015]	ERGS
5	Responses of underground structures due to blast loads, MOSTI grant no. 03-01-10SF0042	UMS	Grant of RM371,000, completed [co-leader] 18 months [Sep 2009 to Feb 2011]	MOSTI, eScience
6	A rational approach of the design for the highways formations,	UMS	Grant of RM71,000, ongoing [co-leader]	FRGS
	FRG174-TK-2008		39 months [Oct 2008 to Dec 2011]	
7	Studies on improved subbases and subgrades for highway design, FRG0074-TK-1/2006	UMS	Grant of RM40,000, Completed [co-leader] 24 months [April 2008 to March 2010]	FRGS
8	Alkali silica reaction (ASR) in concrete made with reactive aggregate, FRG0072-TK-1/2006	UMS	Grant of RM30,000, Completed [Leader] 24 months [April 2007 to April 2009]	FRGS

9	Semi-precast lightweight flooring slab using OPS, CIDB Project no. LPIPM: CREAM/UPP04-02-10-04-11	UMS	Grant of RM587,200, Completed [Leader] 42 months [Dec 2005 to May 2009]	CREAM, CIDB
10	Performance of concrete made from agricultural and industrial solid wastes and by-products, IRPA research grant no. 03-02-100033-EA0031	UMS	Grant of RM372,280, Completed [Leader] 39 months [Sep 2003 to Dec 2006]	MOSTI
11	Low cost house using OPS lightweight concrete, Grant no. B03-02-02-PR/007	UMS	Grant of RM62,650 Completed [Leader] 24 months [2002 to 2004]	UMS
12	Housing for low-income families in East Malaysia, Grant no. British council, Malaysia no. HEL 1205	UMS	Financed by UMS & British Council Malaysia, Completed [Leader] 36 months [2001/2002 to 2003/2004]	UMS, British Council & University of Leeds
13	Reinforced concrete slab made of OPS (Oil Palm Shell) concrete, Grant no. PP010/2000	UMS	Grant of RM13,000, Completed [Leader] 12 months [Sep 2000 to Sep 2001]	UMS
Con sultancy work under AJP consulting firm, KL (1994-1998), for Private & State developers				
1	Structural design of 3-story shop-lots for 180 units of eleven types at Mukim Kapar, Shah Alam, Selangor, Malaysia			
2	Residential building of a 25-story condominium at A'Famosa Golf in Malacca, Malaysia (Vertical Walls designed by me only)			
3	Ulu Yam Baru Housing Project in Selangor, Malaysia (Infrastructure designed by me only)			
4	Venice Hill Resort at Cheras, Kuala Lumpur, Malaysia (Infrastructure designed by me only)			
5	Light Industrial Factory at Ulu Yam Lama, Selangor, Malaysia (Infrastructure designed by me only)			
6	Structural design of a Factory which includes the 30m Portal Frames and 2-story office building at Nilai, Negeri Sembilan, Malaysia			
7	Bandar Indera Mahkota Project (BIMP), under PASDEC, Kuantan, Malaysia of 2,400 acres land comprising of township, housing, light industries and recreational facilities. The cost of project was **RM 60 million** for infrastructure facilities only. I designed this project except the structural design of water tanks. Works involved were Earthwork, Road & Drainage, Sewerage and Water supply. Earthwork: Before the development-taking place of BIMP project, the original ground level in this project was undulating with the contour from 4m to 45m. There were few existing roads,			

	Petronas Gas pipeline, High-grid power line, main water pipe line from Sungai Kuantan and lakes crossing the project. To obtain the required platform in fulfilling the flood level (as per JPS), adjustment with existing facilities and maintaining the slopes of proposed road and individual lots according to JKR, a large amount of earth was adjusted through cutting and filling. Silt traps were included in design. Drainage System: Designs included were different sizes of concrete main drains catering for 100-year rainfall, Box and Pipe culverts, road side drains and Detention Basins to comply JPS requirement. Roads: Carriageway width from 2 lanes to 4 lanes with up to 9.5% road gradients, Medians, Islands, Roundabouts, 3 & 4 arms Junctions with Traffic light facilities were included for the road reserves from 12m to 60m as per JKR requirement. Water Supply: The daily demand of water for this BIMP project was 9 million gallons, which was arranged by 7 RC circular Water Tanks of different capacities from 0.33 MG to 1 MG resting on ground and also as elevated form. There was a suction tank and a pump house at RL 20m to supply water to the 2 nos. tanks of 1 MG capacity each at RL 240m. Design included was also a main water line from WTP (Water Treatment Plant at Sungai Kuantan) to the Suction tank, supply mains to different delivery tanks and water reticulation system in this project. All types of valves, different types of pipes were also included. Sewerage System: The total PE (Population Equivalent) for this BIMP project in sewerage design was 52,000. Two STPs (Sewerage Treatment Plants), several intermediate pump houses were installed. Pumping mains for the sewerage were also included. A sewerage reticulation system of different pipe sizes (VCP, RCP pipes) was installed. Manholes up to 5-meter depth were constructed.
8	Extension of Impiana Resort, Cherating, Kuantan, Malaysia [Infrastructure designs comprising of earthwork, roads, drainage, water supply, sewerage reticulation and STP, structural design of elevated water tank and suction tank]
9	Treacher Development Project at Lot 28735, Tanjung Lumpur, Kuantan, Malaysia for mixed development Project [Infrastructure designs comprising of earthwork, roads, main drain with gate regulator, drainage system, detention basin, water supply, sewerage system including intermediate pumping system and STP (Sewerage Treatment Plant) for 24,000 PE, 2 nos. elevated water tanks and 1 suction tank (45,000 gallons each)
10	Pulau Redang, Terenggano, Malaysia [Infrastructure designs comprising of earthwork, roads, drainage, water supply and sewerage system]
11	Bukit Unggul Golf Course, Dengkil, Selangor, Malaysia [Infrastructure designs comprising of earthwork, roads, drainage, water supply, sewerage system including STP]
12	Pulau Langkawai Project, Kedah, Malaysia [Infrastructure designs comprising of earthwork, roads, drainage, water supply and sewerage system]
UMS	
13	Consultancy on Steel structure design for Helics S/B, KK, 2010
14	Consultancy for Building blocks improvement for Sistem Bata IBS S/B, KK, 2010

Dev elopment (Research products for construction industry)			
1	OPS hollow block as low cost building product		UMS
2	SIConSofa' a low cost IBS concrete product		UMS
3	Precast C-channel for building floors		CREAM & UMS
4	High density board		UMS
5	Greenstone lightweight aggregate		UMS
6	Rapid Chloride Penetrability Test (RCPT) devised for consultancy and lab work		UMS
7	Curvaturemeter devised for lab work		UMS
8	High performance concrete, G75		UMS
9	Structural lightweight concrete up to G38		UMS
10	**A Drain cum Retaining wall of 45m long and up to 2m high project using precast SIConSofa for UMS new Academic compound under Bina Puri Construction S/B, October 2010**		UMS
11	Proposed 100MW Combined Cycle Gas-fired Power Plant on Lots NT11066, NT11067, NT11069 and 023159864 at Kemanis, District of Papar, Sabah, Malaysia for SPR Energy (M) S/B, September to December 2013 [appointment as Specialist consultant on structural steel design verification]	Sabah	

C. Publication/Writings

C.1. Journal (author name(s), year, title, journal name, vol, page)

1. S.H. Ibrahim, A. Baharun, Md. Abdul Mannan, D.A. Abang Adenan, 2013, Importance of thermal comfort for library building in Kuching, Sarawak, International Journal of Energy and Environment, vol. 4, Issue 6, 2013, pp.1003-1012. Journal homepage: www.IJEE.IEEFoundation.org

2. L.L Wong, H Asrah, M.E Rahman, M.A Mannan, 2013, Effects of aggressive ammonium nitrate on durability properties of concrete using Sandstone and Granite aggregates, World Academy of Science, Engineering and Technology, 73, 2013, pp 1107-1111

3. S Imbin, S Dullah, H Asrah, P.S Kumar, M.E Rahman, M.A Mannan, 2013, Performance of concrete grout under aggressive chloride environment in Sabah, 2013, World Academy of Science, Engineering and Technology, 73, 2013, pp 1171-1175

4. C.H Ng, M.A Mannan, N.S.V.K Rao, 2013, Structural performance of precast floor panel using oil palm shell (OPS) solid waste, Journal of Infrastructure Systems, manuscript number ISENG-462,http://jrniseng.edmgr.com, under review

5. H.N Brabha, M.E Rahman, M.A Mannan, M Leblouba, A Faheem. 2013, Mechanical and durability properties of medium strength Self-Compacting Concrete with high-volume fly ash and blended aggregates, Cement and Concrete Composites, under review

6. H.N Brabha, M.E Rahman, M.A Mannan, 2012, A Study on Hardened State Properties of SCC using Fly Ash and Blended Fine Aggregate, Advanced Materials Research Vol. 587 (2012) pp 21-25, DOI: 10.4028/www.scientific.net/AMR.587.21
7. Elsa Eka Putri , N.S.V Kameswara Rao and M.A Mannan, 2012, Threshold Stress of the Soil Subgrade Evaluation for Highway Formations, World Academy of Science, Engineering and Technology 68, 2012

8. Elsa Eka Putri, N.S.V Kameswara Rao and M.A Mannan, 2012, Design of Highway Formations using Threshold Stress of the Subgrade Soil , International Journal of Geosciences (in press)

9. Elsa Eka Putri, N.S.V Kameswara Rao and M.A Mannan, 2012, Evaluation of Modulus of Elasticity and Modulus of Subgrade Reaction of Soils Using CBR Test, Journal of Civil Engineering Research 2012, 2(1): 34-40 DOI: 10.5923/j.jce.20120201.05

10. A.J Olarewaju, N.S.V Kameswara Rao and M.A Mannan, 2011, Simulation and Verification of Blast Load Duration for Studying the Response of Underground Horizontal and Vertical Pipes Using Finite Element, Electronic Journal of Geotechnical Engineering, EJGE, Vol. 16, Bund. G, pp 785-796.

11. A.J Olarewaju, N.S.V Kameswara Rao and M.A Mannan, 2011, Dimensionless response of underground pipes due to blast loads using finite Element Method, Electronic Journal of Geotechnical Engineering, EJGE, Vol. 16, Bund. E, pp 563-574.

12. Ng Chee Hiong, N.S.V Kameswara Rao and M.A Mannan, 2011, Precast C-channel floor for rural and estate housings, Malaysian Construction Research Journal, MCRJ, vol. 9, no. 2.

13. Chee Siang Chong, Hidayati Asrah, Paramasivam Suresh Kumar, Md. Abdul Mannan, 2011, Optimisation of concrete mix design using Sandstone reactive aggregate in Sabah, Malaysian Construction Research Journal, MCRJ, vol. 9, no. 2.

14. A.J Olarewaju, N.S.V Kameswara Rao and M.A Mannan, 2011, Behaviour of buried pipes due to internal explosion, Malaysian Construction Research Journal, MCRJ, vol. 9, no. 2.

15. A.J Olarewaju, N.S.V Kameswara Rao and M.A Mannan, 2011, Prediction of blast loads for simulating the response of underground pipes, American Journal of Environmental Science, AJES, under review.

16. Elsa Eka Putri, N.S.V Kameswara Rao, M.A Mannan, 2010, Evaluation of modulus of elasticity and resilient modulus for highway subgrades, Electronic Journal of Geotechnical Engineering, EJGE, Vol. 15, Bund. M, pp 1285-1293, ISSN 1089-3032

17. A.J Olarewaju, N.S.V Kameswara Rao and M.A Mannan, 2010, Guidelines for the design of buried pipes to resist effects of internal explosion, open trench and underground blasts, Electronic Journal of Geotechnical Engineering, EJGE, Vol. 15, Bund. J, pp 959971.

18. A.J Olarewaju, N.S.V Kameswara Rao and M.A Mannan, 2010, Response of underground pipes due to blast loads by simulation-an overview, Electronic Journal of Geotechnical Engineering, EJGE, Vol. 15, Bund. G, pp 831-852.

19. A.J Olarewaju, N.S.V Kameswara Rao and M.A Mannan, 2010, Blast effects on underground pipes, Electronic Journal of Geotechnical Engineering, EJGE, Vol. 15, Bund. F, pp 645-658.

20. P.S Kumar, M.A Mannan, V.J Kurian, 2010, Strength and durability of high performance concrete made from sandstone aggregates, Accepted to Arabian Journal of Science and Engineering, Ref. no. AJSE-ENG-D-09-00129R1

21. M.A Mannan, K Neglo, 2010, Mix design for oil-palm-boiler clinker (OPBC) concrete, Journal of Science and Technology, JUST, Ghana, Vol. 30, No. 1, April 2010.

22. H Hamza, H Asrah, P.S Kumar, M.A Mannan, 2009, Determination of potential alkali silica reactivity of aggregates from Sabah, Malaysia, Malaysian Construction Research Journal, MCRJ Vol. 5, No. 2, 2009.

23. D.C.L Teo, M.A Mannan, V.J Kurian, 2009, Durability of lightweight OPS concrete under different curing conditions, available online, Materials and Structures (RILEM), Reference no: DOI 10.1617/s11527-008-9466-7

24. M.A Mannan, N.S.V Kameswara Rao, Doh Shu Ing, C.H Ng, 2009, Lightweight building floors using precast reinforced concrete panels, International Journal of Civil Engineering Research and Practice, Vol. 6, No. 1, 2009

25. PS. Kumar, MA Mannan, VJ Kurian, 2008, High performance reinforced concrete beams made with sandstone reactive aggregates, international journal, 'The Open Civil Engineering Journal, 2, 15-24, Bentham Science Publishers Ltd.

26. P.S Kumar, M.A Mannan, V.J Kurian, 2007, Ductility of high performance concrete beams using sandstone aggregates, paper submitted to Malaysian Journal of Civil Engineering (MJCE)

27. P.S Kumar, M.A Mannan, V.J Kurian, H Achyutha, 2007, Investigation on the flexural behaviour of high performance reinforced concrete beams using sandstone aggregates, international journal, Building and Environment Vol. 42, pp 2622-2629

28. DCL Teo, M.A Mannan, V.J Kurian, C Ganapathy, 2007, Lightweight concrete made from oil palm shell (OPS): structural bond and durability properties, international journal, Building and Environment, Vol. 42, pp 2614-2621

29. K Neglo, M.A Mannan, 2006, Numerical analysis of the rates of displacements to prescribe constant proportional logarithmic strains in stretched sheets, International Journal of Civil Engineering Research and Practice, Vol. 3 No. 2, 2006, pp 15-26

30. D.C.L Teo, M.A Mannan, V.J Kurian, 2006, 'Flexural behaviour of reinforced lightweight concrete beams with oil palm shell (OPS), International journal, Advance Concrete Technology, ACT, Vol. 4, No. 3, 2006, pp 459-468

31. D.C.L Teo, M.A Mannan, V.J Kurian, 2006, 'Structural concrete using oil palm shell (OPS) as lightweight aggregate', Turkish Journal of Engineering and Environmental Sciences, Vol. 30, pp 251-257

32. M.A Mannan, J Alexander, C Ganapathy, DCL Teo, 2006, 'Quality improvement of Oil Palm Shell (OPS) as coarse aggregate in lightweight concrete, International journal Building and Environment, Vol. 41, Issue 9, Sep. 2006, pp 1239-1242

33. DCL Teo, MA Mannan, VJ Kurian, 2006, Influence of site curing on bond properties of reinforced lightweight concrete, available online, International Journal of Civil Engineering Research and Practice, Vol. 3, No. 1, 2006, pp 9-19

34. P.S Kumar, M.A Mannan, V.J Kurian, H Achyutha, 2005, Effect of crushed sandstone sand on the properties of high performance concrete, International Journal of Civil Engineering Research and Practice, Vol. 2, No. 2, 2005, pp 1-11

35. M.A Mannan, C Ganapathy, 2004, Concrete from an agricultural wastes-oil palm shell (OPS), International Journal of Building and Environment, Vol. 39, Issue 4, pp 441-448

36. M.A Mannan, C Ganapthy, 2004, Destructive and non-destructive properties of OPS (Oil Palm Shell) lightweight concrete, International Journal of Civil Engineering Research and Practice, Vol. 1, No. 2, pp 55-66

37. M.A Mannan, C Ganapathy, 2004, Concrete from an agricultural wastes-oil palm shell (OPS), International Journal of Building and Environment, Vol. 39. Fuel and Energy Abstracts, Vol. 45, Issue 5, September 2004, page 367

38. M.A Mannan, C Ganapathy, 2002, Engineering properties of concrete with OPS as aggregate, International Journal of Construction and Building Materials, Vol. 16, Issue 1, pp 29-34

39. M.A Mannan et al. 2002, Effect of curing conditions on the properties of OPS concrete, International Journal of Building and Environment, Vol. 37, Issue 11, pp 1167-1171

40. M.A Mannan, C Ganapathy, 2001, Mix design for oil palm shell concrete, International Journal of Cement and Concrete Research, Vol. 31, Issue 9, pp 1323-1325

41. M.A Mannan, C Ganapathy, 2001, Long-term strengths of concrete with oil palm shell as coarse aggregate, International Journal of Cement and Concrete Research, Vol. 31, Issue 9, pp 1319-1321

42. M.A Mannan et al. 1999, Concrete using waste oil palm shells as aggregate, International Journal of Cement and Concrete Research, Vol. 29, Issue 4, pp 619-622

C.2. Postconference/Proceeding

C.2.1 International conference (author name(s), year, title, proceeding title, pg)

1. M.A Mannan, 2014, IBS for housing using renewable green aggregate, Keynote paper, International Conference on Advances in Sustainability of Materials and Environment, ICASME-2014, 10-11 April 2014, Chunkankadai, Nagercoil, Kanyakumari, Tamil Nadu, India, http://icasme14.com/

2. M.A Mannan, 2013, Oil Palm Shell (OPS) Renewable Green Aggregate for Construction of Rural Housings, Keynote paper, International Civil and Infrastructural Engineering Conference, InCIEC-2013, 22-24 September 2013, Kuching, Sarawak, Malaysia.

3. M.A Mannan, 2012, Oil Palm Shell (OPS) Green Aggregate for Construction of Rural and Estate Housings, Keynote paper, 7th International conference CUTSE-2012, 6-7 November 2012, Miri, Sarawak, Malaysia.

4. S. Imbin, S. Dollah, H. Asrah, P.S Kumar, M.E Rahman and M.A Mannan, 2012, Performance of concrete grout under aggressive chloride environment in Sabah, 7th International conference CUTSE-2012, 6-7 November 2012, Miri, Sarawak, Malaysia.

5. L.L Wong, H. Asrah, M.E Rahman and M.A Mannan, 2012, Effects of aggressive ammonium nitrate on durability properties of concrete using sandstone and granite aggregates, 7th International conference CUTSE-2012, 6-7 November 2012, Miri, Sarawak, Malaysia.

6. L.Y Yin, H. Asrah, A.K Mirasa, Brabha H Nagaratnam and M.A Mannan, 2012, A study on self-copacting concrete using Sabah aggregates, 7th International conference CUTSE2012, 6-7 November 2012, Miri, Sarawak, Malaysia.

7. Brabha H Nagaratnam, M.E. Rahman, M.A Mannan, 2012, A study on hardened state properties of SCC using fly ash and blended fine aggregate, International conference on Civil Engineering and Architecture (ICCEA-2012), 3-4 August 2012, Hong Kong, http://www.iccea.org.

8. Ng Chee Hiong, M.A Mannan and N.S.V Kameswara Rao, 2012, Structural performance of precast panel using Oil Palm Shell (OPS) solid waste, Zaytoonah University International Engineering Conference on Design and Innovation in Infrastructure 2012, Amman, Jordan, 18-20 June 2012.

9. Doh Shu Ing, M.A Mannan and N.S.V Kameswara Rao, 2012, Flexural Behaviour of Precast Reinforced C-channels, Zaytoonah University International Engineering Conference on Design and Innovation in Infrastructure 2012, Amman, Jordan, 18-20 June 2012.

10. Brabha H Nagaratnam, A. Faheem, M.E. Rahman, M.A Mannan, 2011, Investigation on Workability of SCC Using Low Calcium Based Fly ash, Proceedings of the 3rd CUTSE International conference, Miri, Sarawak, Malaysia, 8-9 Nov. 2011.

11. M. E. Rahman, B. H. Nagaratnam, V. Pakrashi, A. S. Muntohar, D. Sujan, N. Chai, A. Faheem & M.A Mannan, 2011, A Preliminary Study on Self Compacting Concrete Using RHA, Proceedings of the 3rd CUTSE International conference, Miri, Sarawak, Malaysia, 8-9 Nov. 2011.

12. Elsa Eka Putri, N.S.V Kameswara Rao, M.A Mannan, 2011, Determination of the threshold stress of the subgrade soil for highway formations (plastic strain criteria), Proceedings of the 3rd CUTSE International conference, Miri, Sarawak, Malaysia, 8-9 Nov. 2011.

13. A.J Olarewaju, N.S.V Kameswara Rao and M.A Mannan, 2011, Blast effects on underground pipes using Finite Element Method, 12th International Conference on Quality in Research (QiR), Faculty of Engineering, University of Indonesia, Bali, Indonesia, 4-7 July 2011.

14. A.J Olarewaju, N.S.V Kameswara Rao and M.A Mannan, 2011, Response of underground pipes due to surface blast using Finite Element Method, International Soil Tillage Research Organisation, ISTRO, Proceedings Nigeria-symposium on Tillage for agricultural productivity and Environmental Sustainability, University of Ilrin, Ilorin, Nigeria, 21-23 February 2011, pp 241-251.

15. A.J Olarewaju, N.S.V Kameswara Rao and M.A Mannan, 2010, Design hints for buried pipes to resist effects of blast, Proceedings Indian Geotechnical Conference, IGC-2010, 16-18 December 2010, Mumbai, India, Organised by Indian Geotechnical Society Mumbai Chapter & Indian Institute of Technology Bombay, India.

16. A.J Olarewaju, N.S.V Kameswara Rao and M.A Mannan, 2010, Behaviour of buried pipes due to surface blast using finite element method, 2010 Universiti Brunei Darussalam 1st graduate science student research conference, 13-15 December 2010, UBD, Brunei Darussalam.

17. A.J Olarewaju, N.S.V Kameswara Rao and M.A Mannan, 2010, Response of underground pipes due to underground blasts, Proceedings International Agricultural Engineering Conference (IAEC), 2010, Shanghai, China, 18-20 Sep. 2010.

18. Elsa Eka Putri, N.S.V Kameswara Rao, M.A Mannan, 2010, Evaluation of threshold stress of subgrades for highway formation based on the unconfined cyclic triaxial test, 8th International Conference on Geotechnical and Transportation Engineering, 1-3 December 2010, Kota Kinabalu, Sabah, Malaysia.

19. A.J Olarewaju, N.S.V Kameswara Rao and M.A Mannan, 2010, Blast prediction and characteristics for simulating the response of underground structures, Proceedings 3rd International Conference on Southeast Asian natural Resources and Environmental Management (SANREM), KK, Sabah, Malaysia, 3-5 August 2010.

20. A.J Olarewaju, N.S.V Kameswara Rao and M.A Mannan, 2010, Response of underground pipes due to blast loads, Proceedings, 3rd International Earthquake Symposium, Bangladesh, 5-6 March 2010.

21. D.C.L. Teo**,** M.A. Mannan, V.J. Kurian, Production of Lightweight Concrete using Oil Palm Shell (OPS) Aggregates, Proceedings of the 4th International Conference on Construction Materials: Performance, Innovations and Structural Implications, 24-26 August 2009, Nagoya, Japan, pp. 661-666.

22. M.A Mannan, N.S.V Kameswara Rao, Doh Shu Ing, C.H Ng, 2008, Keynote paper on 'Lightweight building floors using precast reinforced concrete panels', Proceedings of the 2nd international Civil Engineering conference on Civil Engineering and sustainable development, 23-25 September 2008, Mombasa, Kenya, ISBN 9966-923-42-X.

23. D.C.L Teo, M.A Mannan, V.J Kurian, 2008, Durability properties of structural lightweight concrete made from Oil Palm Shell (OPS), Australian Structural Engineering Conference (ASEC), 26-27 June 2008, Melbourne, Australia, ISBN 978 1 877040 70 2.

24. C.H Ng, Z Ideris, S.P Narayanan, M.A Mannan, V.J Kurian, 2008, Behaviour of oil palm shell (OPS) hybrid concrete flooring slab under lifting and transporting load, 7th International Congress-Concrete: Construction's Sustainable Option, 8-10 July 2008, Dundee, Scotland.

25. C.H Ng, Z Ideris, S.P Narayanan, M.A Mannan, V.J Kurian, 2007, Flexural behaviour of oil palm shell (OPS) hybrid precast concrete flooring slab, World Engineering Congress 2007- Frontiers of Engineering: Global Challenges and Issues, 5-7 August 2007, Penang, Malaysia.

26. C.H Ng, Z Ideris, S.P Narayanan, M.A Mannan, V.J Kurian, 2007, Engineering properties of oil palm shell (OPS) hybrid concrete for lightweight precast floor slab, Conventry University and UWM Center for By-products Utilisation International Conference on Sustainable Construction materials and Technologies, 11-13 June 2007, UK.

27. C.H Ng, S.P Narayanan, M.A Mannan, V.J Kurian, 2007, Lightweight precast floor slab made of oil palm shell (OPS) hybrid concrete, Construction Industry Research Archievement International Conference, 13-14 March 2007, Kuala Lumpur, Malaysia.

28. P.S Kumar, M.A Mannan, V.J Kurian, H Achyutha, 2006, Ductility of high performance concrete beams using sandstone aggregates, 6th Asia Pacific Structural Engineering and Construction Conference, APSEC-2006, 5-6 September 2006, KL, Malaysia

29. D.C.L Teo, M.A Mannan, V.J Kurian, 2006, Structural behaviour of singly reinforced OPS beams, 6th Asia Pacific Structural Engineering and Construction Conference, APSEC-2006, 5-6 September 2006, KL, Malaysia

30. D.C.L Teo, M.A Mannan, V.J Kurian, I Zakaria, 2006, Flexural behaviour of lightweight OPS concrete beams, 9th International conference on concrete engineering and technology, CONCET-2006, 9-11 May 2006, Kuala Lumpur, Malaysia

31. P.S Kumar, M.A Mannan, V.J Kurian, H Achyutha, H Asrah, 2006, Flexural behaviour of high performance concrete beams using crushed sandstone sand as fine aggregate, 9th International conference on concrete engineering and technology, CONCET-2006, 9-11 May 2006, Kuala Lumpur, Malaysia, pp 300-309.

32. D.C.L Teo, M.A Mannan, V.J Kurian, 2006, Short-term investigation of bond strength on lightweight concrete using oil palm shell (OPS), Proceedings of 10th East Asia-Pacific Conference on Structural Engineering and Construction, 3-5 August 2006, Bangkok, Thailand.

33. P.S Kumar, M.A Mannan, V.J Kurian, 2006, Durability of high performance concrete using crushed sandstone sand as fine aggregate, Proceedings of 10th East Asia-Pacific Conference on Structural Engineering and Construction, 3-5 August 2006, Bangkok, Thailand.
34. M.A Mannan, A.E.B Daryl, C Ganapathy, V.J Kurian, H Achyutha, P.S Kumar and H Asrah, 2005, 'Behaviour of high strength concrete subjected to elevated temperature',

Proceedings international conference on advances in concrete composites and structures (ICACS-2005), Chennai, India, 6-8 January 2005

35. D.C.L Teo, M.A Mannan, V.J Kurian, 2005, Structural bond performance of lightweight concrete, Proceedings Conference on sustainable building in South East Asia, 11-13 April 2005, Kuala Lumpur, Malaysia

36. D.C.L Teo, M.A Mannan, V.J Kurian, 2005, 'Utilisation of solid waste oil palm shell (OPS) in concrete production', Proceedings of the International Conference on Natural Resources and Environmental Management, pp. 135-140, 28-30 Nov. 2005, Kuching, Sarawak, Malaysia

37. P.S Kumar, M.A Mannan, V.J Kurian, H Achyutha, 2005, Engineering properties of high performance concrete using crushed sandstone sand as fine aggregate, Proceedings of the International Conference on Natural Resources and Environmental Management, pp. 148-158, 28-30 Nov. 2005, Kuching, Sarawak, Malaysia

38. M.A Mannan, C Ganapthy, H Achyutha, V.J Kurian, H Asrah, I Zakaria & N Bolong, 2004, A study on high performance concrete using sandstone dust as fine aggregate, Proceedings of international conference on ICFRC, Chennai, India, 8-10 January 2004.

39. M.A Mannan, C Ganapathy & H Asrah, 2003, Performance of lightweight concrete made of OPS, Proceedings of the international civil engineering conference on sustainable development in the 21st century, Nairobi, Kenya, 12-16 Auguat 2003

40. H Asrah, L Gungat, M.A Mannan & C Ganapathy, 2003, A study on compressive strength of concrete made of OPS, Proceedings 2nd International conference on construction technology, CONTEC-2003, 13-15 October 2003, Kota Kinabalu, Sabah, Malaysia

41. M.A Mannan, M.A Zakaria & C Ganapathy, 2001, High performance concrete made with quarry dust and river sand as fine aggregate, Proceedings of International Construction Technology Conference, CONTEC-2001, Sabah, Malaysia, 11-13 October 2001

42. M.A Mannan & C Ganapathy, 2001, Behaviour of lightweight concrete in marine environment, Proceedings International Conference in Ocean Engineering-2001 (ICOE2001), Madras, India 11-14 December 2001

43. Chua Wyiteh, M.A Mannan & C Ganapathy, 2001, Bond strength of OPS concrete, Proceedings of International Construction Technology Conference, CONTEC-2001, Sabah, Malaysia, 11-13 October 2001

44. A Whyte, M.A Mannan & C Ganapathy, 2001, Towards a sustainable future for the construction industry in Sabah, Malaysia, Proceedings of International Construction Technology Conference, CONTEC-2001, Sabah, Malaysia, 11-13 October 2001

45. M.A Mannan, S.Y Ng & C Ganapathy, 2001, Engineering properties of OPS concrete with superplasticizer, Proceedings of International Construction Technology Conference, CONTEC-2001, Sabah, Malaysia, 11-13 October 2001

46. M.A Mannan et al., 1998, Reuse of waste oil palm shell for concrete infill in bonded/cemboard panels, Proceedings of the 4th International Symposium on waste management problems in Agro Industries. International Association for water quality (IAWQ), Istanbul, Turkey

C.2.2 National conference (author name(s), year, title, proceeding title, pg)

1. Elsa Eka Putri, N.S.V Kameswara Rao, M.A Mannan, 2009, Stabilisation of subgrade and subbbase with Oil palm Shell ash and Oil palm Shell aggregate, Proceedings of 2nd Seminar on Engineering and Information Technology, 8-9 July 2009, UMS, Malaysia

2. Elsa Eka Putri, N.S.V Kameswara Rao, M.A Mannan, 2009, Determination of modulus of elasticity, Resilient modulus from California bearing ratio test from unconfined cycle triaxial test, Proceedings of Seminar on Science and Technology, 18-19 December 2009, UMS, Malaysia

3. Elsa Eka Putri, N.S.V Kameswara Rao, M.A Mannan, 2008, Studies on improved subgrades for highway formation, Proceedings of the seminar on Science and Technology, 29-30 October 2008, Labuan, Malaysia ISBN 978-983-2641-30-8

4. P. Ramasamy, H. Asrah, M.A. Mannan, D.C.L. Teo, and K. Neglo, 2008, Performance of Oil Palm Shell (OPS) and OPS Concrete under Aggressive Conditions, Proceedings of EnCon2008, 2nd Engineering Conference on Sustainable Engineering Infrastructures Development & Management, December 18 -19, 2008, Kuching, Sarawak, Malaysia

5. Doh Shu Ing, M.A Mannan, N.V.S.Kameswara Rao, 2008, Comparative Performance of Different Precast Slabs, Proceedings of EnCon2008, 2nd Engineering Conference on Sustainable Engineering Infrastructures Development & Management, December 18 -19, 2008, Kuching, Sarawak, Malaysia

6. C.H. Ng, M.A. Mannan, and N.S.V. Kameswara Rao, 2008, Effect of Toppings on Reinforced Concrete Slab made of lightweight concrete, Proceedings of EnCon2008, 2nd Engineering Conference on Sustainable Engineering Infrastructures Development & Management, December 18 -19, 2008, Kuching, Sarawak, Malaysia

7. C.H Ng, V.J Kurian, S.P Narayanan, M.A Mannan, 2006, Mix design of precast concrete slab using oil palm shell (OPS) as coarse aggregate, 2nd South East Asian natural Resources and Environmental management Conference, 21-23 Nov. 2006, Kota Kinabalu, Sabah, Malaysia.

8. D.C.L. Teo, M.A. Mannan, V.J. Kurian, 2006, Waste oil palm shell (OPS) as renewable resource for structural concrete, Proceedings of the Conference on Natural Resources in the Tropics: Development and Commercialisation of Tropical Natural Resources, 6-8 June 2006, Kuching, Sarawak, Malaysia, pp. 295-299.

9. M.A Mannan & C Ganapathy, 2002, Use of OPS in concrete as aggregate, Seminar proceedings on 2002 National seminar on Palm oil miling, refining technology, quality and environment, held at Magellan Sutera Hotel, Kota Kinabalu, Sabah, organised by Malaysian Palm Oil Board, Ministry of Primary Industries, Malaysia, 19-20 August 2002

10. M.A Mannan, 2000, Performance of OPS concrete for low cost housing, Proceeding on conference on Engineering in Sarawak: In the last century and for the next decade, Sarawak, Malaysia, 16-17 May 2000

C.2.3 Internal conference (author name(s), year, title, proceeding title, pg)

1. D.C.L Teo, M.A Mannan, V.J Kurian, 2005, Flexural behaviour of reinforced lightweight concrete beams using OPS, Workshop on Performance of Concrete Made from Agricultural and Industrial Solid Wastes and By-products, 15 September 2005, Universiti Malaysia Sabah, Malaysia

2. D.C.L Teo, M.A Mannan, V.J Kurian, 2005, Bond properties of structural lightweight concrete using oil palm shell (OPS), Workshop on Performance of Concrete Made from Agricultural and Industrial Solid Wastes and By-products, 15 September 2005, Universiti Malaysia Sabah, Malaysia

3. P.S Kumar, M.A Mannan, V.J Kurian, H Achyutha, 2005, Mix design of high performance concrete (HPC) using sandstone, Workshop on Performance of Concrete Made from Agricultural and Industrial Solid Wastes and By-products, 15 September 2005, Universiti Malaysia Sabah, Malaysia

4. P.S Kumar, M.A Mannan, V.J Kurian, H Achyutha, 2005, Flexural behaviour of reinforced HPC beam, Workshop on Performance of Concrete Made from Agricultural and Industrial Solid Wastes and By-products, 15 September 2005, Universiti Malaysia Sabah, Malaysia

5. N.S Zaini, M.A Mannan, 2005, Use of oil palm boiler clinker (OPBC) as aggregate in lightweight concrete, Workshop on Performance of Concrete Made from Agricultural and Industrial Solid Wastes and By-products, 15 September 2005, Universiti Malaysia Sabah, Malaysia

6. M.A Mannan, 1999, Deterioration of concrete structures in the marine environment, Proceedings on workshop on coastal, port and offshore structures, 19-20 October 1999, Kota Kinabalu, Sabah, Malaysia

7. M.A Mannan, 1999, Concrete for marine environment, Proceedings on workshop on coastal, port and offshore structures, 19-20 October 1999, Kota Kinabalu, Sabah, Malaysia

C. 3. Article in research bulletin/antology/chapter in a book

- Deterioration of concrete structure in the marine environment & Concrete for marine environment, Proceedings workshop on coastal, port and offshore structures, Edited by Prof. C. Ganapathy, SKTM, UMS 2nd convocation ***[contents used for undergraduate teaching]***

- Olarewaju, A. J., Kameswara Rao, N.S.V and Mannan, M.A., 2011. **Chapter Title:** Response of Underground Pipes Due to Blast loads, **Book Title:** 'Earthquake Research and Analysis / Book 4', ISBN 979-953-307-680-4, In-Tech, Open Access Publisher, University Campus STeP Ri, Slavka Krautzeka 83/A 51000 Rijeka, Croatia, Europe, (Accepted).

- M. A. Mannan & I.M Ideris, 2013, Variations on water absorption, vpv and sorptivity properties at different concrete zones using ready mixed concrete, Feature article, Research Bulletin, Faculty of Engineering, UNIMAS, vol 6, December 2013, ISSN 19852894

C.4 Original book (author name, year, title, ISBN)

Nil

C.5 Translation/adaptation

Nil

C.6 Antology/editing/arrangement

- Editor of Proceedings on first International conference on construction technology, CONTEC-2001 (ISBN 983-2188-68-7), 11-13 Oct. 2001, Sabah
- Editor of Proceedings on second International Conference on Construction Technology, CONTEC-2003 (ISBN 983-41310-0-3), 13-15 October 2003, Sabah
- Editor of Research Report, Vol. 1 (2003), SKTM, UMS
- Editor of Research Report, Vol. 2 (2004), SKTM, UMS

C.7 Occasional paper or monograph

Nil

C.8 Abstract in journal or proceeding

- MA Mannan, C Ganapathy, 2004, Concrete from an agricultural wastes-oil palm shell (OPS), Fuel and Energy Abstracts, Vol. 45, Issue 5, September 2004, page 367

C. 9 Technical report

1. Technical reports made on Structural design of 3-story shop-lots for 180 units of eleven types at Mukim Kapar, Shah Alam, Selangor project for authority approval

2. Technical reports made on 25-story condominium at A'Famosa Golf in Malacca project for authority approval

3. Technical reports made on Ulu Yam Baru Housing Project in Selangor project for authority approval

4. Technical reports made on Venice Hill Resort at Cheras, Kuala Lumpur project for authority approval

5. Technical reports made on Light Industrial Factory at Ulu Yam Lama, Selangor project for authority approval

6. Technical reports made on 30m portal frame of a Factory at Nilai, Negeri Sembilan project for authority approval

7. Technical reports on (1) Earthworks, (2) Road and Drainage, (3) Sewerage system and (4) Water supply made on Bandar Indera Mahkota Project (BIMP), under PASDEC, Kuantan project for authority approval.

8. Technical reports made on Extension of Impiana Resort, Cherating, Kuantan project for authority approval

9. Technical reports made on Treacher Development Project at Lot 28735, Tanjung Lumpur, Kuantan for authority approval

10. Technical reports made on Pulau Redang, Terenggano project for authority approval

11. Technical reports made on Bukit Unggul Golf Course, Dengkil, Selangor project for authority approval

12. Technical reports made on Pulau Langkawai Project, Kedah for authority approval

13. Research final reports made as funded by UMS, MOSTI (IRPA), FRGS, CREAM (CIDB) and British Council, Malaysia

14. Conference final report made on International Conference CONTEC-2001, 2001

C.10 Manuscript

- Book Manuscript:
  A manuscript for a proposed book, 'Civil Engineering Drawings: Infrastructure and Structure' being prepared [for diploma, undergraduate and professional civil engineers], ***content used for Civil Engineering Drawing, KA10202***.

D. Seminar Participation

1. Thermal comfort, Roof drainage & supply chain for metal roofs in Sabah, 12 Dec. 2005, Le Meridien hotel, KK
2. Klinik Harta Intelek Oleh SIRIM (M) Berhad, 1 Dec. 2005, UMS
3. Seminar on intellectual property protection & commercialisation, 18-19 Aug. 2004, UMS
4. Safety aspect in handling of analytical chemicals and gases, 13 May 2003, UMS
5. Seminar Intellectual property systems: rights and enforcement, Pulau Pinang, 26-29 Aug. 2002
6. Seminar Harta Intelek Untuk Penyelidik, 24-27 Julai 2001, KK by INTAN
7. MDC-UMS: Research and development commercialisation forum, 23 Sep. 2005, UMS
8. [***attended more***]

E. Courses Attended

1. Code of Ethics for Academic Staff Courses, 27 July 2011, UMTP Auditorium, by Human Resource Development Sector, UMS
2. Industrialised Building System (IBS): hands-on Training Program, 19-21 January 2011, UiTM, KK campus, Sabah

3. Short course on Seismic base isolation design for buildings, 30-31 March 2010, KK by Malaysian Structural Steel Association
4. Penghargaan, for conducting JKR short course, 3-8 November 2003, UMS
5. Kursus rekabentuk konkrit pratuang, 19-21 Julai 2005, KK by CIDB
6. Bengkel Penyeliaan pascasiswazah Siri 1/2007: Providing quality postgraduate supervision, 25-26 April 2007, UMS
7. eScience fund workshop at Kudat, 10-11 Feb 2007, SKTM, UMS
8. [***attended more***]

F. Invention/Innovation

Patents

MyIPO Filing [Malaysia]:

(1) Title of Invention: SIConSofa and production thereof Request pending to authority for patent filing to MyIPO

Inventors: Md. Abdul Mannan and Yong Lee San

Ownership: Universiti Malaysia Sabah (UMS)

Note: Construction of a project on Drain cum retaining structure at UMS new Academic building compound using this SIConSofa under Bina Puri Construction S/B, 2010

(2) Title of Invention: A construction panel, production and composition thereof Filed to MyIPO, Patent application no. PI20093943, Application date: 23 September 2009

Inventors: Md. Abdul Mannan, NSV Kameswara Rao, Doh Shu Ing & Ng Chee Hiong

Ownership: UMS and CREAM (CIDB)

(3) Title of Invention: A Fibre-Granule Board and production thereof

Filed to MyIPO, Patent Application No.: PI 20082872, Application Date: 31 July 2008

Inventor: Md. Abdul Mannan

Ownership: Universiti Malaysia Sabah (UMS)

(4) Title of Invention: 'Greenstone lightweight aggregate', Filed to MyIPO (Perbadanan Harta Intelek Malaysia), Application no. PI20081403, Application date: 23 April 2008

Inventor: Md. Abdul Mannan

Ownership: Universiti Malaysia Sabah (UMS)

(5) Title of Invention: 'Construction material'

Filed to MyIPO, Application no. PI 20055126, Application date: 31 October 2005, Patent no. MY-141965-A

Inventors: Md. Abdul Mannan & C Ganapathy

Ownership: Universiti Malaysia Sabah (UMS)

International Patent Filing (PCT):

(6) International patent filing under PCT: A Fibre-Granule Board and production thereof International Patent Application no. PCT/MY2009/000106, Application date: 30 July 2009, World Intellectual Property Organisation (**WIPO**), Public Patent

Bulletin, publication no. WO/2010/013994, publication date: 04.02.2010
Inventor: Md. Abdul Mannan
Ownership: Universiti Malaysia Sabah (UMS)

G. Participation in association, Board, Committee member & related

1. Professional Membership: **Fellow**, The Institution of Engineers Bangladesh (IEB), no. F/9586
2. Professional Membership, **Associate Member,** no. AM-0031, Malaysian Structural Steel Association (MSSA)
3. Professional Membership: **Life Membership**, The Concrete Society of Malaysia (CSM), Malaysia
4. Advisory board member of 2nd International Civil Engineering Conference on Civil Engineering and Sustainable Development, CE-2008, Mombasa, Kenya, 23-26 September 2008
5. Technical Session Chairman of 2nd International Civil Engineering Conference on Civil Engineering and Sustainable Development, CE-2008, Mombasa, Kenya, 23-26 September 2008
6. Member of R&D committee, SKTM, UMS
7. Member of Students Affairs committee, SKTM, UMS
8. Member of Industrial Training committee, SKTM, UMS
9. Academic Advisor to students, SKTM, UMS
10. In-charge of structural lab & concrete lab, SKTM, UMS
11. Postgraduate examination board member (viva-voce) for MSc theses, UMS
12. Postgraduate internal examiner for MSc and PhD Theses examination, UMS
13. MSc thesis examiner-2012, FK, UNIMAS for student, Willie Chai Wei
14. Evaluator for best conference paper, International conference ENCON-2012, 1012 July 2012, Kuching, UNIMAS
15. International conference ENCON-2012 Session chairman, 10-12 July 2012, Kuching, UNIMAS
16. Committee Member, Postgraduate quality unit, Faculty of Engineering, UNIMAS, for 2 years [1 October 2012 to 30 September 2014]
17. Research Fellow, Centre of Excellence for Renewable Energy (CoERE), UNIMAS for 2 years [1 October 2012 to 30 September 2014]
18. Team Leader, AREA 2: Programme Design and Delivery for Masters and PhD programmes by research for Faculty of Engineering, UNIMAS as per Malaysian Qualifications Agency (MQA), 2012
19. Committee Member, Internal audit team for Masters and PhD programmes by research, Faculty of Engineering, UNIMAS, February 2013
20. Committee Member, Research Strategic Plan for 2013-2015, Faculty of Engineering, UNIMAS, 25 January 2013, Merdeka hotel, Kuching
21. PhD Viva session for student, Ms Joan Dolly Chung Zie Wei on 8 May 2013 at UNIMAS, role: Chairperson
22. Energy Efficiency Team, CoERE, UNIMAS for community service at Sekolah Kebangsaan Meranek, Jln Dato Mohd Musa, 94300 Kota Samarahan, 26 June 2013 for Program Kesedaran Penggunaan Tenaga Secara Berkesan
23. ENCON-2013, 1-4 July 2013: Review panel member
24. ENCON-2013, 1-4 July 2013: Technical session chairman

25. Faculty of Engineering Strategic Plan, 2013-2018, THRUST committee member, 5-7 July 2013, Damai Beach Resort, Kuching
26. Faculty of Engineering Strategic Plan, 2013-2018, THRUST Publication committee member, July 2013

H. Research Interest

Research field: **Innovative Construction Materials and Structural Engineering**