

ABDULLAH AL-MAMUN



- KULLIYAH OF ENGINEERING
- IIUM Gombak Campus
- Email address: mamun@iium.edu.my

ACADEMIC QUALIFICATION

- Ph.D in Environmental Engineering
- Master in Environmental Engineering
- Bachelor in Civil Engineering

TEACHING RESPONSIBILITIES

AIR POLLUTION CONTROL TECHNOLOGY	2006/2007 2009/2010 2010/2011
BIOTECH. ENGINEERING LAB III	2007/2008 2008/2009 2009/2010 2010/2011 2011/2012
BIOTECHNOLOGY ENGINEERING LAB IV	2012/2013 2013/2014 2014/2015
CIVIL ENGINEERING LAB III	2017/2018 2018/2019
CIVIL ENGINEERING LAB IV	2017/2018 2018/2019 2019/2020
DRINKING WATER QUALITY & TREATMENT PROCESSES	2010/2011 2014/2015
ENVIRONMENTAL BIOTECHNOLOGY	2005/2006 2006/2007 2007/2008
ENVIRONMENTAL ENGINEERING	2008/2009 2009/2010 2010/2011 2011/2012 2012/2013 2013/2014 2017/2018 2018/2019 2019/2020 2020/2021
INTEGRATED DESIGN PROJECT	2013/2014 2014/2015
INTRODUCTION TO ENVIRONMENTAL ENGINEERING	2012/2013 2013/2014 2015/2016
MOLECULAR BIOLOGY & BIOCHEMICAL TECH.	2006/2007 2007/2008
PROJECT I	2011/2012 2012/2013
PROJECT II	2006/2007 2007/2008 2013/2014
SEMINAR	2020/2021
SOLID WASTE ENGINEERING	2009/2010 2010/2011 2011/2012 2012/2013 2013/2014 2014/2015 2015/2016 2016/2017
STATICS	2016/2017

URBAN STORMWATER MANAGEMENT	2018/2019 2020/2021
WASTE MANAGEMENT ENGINEERING	2013/2014 2014/2015
WASTEWATER RECLAMATION AND REUSE	2007/2008 2008/2009 2011/2012 2012/2013 2013/2014 2014/2015 2015/2016
WATER RESOURCES AND HYDROLOGY	2016/2017 2017/2018 2018/2019 2019/2020 2020/2021

RESEARCH PROJECTS

In Progress

- 2020 - Present** - Rekabentuk Terperinci Pembangunan Lembangan Sungai Bersepadu Sg. Semantan Daerah Temerloh Fasa 1, Pahang Darul Makmur
- 2020 - Present** - Penyediaan Pelan Pengurusan Lembangan Sungai Bersepadu (IRBM) Sungai Buloh, WPKL/Selangor D.E.
- 2020 - Present** - Development of a Solid-State Bio-Conversion System for the Bulk Production of Myco-Coagulant (My-Coag) for Water Treatment
- 2019 - Present** - A hybrid system of microbial electrolysis cell and anaerobic digestion for high content of biomethane production
- 2019 - Present** - Sedimentation and Total Maximum Daily Load (TMDL) Analysis of Sungai Pusu, IIUM Gombak Campus
- 2019 - Present** - Development of an improved method for quick estimation of storm runoff peak flow
- 2018 - Present** - Underlying molecular mechanism of acacetin-7-O-glycoside (AG) isolated from Premna serratifolia L. against breast cancer cells
- 2018 - Present** - Underlying molecular mechanism of acacetin-7-O-glycoside (AG) isolated from Premna serratifolia L. against breast cancer cells
- 2018 - Present** - Fundamental Investigation on Non-structural Approach for Sustainable Flood Disaster Management in Malaysia
- 2018 - Present** - Pelan Pengurusan Lembangan Sungai Bersepadu (IRBM) Sungai Merbok, Kedah
- 2016 - Present** - Rekabentuk Terperinci Rancangan Tebatan Bandar Merlimau, Melaka
- 2015 - Present** - Investigation of Indigenous Biofilm Technology for Simultaneous Pretreatment and Enhanced Biogas Production From Palm oil Mill Effluent
- 2004 - Present** - Bio-Environmental Engineering Research Centre (BERC)

Unknown - Present Underlying molecular mechanism of acacetin-7-O-glycoside (AG) isolated from Premna serratifolia L. against breast cancer cells

Completed

- 2018 - 2019** Pelan Pengurusan Lembangan Sungai Bersepadu (IRBM) Sungai Merbok, Kedah
- 2016 - -1** Storm Drainage Modelling and Design of the Improved System at Bandar Bukit Raja, Kapar, Selangor
- 2015 - 2015** Kajian Hybrid off River Augmentation Storage (HORAS) di Kg. Sg. Darah, Bestari Jaya Sebagai Sumber Air Untuk Tujuan Bekalan Air
- 2015 - -1** Feasibility Study for Proposed Water Treatment Plant in Labohan Dagang, Daerah Kuala Langat, Selangor Darul Ehsan.
- 2015 - 2015** THE DETAIL DESIGN OF RIVER IMPROVEMENT WORKS AND DETENTION POND FOR THE PROPOSED PROJEK PEMBANGUNAN PUSAT KECEMERLANGAN LEMBAGA GETAH MALAYSIA
- 2014 - 2017** Development of Novel Microbial Technology to Reduce Turbidity of River Water
- 2014 - 2016** Swan Lake, Engineered Wetland and Signature Lake at East Ledang, Mukim Pulai, Johor
- 2014 - 2017** Pilot Study on the River Rehabilitation of Sg. Pusu
- 2012 - 2014** Penyediaan Data-Data Hujan dari Stesen Manual (Daily Data) kepada Hujan dengan Interval Hourly untuk Tujuan Rekabentuk Projek Tebatan Banjir
- 2012 - 2016** Development of National Event Mean Concentration (EMC) of Storm Runoff Quality Database for the Non-Point Source Pollution Control from Highways in Malaysia
- 2012 - 2015** Optimization of Colour Removal from Palm Oil Mill Effluent (POME) by Nanomaterials
- 2012 - 2016** Consultancy Services for the Updating/Preparation of the Storm Water Drainage Master Plan for Dhaka City, Dhaka Water Supply and Sanitation Project (DWSSP)
- 2011 - 2012** Design of a Sand Filter for Recycling Ablution Water from IIUM Majid
- 2010 - 2010** Consultancy Services for the Detailed Design and Preparation of Tender Document Flood Mitigation in Setiu River in Terengganu
- 2010 - 2011** Preparation of Urban Storm Water Management Planning and Design Standard For Malaysia and 2nd Edition of Urban Storm Water Management Manual For Malaysia
- 2009 - 2010** Water Quality Sampling, Testing, Inventory and River Quality Improvement Option for Buloh River
- 2009 - 2010** Upgrading of Jimah River System for Flood Mitigation
- 2009 - 2012** (RU 2011): Characterization, Composing and Management of food and garden Wastes: IIUM as a case study.
- 2009 - 2010** Study and Detailed Design of Stormwater Detention Pond for Ayer Salak River in Malacca

2009 - 2010	Adsorption of Heavy Metals from Industrial Wastewater using Carbon Nanomaterial Grown on Granular Activated Carbon
2008 - 2011	Improvement of the Existing Water Quality Indices (WQI) for Various Usages in Malaysia
2008 - 2009	Flood Mitigation Masterplan Study for Mersing River Basin
2008 - 2011	Development of An Integrated Water-Level Sensor and Data Logger System
2008 - 2009	River Water Quality Trends and Indexes in the Peninsular Malaysia
2008 - 2012	Development of Decision Support System to Manage Severe Floods in Kuala Lumpur and Selangor
2008 - 2008	Preparation of Irrigation and Drainage Manual for Malaysia
2007 - 2007	Rehabilitation and Water Treatment of Penang River - Study and Detailed Design
2007 - 2008	Preparation of Irrigation and Drainage Manual for Malaysia
2007 - 2016	Palm Oil Mill Effluent as Renewable Resource for Bioethanol Production by Single-Step Bioconversion
2007 - 2009	Optimization of Extraction Process for Useful Bound and Free Bioactive Compounds from Oil Palm Industrial Wastes
2007 - -1	Palm Oil Mill Effluent as Renewable Resource for Bioethanol Production by Single-Step Bioconversion
2007 - 2011	CHARACTERIZATION OF SULLAGE
2006 - 2007	Detailed Design of Community Pond at Taman Ria, Sungai Petani, Kedah Darul Aman
2006 - 2007	Upgrading of Simin River System for Flood Mitigation
2006 - 2012	Production of Carbon Nanomaterials and Application in Removal of Toxic Heavy Metals From Water and Wastewater
Unknown - -1	Study on Vulnerability and Adaptation of Climate Change Impacts on Floods in Selected River Basins

PUBLICATIONS

Article

- 2018** [Carbon nanotubes grown on oil palm shell powdered activated carbon as less hazardous and cheap substrate.](#) Applied Nanoscience (Switzerland) , 8 (7) pp.1767-1779
- 2016** [Synthesis of carbon nanofibers on impregnated powdered activated carbon as cheap substrate.](#) Arabian Journal of Chemistry , 9 (4) pp.532-536

- 2015** [Development of electronic rain gauge system.](#) International Journal of Electronics and Electrical Engineering , 3 (4) pp.245-249
- 2014** [Characterization of storm runoff quality from a highway in Selangor and conceptual design of constructed Wetland.](#) Advances in Environmental Biology , 8 (3 (spec.)) pp.810-814
- 2014** [Application of response surface methodology \(RSM\) for optimization of color removal from POME by granular activated carbon.](#) International Journal of Environmental Science and Technology , xx (xx) pp.1-8
- 2014** [Treatment of used ablution water from IIUM Masjid for reuse.](#) Advances in Environmental Biology , 8 (3 (Special Issue)) pp.558-564
- 2014** [Potential aspergillus niger strain for the production of phenolics from a novel source palm oil mill effluent.](#) Journal of Pure and Applied Microbiology , 8 (1) pp.803-808
- 2013** [Sustainable river water quality management in Malaysia.](#) IIUM Engineering Journal , 14 (1) pp.29-42
- 2012** [Processing of date palm kernel \(DPK\) for production of edible jam.](#) Australian Journal of Basic and Applied Sciences , 6 (1) pp.22-29
- 2012** [Development of process conditions to optimize the extraction of bio-disinfectant from Neem Leaf \(Azadirachta Indica\).](#) Advances in Natural and Applied Sciences , 6 (5) pp.682-686
- 2012** [Regional Statistical Models for the Estimation of Flood Peak Values at Ungauged Catchments: Peninsular Malaysia.](#) Journal of Hydrologic Engineering , 17 (4)
- 2011** [Development of culture inoculum for scale-up production of citric acid from oil palm empty fruit bunches by aspergillus niger.](#) Procedia Environmental Sciences , 8 pp.396-402
- 2011** [Growth of carbon nanomaterial on granular activated carbon .](#) Advanced Materials Research , 264 pp.535-541
- 2011** [Heavy metals removal from synthetic wastewater by a novel nano-size composite adsorbent.](#) International Journal of Environmental Science and Technology , 8 (4) pp.799-806
- 2011** [Adsorption of heavy metal from landfill leachate by wasted biosolids.](#) African Journal of Biotechnology , 10 (8) pp.18869-18881
- 2011** [Synthesis of various carbon nanomaterials \(CNMs\) on powdered activated carbon.](#) African Journal of Biotechnology , 10 (81) pp.18892-18905
- 2010** [Statistical optimization of process parameters for the production of citric acid from oil palm empty fruit bunches.](#) African Journal of Biotechnology , 9 (4) pp.554-563
- 2010** [Solid state bioconversion of oil palm empty fruit bunches for production of citric acid by wild strains of Aspergillus niger.](#) Food Biotechnology , 24 (1) pp.19-36
- 2010** [Effect of particle size on production of citric acid from oil palm empty fruit bunches as new substrate by wild Aspergillus niger .](#) Journal of Applied Sciences , 10 (21) pp.2648-2652

- 2010 [Estimation of 1-day extreme rainfall by Hershfield Method for Klang River basin in Malaysia..](#) International Journal of Arts and Sciences , 3 (9) pp.383-394
- 2010 [Clean production of carbon nanomaterials to remove arsenic from drinking water.](#) OIDA International Journal of Sustainable Development , 1 (7) pp.45-52
- 2010 [Adsorption of copper, nickel and lead ions from synthetic semiconductor industrial wastewater by palm shell activated carbon.](#) International Journal of Environmental Science and Technology , 7 (4) pp.751-758
- 2010 [Study of Pb adsorption by carbon nanofibers \(CNFs\) grown on powdered activated carbon.](#) Journal of Applied Sciences , 10 (17) pp.1983-1986
- 2010 [Regionalisation of low flow frequency curves for the Peninsular Malaysia.](#) Journal of Hydrology , 381 (1-2) pp.174-180
- 2009 [Kinetic adsorption of application of carbon nanotubes for Pb\(II\) removal from aqueous solution.](#) Journal of Environmental Sciences-China , 21 (4) pp.539-544
- 2009 [Lead removal by using carbon nanotubes.](#) International Journal of Nanoparticles , 2 (1-6) pp.329-338
- 2009 [Untreated sullage from residential areas - a challenge against inland water policy in Malaysia.](#) Pollution Research , 28 (2) pp.279-285
- 2009 [Lead removal by using carbon nanotubes .](#) International Journal of Nanoparticles , 2 (1-6) pp.329-338
- 2009 [Optimisation of arsenic adsorption from water by carbon nanofibers grown on powdered activated carbon impregnated with nickel..](#) Journal of Applied Sciences , 9 (17) pp.3180-3183
- 2009 [Solid state bioconversion of oil palm empty fruit bunches for cellulase enzyme production using a rotary drum bioreactor.](#) Biochemical Engineering Journal , 46 (1) pp.61-64
- 2009 [Kinetic adsorption of application of carbon nanotubes for lead Pb \(II\) removal from aqueous solution.](#) Journal of Environmental Sciences , 21 (4) pp.539-544
- 2009 [Improvement of production of citric acid from oil palm empty fruit bunches: Optimization of media by statistical experimental designs.](#) Bioresource Technology , 100 (12) pp.3113-3120
- 2007 [A revised water quality index proposed for the assessment of surface water quality in Malaysia .](#) Pollution Research , 26 (4) pp.523-529

Conference or Workshop Item

- 2014 [Challenges in non-point source pollution — Sampling and testing.](#) In: **5th Brunei International Conference on Engineering and Technology 2014 (BICET 2014)**
- 2013 [Reuse potential of ablution water from IIUM masjid.](#) In: **Proceedings of the International Conference on Biotechnology Engineering, ICBioE, '13**
- 2013 [Initial assessment of runoff quality from a road and highway in Klang Valley.](#) In: **3rd International Conference on Biotechnology Engineering (ICBioE'13)**

- 2013 [Heavy metal contents in highway runoff in Malaysia.](#) In: **4th Global Engineering, Science and Technology Conference**
- 2013 [Adsorption of cadmium from water by wasted biosolids.](#) In: **International Conference on Green Chemical Engineering & Technology (GCET 2013)**
- 2013 [Relationship between short duration and daily rainfall data in Kuala Lumpur.](#) In: **Persidangan Kebangsaan Geografi & Alam Sekitar kali ke 4**
- 2012 [Kinetics of cadmium adsorption by CNTs grown on PACs.](#) In: **International Conference on Nanotechnology, ICONT 2012**
- 2012 [Phytoremediation of partially treated wastewater by chlorella vulgaris .](#) In: **International Conference on Chemical Processes and Environmental Issues, ICCPEI 2012**
- 2011 [Environmental engineering education for sustainable development in IIUM.](#) In: **2nd International Conference on Engineering Professional Ethics and Education (ICEPEE'11)**
- 2011 [Development of culture inoculum for scale-up production of citric acid from oil palm empty fruit bunches by Aspergillus niger.](#) In: **International Conference on Environment Science and Biotechnology (ICESB 2011)**
- 2011 [Adsorption of heavy metal from landfill leachate by wasted biosolids.](#) In: **International Conference on Biotechnology Engineering, ICBioE'11, IIUM Engineering Congress**
- 2011 [Various Carbon Nanomaterials \(CNMs\) synthesized on powdered activated carbon by CVD reactor.](#) In: **2nd International Conference on Biotechnology Engineering (ICBioE 2011)**
- 2011 [Statistical modelling of nonpoint source pollution from a ropical urban residential area.](#) In: **46th Central Canadian Symposium on Water Quality Research**
- 2011 [Urban runoff quantity and quality control – Malaysian perspective. .](#) In: **46th Central Canadian Symposium on Water Quality Research.**
- 2011 [Water supply and sanitation in Dhaka City. .](#) In: **46th Central Canadian Symposium on Water Quality Research**
- 2010 [Adsorption of lead from aqueous solution by a novel carbon based adsorbent.](#) In: **IIUM Research, Innovation & Invention Exhibition (IRIIE 2010)**
- 2010 [Modification of CDV reactor for carbon nanomaterialns production.](#) In: **IIUM Research, Innovation & Invention Exhibition (IRIIE 2010)**
- 2010 [High yield Cellulosic Citric Acid.](#) In: **IIUM Research, Innovation and Invention Exhibition 2010 (IRIIE 2010)**
- 2010 [Optimization of synthesis of carbon nanotubes on iron impregnated activated carbon.](#) In: **24th Symposium of Malaysian Chemical Engineers (SOMChE 2010) and 1st International Conference on Process Engineering and Advanced Materials 2010 (ICPEAM2010).**
- 2010 [Production of Citric Acid from Oil Palm Empty Fruit Bunches by Solid State Bioconversion using Local Aspergillus niger.](#) In: **National Biotechnology Seminar 2010**

- 2010 [Effect of adsorbate initial concentration on the removal of Pb from aqueous solutions by carbon nanofibers](#) . In: **24th Symposium of Malaysian Chemical Engineers (SOMChE 2010) and 1st International Conference on Process Engineering and Advanced Materials 2010 (ICPEAM2010)**.
- 2010 [Surface modification of activated carbon for enhancement of heavy metals adsorption](#).. In: **2nd International Conference on Environmental Research and Technology (ICERT)**.
- 2009 [The formation of carbon nanofibers on powdered activated carbon impregnated with nickel](#).. In: **International Conference on Nanoscience and Nanotechnology**
- 2009 [Improvement of existing water quality index in Selangor, Malaysia](#).. In: **2nd International Conference on Water & Flood Management (ICWFM)**
- 2009 [Effect of particle size on production of citric acid from oil palm empty fruit bunches as new substrate by wild aspergillus niger](#). In: **3rd International Conference on Chemical and Bioprocess Engineering (ICCBPE 2009)**
- 2009 [Lignocellulolytic enzymes production: an important phenomenon for the production of citric acid from lignocellulosic substrate through solid state bioconversion](#). In: **International Conference on Solid Waste Management Technical, Environmental and Socio-economical Contexts - WasteSafe 2009**
- 2009 [Kinetics of solid state bioconversion for the production of Citric Acid from oil palm empty fruit bunches \(abstract only\)](#). In: **International Conference on Chemical and Bioprocess Engineering**
- 2009 [Optimisation of arsenic adsorption from water by carbon nanofibres grown on powdered activated carbon impregnated with nickel](#) . In: **3rd International Conference on Chemical and Bioprocess Engineering**
- 2009 [Adsorption of Zn from aqueous solution by activated carbon derived empty fruit bunches: Statistical approach](#). In: **Singapore International Water Week 2009**
- 2009 [Modification of powdered activated carbon for the production of carbon nanofibers \(CNFs\) \(waiting full text - shd\)](#). In: **International Advanced of Technology Congress (ATCi 2009)**
- 2009 [Metal removal from industrial wastewater by a novel carbon nanomaterial](#) . In: **Environmental Science and Technology Conference - ESTEC**
- 2009 [Adsorption of chromium from water by carbon nanotubes grown on powdered activated carbon](#). In: **International Conference on Sustainable Infrastructure and Built Environment in Developing Countries - SIBE**,
- 2008 [Evaluation of fungal mixed cultures for production of citric acid using empty fruit bunches by solid state bioconversion](#). In: **2nd International Conference on Advancement in Science and Technology (iCAST)**,
- 2008 [Effect of pretreatment on production of citric acid from oil palm empty fruit bunches as substrate by wild aspergillus niger](#). In: **22nd Symposium of Malaysian Chemical Engineers (SOMChE 2008)**

- 2008 [Production of citric acid by local isolates *Aspergillus niger* through solid state bioconversion of oil palm empty fruit bunches.](#) In: **58th Canadian Chemical Engineering Conference**
- 2007 [Optimization of process parameters to maximize the extraction of disinfectant from betel leaf.](#) In: **Kulliyah of Engineering Research and Innovation Exhibition (KERIE 2007)**
- 2007 [Citric acid from renewable raw material oil palm biomass.](#) In: **Kulliyah of Engineering Research and Innovation Exhibition (KERIE 2007)**
- 2007 [Optimization of operating conditions of rotary drum bioreactor for lignin peroxidase production by solid state.](#) In: **World Engineering Congress**
- [Modification of Powdered Activated Carbon for The Production of Carbon Nanofibers \(CNFs\).](#) In: **International Advanced of Technology Congress (ATCi)**
- [Production of Carbon Nanofibres \(CNF\) on Impregnated Activated Carbon.](#) In: **SomChe 08**

Book

- 2012 [Comparing metals adsorption by carbon adsorbents: evaluating absorption properties of different carbon adsorbents.](#) LAP Lambert Academic Publishing . ISBN 9783848414956
- 2011 [Current Research And Development In Biotechnology Engineering at IIUM \(Volume 4\).](#) IIUM Press . ISBN 9789674181369
- 2011 [Advances in nanotechnology & its application.](#) IIUM Press . ISBN 9789670225876

Book Section

- 2011 [Carbon nanofibers to remove nickel.](#) In: **Current research and developments in biotechnology engineering at IIUM** IIUM Press . ISBN 9789674181369 , pp.50-53
- 2011 [Adsorption of cadmium by CNTS grown on GACS.](#) In: **Current research and developments in biotechnology engineering at IIUM** IIUM Press . ISBN 9789674181369 , pp.59-62
- 2011 [Performance of CNTS column in removing lead from water.](#) In: **Current research and developments in biotechnology engineering at IIUM** IIUM Press . ISBN 9789674181369 , pp.63-67
- 2011 [Application of carbon nanotubes impregnated on activated carbon for cadmium removal from aqueous solution.](#) In: **Current research and developments in biotechnology engineering at IIUM** IIUM Press . ISBN 9789674181369 , pp.109-116
- 2011 [Regeneration of Carbon Nano Tubes \(CNT\) in cadmium sorption from water.](#) In: **Advances in nanotechnology & its application** IIUM Press . ISBN 9789670225876 , pp.98-113
- 2011 [Removal of colour from palm oil mill effluent using Granular Activated Carbon \(GAC\).](#) In: **Current research and developments in biotechnology engineering at IIUM** IIUM Press . ISBN 9789674181369 , pp.224-231

- 2011** [Production of fermentable sugar from lignocellulosic materials using statistical design](#) . In: **Current research and development in biotechnology engineering at IIUM (volume 1)** IIUM Press . ISBN 9789674181505 , pp.225-230
- 2011** [Carbon nanofibers to remove arsenic](#) . In: **Current research and developments in biotechnology engineering at IIUM** IIUM Press . ISBN 9789674181369 , pp.26-31
- 2011** [Carbon nanotubes to remove chromium](#) . In: **Current research and developments in biotechnology engineering at IIUM** IIUM Press . ISBN 9789674181369 , pp.32-37
- 2011** [Carbon nanotubes to remove nickel](#). In: **Current research and developments in biotechnology engineering at IIUM** IIUM Press . ISBN 9789674181369 , pp.38-43
- 2011** [Adsorption Isotherm of Carbon Nanotubes in removing heavy metals](#). In: **Current research and developments in biotechnology engineering at IIUM** IIUM Press . ISBN 9789674181369 , pp.44-49
- 2011** [Screening of lignocellulosic materials for the production of fermentable sugar](#). In: **Current research and development in biotechnology engineering at IIUM** IIUM Press . ISBN 9789674181505 , pp.72-76
- 2011** [Water sampling and testing for nonpoint source pollution load estimation in Malaysia](#). In: **Recent advances in bioenvironmental engineering** IIUM Press . ISBN 9789670225852 , pp.174-197