

APPENDIX C: LONG TERM GRANT (IRPA) ALLOCATED FOR FACULTY OF CIVIL ENGINEERING

No.	Project Leader	Researcher	Project Title	Start/ Finish	Cost
1.	Assoc. Prof. Abdul Karim Mirasa	Rosli Mohamed Zain	Interlocking Blockwork system For Cost-Effective Low and Medium Rise Building	1/1/1996 - 31/12/1998	218,500.00
2.	Assoc. Prof. Dr. Faridah Shafii	Mohd. Yunus Ishak	Development of Techniques for Prefabricated Brickwork Panels	1/1/1996 - 31/12/1998	297,350.00
3.	Assoc. Prof. Abdul Karim Mirasa	Assoc. Prof. Dr. Azlan Abd. Rahman	Development of Techniques for Prefabricated Brickwork Panels	1/1/1996 - 31/12/1998	406,600.00
4.	Dr. Siti Hamisah Tapsir	Dr. Esah Hamzah	Investigation Into For Engineering of Steel Structures In Tropical Conditions Earthquake	1/1/1996 - 31/12/1998	121,600.00
5.	Prof. Ir. Dr. Mohd. Zulkifli Tan Sri Ghazali	Dr. Norhan Abd. Rahman Kamarul Azlan Mohd. Nasir	Performance Evaluation and Non-Destructive Testing or Welded and Bolted Connection in Steel Structures	1/1/1996 - 31/12/1998	247,950.00
6.	Prof. Ir. Dr. Mohd. Zulkifli Tan Sri Ghazali	Assoc. Prof. Dr. Ahmad Fikri Hj. Hussein Dr. Esah Hamzah Noorhisyam Abdul Hamid Arizu Sulaiman Mohd. Yunus Ishak	Improved properties and Ductility of High Grade Steel	1/1/1996 - 31/12/1998	127,300.00
7.	Assoc. Prof. Dr. Ahmad Fikri Hj. Hussein	Arizu Sulaiman Dr. Siti Hamisah Tapsir Assoc. Prof. Dr. Nasly Mohamed Ali Prof. Ir. Dr. Mohd. Zulkifli Tan Sri Ghazali	Development of Modern and Innovative Construction and Structural System Using Local Steel Section		
8.	Assoc. Prof. Abdul Karim Mirasa		Development of Modern and Innovative Construction and Structural System Using Local Steel Section	1/1/1996 - 31/12/1998	391,400.00
9.	Assoc. Prof. Dr. Ahmad Fikri Hj. Hussein		Effective and Innovative Use of High Grade Local Steel Section		
10.	Muhammad Nassir Hanapi	Assoc. Prof. Dr. Wan Azlina Ahmad Dr. Umi Kalthom Ahmad Assoc. Prof. Dr. Mohd. Razman Salim	Removal Pesticide From Contaminate Soil and Groundwater	1/1/1996 - 31/12/1998	28,500.00
11.	Dr. Ahmad Khairi Abd. Wahab	Ahmad Perwira Mulia Tarigan Zulhilmi Ismail	The Development of An Intergrated Modelling System For Coastal Management	1/1/1996 - 31/12/1998	293,000.00
12.	Prof. Dr. Zainai Mohamed	Yusuf Mat Rani Suhaimi Abu Bakar Axxoc. Prof. Dr. Abd. Latif Saleh	The Performance of Glued-dlued-Laminated Timber (Gulam) Structural Member- Ultimate Strength and Behaviour	1/1/1996 - 31/12/1998	120,413.00
13.	Faridah Jaafar Sidek	Assoc. Prof. Dr. Norsarah Haida Saidina Amin Dr. Noraieni Hj. Mokhtar Assoc. Prof. Dr. Ahmad Khairi Abd Wahab	Bridge Piers Stabilyty Via A Predictive Computer Model	1/7/1996 - 31/12/1998	199,500.00

No.	Project Leader	Researcher	Project Title	Start/ Finish	Cost
14.	Assoc. Prof. Hadibah Ismail	Assoc. Prof. Dr. Ahmad Khairi Abd. Wahab Zainuddin Shamsudin Prof. Abd. Aziz Ibrahim	Use of Artificial Seagrass For Coastal Protection and Restorant Works	1/1/1996 - 31/12/1998	142,500.00
15.	Prof. Ir. Dr. Mohd. Zulkifli Tan Sri Ghazali	Mohamed Zahry Othman Dr. Faridah Shafii	Development of Modern and Innovative Structural System (With Emphasis on Cables Structures)	1/1/1996 - 31/12/1998	272,650.00
16.	Assoc. Prof. Dr. Azlan Abd. Rahman	Wahid Omar	Instruments For Evaluation of Static and Dynamic Properties of Concrete Bridges	1/1/1996 - 31/12/1998	229,900.00
17.	Prof. Ir. Dr. Mohd. Zulkifli Tan Sri Ghazali	Mohd. Yunus Ishak Zaiton Haron Azlan Adnan Assoc. Prof. Dr. Ahmad Khairi Hj. Hussein	Performance Evaluation of Steel Structures Including Due to Low Intensity Earthquake	1/1/1996 - 31/12/1998	235,600.00
18.	Assoc. Prof. Dr. Noraieni Hj. Mokhtar	Assoc. Prof. Hadibah Ismail Prof. Abd. Aziz Ibrahim	Silatation Problem and Submerged Beam As A Countermeasure	1/1/1996 - 31/12/1998	360,620.00
19.	Assoc. Prof. Dr. Noraieni Hj. Mokhtar	Assoc. Prof. Hadibah Ismail	The Sine-Slab System As A Coastal Protection Measure	1/1/1996 - 31/12/1998	250,230.00
20.	Assoc. Prof. Ir. Dr. Amir Hashim Mohd. Kassim	Kamarul Azlan Mohd. Nassir	Intergrated Flood Management Model In Peninsular Malaysia	1998	71,250.00
21.	Assoc. Prof. Dr. Siti Hamisah Tapsir		Development of Innovative Use Of Fiber Reinforced Plastic In Construction Industry	1999 - 2001	659,800.00
22.	Assoc. Prof. Shahrin Mohammad		Development of Computer Software for Analysis and Design of Steel Framed Structures Under Variable Loading Conditions	2/9/1999	114,760.00
23.	Prof. Dr. Zainai Mohamed	a) Assoc. Prof. Dr. Abd. Latif Saleh b) Suhaimi Abu Bakar	Ultimate Strength Prediction of Gulam_Beam Plastic Approach	2/9/1999	122,075.00
24.	Dr. Mahmood Md. Tahir		Evaluation on the Performance of Composite Concrete/Steel Beam using Locally Produced Materials	2/9/1999	166,060.00
25.	Dr. Mohd. Hanim Osman		Analysis, Design and Performance Evaluation of Trapezoid Web Profile	2/9/1999	366,700.00

No.	Project Leader	Researcher	Project Title	Start/ Finish	Cost
26.	Prof. Dr. Mohd. Warid Hussin	a) Assoc. Prof. Dr. Halim Satan b) Assoc. Prof. Dr. Mohd. Tajudin c) Assoc. Prof. Dr. Ahmad Mahir Makhtar d) Assoc. Prof. Dr. Aminaton Marto e) Assoc. Prof. Hadibah Ismail f) Dr. Fadhali Hj. Zakaria g) Dr. Razali Abd. Hamid	The Development Design and Construction of a Composite Material breakwater System	2/9/1999	690,650.00
27.	Assoc. Prof. Dr. Salihuddin Radin Sumadi		Research and Development on industrially Produced Component Based on Modular coordinated Open Building Concept for Housing	2/9/1999	700,150.00
				TOTAL :	6,835,058.00

SHORT TERM RESEARCH GRANT ALLOCATED FOR FACULTY OF CIVIL ENGINEERING

No.	Project Leader	Researcher	Project Title	Start/ Finish	Cost
1.	Assoc. Prof. Dr. Ahmad Mahir bin Makhtar	Assoc. Prof. Dr. Salihuddin bin Radin Sumadi Rosli b. Anang	Merging Operation at Urban Dual Carriageway	1/6/1998 - 31/5/1999	14,000.00
2.	Assoc. Prof. Dr. Abd. Latif bin Saleh	Suhaimi bin Abu Bakar	The Crack Analysis of High Strength Concrete	1/8/1997 - 31/8/1998	20,000.00
3.	Abu Bakar Fadzil @ Zulkifly	Azmahani bte Abd. Aziz Mohd. Razali bin Mahmud	The Effect of Wave And Current on Sediment Movement at Tanjong Belungkor	30/4/1994 - 30/4/1995	9,760.00
4.	Ahmad bin Zaidon Rais	Abdullah Zawawi bin Awang Dr. A. Aziz bin Saim	Critical wind Load on Telecommunication Tower	1/9/1998 - 31/8/1999	20,000.00
5.	Assoc. Prof. Dr. Aminaton bte Marto	Dr. Mahadzer bin Mahmud Kamaruddin Hj. Ahmad Kamaruddin bin Hj. Ahmad	Bearing Capacity of Ribbed Ralf Foundation Stability Analysis And Remedial Measures of Cut Slopes	1/11/1997 - 31/10/1999 1/5/1998 - 1/4/1999	20,000.00 17,000.00
6.	Assoc. Prof. Dr. Amir Hashim bin Mohd. Kassim	Noor Eishah bte Hamid Prof. Van Tan Nguyen Sobri bin Harun	Artificial Intelligence Control in The Water Management System Identification And Review of Existing Control Measures of Erosions along Highways and Highland Roads	1/5/1996 - 31/5/1997 1/8/1997 - 30/6/1998	20,000.00 15,000.00
7.	Assoc. Prof. Dr. Amir Hashim Mohd. Kassim	Aldrin Bernard Ak Vincent Eddy Masation Maran Mathew Assan Masitah Sayuti Hasib Azam Gawing ak Jenggie Eow Boon Tiak Lim Chew Yit Ahmad Tamrin Mohd Aris Kamarul Azlan Mohd. Nasir Assoc. Prof. Dr. Hasanan b. Md. Nor Ir. Ahmad Kamal b. Abd. Hamid Mohamed b. Abdul Rahman Dr. Norhan Abd. Rahman Kamarul Azlan Mohd. Nasir	Flood Investigation in Malaysia Investigation on Bitumen As A Trench Layer Hydrological Study in Small Island	1/3/1991 - 30/6/1996 1/5/1994 - 30/12/1994 1998	 12,000.00 50,000.00
8.	Ayob Katimon	Dr. Mohd. Zulkifli bin Mohd. Yunus Assoc. Prof. Dr. Amir Hashim bin Mohd. Kassim Zulkarnain Mohd. Shah	Real-time Management Using Geographical Information System (GIS) UTM Drainage Master Plan	1/6/1998 - 31/5/1999 1/1/1999 - 31/12/1999	16,000.00 15,000.00

No.	Project Leader	Researcher	Project Title	Start/ Finish	Cost
9.	Azhar Ahmad	Assoc. Prof. Dr. Arshad bin Ahmad Dr. Wahid Omar Norhisham Bakhary	Bridge Rating and Condition Assessment Considering Earthquake Effect Using Artificial Neural Network	15/6/1999 - 14/6/2000	20,000.00
10.	Azmahani Abd. Aziz	Assoc. Prof. Dr. Siti Hamisah bt. Tapsir Prof. Dr. Zainal Mohamed Prof. Van Than Nguyen Jamaludin Mohd. Yatim	Development of Innovative Use of fiber Reinforced Plastic in The Construction Industry Statistic Analysis of Reservoir Operation	1/1/1998 - 31/12/1998 1/6/1997 - 30/6/1998	20,000.00 7,000.00
11.	Azmi Aris	Assoc. Prof. Dr. Mohd. Razman bin Salim	Treatment of Textile Finishing Wastewater Using Combined Chemical and Biological Oxidations	15/3/1999 - 14/3/2000	11,750.00
12.	Azman Kassim	Prof. Dr. Ismail Hj. Bakar Dr. Khairul Annuar Kassim Mohd. For b. Mohd. Amin	Engineering Classification of Weak Rocks in Malaysia Direct Shear on Lateritic Soils	1/4/1994 - 1/4/1996 1/1/1999 - 31/ /1999	24,300.00 18,000.00
13.	Baderul Hisham Ahmad	Dr. Ahmad Baharuddin bin Abd. Rahman Azmi Aris Alias Hashim Mohd. Azhari Ali	Development of Integrated Water Distribution Information System for Management and Operation of Water Supply Distribution Network	1/2/1995 - 31/1/1996	25,000.00
14.	Che Ros Ismail	Assoc. Prof. Dr. Hasanan Md. Nor	Asphaltic Concrete And Concrete Block Composite Pavement	1/5/1998 - 1/4/1999	10,000.00
15.	Dr. Che Wan Fadhil Che Wan Putra	Dr. Muhd. Zaimi Abd. Majid	Improving Material Scheduling for Construction Industry in Malaysia Development Design Standard Library For Integrating Design And Construction	1/5/1998 - 1/4/1999 1/6/1999 - 14/6/2000	16,000.00 20,000.00
16.	Assoc. Prof. Dr. Fadil Hj. Othman	Prof. Ir. Dr. Mohd Azraai bin Kassim Lokman Md. Hani Abu Bakar Fadzil @ Zulkify Sobri harun Shahabuddin Mustapa Dr. Azlan Adnan Johan Sohaili Dr. Abd. Aziz Chik Dr. Fadhadli Hj. Zakaria Dr. Mahmood Md. Tahir	The Improvement of Water Supply Treatment Performance Vulnerability Analysis of UTM Campus Solar System for Public Utility : A Case of Bus Stop	1/1/1991 - 1/1/1994 1/12/1998 - 31/3/1999	 10,000.00
17.	Dr. Fadhadli Zakaria	Prof. Dr. Mohd. Warid Hussin	Ferrocement of Repairs and Strengthening of Structures	1/6/1997 - 30/6/1998	20,000.00

No.	Project Leader	Researcher	Project Title	Start/ Finish	Cost
18.	Assoc. Prof. Dr. Faridah Shafii	Beak Kah On Tan Song Keaw Mohamed Zahry Othman	The Structural Behaviour of Post-Tensioned Brickwork Cantilever Retaining Fin Wall Subjected to Lateral Loading	1/5/1996 - 31/5/1997	20,000.00
		Mohamed Zahry Othman	The Development of Techniques in Prefabricated Masonry	1/6/1995 - 30/6/1996	12,000.00
19.	Fatimah Mohd. Noor	Norazlin Noordin Zainal Masod Azmahani Abd. Aziz Zulkarnain Mohd. Shah Suryati Sulaiman	Water Conservation in Water Supply System	1/3/1995 - 28/2/1997	25,000.00
			Optimization And Behaviour of Water Supply System	1/8/1994 - 31/7/1995	
20.	Fauziah Kasim	Assoc. Prof. Dr. Aminaton Marto	Numerical Modeling of Effects Rainfall on Long Term Matric Suction in Unsaturated Soils	1/6/1998 - 31/5/1999	15,000.00
21.	Assoc. Prof. Ir. Dr. Hasanah Md. Nor	Assoc. Prof. Ir. Dr. Amir Hashim bin Mohd. Kassim	The Effect of Water to Road Structure	1/5/1994 - 31/12/1997	20,000.00
		Assoc. Prof. Dr. Jamaludin bin Mat	New Material for Road And Highway Surface Layer	1/3/1995 - 1/3/1996	20,000.00
22.	Johan Sohaili	Assoc. Prof. Dr. Fadil Othman Istas Fakhurrrazi Nusyirwan Khalida Muda	Tackling Peat Forest Fire	1/9/1998 - 3/8/1999	20,000.00
23.	Kamarudin Hj. Ahmad	Dr. Khairul Anuar Kassim Mohd. Zahry Othman	Improvement of Soft Saturated Clay Using Electro Kinetic Dewatering And Hardening	1/1/1999 - 31/12/1999	12,000.00
24.	Kamarul Azlan bin Mohd. Nasir	Assoc. Prof. Ir. Dr. Amir Hashim bin Mohd. Kassim	Impact of Land Use Changes Due to Urbanisation to Peak Flow With The Application of GIS/RS	1/6/1998 - 31/5/1999	15,000.00
25.	Dr. Khairul Anuar Kassim		The Effectiveness of Stabilised Soil Column As Soil Stabilisation Technic	1/7/1994 - 28/2/1996	9,570.00
		Mustaffa Kamal Shamsuddin	Lime Stabilisation for Marginal Subgrade As A 'Capping Layer'	1/1/1999 - 31/12/1999	16,000.00
		Kamaruddin Hj. Ahmad	Modification of Malaysia Cohesive Soils With Lime	1/1/1999 - 31/12/1999	20,000.00
26.	Khalida Muda	Prof. Dr. Mohd. Azraai Kassim	Development of Micronutrients Solution to Enhance The Biological Growth in Wastewater	1/1/1998 - 31/12/1998	20,000.00
		Dr. Mohd. Ismid Mohd. Said Amat Sairin Demun Normala Hashim	Development of Biological assessment As A Tool For Water Quality Management in Tropical Rivers	1.1.1999 - 31/12/1999	15,000.00

No.	Project Leader	Researcher	Project Title	Start/ Finish	Cost
27.	Dr. Mahmood Md. Tahir	Redzuan Abdullah	Performance of Composite Beam using Coldformed Rectangular Hollow Section Steel	1/1/1998 - 31/12/1998	20,000.00
		Assoc. Prof. Shahrin bin Mohammad	3D Finite Element Modelling of Semi-rigid Steel Frames During Fire	1/1/1998 - 31/12/1998	15,000.00
28.	Prof. Dr. Mohd. Azraai bin Kassim	Rosli Mohamed Zin	A Study on The Effect of A Cration On Water Quality In Sungai Terip Reservoir	1/1/1998 - 31/12/1999	20,000.00
		Mohd. Nor Othman	Anaerobic Treatment of Pome Using High-Rate Anaerobic Reactors	1/7/1994 - 1/7/1995	9,850.00
		Muhammad Nassir Hanapi	Water Resources on a Small tourstic Island (Pulau Manujun, Sabah)	1/1/1999 - 31/12/1999	20,000.00
29.	Mohd. For Mohd. Amin	Azman Kassim Dr. Musharry Mustaffar	A Systematic Classification of Filled Joint in Granite	1/6/1998 - 31/5/1999	15,000.00
		Dr. Musharry Mustaffar	An Approach to Joint roughness in rock – A Comparative Study	15/3/1999 - 14/3/2000	20,000.00
30.	Dr. Mohd. Hanim bin Osman	Yusof Ahmad Rosli Mohamed Zin	Remaining Fatigue Life of Steel Bridges	1/8/1997 - 31/8/1998	18,150.00
		Dr. Sariffuddin Saad Dr. Mohd. Noor Basir	Fatigue Strength of Girders With Trapezoid Profile Web	1/6/1998 - 31/5/1999	15,000.00
31	Dr. Mohd. Ismid bin Mohd. Said	Prof. Ir. Dr. Mohd. Azraai bin Kassim Amat Sairin Demun	Design of an Optimal Aeration System for Imprving Water Quality in Lakes and Reservoirs	1/5/1998 - 1/4/1999	19,000.00
		Prof. Ir. Dr. Mohd. Azraai bin Kassim	Using Aeration to Enhance Water Quality in Urban Rivers	1/6/1998 - 31/5/1999	15,000.00
32.	Mohd. Nor Othman	Assoc. Prof. Dr. Mohd. Razman bin Salim	Anaerobic Treatment of Hight Strength Wastes	1/9/1998 - 31/8/1999	10,500.00
33.	Assoc. Prof. Dr. Mohd. Razman Salim	Assoc. Prof. Dr. Mansor Ibrahim	Institutionalization of Recycling As A Basis For Efficient Solid Waste Management in Johor Bahru	1/6/1997 - 30/6/1998	19,600.00
		Rapiah Deraman Assoc. Prof. Dr. Rahmalan b. Ahmad Assoc. Prof. Dr. Fadil Othman	A Study on Waste Management System in Johor	1/1/1991 - 31/12/1995	
		Assoc. Prof. Dr. Fadil Othman	Removal of Phenol From Leachate Using Activated Carbon From Modified Oil Palm Shell (MUPAS)	15/6/1999 - 14/6/2000	19,000.00

No.	Project Leader	Researcher	Project Title	Start/ Finish	Cost
34.	Mohd. Rosli Hainin	Assoc. Prof. Ir. Dr. Hasanan bin Md. Nor	Relation of Material Properties to Pavement Durability	1/5/1994 - 30/4/1995	8,000.00
35.	Dr. Mohd. Zulkifli bin Mohd. Yunus	Che Ros bin Ismail	IT : A Study of The Effectiveness of GIS Arc/Info Land For Civil Engineering Application	1/5/1998 - 1/4/1999	20,000.00
36.	Dr. Muhd. Zaimi bin Abd. Majid	Dr. Mohd. Zulkifli bin Mohd. Yunus	Alternative Indicator to Assess Site Communication	1/9/1998 - 31/8/1999	20,000.00
37.	Dr. Mushairry bin Mustaffar	Dr. Shahrum bin Ses	The Use of Close-Range Photogrammetric Technique in The Study of TUDM Jet Fighter's Structural Integrity	1/1/1999 - 31/12/1999	15,500.00
38.	Dr. Nordin bin Yahaya	Dr. Ahmad Baharuddin bin Abd. Rahman Dr. Mohamad bin Ismail	A Study on Steel Structure in Construction Industry in Malaysia	1/6/1994 - 30/5/1995	8,000.00
39.	Dr. Norhan bin Abd. Rahman	Assoc. Prof. Ir. Dr. Amir Hashim bin Mohd. Kassim	Numerical simulation of Multiphase Flow, Heat and Pollutant Transport in Deforming Porous Media For Subsurface System	1/1/1999 - 31/12/1999	14,000.00
40.	Normala bte Hashim	Supiah Shamsudin Prof. Dr. Mohd. Azraai bin Kassim	A Stochastic Approach to Designing Layang Reservoir Phosphorous Removal Earthen Ponds	15/6/1999 - 14/6/2000	20,000.00
41.	Assoc. Prof. Dr. Noraeini bte Mokhtar	Prof. Dr. Mohamad Rasidi bin Md. Razali Assoc. Prof. Dr. Adi Maimun b. Hj. Abdul Malik Assoc. Prof. Dr. Ahmad Khairi bin Abd. Wahab Assoc. Prof. Faridah bte Jaffar Sidek Assoc. Prof. Hadibah Ismail Dr. Maslin bte Hassan	Computer Modelling of Low Past a Cylinder Sine Slab System As A Coastal Protection Measure Laser Base instrument For Flow Measurement	1/9/1996 - 31/8/1997 1/9/1996 - 31/8/1997 18/2/1991 - 31/12/1995	20,000.00 20,000.00 20,000.00
43.	Assoc. Prof. Dr. Ramli bin Nazir	Dr. Md. Azman bin Md. Amin Kamarudin bin Hj. Ahmad -	The Uplift Behaviour of Pile in Sand Effect on Soil Settlement Due to Groundwater Fluctuation	1/6/1997 - 30/6/1998 1/8/1997 - 31/8/1998	20,000.00 11,300.00
43.	Rosli bin Anang	- Assoc. Prof. Dr. Salihuddin bin Radin Sumadi Baderul Hisham bin Ahmad	Solidification Technique For Disposal of Toxic Waste Development of National Construction Material Data Base	1/6/1997 - 31/5/1998 15/6/1999 - 14/6/2000	20,000.00 20,000.00

No.	Project Leader	Researcher	Project Title	Start/ Finish	Cost
44.	Rosli bin Mohamed Zin	Assoc. Prof. Dr. Salihuddin bin Radin Sumadi Rosli Anang	Bake Free Brick	1/6/1998 - 31/5/1999	15,000.00
45.	Roslida bte Abd. Samat	Assoc. Prof. Dr. Nasly bte Mohamed Ali	The Effect of Wind to Two Nearest Multi-Level Building	1/1/1995 - 31/12/1996	12,000.00
46.	Assoc. Prof. Dr. Salihuddin bin Radin Sumadi	Prof. Dr. Mohd. Warid Hussin	Creep and Shrinkage of Concrete Containing Palm Oil Fuel Ash (POFA)	1/6/1997 - 30/6/1998	20,000.00
		Mohd. Faris bin Ahmad Rosli bin Anang	A Design Strategy For Corrosion Protection of Steel in Concrete	1/9/1996 - 31/8/1997	20,000.00
		Mohd. Faris b. Ahmad Abdul Rahman b. Mohd. Sam	Performance of Local Blastfurnace Slag in Concrete	1/5/1994 - 1/6/1995	19,000.00
47.	Dr. Sariffuddin bin Saad	Assoc. Prof. Dr. Azlan bin Abdul Rahman Ahmadon bin Bakri	Nodge Capacity Assessment by Finite Element Modelling	1/2/1998 - 1/1/1999	20,000.00
		Dr. Mohd. Hanim bin Osman Dr. Mohd Noor bin Mohd. Basir	Finite Element and Experimental Determination of The Ultimate Strength of Lantern ring Joints	1/6/1998 - 31/5/1999	15,000.00
48.	Assoc. Prof. Shahrin bin Mohamad	Dr. Mahmood bin Md. Tahir	Semi & Rigid Analysis of High Rise Steel Building Using Non-Linear Finite Element Technique	1/2/1998 - 1/1/1999	15,000.00
49.	Shaiful Amri bin Mansur	Dr. Abdul Hakim Mohamed Dr. Muhd. Zaimi Abd. Majid Rosli Mohamed Zin	R & D Requirement of The Malaysian Construction Industry	1/1/1998 - 31/12/1998	18,225.00
50.	Sobri bin Harun	Prof. Van Than Nguyen Assoc. Prof. Dr. Amir Hashim bin Mohd. Kassim	Optimal Operation of Reservoir For MUDA Irrigation Scheme	1/1/1995 - 31/7/1996	24,000.00
51.	Supiah bte Shamsuddin	Assoc. Prof. Ir. Dr. Amir Hashim bin Mohd. Kassim Dr. Azmi bin Abdul Rahman	Layang Reservoir Phosphorous Loading Estimation	1/5/1997 - 1/5/1998	20,000.00
		Prof. Dr. Mohd. Azraai bin Kassim	Sediment Yield Estimation Using MUSLE Comparative Study For Layang and Tertib Watershed	1/6/1998 - 31/5/1999	15,000.00
52.	Tarmizi bin Ismail	Abu Bakar bin Fadzil @ Zulkify	Daily Streamflow For An Ungauged Catchment	1/6/1998 - 31/5/1999	16,000.00
53.	Dr. Wahid bin Omar	Assoc. Prof. Shahrin Mohammad Dr. Mohd. Noor Mohd. Basir Abdullah Zawawi bin Awang	Study on the Performance and Maintenance of Bridges in Peninsula Malaysia	1991 - 1992	20,000.00
		Rosli Nor Mohamad	Flexural Behaviour of Lightweight Prestressed Concrete Beam	1999	20,000.00
		Yusof Ahmad	The Study of Behaviour of Concrete Beams in Shear with a Weak Concrete Zone	1999	20,000.00

No.	Project Leader	Researcher	Project Title	Start/ Finish	Cost
54.	Wan Zulkifli bin Wan Yusof	Arizu bin Sulaiman Mohd. Yunus bin Ishak	Performance Study of Small Bumiputera Contractors in Construction	1/5/1994 - 31/5/1995	9,940.00
55.	Yusof bin Ahmad	Assoc. Prof. Dr. Salihuddin bin Radin Sumadi	Leachability of Toxic Waste in Solidified Mortar	15/6/1999 - 14/6/2000	19,000.00
56.	Zainab bte Arman Ali	Assoc. Prof. Ir. Dr. Amir Hashim bin Mohd. Kassim	Probabilistic Analysis of Daily Rainfall For Johor Bahru Vicinity	1/2/1998 - 1/1/1999	18,000.00
57.	Zainudin bin Taib	Dr. Che Wan Fadhil bin Che Wan Putra	Integrating Construction Industry Database Using An Internet	1/9/1998 - 31/8/1999	20,000.00
58.	Zulkiflee bin Ibrahim	Assoc. Prof. Ir. Dr. Amir Hashim bin Mohd. Kassim Ab. Aziz Abd. Latiff	Rehabilitation of Urban river Water Environment	1/7/1995 - 31/5/1997	8,000.00

APPENDIX C: LIST OF RESEARCH CONTRACT DONE BY THE FACULTY

No.	Project Leader	Researcher	Project Title	Start/ Finish	Cost
1.	En. Azmi Aris	-	A Study on Wastewater Treatment for Food Processing Industry	1/4/1997 - 30/3/1998	28,500.00
2.	Assoc. Prof. Dr. Saliuddin Radin Sumadi	Assoc. Prof. Dr. Ahmad Mahir Makhtar	Survey On Prefab Construction In Malaysia	1/6/98 - 31/12/1996	20,000.00
3.	Assoc. Prof. Ir. Dr. Amir Hashim Mohd. Kassim	Prof. Dr. Azraai Kassim	Integrated Water Resources System in Sungai Layang Catchment	1998	335,000.00
4.	Prof. Dr. Mohd. Azraai Kassim	-	Water Quality Study In Water Catchment Area For Water Treatment Plan In Yong Peng 2 & 3 For Batu Pahat District	1998	112,263.00
5.	Assoc. Prof. Ir. Dr. Amir Hashim Mohd. Kassim	Dr. Norhan Abd. Rahman Kamarul Azlan Mohd. Nasir	Hydrological Study For Small Island	1998	50,000.00
6.	Prof. Dr. Mohd. Azraai Kassim	-	Wastewater Management	1998	200,000.00
7.	Assoc. Prof. Dr. Siti Hamisah Tapsir	-	Life Cycle of Housing	1998	200,000.00
8.	Prof. Ir. Dr. Mohd. Azraai bin Kassim	-	Waste Water Management	1999	330,000.00
9.	Dr. Norhan Abd. Rahman	-	Siting Proposal Study for TDM Oil Palm Mill in Bukit Besi, Dungun, Terengganu	1999	35,000.00
10.	Dr. Norhan Abd. Rahman	-	Inflow and Infiltration in Sewerage Systems	1999	120,000.00
11.	Dr. Norhan Abd. Rahman	-	Simulation Model for Hydrological Study for Conjunctive Use of Water Resources of Small Island	13/12/99 - 12/12/2000	19,000.00
					1,449,763.00