

Fundamental Research Grant Scheme (FRGS)

Training

8th July 2014

Philosophy of Fundamental Research Grant Scheme

Generate knowledge that can contribute to enhance levels of intellectual property, creation of new technology and dynamic cultural nourishment in accordance with national aspirations.

Definition of Fundamental Research Grant Scheme

Basic research that can produce theories, concepts and new ideas for the advancement of knowledge.

The purpose of Fundamental Research Grant Scheme

Encourage the generation of theories, concepts and new ideas that can be a catalyst for discovery and creation of innovative knowledge to expand the boundaries.

Research Areas

FRGS grants funded include basic fields that can support strategic agenda of the country. Fields identify are:

- A. Pure Science
- B. Applied Science
- C. Technology and Engineering
- D. Clinical and Health Sciences
- E. Social Sciences
- F. Arts and Applied Arts
- G. Natural Sciences and National Heritage
- H. Information and Communication Technology

**What Game Are We
Playing?**

Quality Game

mygrants.gov.my

Recommended Browser = Internet Explorer

Browser window showing the MyGRANTS Portal Version 2. The address bar displays <http://mygrants.gov.my/main.php>. The page features the logo of the Kementerian Pendidikan Malaysia and the MyGRANTS logo (MALAYSIA GREATER RESEARCH NETWORK SYSTEM). A search bar labeled "Carian Portal" is present, along with a "Log Masuk" button. A blue callout bubble points to the "Log Masuk" button with the text "Click Log in".

The main content area includes a banner for "OHONAN ELIDIKAN FUNDAMENTAL (FRGS) FASA 2/2014 SEPTEMBER 2014" and a "Salam Ramadhan" greeting. Below the banner are three buttons: "Penyelidik", "Industri", and "Institusi".

The page is divided into three columns:

- Pengumuman**
 - PENGUMUMAN**
 - Permohonan Skim Geran Penyelidikan Eksploratori (ERGS) telah diumumkan mulai 29 Januari 2014
 - Skim Geran Penyelidikan Fundamental (FRGS) Fasa 1/2014 pada 24 Februari hingga 24 April 2014 - TUTUP
- Berita**
 - Pecipta 13**
 - Persidangan dan Ekspo Ciptaan Institusi Pengajian Tinggi Antarabangsa 2013 (PECIPTA 2013) telah diadakan 7 hingga 9 November 2013. Sebanyak 20 IPTA, 5 IPTS dan 7 Intituti Luar Negara yang menyertai PECIPTA 2013.
- Inovasi**
 - COMBINE HARVESTER IN SEAWEE CULTIVATION**
 - Combine Harvester was invented to mechanise the planting and harvesting works from a labour-intensive image to a less labour usage....
 - [More >>](#)



Students, professors, researchers and even professionals use MyGRANTS to seek research grant opportunity, exchange ideas and information



Stay informed about research grant application and status



Control your research identity within your team



Communicate and exchange knowledge you need to achieve your goal

[Sign Up Now?](#)

RMC verification is required to approve the registration

[Looking for GRA Vacancy?](#)

Project Leader can now post GRA Vacancy in MyGRANTS

User Login

User Name :

Password :

User Role :

Remember Me : ☐

[Forgot your password?](#)

Login

Clear

[Need help?](#)










Helpline



Contact Us		
Name	Role	Contact
Helpdesk Email	-	helpdesk@mygrants.gov.my
Qayyum	Helpdesk Support	012-620 0825
Jason	Helpdesk Support	010-225 2532
Kenneth	Lead Developer	012-788 0116

User Manual
FRGS Application Manual
TRGS Application Manual
LRGS Concept Paper Manual
PRGS Application Manual
Researcher Revision Manual
Panel Evaluation

 **faizah hamdan**
Researcher
University Of Nottingham in
Malaysia

-  **Application**
 - New Application
 - My Application
-  **Evaluation**
 - My Evaluation
-  **Monitoring**
-  **Invitation**
-  **Connection**
 - Find Researcher
 - View Connections
 - Add Group
 - All
-  **Group Discussion**
-  **Search**
-  **Local System Setup**
-  **Help**

[Add Files](#)

Currently there is no discussion

[Post](#)

Suggested Researcher List

Announcement

Update
your profile

Browser address bar: <https://mygrants.gov.my/csp/sys/bi/%25cspapp.bi.ind...>

Page Title: MyGRANTS Portal Version 2

Page Header: MyGRANTS - hamdan_faiza...

Navigation Menu: File Edit View Favorites Tools Help

MetaFrame Presentation S... Suggested Sites Web Slice Gallery


MyGRANTS MALAYSIA CLUSTER RESOURCE NETWORK SYSTEM

Profile (Last verified at 27/08/2013, 04:14:54PM)

Account Personal Info Project **Publication** IP Supervision Teaching Consultation Community Service

Add Publication

Project & Publication are Very Important!!

 **Application** › Edit Application

Submission Date: 22/07/2014
14 days left

Application Details

Project Leader

Research Information


Equipment & Material

Budget

Declaration

Appendix

Form Submission

 **Application**


New Application

My Application

Evaluation

My Evaluation

 Monitoring

 **Invitation**

 **Connection**

Find Researcher

[View Connections](#)

Add Group

All

 **Group Discussion**

 Search

Local System Setup

 Help

A. Application Details	
Application ID	64004
A(i). Selected Grant	FRGS 2014-2
A(ii). Title Of Proposed Research Project*	
A(iii). Keyword*	

Save

Save & Proceed

Auto-save in 110 second(s)

←

→

https://mygrants.gov.my/csp/sys/bi/%25cspapp.bi.indx

MyGRANTS Portal Version 2

MyGRANTS - hamdan_faiza...

MyGRANTS - hamdan_faizah2...

File Edit View Favorites Tools Help

MetaFrame Presentation S...

Suggested Sites

Web Slice Gallery

MyGRANTS

MALAYSIA CLUSTER RESEARCH NETWORK SYSTEM

faizah hamdan

Researcher

University Of Nottingham in Malaysia

Application

New Application

My Application

Evaluation

My Evaluation

Monitoring

Invitation

Connection

Find Researcher

View Connections

Application > Edit Application

Submission Date: 22/07/2014
14 days left

Application Details

Project Leader

Research Information

Equipment & Material

Budget

Declaration

Appendix

Form Submission

C. Research Information

C(i). Research Cluster +

Research Cluster

At least one research area is required.

C(ii). Location of Research

C(iii). Duration of this research

From*

July/2014

To*

June/2015

Duration

Duration cannot be more than 3 or less than 1 years.

C(iv). Other Researchers ? +

Register Researcher from Foreign University

Register Government or Industry Partner

Researcher Id	Name	IC / Passport Number:	Faculty/ School/ Centre/ Unit	Position	Invitation Status
---------------	------	-----------------------	-------------------------------	----------	-------------------

C(v). Research projects that have been completed or ongoing by project leader for the last three years +

Include	Untick All	Title	Grant Name	Role	Status	Duration	Start Date	End Date
---------	------------	-------	------------	------	--------	----------	------------	----------

C(vi). Academic publications that has been published by the project leader for the last five (5) years +

Include	Untick All	Title	Name of Journal	Year
---------	------------	-------	-----------------	------

C(vii). Executive Summary of Research Proposal*

Auto Generate

click "+" to add co-researcher from local universities, if you can't find their name (maybe because they don't register therefore please remind them to register)

Team member must be related to the research, they have updated their profile and status is not pending

If you're under contract or Non-Malaysian, you will need a Malaysian, Permanent co-researcher from the same university

Research Cluster Selection -- Webpage Dialog

Research Cluster selection

Research Cluster	
	Applied Science
	Arts and Applied Arts
	Clinical and Health Sciences
	Information and Communication Technology
	Natural Sciences and National Heritage
	Pure Science
	Social Sciences
	Technology and Engineering

Selected Research Cluster

Su

Please make sure it's the right cluster, wrong cluster will be rejected

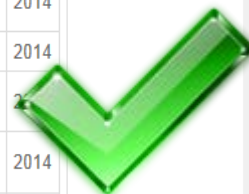
Researcher Id	Name	IC / Passport Number:	Faculty/ School/ Centre/ Unit	Position
12314	Gan Suyin	760903075540	University Of Nottingham in Malaysia	Professor (Professor)
25459	Harun Bin Mohamed Ismail	850915085139	Monash University Of Malaysia	Lecturer (Lecturer)
42890	Fabrizio Bonatesta		University of Oxford,UK	Senior Lecturer (Senior Lecturer in Thermo-fluids,)

C(v). Research projects that have been completed or ongoing by project leader for the last three years

Title	Grant Name	Role	Status	Duration	Start Date	End Date
Effectiveness, selectivity and kinetics of an integrated physical-Fenton remediation treatment for petroleum-contaminated soil using ethyl lactate as a green solvent	FRGS	Member	In Progress	3 years	01/01/2014	31/12/2016
Development of a fundamental model of reduced reaction mechanism and fuel physical properties for the combustion simulation of palm biodiesel	Fundamental Research Grant Scheme (FRGS)	Project Leader	In Progress	3 years	01/09/2011	31/08/2014
Development of reduced surrogate fuel and soot precursors mechanisms for multi-dimensional CFD stimulations of a light-duty diesel engine	MIDAS	Project Leader	Complete	2 years 11 months	01/12/2009	01/11/2012
Production and physico-chemical characterisation of bio-oil from the pyrolysis of Jatropha curcas wastes	ScienceFund	Member	Complete	2 years	01/06/2010	31/05/2012
Remediation of soils contaminated with polycyclic aromatic hydrocarbons (PAHs) via Fenton oxidation	ScienceFund	Member	Complete	2 years	01/10/2009	30/09/2011
Experimental and computational study of combustion and emission characteristics of palm oil biodiesels in a direct-injection diesel engine	New Academic Staff	Project Leader	Complete	4 years	01/09/2007	01/09/2011
Effects of palm oil and palm kernel oil in Fenton's chemistry for remediation of polycyclic aromatic hydrocarbons (PAHs)-contaminated soils	Others	Member	Complete	3 years	01/09/2008	31/08/2011

C(vi). Academic publications that has been published by the project leader for the last five (5) years

Title	Name of Journal	Year
Extraction agents for the removal of polycyclic aromatic hydrocarbons (PAHs) from soil in soil washing technologies	Environmental Pollution	2014
Chemical kinetic mechanism reduction scheme for diesel fuel surrogate	Applied Mechanics and Materials	2014
Characterisation of ignition delay period for a compression ignition engine operating on blended mixtures of diesel and gasoline	Applied Thermal Engineering	2014
Evaluation of in situ catalysed hydrogen peroxide propagation (CHP) for phenanthrene and fluoranthene removals from soil and its associated impacts on soil functionality	Environmental Science and Pollution Research	2014
Pyrolysis of Jatropha curcas pressed cake for bio-oil production in a fixed-bed system	Energy Conversion and Management	2014
Current best practices for organic analysis	Contaminated soils: a guide to sampling and analysis	2014



7. Scientific report/paper writing
Outcomes from the proposed phases of work are relevant and of particular interest to the biodiesel and automotive communities, and should lead to the dissemination of research findings at a high level in respected journals.

2. Flow Chart of Research Activities

[Flow Chart of Research Activities_v2.pdf](#)

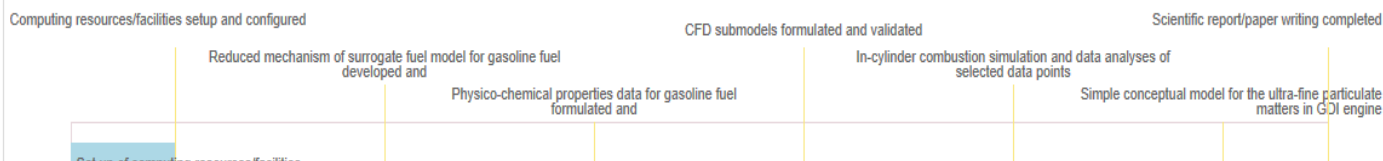
3. Research Activities

Activity	Start Date	End Date
Set up of computing resources/facilities	01/10/2014	
Development and validation of a reduced oxidation mechanism of surrogate fuel model for gasoline fuel	01/01/2015	
Formulation and validation of the physico-chemical properties data for gasoline fuel	01/07/2015	
Formulation and validation of CFD submodels for combustion simulation of GDI engine, including a soot tracking method	01/01/2016	30/06/2016
In-cylinder combustion simulation study and data analyses at selected data points	01/07/2016	31/12/2016
Development of a simple fundamental conceptual model for the ultra-fine particulate matters in GDI engine	01/01/2017	30/06/2017
Scientific report/paper writing	01/07/2017	30/09/2017

4. Milestones and Dates

Description	Date	Cumulative Project Completion Percentage(%)
Computing resources/facilities setup and configured	31/12/2014	5
Reduced mechanism of surrogate fuel model for gasoline fuel developed and validated	30/06/2015	35
Physico-chemical properties data for gasoline fuel formulated and validated	31/12/2015	55
CFD submodels formulated and validated	30/06/2016	65
In-cylinder combustion simulation and data analyses of selected data points completed	31/12/2016	85
Simple conceptual model for the ultra-fine particulate matters in GDI engine developed	30/06/2017	95
Scientific report/paper writing completed	30/09/2017	100

Gantt Chart of Research Activities with Milestones



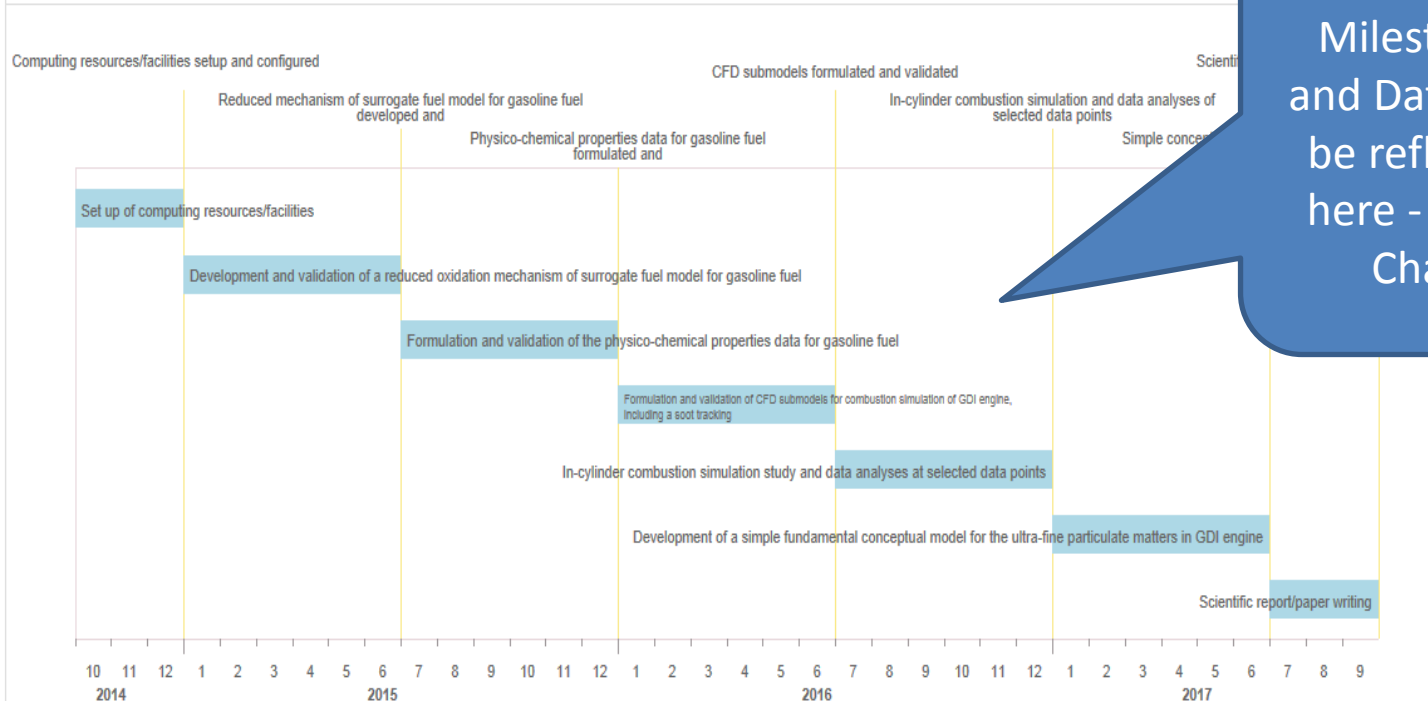
Compulsory!!
Upload using
google chrome &
rename the file or
we can't open it.

Must add up to
100%

4. Milestones and Dates

Description	Date	Cumulative Project Completion Percentage(%)
Computing resources/facilities setup and configured	31/12/2014	5
Reduced mechanism of surrogate fuel model for gasoline fuel developed and validated	30/06/2015	35
Physico-chemical properties data for gasoline fuel formulated and validated	31/12/2015	55
CFD submodels formulated and validated	30/06/2016	65
In-cylinder combustion simulation and data analyses of selected data points completed	31/12/2016	85
Simple conceptual model for the ultra-fine particulate matters in GDI engine developed	30/06/2017	95
Scientific report/paper writing completed	30/09/2017	100

Gantt Chart of Research Activities with Milestones



Information from Research Activity and Milestones and Dates will be reflected here - Gantt Chart

Browser address bar: <https://mygrants.gov.my/csp/sys/bi/%25cspapp.bi.indi>

Page Title: MyGRANTS Portal Version 2

Page Subtitle: MyGRANTS - hamdan_faiza...

Navigation: File Edit View Favorites Tools Help

MetaFrame Presentation S... Suggested Sites Web Slice Gallery

Logo: MyGRANTS MALAYSIA CLUSTER RESEARCH NETWORK SYSTEM

Icons: Home, MyGRANTS, MyGRANTS, MyGRANTS, MyGRANTS

Total Number of Applications: *

4. Number of PhD and Masters (by research) Students

Number of PhD Students:

Number of Masters (by research) Students:

Remark (if any):

5. Impact on Society, Economy and Nation

6. Intellectual Property(IP)

Total Number of IP: *


Buttons: Save Save & Proceed

Auto-save in 18 second(s)


3 years project = 1 Phd or 2 Master studens
2 years project = 1 Master student

Don't leave it blank!!

If you don't have any, please put "0"



MAKANYA C. KUALA LUMPUR NETWORK SYSTEM



faizah hamdan
Researcher
University Of Nottingham in
Malaysia

Application

- New Application
- My Application

Evaluation

- My Evaluation

Monitoring

Invitation

Connection

Application › Edit Application

Submission Date: 22/07/2014
14 days left

Application Details | Project Leader | Research Information | **Equipment & Material** | Budget | Declaration | Appendix | Form Submission

D. Access to Equipment & Material

Equipment

Type	<input type="text"/>	
Description	<input type="text"/>	
Owner	<input type="text"/>	
Location	<input type="text"/>	
Address	<input type="text"/>	<input type="button" value="Add"/>

Selected Equipments

--	--

Auto-save in 81 second(s)

It can be accessed to Library, Computer Lab etc. Don't leave it blank

Budget

Max RM250,000

Phd student = Max
RM2,300
Master student=Max
RM1,800

Justify your
budget!!

Local/International
conference
2 or final year

E. Budget						
Budget Type	Description	Year 1	Year 2	Year 3	Grand Total	-
11000 - Salary and Wages	1 doctoral student at RM2000 per month (30 months)	12000	24000	24000	60000	
Vot-Total		12000	24000	24000	(41.96%) 60000	
21000 - Travelling and Transportation Local	Two local conferences within Malaysia		1500	1500	3000	
	Scientific / research meeting with local collaborators	500		500	1000	
					0	
					0	
					0	
					0	
Sub-Total		500	1500	2000	(2.80%) 4000	
Overseas	One international conference (related to plant molecular biology or PCD)		10000		10000	
Sub-Total		0	10000	0	(6.99%) 10000	
Field work					0	
Sub-Total		0	0	0	(0.00%) 0	
Vot-Total		500	11500	2000	(9.79%) 14000	
24000 - Rental	Rental of Confocal Microscopy	2000			2000	
	Rental of Transmission Electron Microscope		1000		1000	
	Rental of Flow Cytometry			2000	2000	
Vot-Total		2000	1000	2000	(3.50%) 5000	
27000 - Research Materials and Supplies	Common laboratory plastics, glasswares and other related consumables	11000			11000	
	Recombinant technological consumables e.g. primers, polymerase and restriction enzymes, cloning kits, plasmid extraction kits	12000			12000	



24000 - Rental	Rental of Confocal Microscopy	2000			2000	
	Rental of Transmission Electron Microscope		1000		1000	
	Rental of Flow Cytometry			2000	2000	
Vot-Total		2000	1000	2000	(3.50%) 5000	
27000 - Research Materials and Supplies	Common laboratory plastics, glasswares and other related consumables	11000			11000	
	Recombinant technological consumables e.g. primers, polymerase and restriction enzymes, cloning kits, plasmid extraction kits	12000			12000	
	Plant seeds and planting related consumables e.g. pots, composts, fertilizers	3000			3000	
	Cellular proliferation and histochemical assays e.g. MTT, H&E, AO, PI, DAPI		4000		4000	
	Expression assays e.g. RT-PCR kits, real-time RT-PCR kits, Taqman probes, RNA extraction kits, protein extraction kits, 1D and 2D electrophoresis reagents, Western blotting reagents and membrane, antibodies, conjugates	2000	6000	8000	16000	
	Cell signalling assays e.g. Comet, TUNEL, caspase, flow cytometric reagents, ELISA reagents		3000	7000	10000	
Vot-Total		28000	13000	15000	(39.16%) 56000	
28000 - Maintenance and Minor Repair Services					0	
Vot-Total		0	0	0	(0.00%) 0	
29000 - Professional Services Services/Consultancy	Printing such as conference posters, hononarium for invited expert, journal publication fees related to project		3000	5000	8000	
					0	
Sub-Total		0	3000	5000	(5.59%) 8000	
Short term course					0	
Sub-Total		0	0	0	(0.00%) 0	
Vot-Total		0	3000	5000	(5.59%) 8000	
35000 - Accessories and Equipment					0	
Vot-Total		0	0	0	(0.00%) 0	
Grand Total		42500	52500	48000	(100.00%) 143000	



Browser window showing the MyGRANTS Portal Version 2 interface. The address bar displays <https://mygrants.gov.my/csp/sys/bi/%25cspapp.bi.indk>. The page title is "Application > Edit Application".

The user profile on the left indicates the user is **faizah hamdan**, a **Researcher** at the **University Of Nottingham in Malaysia**.

The main navigation menu includes:

- Application
 - New Application
 - My Application
- Evaluation
 - My Evaluation
- Monitoring
- Invitation
- Contract
- Find
- View
- Add
- All
- Group
- Search
- Location
- Help

The main content area shows the "Appendix" section, which includes a "Name:" input field and an "Attach Appendix" button. Below this is a "Figures" section.

At the bottom of the main content area, there are two buttons: "Save" and "Save & Proceed". Below these buttons, a status message indicates "Auto-save in 93 second(s)".

A blue callout bubble points to the "Appendix" section with the text: "Upload using google chrome & rename the file or we can't open it."

The top right corner displays the submission date: **Submission Date: 22/07/2014** and the remaining time: **14 days left**.

Browser address bar: <https://mygrants.gov.my/csp/sys/bi/%25cspapp.bi.indi>

Page Title: MyGRANTS Portal Version 2

Page Subtitle: MyGRANTS - hamdan_faiza... MyGRANTS - hamdan_faizah2...

Navigation: File Edit View Favorites Tools Help

MetaFrame Presentation S... Suggested Sites Web Slice Gallery

Header: MALAYSIA GRANT RESEARCH NETWORK SYSTEM

User Profile: faizah hamdan, Researcher, University Of Nottingham in Malaysia

Submission Date: 22/07/2014, 14 days left

Application Form Submission

Status: Draft, Complete, Preview

Save

Research Information incomplete

- Research Background required
- Literature Review required
- Objective required
- Research Questions required
- References required
- Description of Methodology required
- Executive Summary required

At least one research area is required.

Auto-save in 51 second(s)

Once finished, Click complete and save!,