

Curriculum Vitae

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H01:10

1. Personal Record:

Name : Dr. Hamidi Abdul Aziz
Sex : Male
Date of Birth : 26 November 1965
Citizenship : Malaysian
Marital Status : Married
Number of Children : 3
Present Position : Associate Prof. in the Environmental Engineering Division
Field of Specialization : Environmental Impact Assessment (EIA), Environmental Management Plan (EMP), Environmental Engineering (water & wastewater treatment, solid waste management, air & noise pollution, industrial waste treatment)

2. Education Record

(College/Universities attended and Qualifications/Degrees obtained with dates):-

College/University	Qualification	Date
University of Strathclyde, UK	B.Eng. (Hons.) (Civil) - Second Class (Upper Division)	1988
University of Strathclyde, UK	M.Sc. (Public Health & Environmental Control Eng.)	1989
University of Strathclyde, UK	Ph.D. (Environmental Engineering)	1992

3. Working Experience (Details of all previous positions and current position held with dates):

1) Lecturer in Environmental Engineering at the School of Civil Engineering, USM in the following subjects:	1992 to date
a) Undergraduate Full Time	
Introduction to environmental science (EAH112) - 3 (2.5) credits and 70 students	1992 to date
Public Health Engineering I (EAH311) - 3 (1.5) credits and 70 students	1992 to 1996
Public Health Engineering II (EAH411) - 3 (1.5) credits and 20 students	1992 to 1997
Advanced Public Health Engineering (EAH414) - 4 (2) credits and 20 students	1993 to 1998
Environmental Studies (EAH412) - 4 (1) credits and 20 students	1993 to 1999
Pollution and Environmental Conservation (EAH413) - 4 (2) credits and 20 students	1993 to 1999
Environmental Engineering II (EAP311) - 3 (1.5) credits and 150 students	1994 to 1999
Advanced Environmental Engineering (EAP312) - 4 (2.5) credits and 20 students	1999 to date
Building Services Engineering (EAA471) - 3 (1) credits and 60 students	1999 to date
Final Year Project (EAA491) - 9 (9) credits and 29 students as First Supervisor and 20 students as Second Supervisor	1994 to 1998
Practical Training - 3 weeks @ 8 hours/week and 20 students	1993 to date
b) Undergraduate Distance Learning	
Introduction to environmental science (JAH112) - 3 (2.5) credits and 15 students	1994 to 1997
Public Health Engineering I (JAH311) - 3 (1.5) credits and 60 students	1998 to date
Advanced Public Health Engineering (JAH411) - 4 (2) credits and 10 students	1994 to date
Environmental Studies (JAH412) - 4 (1) credits and 10 students	1994 to date
Pollution and Environmental Conservation (JAH413) - 4 (2) credits and 10 students	1994 to date
Environmental Engineering II (JAP411) - 3 (1.5) credits and 70 students	1999 to date
Building Services (JAA471) - 3 (1) credits and 50 students	1995 to 1998
Final Year Project (JAA491) - 9 (9) credits and 9 students as First Supervisor and 5 students as Second Supervisor	1996 to date

12.	Record of Public Service with dates:- <u>Activity</u>	<u>Date</u> 1993-1994
	1. Committee Member (USM Representative) for the development of National Environmental Glossary, Dewan Bahasa & Pustaka Malaysia, Ministry of Education	1995 to date
	2. Committee Member for the accreditation of certificate for sewage treatment plant operators, Sewage Services Department, Ministry of Housing & Local Government	Registered on 21/11/96
	3. Registered Member, Environmental Professional Register of Malaysia, (EPRM), Membership No. 014	1997 to date
	4. Graduate Member, Institution of Engineers Malaysia (IEM)	1994 to date
	5. Member, Environmental Research Association of Malaysia (ENSEARCH)	1989 to date
	6. Member, International Association of Water Quality (IAWQ)	
	7. Invited speaker to FIVE (5) Technical talk live on air at Radio 3 Ipoh	11/3/94 (8.00-9.00 am)
	• Pollution and solid waste problem	17/4/94 (8.00-9.00 am)
	• Water pollution	23/8/94 (5.10-6.00 pm)
	• What is Science & Technology (Science & Technology Quiz)	5/7/95 (5.10-6.00 pm)
	• Sewage	5/9/96 (5.10-6.00 pm)
	• Water and Pollution problem (Science & Technology Quiz)	26/7/98 (9.30-10.00 pm)
	• Environmental Management System (EMS/ISO14000)	1995
	8. Technical advice to Seberang Perai Municipal to use limestone filter for treating leachate at Ampang Jajar site.	26/5/95
	9. Prepared 15 quiz questions for Science and Technology awareness programme for Perak State.	24/8/97, 8.30-9.30 pm
	10. Selected as one of the 4 panels in Talk Show Programme 'GLOBAL TV2', Radio & Television Malaysia discussing environmental aspects within the topic on Land Reclamation and Rehabilitation.	12/8/97
	11. Invited speaker during the Workshop on Environment and Natural Resources Database organised by the Institute of Strategic and International Studies (ISIS) Malaysia and United Nations Development Programme (UNDP).	28/9-11/10/97
	12. Selected scientists to visit Kyoto University Japan under JSPS/VCC Exchange Programme	13-14 July 1999.
	13. Organising Committee Member, 'Enviro Malaysia '99 Conference', organised by Environmental Research Association of Malaysia, ENSEARCH	19-23 March, 2000
	14. Organising Committee Member, 'Pollution in the Metropolitan Environment Conference, World Conference, POLMET 2000', organised by Environmental Research Association of Malaysia, ENSEARCH	1998 to date
	15. Committee Member (USM Representative) for the development of MABBIM Civil Engineering Glossary, Dewan Bahasa & Pustaka Malaysia, Ministry of Education	

Last updated 20 April 2000

5. List of Research Projects Completed and in Progress with dates:-

(i) Completed:

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|-----|-------|------------------|--|
| (a) | (i) | Title | Computer database for solid waste disposal in Malaysian towns |
| | (ii) | Main Researcher: | Dr. Hamidi Abdul Aziz (Head), Dr. Dini Ramya Hasan Basri (USM), Prof. M.B. Pescod, et.al. (UNUT) |
| | (iii) | Started: | October 1992 |
| | (iv) | Completed: | March 1997 |
| | (v) | Sponsor: | ODA |
| (b) | (i) | Title | Collection and analyses of solid waste disposal for 9 major towns in Malaysia: Towards a better management |
| | (ii) | Main Researcher: | Dr. Hamidi Abdul Aziz (Head), Dr. Dini Ramya Hasan Basri |
| | (iii) | Started: | 1/11/93 |
| | (iv) | Completed: | 31/5/96 |
| | (v) | Sponsor: | USM Short Term Grant (RM12,445) |
| (c) | (i) | Title | Study on leachate and landfill gas production at Ampang Jajar landfill site in Penang |
| | (ii) | Main Researcher: | Dr. Dini Ramya Hasan Basri (Head), Dr. Hamidi Abdul Aziz |
| | (iii) | Started: | January 1995 |
| | (iv) | Completed: | Desember 1996 |
| | (v) | Sponsor: | USM Short Term Grant (RM17,820) |
| (d) | (i) | Title | Removal of heavy metals (Hg, Pb, Zn, Cu, Ni, Cd dan Cr (III) from industrial wastewater using low cost filtration method in the laboratory |
| | (ii) | Main Researcher: | Dr. Hamidi Abdul Aziz (Head), Dr. Dini Ramya Hasan Basri, Dr. Faridah A.H. Asaari |
| | (iii) | Started: | 1/10/96 |
| | (iv) | Completed: | 31/3/98 |
| | (v) | Sponsor: | IRPA Short Term Grant (RM18,180) |
| (e) | (i) | Title | Study on the use of natural starch as coagulant aid in water and wastewater treatment |
| | (ii) | Main Researcher: | Dr. Hamidi Abdul Aziz (Head), Dr. Ir. Mohd. Nordin Adlan, Dr. Abdul Manan Dos Mohamad |
| | (iii) | Started: | 1/12/1998 |
| | (iv) | Completed: | 30/11/2000 |
| | (v) | Sponsor: | IRPA Short Term Grant (RM14,671) |

• International Students Exchange (Member)	1995-1996
• Laboratory Developments (Member)	1995-1997
• Library/Resource Room (Member)	1995-1997
• Curriculum development SPU and SPTT/SPLT	1995-1996
• Safety	1997-date
10. School representative to School of Chemical Engineering Board	1994-1997
11. School representative to M.Sc in Environmental Management programme, USM Penang	1993-1994
12. School representative to M.Sc in Environmental Engineering, USM Perak Branch	1996
13. Representing School of Civil Engineering to inter-departmental sport tournament (rep in badminton and table tennis)	1996
14. Representing staff of the School of Civil Engineering to School League in football match	1996
15. Champion in the badminton (single), squash (single) and runner-up in the badminton (doubles) in the School of Civil Engineering's tournament	1998
16. Laboratory Developments:	
• In the process of accrediting the lab under SIRIM	1997 to date
• Equipped with apparatus to test all water quality parameter listed by the Department of Environment	1995 to date
• Helping in the development of filtration plant for treating lab waste to comply with Department of Environment Standard.	1995
• Development of Green Column	1996
• Systematic arrangements of laboratory equipment	1996
• Development of maintaining scheduling for technicians.	1996
• Supervised experiments for undergraduate course on different parameters of water and wastewater such as BOD, COD, DO, Solids, N, P, Oil & Grease, Sulphate, Chloride, etc., and an advance parameters such as metals using Atomic Absorption Spectrometry and XRD.	1992-1996
• Conducted a few industrial wastewater testing sent by various industries.	1992 to date
• Jointly in charge for the maintenance of the environmental engineering laboratory equipment	1992 to date
• Evaluating tender document and supervising the commissioning process for purchasing of the environmental engineering laboratory equipment under RM6.	1990-1994
• Writing specifications, evaluating tender documents and supervising the commissioning process for purchasing of the environmental engineering laboratory equipment under RM7.	1995-1999
• Writing specifications and evaluating tender documents for purchasing of the environmental engineering laboratory equipment for USM new campus in Transkorian.	1997-1998
• Jointly in charge of the layout and internal design of the environmental engineering laboratory for USM new campus in Transkorian.	1997-1998
• Writing specifications, evaluating tender documents and supervising the commissioning process for purchasing of the environmental engineering laboratory equipment for Programme Jarak Jauh USM.	1995-1998
• Writing specifications, evaluating tender documents and supervising the commissioning process for purchasing of the environmental engineering laboratory equipment for M.Sc. in environmental Engineering USM.	1997-1998
17. Prepare the exam questions for technicians for their promotion.	1993-1996
18. Developed the Reference Manual for subjects under Environmental Engineering Programme for students	1996
19. Representing USM in the Road Show to promote USM at various Schools in Johor	1994
20. Outside Grants applied (with regret):	
• Malaysia Toray Scientific Foundation (MTSF) in industrial waste treatment (RM60,000)	1994
• Malaysia Toray Scientific Foundation (MTSF) in industrial waste	1995

- Hamidi A. Aziz, Dini R.H. Basri, Faridah A.H. Ashaari and Mohamad F. Abdullah (1997), 'Survey on the dustbin used in selected area in Alor Setar and Ipoh municipalities', *Journal Environmental Research Association of Malaysia (ENSEARCH)*, 10 (3/4): 203-207.
- Hamidi A. Aziz and Madura Mohd. (1998), 'Potential use of low cost filtration technique for removing selected heavy metals from wastewater at pH less than 5', *Indian Journal of Engineering and Material Sciences*, Vol 5, Aug., pp 194-201.
- Hamidi Abdul Aziz (1998), 'Wastewater disposal' (In Malay), *Encyclopaedia Science and Technology*, Dewan Bahasa dan Pustaka, (In publication).
- Hamidi Abdul Aziz (1998), 'Clinical Waste Disposal' (In Malay), *Encyclopaedia Science and Technology*, Dewan Bahasa dan Pustaka, (In publication).
- Hamidi Abdul Aziz (1998), 'Imhoff Tank' (In Malay), *Encyclopaedia Science and Technology*, Dewan Bahasa dan Pustaka, (In publication).
- Hamidi Abdul Aziz (1998), 'Environmental Auditing' (In Malay), *Encyclopaedia Science and Technology*, Dewan Bahasa dan Pustaka (In publication).
- Hamidi Abdul Aziz (1998), 'Wastewater treatment' (In Malay), *Encyclopaedia Science and Technology*, Dewan Bahasa dan Pustaka, (In publication).
- Hamidi Abdul Aziz (1998), 'Environmental Quality Index' (In Malay), *Encyclopaedia Science and Technology*, Dewan Bahasa dan Pustaka, (In publication).
- Hamidi Abdul Aziz and Mohd Koffly (1998), 'The use of sago starch as coagulant aid in water and wastewater treatment', *Bulletin Institution of Engineers Perak*, pp27-31.
- Aziz, H.A. (1998), 'Handling and disposal of industrial sludges', *The Malaysian Technologist*, Vol. 2, pp26-33.
- Hamidi Abdul Aziz and Norazlin Othman (1999), 'A Review of heavy metal pollution and potential removal techniques', *Annual Bulletin, Institution of Engineers Perak*, pp34-39.
- Norazli Othman and Hamidi Abdul Aziz (1999), 'The Influence Of Flowrates and Particle Size in the Removal of Copper from Water Using Limestone Filtration Technique-Laboratory Scale', *Proceedings International Conference of Recent Advances in Materials and Mineral Resources, RAMM 2*, Penang Park Royal Penang, 3-5 May.
- Norazli Othman and Hamidi Abdul Aziz (1999), 'The Influence Of Retention Time And Surface Loading Rate In The Removal Of Zinc And Chromium From Water Using Limestone Filtration Technique-Laboratory Scale', *Background Paper, Proceedings Environment Malaysia Conference, Mines Conference Centre, Kuala Lumpur*, 13-14 July.
- Hamidi Abdul Aziz, Sujatha Raghavan, Mohd. Koffly Mohd. Isa and Mohd. Harmizi Abdullah (1999), 'Influence of pH in the removal of turbidity from drinking water using natural resource coagulant and coagulant aid', *Background Paper, Proceedings Environment Malaysia Conference, Mines Conference Centre, Kuala Lumpur*, 13-14 July.
- Norazli Othman, Hamidi A. Aziz, Dini R.H. Basri, Faridah A.H. Assari (1999), 'Removal Of Lead From Water Using Limestone Filtration Technique-Laboratory Scale', *Malaysian Technologist*, Vol 2/99, pp36-39.
- H. A. Aziz, N. Othman, M.S. Yusuff, D.R.H. Basri and F.A.H. Asaari (2000), 'Initial Study On The Mechanism Of Copper Removal From Water Using Limestone Filtration Technique', *Proceedings Third International Conference on Environmental Chemistry and Geochemistry in the Tropics-GEOTROP '99*, Nov 24-27, Hongkong Baptist University.
- Norazli Othman, H.A. Aziz, D.R.H. Basri and F.A.H. Ashaari (1999), 'The Influence Of Retention Time And Surface Loading Rate In The Removal Of Copper, Zinc And Chromium From Water Using Limestone Filtration Technique-Laboratory Scale', *Proceedings, World Filtration Congress 8*, Brighton, UK, 4-7 April 2000, Vol. 2, pp359-362, Elsevier Science.
- Hamidi Abdul Aziz, Sujatha Raghavan, Mohd. Koffly Mohd. Isa and Mohd. Harmizi Abdullah (2000), 'Cationic Natural Coagulant Aid for Heavy Metals and Turbidity Removal in Water at pH 7.5 and Alum Concentration 25 mg/L-Laboratory Study', paper accepted for publication in *Indian Journal of Engineering and Materials Science*.
- Hamidi A. Aziz, Sujatha Raghavan, Mohd. Koffly Mohd. Isa and Mohd. Harmizi Abdullah (2000), 'Removal of Sulphate, Chloride, Nitrate-Nitrogen and Turbidity from Water Using Tapioca Starch as Primary Coagulant and Coagulant Aid-Laboratory Study', *JURUTERA*, in printing.
- Dini, R.H.B., Hamidi A.A. and Savinder, K., (2000), 'The effectiveness of physico-chemical treatment for leachate from Ampang Jajar landfill site, Seberang Perai, Malaysia APLAS FUKUOKA, October 2000.

ii)

Books:

Hamidi Abdul Aziz, Sujatha Ragavhan Mohd. Koffly and Abdullah, M.H. (1998), 'The use of natural polymer as coagulant aid in water and wastewater treatment', paper presented at the Malaysian Science & Technology Congress' 98, Biodiversity & Environmental Sciences, 24-25 November, Kota Kinabalu.

Ibrahim, W.H.W. and Aziz, H.A. (1998), 'Air quality degradation due to traffic congestion at isolated traffic light junction', paper presented at the Malaysian Science & Technology Congress' 98, Biodiversity & Environmental Sciences, 24-25 November, Kota Kinabalu.

Hamidi Abdul Aziz (1998), 'Research on metals removal from industrial wastewater-Potential treatment using natural polymer and limestone', paper presented at the Seminar on water resources and treatment systems, Institution of Engineers Malaysia (Perak Branch), IPG Ipoh, 7 November.

Hamidi Abdul Aziz, Dini Ramya Hasan Basri, Faridah A.H. Asaari, Norazli Othman, Mohd. Suffian Yusuff, Mazita Johari And Mariaty Perwira (1999), 'Potential Post-Treatment Of Heavy Metals From Industrial Wastewater', paper presented at the Malaysian Science & Technology Congress' 99, Biodiversity & Environmental Sciences, 8-11 November, Kuching.

Hamidi A. Aziz, Amirudin Mohd. Shah dan Mohd. Nordin Adlan (2000), 'Kajian penggunaan kanji ubi kayu sebagai bahan pembantu penggumpalan dalam proses olahan air minuman-sumber air sungai muda', AWAM 99, Lumut, 24-26 Januari.

Hamidi A. Aziz dan Mohammed Ismail (2000), 'Penyingkiran logam ferum dan mangan dari sumber air bumi: kajian kes di loji air terpilih, kelantan', AWAM 99, Lumut, 24-26 Januari.

9. **Patents and Registered Designs** (*Completed and in progress*)
Filtration model for heavy metals removal for small and medium industries (SMI) using limestone media (in progress)

10. **Records of consultancy services with dates:-**

Title	Date	Cost (RM)
1) Treatability study and consultancy report for the design of the proposed treatment works for the new slaughterhouse wastewaters in Central Market, Ipoh. Report completed in August 1993 for Majlis Bandaraya Ipoh.	Jan-Aug 1993	7,850
2) Study to predict the lifespan of water extracted and discharged to the ex-mining pond for marble processing industry in Simpang Pulai Ipoh. Consultancy work with Perak SEDC. Report submitted in November 1994.	Aug-Nov 1994	6,000

- Hamidi A. Aziz, Dini R.H. Basri, Faridah A.H. Ashaari and Mohamad F. Abdullah (1997), 'Survey on the dustbin used in selected area in Alor Setar and Ipoh municipalities', *Journal Environmental Research Association of Malaysia (ENSEARCH)*, 10 (3/4): 203-207.
- Hamidi A. Aziz and Madura Mohd. (1998), 'Potential use of low cost filtration technique for removing selected heavy metals from wastewater at pH less than 5', *Indian Journal of Engineering and Material Sciences*, Vol 5, Aug., pp 194-201.
- Hamidi Abdul Aziz (1998), 'Wastewater disposal' (In Malay), *Encyclopaedia Science and Technology*, Dewan Bahasa dan Pustaka, (In publication).
- Hamidi Abdul Aziz (1998), 'Clinical Waste Disposal' (In Malay), *Encyclopaedia Science and Technology*, Dewan Bahasa dan Pustaka, (In publication).
- Hamidi Abdul Aziz (1998), 'Imhoff Tank' (In Malay), *Encyclopaedia Science and Technology*, Dewan Bahasa dan Pustaka, (In publication).
- Hamidi Abdul Aziz (1998), 'Environmental Auditing' (In Malay), *Encyclopaedia Science and Technology*, Dewan Bahasa dan Pustaka (In publication).
- Hamidi Abdul Aziz (1998), 'Wastewater treatment' (In Malay), *Encyclopaedia Science and Technology*, Dewan Bahasa dan Pustaka, (In publication).
- Hamidi Abdul Aziz (1998), 'Environmental Quality Index' (In Malay), *Encyclopaedia Science and Technology*, Dewan Bahasa dan Pustaka, (In publication).
- Hamidi Abdul Aziz and Mohd Koffly (1998), 'The use of *sago* starch as coagulant aid in water and wastewater treatment', *Bulletin Institution of Engineers Perak*, pp27-31.
- Aziz, H.A. (1998), 'Handling and disposal of industrial sludges', *The Malaysian Technologist*, Vol. 2, pp26-33.
- Hamidi Abdul Aziz and Norazlin Othman (1999), 'A Review of heavy metal pollution and potential removal techniques', *Annual Bulletin, Institution of Engineers Perak*, pp34-39.
- Norazli Othman and Hamidi Abdul Aziz (1999), 'The Influence Of Flowrates and Particle Size in the Removal of Copper from Water Using Limestone Filtration Technique-Laboratory Scale', *Proceedings International Conference of Recent Advances in Materials and Mineral Resources, RAMM' 2, Penang Park Royal Penang*, 3-5 May.
- Norazli Othman and Hamidi Abdul Aziz (1999), 'The Influence Of Retention Time And Surface Loading Rate In The Removal Of Zinc And Chromium From Water Using Limestone Filtration Technique-Laboratory Scale', *Background Paper, Proceedings Environment Malaysia Conference, Mines Conference Centre, Kuala Lumpur*, 13-14 July.
- Hamidi Abdul Aziz, Sujatha Raghavan, Mohd. Koffly Mohd. Isa and Mohd. Harmizi Abdullah (1999), 'Influence of pH in the removal of turbidity from drinking water using natural resource coagulant and coagulant aid', *Background Paper, Proceedings Environment Malaysia Conference, Mines Conference Centre, Kuala Lumpur*, 13-14 July.
- Norazli Othman, Hamidi A. Aziz, Dini R.H. Basri, Faridah A.H. Assari (1999), 'Removal Of Lead From Water Using Limestone Filtration Technique-Laboratory Scale', *Malaysian Technologist*, Vol 2/99, pp36-39.
- H. A. Aziz, N. Othman, M.S. Yusuff, D.R.H. Basri and F.A.H. Asaari (2000), 'Initial Study On The Mechanism Of Copper Removal From Water Using Limestone Filtration Technique', *Proceedings Third International Conference on Environmental Chemistry and Geochemistry in the Tropics-GEOTROP '99*, Nov 24-27, Hongkong Baptist University.
- Norazli Othman, H.A. Aziz, D.R.H. Basri and F.A.H. Ashaari (1999), 'The Influence Of Retention Time And Surface Loading Rate In The Removal Of Copper, Zinc And Chromium From Water Using Limestone Filtration Technique-Laboratory Scale', *Proceedings, World Filtration Congress 8, Brighton, UK*, 4-7 April 2000, Vol. 2, pp359-362, Elsevier Science.
- Hamidi Abdul Aziz, Sujatha Raghavan, Mohd. Koffly Mohd. Isa and Mohd. Harmizi Abdullah (2000), 'Cationic Natural Coagulant Aid for Heavy Metals and Turbidity Removal in Water at pH 7.5 and Alum Concentration 25 mg/L-Laboratory Study', paper accepted for publication in *Indian Journal of Engineering and Materials Science*.
- Hamidi A. Aziz, Sujatha Raghavan, Mohd. Koffly Mohd. Isa and Mohd. Harmizi Abdullah (2000), 'Removal of Sulphate, Chloride, Nitrate-Nitrogen and Turbidity from Water Using Tapioca Starch as Primary Coagulant and Coagulant Aid-Laboratory Study', *JURUTERA*, in printing.
- Dini, R.H.B., Hamidi A.A. and Savinder, K., (2000), 'The effectiveness of physico-chemical treatment for leachate from Ampang Jajar landfill site, Seberang Perai, Malaysia APLAS FUKUOKA, October 2000.

ii)

Books:

Hamidi Abdul Aziz (1997), 'Spesifikasi Persekitaran Kejuruteraan Awam', paper presented at the Short Course on 'Memahami Spesifikasi Kejuruteraan Awam', Pusat Pengajian Kejuruteraan Awam, Universiti Sains Malaysia (Perak Branch), 3-5 February.

Hamidi Abdul Aziz (1997), 'Sludge Handling and Disposal', paper presented at the Short Course on 'Industrial Wastewater Management', School of Chemical Engineering, USM Perak, 16-17 Disember.

Hamidi Abdul Aziz (1997), 'Biological Treatment of Industrial Wastewater', paper presented at the Short Course on 'Industrial Wastewater Management', School of Chemical Engineering, USM Perak, 16-17 Disember.

Hamidi Abdul Aziz, Dini Ramya Hasan Basri, Faridah A.H. Asaari, Norazli Othman, Mohd. Suffian Yusuff, Mazita Johari And Mariaty Perwira (1999), 'Potential Post-Treatment Of Heavy Metals From Industrial Wastewater', paper presented at the Malaysian Science & Technology Congress '99, Biodiversity & Environmental Sciences, 8-11 November, Kuching.

Hamidi Abdul Aziz (1998), 'Research on metals removal from industrial wastewater-Potential treatment using natural polymer and limestone', paper presented at the Seminar on water resources and treatment systems, Institution of Engineers Malaysia (Perak Branch), IPG Ipoh, 7 November.

- v) **Review of Technical Paper:**
- 'Formation of Leachate and Gaseous from Landfill Sites', Perantara, Vol. 14, No. 6, December, 1996.
 - 'Water Supply Engineering', Module 1: School of Distance Learning, University of Science Malaysia, 205 pages, 1998.
 - 'Photochemical Oxidation Substance', Encyclopedia Science and Technology, Dewan Bahasa dan Pustaka, Malaysia, 1998.
 - 'Thermal Pollution', Encyclopedia Science and Technology, Dewan Bahasa dan Pustaka, Malaysia, 1998.
 - 'Solid Waste', Encyclopedia Science and Technology, Dewan Bahasa dan Pustaka, Malaysia, 1998.
 - 'A Linear Cost Model Application for Solid Waste Collection Routes Selection', paper to be published in Journal, Institution of Engineers, Malaysia, 16 pages, 1998.
 - 'Uncertainty analysis for Layang reservoir phosphorous loading estimation', paper to be published in the Proceedings International Conference on Humid Tropics, Casuarina Parkroyal Hotel, Ipoh, 24-26 November, 1998.
 - 'Role of naturally occurring iron in arsenic removal from groundwater', paper to be published in the Proceedings International Conference on Humid Tropics, Casuarina Parkroyal Hotel, Ipoh, 24-26 November, 1998.
 - 'Appropriate strategies for leachate management in developing country', paper to be published in the Proceedings International Conference on Humid Tropics, Casuarina Parkroyal Hotel, Ipoh, 24-26 November, 1998.
 - 'The management of municipal wastewater sludge in Malaysia', paper to be published in IEM Bulletin, 12 pages, 1999.
 - 'Bukit Kemuning Electroplating Park Commonsal Environmental Project', paper to be published in IEM Bulletin, 10 pages, 1999
 - 'An efficient and environmental friendly information technology (IT) solution for hospitality Industry', paper to be published in Proceedings Environment Malaysia Conference, Mines Conference Centre, Kuala Lumpur, 13-14 July
 - 'Enhancement of solid-liquid separation using Dissolved Air Floatation process', paper to be published in Proceedings Environment Malaysia Conference, Mines Conference Centre, Kuala Lumpur, 13-14 July
 - 'An efficient and environmental friendly information technology (IT) solution for hospitality Industry', paper to be published in Proceedings Environment Malaysia Conference, Mines Conference Centre, Kuala Lumpur, 13-14 July, 1999
 - 'Enhancement of solid-liquid separation using Dissolved Air Floatation process', paper to be published in Proceedings Environment Malaysia Conference, Mines Conference Centre, Kuala Lumpur, 13-14 July, 1999.
 - 'Quantification analysis of deamination latex effluent sludge' Journal of Industrial Technology, SIRIM, 1999.
 - 'Use of foundry material in water pollution control', paper to be published in Water Research, Pergamon, 18 pages, 1999
 - 'Chemical coagulation on settleable solid-free palm oil mill effluent (POME) for organic load reduction & Solid Recovery', Journal of Industrial Technology, SIRIM, 2000.

(d) (i) Title

(ii) Main Researcher:

(iii) Started:

(iv) Completed:

(v) Sponsor:

Comparative Study of Health Risks
by the Trace Elements, International
Cooperation Study between Japan,
Malaysia (USM) and India
Prof. Shinsuke Morisawa (Kyoto
University) (Head)
Dr. Hamidi Abdul Aziz (Malaysia)
Prof. Sivakumar (India)
Has been approved by Japanese
Government
3 years
Japanese Government Grant (Exact
cost is still uncertain)

(e) (i) Title

(ii) Main Researcher:

(iii) Started:

(iv) Completed:

(v) Sponsor:

The use of natural polymer (natural
starch) as an alternative coagulant
and coagulant aids in removing
turbidity, nitrat, sulphate, chloride,
and heavy metals from water and
wastewater

Dr. Hamidi Abdul Aziz (Head),
Dr. Ir. Mohd. Nordin Adlan, Dr.
Abdul Manan Dos Mohamad, Dr.
Fadil Othman, Dr. Ir. Mohd. Omar
Abdul Kadir, Dr. Azizan Aziz, Cik
Mashitah Mat Don

February 2000

January 2002

IRPA Long Term Grant
(RM244,998)

(f) (i) Title

(ii) Main Researcher:

(iii) Started:

(iv) Completed:

(v) Sponsor:

Development of an environmental
data acquisition system for use in
an Intelligent Transportation
System (ITS)

Dr. Ahmad Farhan Sadullah
(Head), Dr. Hamidi Abdul Aziz,
Dr. Azlina Kamarudin, Dr. Yusuff
Mashor

November 1999

October 2001

IRPA Long Term Grant
(RM120,000)

(iii) Undergraduate Research:

(a) First Supervisor:

Academic year	Research title	Student
1993/94	Treatability study for the propose new activated sludge plant to replace present oxidation pond for student hostel at USM Perak Branch.	Yap Nam Fee
1993/94	The degree of compliance of The Environmental Quality Act 1974. Case Study for Industrial and Municipal effluents in Ipoh.	Ahmad Kamal Arif Mohamad
1993/94	Comparative study on solid waste management cost analysis between conventional method and WAGS PROGRAMME for Ipoh Municipal.	Mohd Saidi Awang

Hamidi Abdul Aziz (1994), 'Introduction to Environmental Science: Environmental Science and You - Introduction, damaging activities and conservation aspects', Module 1 (In Malay), First Edition, School of Distance Learning Publisher, USM.

Hamidi Abdul Aziz (1995), 'Introduction to Environmental Science: Water and Wastewater in Environment - Quality and Diseases Aspects', Module 2 (In Malay), First Edition, School of Distance Learning Publisher, USM.

Hamidi Abdul Aziz (1997), 'Wastewater Treatment', Module 2 (In Malay), First Edition, School of Distance Learning Publisher, USM.

Hamidi Abdul Aziz (1997), 'Non-biodegradable Industrial Solid Waste', in Effective Solid Waste Management, edited by Agamuthu, P. and Nather Khan, Chapter 12, pp 12-1-12-26, Ecotone Management Sdn. Bhd., Kuala Lumpur, ISBN 983-808-036-5.

Hamidi Abdul Aziz (1997), 'Laboratory Manual', Module 3 (In Malay), First Edition, School of Distance Learning Publisher, USM.

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1998/99	ELA case study-Quarry operation	Wan Hasan Wan Nawang
1998/99	Study on the non-point source of Sungai Kelantan	Mohd. Yusuf Hamat
1999/2000	Wastewater treatment system	Chandra Segar a/l Kalimuthu
1999/2000	Solid waste management in Bachok Kelantan	Che Lokman bin Abdullah
1999/2000	Solid waste management- Case study	Che Mahmud Che Mat
1999/2000	Optimization of wastewater treatment system for palm oil mill effluent	Thagarajan a/l Vellan Thurai
1999/2000	Continuation research on the use of tapioca starch as coagulant and coagulant aid in removing turbidity from water	Mohd. Munir b. Mohd. Noor
1999/2000	Initial study on the use of selected plant leaves as coagulant and coagulant aid in water and wastewater treatment	Masri Muda
1999/2000	Continuation study on the determination of the degree of adsorption and precipitation of heavy metals from water and wastewater	Mazita Johari
1999/2000	Continuation study on the use of carbon and limestone in removing metallic wastewater	Mariaty Perwira
1999/2000	Study on the regeneration of media from metallic wastewater treatment plant-laboratory scale	Ruslan Abu
1999/2000	Study on the relation of turbidity and solids content in selected water and wastewater-Case study of particle size.	Mohd. Zaidi Mohamad Saad
1999/2000	Development of design parameter for sludge disposal on land	Muhamad Fahmi Zaid

(b) Second Supervisor:

Also appointed as a second supervisor for about 20 undergraduate level final year project.

6. Publications

(State all papers, books, chapters in books published based on research singly or jointly and completed and in progress):-

i) Refereed Paper:

- Hamidi A. Aziz and Paul G. Smith (1992) 'The influence of pH and coarse media on manganese precipitation from water', *Water Research*, Vol. 26, n6, pp 853-855.
- Hamidi Abdul Aziz (1994), 'Treatment of manganese from drinking water using low cost filtration technique', *Perantara USM*, Vol. 12, No. 3, June.
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- Hamidi A. Aziz and Norazizah Mohamad (1996), 'Determination of pollution load to monsoon drain within USM Perak Branch' (In Malay), *Annual Bulletin The Institution of Engineers Malaysia (Perak Branch)*, pp 29-34.
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- Hamidi A. Aziz and Mohd. N. Adlan (1997), 'Determination of an organic loading and treatability study for treatment of an abattoir wastewater', *Malaysian Technologist*, Vol 2/1997, August, pp32-35.