

Innovation toward to Commercialization in Universiti Putra Malaysia



BERILMU BERBAKTI **I**
WITH KNOWLEDGE WE SERVE

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UNIVERSITI PUTRA MALAYSIA (UPM)

Universiti Putra Malaysia (UPM) is one of Malaysia's **premier public** Universities with an array of disciplines

Located strategically within the Multimedia Super Corridor, only 10 minutes drive to Putrajaya and 30 minutes drive to the Kuala Lumpur City Centre.

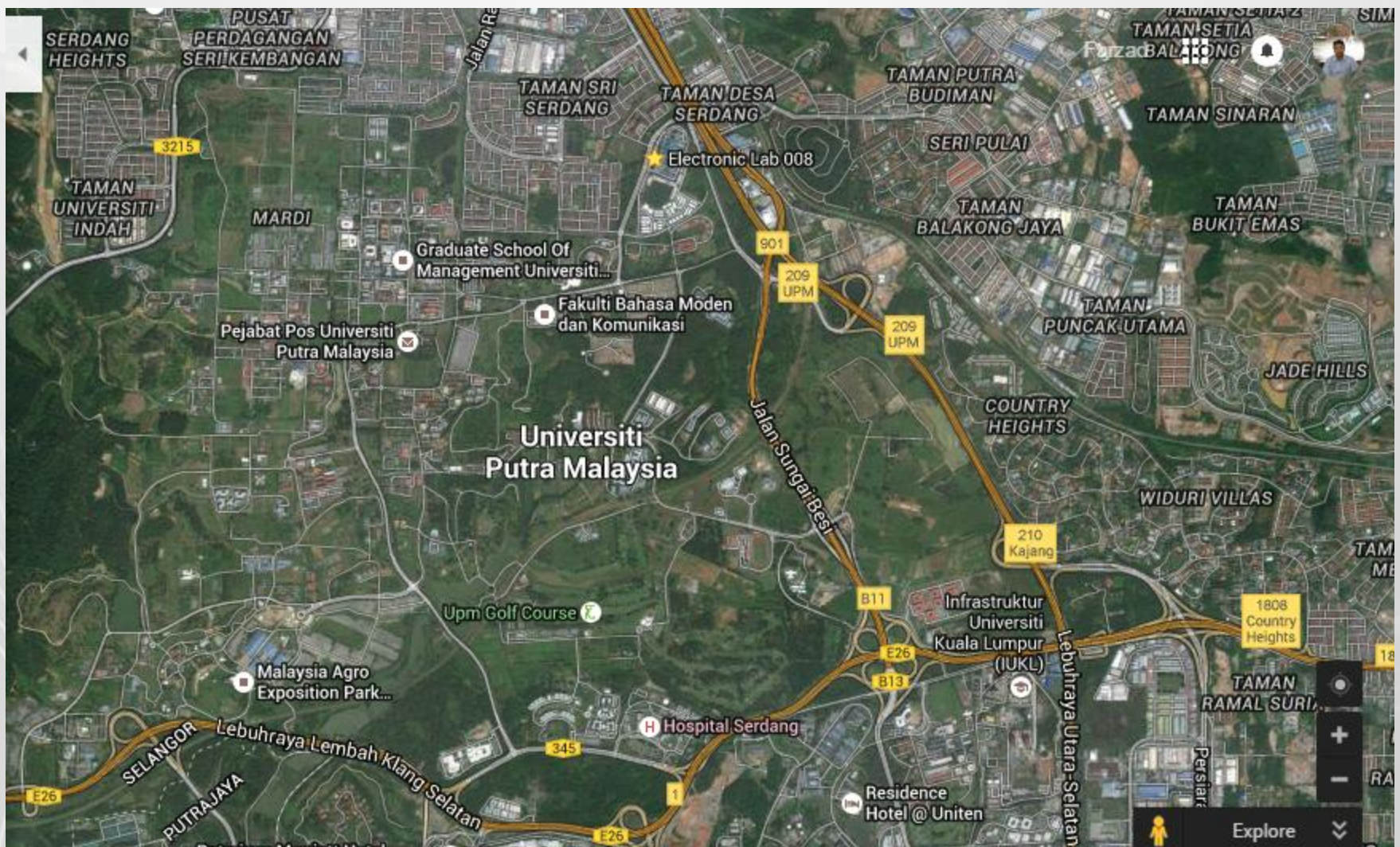
Accorded the status of '**Research University**' by the Ministry of Higher Education, Malaysia in 2006





PUTRA GLOBAL 200

Kami membuat sasaran penting untuk mencapai kedudukan 200 universiti terbaik dunia berdasarkan penilaian QS World University Ranking pada tahun 2020. Putra Global 200 bukan suatu angan-angan biasa, tetapi ia adalah impian yang berdasarkan usaha strategik, semangat daya saing yang tinggi dan kerjasama yang kolektif.



Total Campus Size ➔ 1822 Hectares

Main Campus Size – Serdang ➔ 1108.103 hectares

Branch Campus Size – Bintulu ➔ 714.717 hectares





VISION

**To become a university of
international repute.**

MISSION

**To contribute towards wealth creation,
nation building and universal
advancement through discovery and
dissemination of knowledge.**





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BERSILU BERSAKSI

Universiti
Putra
Malaysia

UNIVERSITY RANKING

QS TOP UNIVERSITIES

Rankings >

Discover >

Events >

Prepare >

Apply >

Careers >

Community



OVERVIEW
Ranking & stats

UNDERGRADUATE

POSTGRADUATE



Universiti Putra Malaysia (UPM) ★★★★★

S M **L** XL

SIZE < 30,000



AGE < 50 years



STATUS
Public



RESEARCH
Very High



FOCUS
Comprehensive+

Universiti Putra Malaysia (UPM) formerly known as Universiti Pertanian Malaysia was founded in 1971 through the merger of Faculty of Agriculture, University Malaya and Agriculture College in Serdang. The first three founder faculties were Faculty of Agriculture, Faculty of Forestry and Faculty of Veterinary Medicine and Animal Science. UPM maintains its traditional role of education in focussing its tertiary level research on agriculture and its relevant areas. In early 80's, UPM has expanded its scope by including science and technology into its areas of studies. In 1994, UPM aspired to be the University of the Next Millennium and in line with

▼ [READ MORE](#)



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Universiti
Putra
Malaysia

UNIVERSITY RANKING

QS TOP UNIVERSITIES

Rankings > Discover > Events > Prepare > Apply > Careers > Community



This institute is rated 5 Stars
based on 8 categories.

See the [full ratings table](#)

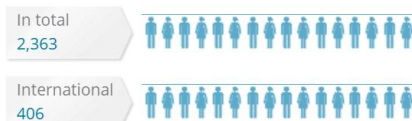
Research
Teaching
Internationalization
Social Responsibility



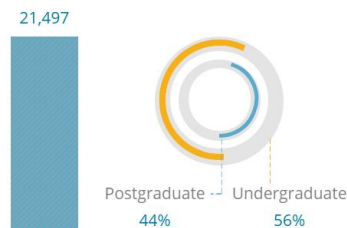
Employability
Facilities
Innovation
Specialist Criteria



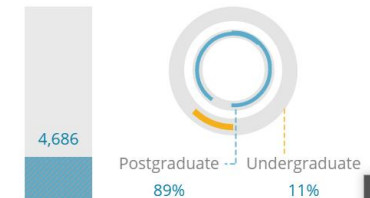
Number of academic faculty staff



Number of students



Number of international students



The numbers, stats, stars and rankings data are provided by QS Intelligence Unit.



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Universiti
Putra
Malaysia

UNIVERSITY RANKING

QS TOP UNIVERSITIES

Rankings

Discover

Events

Prepare

Apply

Careers

Community



University search:

Study Level



Subject of interest



Study destination



GO

OR

Site Search



GO



OVERVIEW
Ranking & stats

UNDERGRADUATE

POSTGRADUATE



Universiti Putra Malaysia (UPM) ★★★★★

POSTGRADUATE

POSTGRADUATE INTERNATIONAL FEES
< 8,000 USD



Universiti Putra Malaysia (UPM) formerly known as Universiti Pertanian Malaysia was founded in 1971 through the merger of Faculty of Agriculture, University Malaya and Agriculture College in Serdang. The first three founder faculties were Faculty of Agriculture, Faculty of Forestry and Faculty of Veterinary Medicine and Animal Science. UPM maintains its traditional role of education in focussing its tertiary level research on agriculture and its relevant areas. In early 80's, UPM has expanded its scope by including science and technology into its areas of studies. In 1994, UPM aspired to be the University of the Next Millennium and in line with

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BERILMU BERAKTI

Universiti
Putra
Malaysia

FACTS & FIGURES



Academic Entities

- ✓ **16 Faculties**
- ✓ **10 Institutes**
- ✓ **2 Schools**
- ✓ **1 Academy**

No. of Academic Programmes

- ✓ **Postgraduate- 57**
(with more than 250 fields of studies)
- ✓ **Undergraduate- 78**
(7 Diploma & 71 Bachelor Programs)
- ✓ **Agricultural Science Foundation Program**



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Universiti
Putra
Malaysia

Faculties in UPM

The following is a list of **16** faculties in UPM:

- »Faculty of Agriculture
- »Faculty of Forestry
- »Faculty of Veterinary Medicine
- »Faculty of Economics and Management
- »Faculty of Engineering
- »Faculty of Educational Studies
- »Faculty of Science
- »Faculty of Food Science and Technology
- »Faculty of Human Ecology
- »Faculty of Modern Language and Communication
- »Faculty of Design and Architecture
- »Faculty of Medicine and Health Science
- »Faculty of Computer Science and Information Technology
- »Faculty of Biotechnology and Biomolecular Sciences
- »Faculty of Environmental Studies
- »Faculty of Agriculture and Food Sciences



Where we are ...

2017



For improving an **impressive 61 places** in the



2013
↑41
#411

2014
↑39
#370

2015
↑61
#331

2016⁴¹
↑
#270
(Top 1% in the world*)
*Out of approximately 30,000 universities worldwide

#229

(Top 1% in the World)

Out of 30,000 Universities



KEEP INSPIRING
KEEP SOARING
UPWARDS
MALAYSIAN HIGHER EDUCATION



UPM IS RANKED 229th

Among top 1% universities

 **WORLD UNIVERSITY RANKINGS**®

2017/2018



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BERILMU BERBAKTI



CONGRATULATIONS!

UPM RANKED

1st
in
Malaysia

15th
in the
World

QS WORLD
UNIVERSITY
RANKINGS
TOP 50 UNDER 50
2017/2018



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youtube.com/user/bppupm

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www.upm.edu.my



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SOARING
UPWARDS

WE'RE IN THE **TOP 1%** OF
UNIVERSITIES WORLDWIDE
AND WE'RE AIMING HIGHER EVERYDAY...

229th **QS** WORLD
UNIVERSITY
RANKINGS
2018

49th **QS** ASIAN
UNIVERSITY
RANKINGS
2016

17th **QS** WORLD
UNIVERSITY
RANKINGS
TOP 50 UNDER 50

**15 SUBJECTS
TOP 200** **QS** WORLD
UNIVERSITY
RANKINGS
by subject

42nd **BEST**
Best Global Universities
for Agricultural Sciences
- U.S. News & World Report
USNEWS

34th **Green**
In the World
and 4th in Asia
Metric
World University Ranking

89th **THE** **ECONOMICS**
RANKINGS

121th-130th **THE** **ECONOMICS**
RANKINGS
ASIA

TOP 75 **REUTERS**
ASIA'S MOST INNOVATIVE
UNIVERSITIES
#1 MALAYSIA | #3 SOUTHEAST ASIA | #73 ASIA

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instagram.com/uniputramalaysia youtube.com/userupputram

AGRICULTURE • INNOVATION • LIFE

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UPM ranks in the **Top 1.0%** of universities worldwide

270th

QS World University Rankings

17th

QS Top 50 Under 50

REUTERS

Top 75

Asia's Most Innovative Universities

49th

QS Asia University Rankings

PUTRA
GLOBAL
200



34th

UI GreenMetric University Rankings

5 Star



QS Star Universities Ratings

89th

THE BRICS & Emerging Economics World Rankings

**Agriculture Science
program rankings**

Top 100

QS World University
Ranking by Subjects

42nd

US News & World
Report

67th

National Taiwan
University Ranking

RECOGNITIONS

INTERNATIONAL AWARDS AND RANKINGS

UPM universiti inovatif terbaik negara

MUHAMMAD AZIM ZAID | 02 September 2016 12:12 AM

Like 0 Retweet 0 Google+ 0

KUALA LUMPUR 1 Sept. - Universiti Putra Malaysia (UPM) tersenarai sebagai universiti inovatif terbaik dalam negara oleh ranking Reuters Top 75: Asia's Most Innovative Universities berikutan kecemerlangan institusi pendidikan itu di dalam bidang sains, penciptaan teknologi baharu dan membantu memacu ekonomi global.

Senarai yang dikeluarkan oleh agensi berita antarabangsa, Reuters turut meletakkan UPM ketiga terbaik Asia Tenggara dan 73 terbaik Asia diikuti Universiti Malaysia pada kedudukan ke-75.

Naib Canselor UPM, Prof. Datin Paduka Dr. Aini Ideris berkata, pemilihan oleh agensi itu secara umumnya berdasarkan metodologi yang memberi tumpuan kepada artikel ilmiah penyelidikan asas yang dilakukan di universiti itu selain pemfalan paten bagi perlindungan harta intelek.

"Dengan kedudukan UPM sebagai universiti inovatif terbaik dalam negara mengikut pemilihan Reuters, inisiatif Putra Global untuk UPM mencapai kedudukan 200 universiti terbaik dunia menjelang 2020 akan terus dipergiatkan.

"Selari dengan visi UPM iaitu ke arah universiti bereputasi antarabangsa, kualiti penyelidikan dan inovasi UPM bukan sahaja boleh melonjakkan tahap kecemerlangan UPM tetapi memberi sumbangan bermakna kepada kesejahteraan masyarakat dan kemajuan negara," katanya dalam satu kenyataan hari ini.

#45



#17



#229



#103



#17



#73

REUTERS

Most Innovative University in Malaysia



by subject

Agriculture & Forestry	51-100
Engineering – Chemical	51-100
Engineering – Mechanical , Aeronautical & Manufacturing	51-100
Architecture/ Built Environment	101-150
Pharmacy & Pharmacology	101-150
Environmental Sciences	101-150
English Language & Literature	101-150
Engineering – Civil & Structural	101-150
Engineering – Electrical	101-150
Education	101-150
Computer Sciences & Information Systems	101-150
Modern Languages	151-200
Accounting & Finance	151-200
Material Sciences	151-200
Business & Management Studies	151-200

Top 100
3 subjects

**UPM ranked in the
top 200 in the world
in 16 different
subject areas**

Top 150
8 subjects

Top 200
5 subjects



GRADUATE EMPLOYABILITY

2016 : 83.5%

2015

83.1%

2013

86.1%

2014

82.2%

2011

83.3%

2012

85.9%



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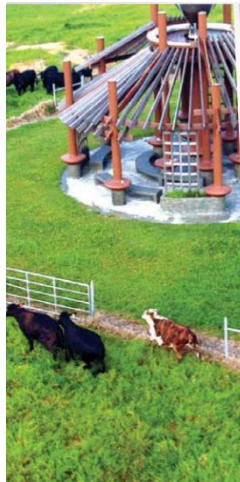
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Innovative University First in Malaysia and Third in ASEAN





INNOVATION AND COMMERCIALISATION IN VARIOUS FIELD



Looking for
new innovation
for your business?

Thousands
of exciting new
technologies

Come & Meet
them!
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E : promosi@upm.edu.my



Come and see UPM's new R&D products from various fields of innovations. We have new solutions for various industries such as consumer products, health and beauty, medical, engineering, agriculture, design, manufacturing, ICT and many more. One of these would surely help propel your business to new heights with exciting new products and processes.

Our innovation team will be your guide to choose from a vast array of technological solutions. You will also be able to meet the researchers behind each new technology. Come and meet them at our series of Innovation Open Day. See you there.





TECHNOPRENEURS: BUILDING BUSINESSES FROM TECHNOLOGIES OF TOMORROW







COMMERCIALISED PRODUCTS





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Agricultural Products

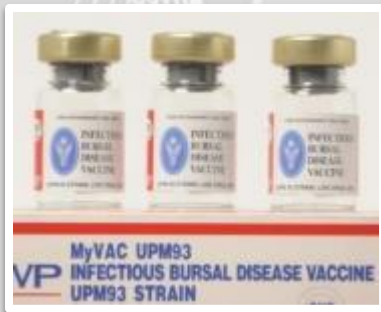
Berilmu Berbakti *With Knowledge We Serve*



Fowl Pox Vaccine
RM 2.86 million



Newcastle Disease Vaccine
RM 1.33 million



Infections Bursal Disease Vaccine
UPM93 Strain
RM 1.07 million



Vaccines in the
poultry industry



MVP
MALAYSIAN
VACCINES AND
PHARMACEUTICALS
(CO NO: 82381-X)

Dilesenkan kepada :
Malaysia Vaccines & Pharmaceuticals (MVP)



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Agricultural Products

Berilmu Berbakti With Knowledge We Serve

RM 26.5 million



ZAPPA® -The rice seeds germination enhancer

Patent -MY133162A

Vita-Grow® - The growth and yield enhancer

Trade Secret



Licensed to:

Diversatech (M) Sdn. Bhd.



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Agricultural Products

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Trichogreen™ - a biocontrol agent and growth enhancer for oil palm industry

Trade Secret

RM67,000.00

Unique Nutrients Sdn. Bhd.



UPM Bacto-10 - Biofertilizer

Trade Secret

***RM 100,000**

PhytoGold Sdn. Bhd.



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Pneumonic Mannheimia Vaccine - vaccine for goats and sheep against mannheimia haemolytica infection

Patent - PI20070305

***RM 4 million**

ST Biolife Sdn. Bhd.



KUSTEMVax

Mannheimiosis vaccine - an intranasal spray vaccine for sheep and goats

Patent - PI20060550

RM100,000

**Joint owner with UMT
Profound Vaccine Sdn. Bhd.**



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Agricultural Products

Berilmu Berbakti With Knowledge We Serve



Monogastric Animal Feed – a
feed additive or food supplement
formulation

Patent - PI201005787

***RM 1 million**

**Nu-Trino Synbio (M)
Sdn Bhd**



StellarLac -
Probiotic for chicken

Trade Secret

RM 200,000

Janaf Sdn. Bhd.



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Agricultural Products

Berilmu Berbakti *With Knowledge We Serve*

Machines for Small and Medium Entreprises (SMEs)



Rolled
Tart
Machine



Multi - Ezy
Cutter



Coconut Auto
Squeezer
Machine

Tuberous
Fruits &
Vegetables
Shredding
& Slicing
Machine



Pineapple
Multi-
Peeler
Plus



Ezy
Cooker



**TECHNOLOGY PARK
MALAYSIA**

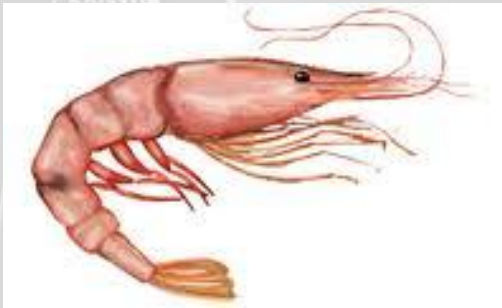
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TPM Engineering Sdn. Bhd.



Soil Prop – Soil Property Calculator - machine that measures soil properties

Copyright

**Pidmams Smartfarming
Sdn. Bhd**



**Development and Production
of Shrimp Feed** – probiotics for shrimps

Know-how technology

Neuriech Feedmill Sdn. Bhd.

Mannhemia haemolytica bacterial polypeptide and sequences, gene sequences and uses thereof

RM 300,000

KIAI 300,000



RM 100,000

KIAI 100,000

An improve sterilization process to increase palm oil extraction rate

Stone Mastic Asphalt (SMA) : safer road surfaces

RM 50,000

KIAI 20,000



RM 50,000

KIAI 20,000

Real Time Oil Palm Fruit Grading System : Fresh Fruit Bunch (FFB) Hyperspectral Scanner - fruit maturity detection and classification

**TQRF (THYMOQUINONE Rich Fraction) as
Cardioprotective and Neuroprotective Agents**

RM 50,000



AFLOK : A Method For Producing A Biopolymer

RM 10,000

**Perisian Fonik, Tutor untuk Murid-murid Disleksia Visual
: diagnostic tool and software
as language therapy in Bahasa Melayu**



RM 50,000



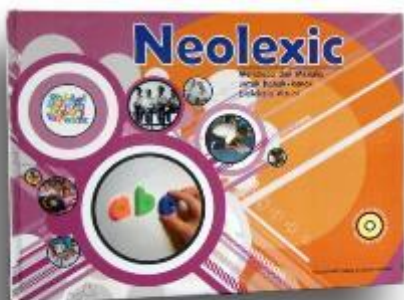
RM 10,000

**Integrated Production of High
Performance Biolubricant From
Renewable Resources**

PROMOLAKTIN: Composition for promoting lactation with tumour suppressive properties and preparation method thereof



RM 2,000



NEOLEXIC: Membaca Dan Menulis Untuk Kanak-Kanak Disleksia Visual

RM 1,250

3D Facial Expression Database

RM 500



Development and Production of Shrimp Feed



Polytop



Bioencapsule and Method Thereof



Porous Bioceramic Composition for Bone Repair





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Universiti
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List of Experts



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List of Products



List of Products

**Department of
Civil Engineering**



List of Products

Title of Product:

Method and System for determining The Number and Position of Damping Elements for Building Structures.

Title of Project:

Analysis, design, detailing of residential building for moderate earthquake excitation.

IP: PI2010001771

Description:

The invention is about development of Nonlinear Viscous Damper Applicable in Structures subjected to any type of vibration and dynamic force due to earthquake, tsunami, vehicle, train, machine and etc. Also a method of determining the optimum number and position of damping elements for building structures is proposed.



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Name Inventor: Dr. Farzad Hajati
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**Title of Product:**

A Variable Stiffness Bracing Device

Title of Project:

Formulation and Validation of Effective Variable Stiffness Bracing System for Structures Under Dynamic Load

IP: PI 2014701608

Description:

The present invention relates to a variable stiffness. Bracing device deployed as a smart structural control mechanism of a building, to protect the building against severe vibration and ground motion. The present invention is functioned in retrofitting and rehabilitation of structures where subjected to dynamic loads and vibration due to wind, earthquake and ground movement.



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List of Laboratory Service



Laboratory Services in
**Faculty of
Engineering,
UPM**



List of Laboratory Service

No	Department	Device Name	Services / Testing
1	Department of Aerospace Engineering	Material Testing System (MTS)	High Cycle Fatigue Testing (MS ISO/IEC 17025:2005)
2		Material Testing System (MTS)	Tensile Strength
3		Material Testing System (MTS)	Compression Test
4		Flight Laboratory (9M-KAA)	Flight Tests
5		Flight Laboratory Simulator (FLS)	Design Validations
6		Single Stage Gas Gun	High Velocity Testing, Ballistic Testing
7		Composite Material Tester	Low Velocity Impact Test/ Drop Test
8		Satellite Simulator Facility	Experiment and simulation of satellite control
9		Laser Doppler Anemometer	Measurement of air velocity at one point using laser light
10		Six Component Balance	Measurement of aerodynamic forces on object studied
11		Hot Wire Anemometer	Measuring air velocity at one point using temperature changes
12		Particle Image Velocimeter	Measurement of air velocity at one point using laser light
13		Infrared Camera	Measurement of an object velocity using movement recorded
14		Low Speed Wind Tunnel	Analysis on object affected by air velocity for determining aerodynamic forces
15		Digital High Speed Video Camera System	Measurement of an object velocity using movement recorded
16		Mechanical stirrer	Sample preparation
17		Homogenizer	Sample preparation Objective: Highly disperse powder in solution
18		Vacuum Oven	Sample preparation Objective: To remove/ degassed air bubble
19		Water bath	Sample test Water absorption test at different temperature (30°C to 99.99°C)
20		Vacuum Infusion	Sample preparation Objective: To remove/ degassed air bubble



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Thank you...

FARZAD HEJAZI, PhD

***Associate Professor, Department of Civil Engineering
Innovation Coordinator, Faculty of Engineering
Liaison Officer of UPM to Promote in Middle East and Turkey***

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